Geolinguistics in the eastern Tibetosphere

An introduction

Hiroyuki Suzuki



Geolinguistic Society of Japan 2022

This book consists of twenty-seven chapters on geolinguistics of languages in the eastern Tibetosphere, arranged in three parts: methodology, case studies, and geolinguistic studies of Tibetic languages. It introduces to readers current progress of the geolinguistic approach to Tibetans' languages spoken in the Khams and Amdo regions.

The approach adopted by the author also allows a better understanding of the dialectological complexity in the eastern Tibetosphere, particularly the entanglement of the "Kham dialects" and their classification.

---Nicolas Tournadre, Professor emeritus at Aix-Marseille University

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Foreword

It is a real pleasure for me to present Hiroyuki Suzuki's book *Geolinguistics in the eastern Tibetosphere: An introduction.* This book is mostly a compilation of articles that have already been published but many articles have been updated and the book has been organized in order to follow a geolinguistic approach.

Before explaining the great value of such a study, it is worth to highlight more generally the significance of social sciences particularly in these troubled times. Some people still consider that linguistics and other social sciences are not "sciences", unlike natural sciences or formal sciences. Generally speaking, the scientific methodology is characterized by systematic observation, experimentation, measurement and testing of hypothesis, regardless of the proportion of mathematics or technological equipment. According to the above definition, modern linguistics clearly follows scientific methodology and some of its fields may even develop transdisciplinary cooperation with other scientific fields either in natural or formal sciences. This is clearly the case of geolinguistics, which involves precise GPS geolocation and geographic data linked with linguistic data and dialectological analyses.

This geolinguistic approach which is developed by H. Suzuki in the present book is very valuable for a number of reasons. The first reason is certainly that the Tibeto-Burman languages described here are underdocumented and are threatened of extinction, like most of other "small" minority languages spoken in the People's Republic of China, which imposes the use of Putonghua in the education system and does not leave much space for the development of local languages.

With the exception of two articles that examine some lexical items in many Tibeto-Burman languages, the author focuses on Tibeto-Burman languages belonging to the Tibetosphere. These languages, which are spoken in Sichuan and Yunnan (China), include southeastern Tibetic languages as well as some Qiangic (such as Minyag and Choyu) and Nungic languages (such as Trung), which have been influenced to a certain extent by Literary Tibetan as well as other Tibetic languages spoken in this region. One should bear in mind that the Tibeto-Burman languages that are discussed in the book are located in isolated mountainous area with a high biodiversity as well as a high linguistic diversity. The co-occurrence of linguistic and biological diversity has been noted in some hotspots of the planet (see e.g. Gorenflo *et alii*, 2012) and is attested in Eastern Sichuan and Yunnan. Documenting the languages of the eastern Tibetosphere is important also because speakers of these languages have acquired a lot of ethnobiological skills and have also developed a specific knowledge of their natural environment. This knowledge is likely to decline rapidly when the speakers shift from their native language to the national language as shown in the case of Papua New Guinea (Kik *et alii*, 2021). In the case of the eastern Tibetosphere, it is urgent to document more languages and do more fieldwork; however, it has become extremely difficult lately, due to the pandemic but also to the current political situation in China. This makes H. Suzuki's present contribution even more valuable.

The approach adopted by the author also allows a better understanding of the dialectological complexity, particularly the entanglement of the *Kham dialects* and their classification. Concerning the Tibetic languages, he has chosen to provide the classical orthography whenever it is possible, which really helps for the comparison of contemporary languages.

The author combines a large amount of linguistic data. In the book, various linguistic topics related to phonetics/phonology, lexicon and grammar are addressed but they are all treated using a geolinguistic approach to dialect studies, combined with historical information about traditional ethnic categories and migration history when information is available. For example, in the case of Mangra Amdo, he considers migration history as well as *tsowa* ('clan') alliances.

Hiroyuki Suzuki should thus be thanked for producing such a book, which will benefit the scholarly community and all the people who are interested in the languages of the eastern Tibetosphere, and more generally Tibeto-Burman languages.

Nicolas Tournadre

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Geolinguistics in the eastern Tibetosphere

Preface

inter spem curamque, timores inter et iras, omnem crede diem tibi diluxisse supremum: grata superveniet quae non sperabitur hora (Quintus Horatius Flaccus, Epistulae)

This book is compiled to serve as an introduction to the geolinguistic approach to the languages spoken in the eastern Tibetosphere, focusing on Tibetic languages, based on my research outcomes over fifteen years. It consists of three parts: methodological issues, case studies on various languages and geolinguistic studies on Tibetic languages.

Part One gives an overview of different aspects of methodology in geolinguistic studies. It consists of five chapters discussing general dialectological issues in Tibetic languages, namely, geolinguistic approach to grammatical phenomena, migration history which provisionally contributes for geolinguistics, lexical complexity, and sematic shifts.

Part Two contains various case studies, many of which are derived from coauthored research outcomes on languages in the eastern Tibetosphere. It discusses Tibetic languages, Choyu, Darmdo Minyag and Lhagang Choyu from Sichuan Province, as well as Trung and Nung from Yunnan Province.

Part Three collects geolinguistic studies focusing on Tibetic languages in the eastern Tibetosphere. Most chapters discuss specific lexical features in the given languages, referring to the classical methodology of geolinguistics. The chapters also present the different software programmes used to draw linguistic maps.

Geolinguistic studies of little-known languages and regions always face methodological issues. Many of them are rooted in a lack of necessary information of linguistic materials as well as extralinguistic factors such as history and geography.

Most chapters of the book were first published in other places, particularly in *Studies in Asian Geolinguistics*, the venue of presenting research outcomes of a joint research project (2015–2017 fiscal years) at Research Institute for Languages and Cultures in Asia and Africa, Tokyo University of Foreign Studies. This project enabled me to enhance the quality of geolinguistic studies in the eastern Tibetosphere by challenging accepted views on various topics.

In compiling this book, I made a small number of updates in these works and reflected recent progress. Publishing this book does not mean I consider the work complete. Rather, the book reflects only my recent progress after numerous trials, challenges and struggles regarding the steps of the geolinguistic approach to languages in the eastern Tibetosphere.

I do not generally pursue perfection in the individual article, since the data used are derived from fieldwork. Discoveries in fieldwork often appear following a publication. However, I do not think that this would make the publication less meaningful. There is no end in sight for making linguistic maps that are only based on personal fieldwork. Doing my best at a given time, I can continue making progress in my work and do not have to regret what I have done. Each time, I conduct fieldwork, I have high hopes for progress, but I often encounter the anxiety that I will not produce fruitful results, which can lead to fear that things will not go well. Nevertheless, I hope that enjoying my fieldwork every day can lead to discoveries that will change existing views entirely.

Many studies have been completed with various grants. Field research was funded by seven Grants-in-Aid for Scientific Research from the Japan Society for the Promotion of Science [JSPS]: 'Linguistic Substratum in Tibet' (headed by Yasuhiko Nagano, No. 16102001), 'Dialectological Study of the Tibetan Minority Languages in the Tibetan Cultural Area in West Sichuan' (headed by Hiroyuki Suzuki, No. 07J00250), 'International Field Survey of the rGyalrongic Languages' (headed by Yasuhiko Nagano, No. 21251007), 'Study on the Dialectal Development of Tibetan Spoken in Yunnan, China, through a Description of the Linguistic Diversity' (headed by Hiroyuki Suzuki, No. 25770167), 'International Field Linguistic Survey of Tibeto-Burman Link-languages' (headed by Yasuhiko Nagano, No. 16H02722), 'Investigation of Undocumented Languages in the Eastern Tibetosphere and their Geolinguistic Research' (headed by Hiroyuki Suzuki, No. 17H04774), and 'Geolinguistic Studies of China and Adjacent Multilingual Areas Using High-resolution and Wide-area Maps' (headed by Mitsuaki Endo, No. 18H00670). In addition, I have received private financial support from the Tibetan Studies Committee of the Yunnan Ethnology Association, headed by Xu Jianhua.

I am grateful to Professor Mitsuaki Endo and Professor emeritus Nicolas Tournadre for their recommendation and support to publish this book. My thanks also go to ILCAA for giving me permission to reprint of works. Last but not least, I express my sincere gratitude to my co-authors for making my academic contributions more various and rigorous and to my friends for teaching me their languages.

The author

Geolinguistics in the eastern Tibetosphere

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Photo gallery

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Conventions

Phonetic transcription

The description of segmental sounds follows the framework by Zhu (2010) as well as Suzuki (2016g), including IPA (International Phonetic Alphabet) symbols and additional indispensable phonetic symbols employed in Chinese linguistics. The analysis of suprasegmental sounds primarily follows Kitamura (1977), with a necessary expansion. The method for displaying the syllable structure follows Suzuki (2005a).

Transliteration of the Tibetan script

This book applies the style of de Nebesky-Wojkowitz (1956) for romanisation of the Tibetan script. Depending on the style of each chapter, the book use either 'Written Tibetan (WrT)' or 'Literary Tibetan (LT)' when transliterating word forms of Classical Tibetan represented by the Tibetan script. In proper names, the radical letter of the first syllable of the name is capitalised.

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Abbreviations

1	first person
3	third person
CPV	copulative verb
DAT	dative
DUR	durative
DWN	downward directional prefix
EXV	existential verb
LOC	locative
LT	Literary Tibetan
LV	lexical verb
OT	Old Tibetan
PLB	Proto-Lolo-Burmese
PROG	progressive
РТВ	Proto-Tibeto-Burman
sg	singular
SFX	suffix [functions non specified]
ТВ	Tibeto-Burman
WrT	Written Tibetan

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Part I

Methodology

Tibetan dialectology and linguistic maps: How to deal with "the Khams dialect"

1. Fundamental thoughts on dialectology and present issues

1.1. Does dialectology need linguistic maps?

Dialectology regarding Tibetan dialects is relatively well developed, compared to that for China's other minority languages, and many important research outcomes have appeared. These include Jin (ed) (1983), Qu (1991), Jiang (2002), and Zhang (2009), which deal with a large number of dialectal varieties; it seems likely that the fundamental methodology of Tibetan dialectology is well established. However, there are important differences between studies of dialects and dialectology. Regardless of the language, dialectology generally denotes studies of dialects that also investigate their geographical relationship. The works cited above do not, however, take the geographical situation of the dialects they study into account. Previous studies on Tibetan dialects have been largely restricted to descriptive linguistics and historical linguistics, the operations of which are different from the geographical relationship among the dialects, where dialectology must be connected to the geographical concept. One area of dialect studies directly connected to geography is geolinguistics, which seeks to understand the historical development of dialects. sKal-bzang 'Gyur-med and sKal-bzang dByangs-can (2002:1–2) distinguish to three methods of dialectology: descriptive dialectology, historical dialectology and linguistic geography. The last of these is geolinguistics in the present sense, which has the importance noted above. We begin by briefly describing the use of linguistic maps to understand the fundamental methodology of geolinguistics.

A linguistic map of Tibetan can bring together all of the data from previous descriptive studies (both sounds and words) together on a map. The more data that are available, the better the quality of the geolinguistic discussion is likely to be. If a relatively small area is chosen for the discussion, the quantity of the research directly

This is an English translation with update and annotation of the article "Zangyu fangyanxue yu yuyan ditu: Ruhe kandai 'Kangfangyan'", *Minzu Xuekan* 2, 2016. The original study is part of the research outcomes funded by the foreign-knowledge-introduction programme of Southwest Minzu University.

influences the quality of the discussion. Let us compare Figures 1 and 2, showing research points in the eastern Tibetosphere (including Gannan of Gansu and the Tibetosphere in Sichuan and Yunnan) in government-led investigation of minority languages in the 1950s and my own investigations in the 2000s and 2010s, respectively.



(Right) Figure 1 Research points of the government-led investigation in the 1950s. (Right) Figure 2 Partial research points of mine.

More research sites can be seen in Figure 2 than in Figure 1. Although the quantity and density of the points in Figure 2 do not reach the usual level of geolinguistic studies in a general sense, discussions that use these data will have a firmer foundation than those that only use the data from Figure 1. Another benefit of drawing linguistic maps is to represent linguistic phenomena with reference to maps with no knowledge of toponyms. Many previous works only provide toponyms, and Figure 1 is designed with

mapping the following points by latitude-longitude data:¹ Xiahe-Labuleng, Xiahe-Bola, Xiahe-Meiwu, Xiahe-Amuquhe, Xiahe-Zuogai, Luqu-Xicang, Luqu-Shuangcha, Maqu-Zuorigainima, Zhuoni, Diebu, Diebu-Seraolongwa, Zhouqu, Ruoergai, Ruoergai-Baxi, Songpan, Songpan-Rewugou, Hongyuan, Aba, Rangtang, Luhuo, Daofu, Qianning-Suola, Dege, Ganzi, Kangding-Muya, Yajiang, Batang, Muli, Xiangcheng, Deirong, Deqin-Shengping, Deqin-Benzilan, Zhongdian, Zhongdian-Dongwang, Weixi-Lapu, and Weixi-Dapogang (from Zhang 1996). It is not always immediately obvious, however, where every location is. While dialectology requires us to have knowledge of geography, it is not prerequisite to memorise necessary toponyms before studying the dialectology of a given language.

Previous works in geolinguistics, such as Grootaers (1976) and Moulton (1960), call for precise and detailed phonetic description. Suzuki (2015c) calls for a common framework of phonetic description to be used as much as possible, so that data should not be collected with reference to different phonological analyses. For this reason, using more locations and more detailed phonetic descriptions under a single criterion can enhance the quality of discussion.

1.2. What issues exist in the idea of 'a Khams dialect'?

Because of an unclear division between studies on dialect and dialectology in Tibetan linguistic studies in China, an inaccurate methodology,may have been used in dialectological research, leading to outcomes that are hence not fruitful. Differences are seen between studies that take a traditional viewpoint and those that take a dialectological viewpoint, some of which may conflict with each other. However, if a result of a dialectological study has implications for the entirety of Tibetan linguistics, it should be noted.

As described in 1.3, the classification criteria used for the three greater dialects' in traditional studies of Tibetan dialects are too ordinary and thus inadequate; hence, each of these three shows dialectological issues. In particular, the framework of "the Khams dialect", proposed by Qu (1996) and Zhang (1996), cannot be regarded as a single dialect group at present.

That is, a single "Khams dialect" does not exist; instead, it is better understood as two 'language complexes', each of which containing many dialect groups under each of them. These two language complexes have already been given in various ways, as in Table 1.

¹ In this chapter, toponyms are transcribed into pinyin, and the language names follow the Tibetan appellation.

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	'Khams dialect'		
Suzuki (2009d, g)	Khams Tibetan	Shar Tibetan	
Tournadre (2014)	South-eastern Section	Eastern Section	
Chinese term for each	Kangqu Kangfangyan	Anduoqu Kangfangyan	
	('Khams dialect' in Khams)	('Khams dialect' in Amdo)	

Table 1 Two 'language complexes' within the so-called 'Khams dialect'.

Here, 'Khams dialect in Amdo' includes so-called *rong skad* 'farmer's varieties' spoken in Zhuoni, Diebu, Zhouqu, Ruoergai-Tiebu, Ruoergai-Baxi, Jiuzhaigou, and Songpan on the border zone between Sichuan and Gansu. Note that previous scholars, including Nishida and Sun (1990), consider these 'farmer's varieties' to be a subdialect of Amdo Tibetan. However, we do not consider them to have a single origin, and thus, they do not form a single language but a 'language complex'.

Section 2 shows current linguistic variation in detail by displaying linguistic maps. Section 3 discusses why we cannot accept the idea of three larger dialect groups, but we can classify them into several languages.

1.3. Similarities from the typological perspective and shared innovations

Regarding the issue of the so-called 'Khams dialect', we should note the following three points: shared innovation, geographical relationship, and historical relationship.

Issues regarding *shared innovation* exist in the criterion of the classification of 'three greater dialects (dBus-gTsang, Khams, and Amdo)', which is generally accepted in the study of Tibetan linguistics in China. Qu and Jin (1981:61) point out the phonological features for a classification of the three greater dialects as Table 2.

Tuble 2 Chieffa for the classification:					
phonological feature	dBus-gTsang	Khams	Amdo		
existence of voiced plosives, affricates, and fricatives	-	+	+		
existence of tones	+	+	-		

Table 2 Criteria for the classification

Shared innovation is a principle of dialect classification. The two criteria listed in Table 2, 'existence of voiced plosives, affricates, and fricatives' and 'existence of tones' can be regarded as shared innovations but only in a broader sense. In dialectology, the two criteria should not be considered shared innovations but simple commonalities in the typology of sounds. The criteria in Table 2 are insufficient to ground any discussion of dialectology in Tibetan. In addition, the term 'tone' given in Table 2 is problematic in its phonetic realisation, as this term denotes various phonetic phenomena. For example, Zhu (2010:293) notes terms that include differences of the pitch as well as phonation. Therefore, we should consider which phonetic realisation is appears in each variety when dealing with the concept *shared innovation*.

TIBETAN DIALECTOLOGY AND LINGUISTIC MAPS: HOW TO DEAL WITH "THE KHAMS DIALECT"

Issues in *geographic relationship* exist in previous historical linguistic studies on Tibetan. In relation to sound correspondences in Written Tibetan, the work of Qu (1991), Jiang (2002), and Zhang (2009) systematically describe sound correspondences between Written Tibetan and spoken varieties. What problems of dialectology are presented in earlier studies? Briefly, except for a few works, such as Yang (1995) and Rig-'dzin dBang-mo (2013), previous works generally have not considered the geographical location of different varieties but deal only with similarities in their historical development. Similarities in sound development differ from shared innovations; the presence of commonalities in sound development type does not always entail that a given dialect has been formed by undergoing a certain process of sound change. If sound changes are shared across geographically connected areas, we can consider them to be shared innovations, but it is also possible that such changes are independent. However, if shared sound changes appear in geographically distant areas, it is more difficult to consider them as shared innovations. Hence, knowledge of the geographic relationship between given varieties is crucial for evaluating whether shared innovations exist, so dialectology must go hand-in-hand with geography. Therefore, the geolinguistic method of drawing linguistic maps is fundamental to understanding the entire picture of languages and varieties in the Tibetosphere.

Issues in the *historical relationship* exist in the methodology of historical studies. If given places, though far from each other, have a connexion due to migration, their local languages will likely also have a relationship. The classification of languages and varieties should match the history of native speakers. This relationship does not require to be traced back to an archaic period if migration history has happened in recent times. In the eastern Tibetosphere, the most essential historical materials concern territories, migration patterns, and ethnic relationships under the local chieftain system in the Ming and Qing Dynasties. However, there are a limited number of historical documents from the Tibetosphere that can potentially function as references for dialectology.²

Linguistic phenomena reflected on a map drawn with the geolinguistic methodology simply display the current state of varieties of a given generation range. In other words, neither synchronic variation nor a map can explain history. The principal task of geolinguistics is not making a linguistic map but interpreting a historical development by analysing linguistic phenomena reflected on the map. We find few works on geolinguistics that do not consider extralinguistic information such

² Great importance is to be assigned to documents recording local Tibetic varieties in the Ming and Qing Dynasties, such as *Xifan(guan) Yiyu*. See Nishida (1963), Nishida and Sun (1990), Suzuki (2007b, 2009g, 2015g), Nie and Sun (2009), and Matsukawa and Miyake (2015).

as local history and culture. If we have insufficient of knowledge on local history, our interpretation of linguistic phenomena will include mistakes. Such mistakes often appear even in publications like introductions to dialectology and coursebooks. For example, Li (2014:23–25) cites the interpretation that Chambers and Trudgill (1998²) give of a linguistic map and its development as indicating a diffusion of a given linguistic feature. However, even source of the citation gives a satisfactory explanation (I do not regard it as a mistake) that is grounded in insufficient knowledge of the local history. There is a direct relationship between the precision of geolinguistic interpretations and knowledge of relevant local history. However, for the Tibetosphere, we have only limited access to historical documents to which we can refer to understand the development of dialects, as there are only a few types of such materials, including gazetteers and annals, that we can use to draw conclusions on dialect development. A linguistic map reflects a contemporary phenomenon, so we require historical materials that record events that occurred from one hundred to two hundred years ago. In the absence of historical records, we must refer to local oral histories. Collecting oral histories is a necessary activity for dialectology and has been used by Suzuki and Sonam Wangmo (2015a, 2019b), among others. Nevertheless, it is certainly not promised that we will obtain meaningful results from a study combining an analysis of historical documents with oral histories (see Suzuki 2009f).

2. Three issues concerning "the Khams dialect"

2.1. Variations of Khams Tibetan

The complex distribution of Khams Tibetan (or 'the Khams dialect in Khams') and its dialectal variation are the most apparent features among Tibetan varieties; hence, it is inadequate and nearly impossible to identify a single variety of Khams Tibetan that can represent the whole group. Regarding general studies of Tibetan dialects, Khams Tibetan is often represented by the Derge dialect (spoken in Dege County, Ganzi Prefecture); however, from the viewpoint of descriptive linguistics, the Derge dialect cannot represent the entire range of varieties of Khams Tibetan. The dialectal classification of Shar Tibetan (or 'Khams dialect in Amdo') has attracted significant attention in Tibetan dialect studies. Currently, many scholars consider that that Shar Tibetan belongs to the 'Khams dialect'.³ However, I wonder how deeply we understand Khams Tibetan. It is not irrelevant to take note of Tibetan varieties spoken in the area of the Sichuan-Gansu border; however, in the Khams region, the focus of

³ See Rig-'dzin dBang-mo (2013) and *Foreword* for this work by Bufan Huang.

most linguists has been on the non-Tibetic languages of Minyag, rTa'u, and nDrapa (all of which belong to Qiangic).

I consider Khams Tibetan to be a 'language complex', not a single language, which can thus be divided into ten or more dialect groups. In my opinion (Suzuki 2014g), Khams Tibetan spoken in the eastern Tibetosphere (largely corresponding to Ganzi Prefecture in Sichuan and Diqing Prefecture in Yunnan) consists of eight groups as follows (in the order of east to west, and north to south): Rongbrag (Twenty-four-villages' patois), Minyag Rabgang (the so-called Middle Route⁴), Northern Route (the so-called Derge-Kandze), Southern Route (the so-called Lithang-mBathang), Muli-nDawpa,⁵ Chaphreng, Sems-kyi-nyila and sDerong-nJol. Some groups have relatively high level of mutual intelligibility, and some have nearly no value for mutual communication.

A primary factor in the difficulty of mutual communications between dialect groups is the degree of the difference regarding the sound correspondence to Written Tibetan. A second factor relates to lexical discrepancy, and the last describes grammatical differences. Below I present two linguistic maps dealing with differences in sound correspondences to describe their variation in Khams Tibetan.

⁴ The term 'Middle Route' is defined by sKal-bzang 'Gyur-med (1985).

⁵ I renamed this 'sPomborgang' in Suzuki (2018f).

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(Right) Figure 4 Tendency of the sound correspondence with WrT Py-series.⁷

The sound correspondence shown in Figure 3 is relatively stable throughout the dialect points, whereas that indicated in Figure 4 exhibits a complicated distribution. Regarding the geographical distribution, each sound correspondence is continuously distributed across a certain area, not scattered. Hence, we can classify 'the Khams dialect in Khams' into several 'dialect groups' based on the sound types.

Figures 5 and 6 are two more examples of sound correspondence.

⁶ Including all the combinations containing the radical letter k, kh, and g, e.g. khyod 'you' and rgya 'Han Chinese'.

⁷ Including all the combinations containing the radical letter *p*, *ph*, and *b*, e.g. *phye* 'open' and *bya* 'chicken'.



Only two sound correspondences are attested in Figure 5, and their distribution is also simple. Regarding Figure 2, Figure 6 exhibits the same points with • as Figure 5, but points with • on Figure 5 demonstrate different sound correspondences than Figure 6. However, the different types of sound correspondences are still distributed continuously across an area, not scattered.

Figures 7 and 8 give two more examples of sound correspondence.

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Various types are attested in the southern area of Figure 7. The feature depicted in Figure 8 has no relation to Written Tibetan; however, it does play an essential role in dialect studies of Tibetan (Huang 2012) and cannot be neglected. Figure 8 presents two areas (Minyag Rabgang and the Tibetosphere of Yunnan) where uvulars function phonemically. Based on the geographical distance, it seems likely that the uvulars in the varieties of these two areas have no mutual relationship.

Based on the sound correspondences shown within 'the Khams dialect in Khams' above, we can easily recognise dialectological questions, such as 'how' and 'where' the variations appear, as well as whether the varieties form dialect groups over a geographically continuous area. I only provide six maps here, but we can get to know

⁸ Including all the combinations containing the radical letter *k*, *kh*, and *g* with the subscript letter *r*, e.g. *khrag* 'blood' and *gri* 'knife'.

several features appearing especially in the middle area of the maps. To examine whether the varieties in that area form an independent dialect group, we should discuss the entire range of features of sound correspondences using the traditional methods of historical linguistics—see Jiang (2002) and Wang (2014) for examples of this.

We should also note that there are typologically diverse groups distributed across the middle and the southern area to the region of 'the Khams dialect in Khams' in the eastern Tibetosphere, such as Rongbrag, ⁹ Minyag Rabgang, ¹⁰ Muli-nDawpa, Chaphreng, Sems-kyi-nyila,¹¹ and sDerong-nJol. There are idiosyncratic features as well, each attested in only a single variety. For example, the symbol \Box in Figures 11 and 12, denoting retention of the r-sound of Written Tibetan, only appears in the sProsnang dialect of Rongbrag Tibetan (Suzuki 2015f); the dental tip-apical fricatives corresponding to Written Tibetan *s* and *z* are only attested in the mBalhag dialect of sDerong-nJol Tibetan (Suzuki 2013b). These features generally do not influence the framework of the dialect classification unless we find that they form a group of varieties around the given locations.

Following earlier discussions, we need to identify multiple reference points instead of citing a single variety as representative (often, the Derge dialect is chosen) to understand features of Khams Tibetan in a more precise way. If we consider each dialect group as being an independent language, our perspective on Tibetan dialectology will broaden, producing a more important contribution to typology.

A similar state of affairs is found for lexical and grammatical features. In particular, lexical features are a central topic in geolinguistics: each word has its own individual interpretation, and hence, a discussion of lexical forms cannot function directly as a dialect classification. For this reason, I omit descriptions of lexical features here. See Suzuki (2012f, 2016) for linguistic maps of lexical features in the eastern Tibetosphere and see Iwata (2009, 2012) for the same of features in Sinitic languages.

2.2. Is 'the Khams dialect in Amdo' of Khams Tibetan?

Here, I present an analysis of 'the Khams dialect in Amdo'. Many scholars have argued that several vernaculars spoken in the border zone of Sichuan and Gansu Provinces do not belong to the Amdo dialect but the Khams dialect. To resolve this question, we first need to exclude a classification that uses the traditional criteria of dialect classification, in other words, a criterion in which varieties with tonal distinction and voiced

⁹ See Suzuki (2015f) for detailed information on Rongbrag Tibetan.

¹⁰ See Suzuki and Sonam Wangmo (2015a, 2017a) for detailed information on Minyag Rabgang Tibetan.

¹¹ See Suzuki (2015c) for detailed information on Sems-kyi-nyila Tibetan.

obstruents are recognised as members of the Khams dialect. Several studies have relatively exhaustively presented the phonetic features of a given variety and then produce a conclusion of this type. For example, Wang et al. (2010) compare the Songpan dialect (the Sharkhog dialect¹²) with the Derge dialect and conclude that the Songpan dialect should belong with the Khams dialect; Rin-'dzin dBang-mo (2013) describes three varieties from Diebu County and indicates that the direction and complexity of the sound changes both match those of the Khams dialect. Unfortunately, results like these lack the distinction between typological similarity and shared innovation. We cannot consider the mutual relationship between the local languages in those areas and the Khams region if we do not have evidence regarding the historical relationship between the two regions. Dialectology must be discussed here.

In my research, the Tibetan vernaculars that are usually regarded as embodying "the Khams dialect" in Zhuoni, Diebu and Zhouqu Counties can be classified into four groups:¹³ Cone, Thewo-stod, Thewo-smad, and mBrugchu. These languages have a genetically close relation with dialect groups in the north-eastern area of Aba Prefecture in their vicinity, namely, Baxi, Jiuzhaigou, Xiaergou, Munigou and Rewugou. They cannot be counted as belonging to Amdo Tibetan.

First we note several sound correspondences with Written Tibetan. Figures 9–12 present macroscopic linguistic maps displaying the phonetic features of Tibetan varieties spoken in the border zone of Sichuan and Gansu Provinces together with those of Khams Tibetan (varieties in the Khams region). Figures 9, 10, and 11 present maps of the same topics shown in Figures 3, 4, and 7, respectively.

¹² At least four dialect groups are distributed in Songpan County; hence, we should specify which of these we are speaking of. See also Hua and sKal-bzang-thar (1997), Sun (2003b), and Suzuki (2009).

¹³ What is referred to here as a dialect group here is equivalent to an independent language.

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Figure 10 Tendency of the sound correspondence with WrT Py-series.

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Figure 12 Tendency of the sound correspondence with WrT Pr-series.¹⁴

¹⁴ Including all the combinations containing the radical letter p, ph, and b with the subscript letter r, e.g. phra 'small in diametre' and brag 'rock, cliff'.

Figures 11 and 12 present sound changes that occurred in the 'Khams dialect in Khams' and in the 'Khams dialect in Amdo' in different ways, and Figures 9 and 10 show similarities in the direction of sound development. We need evidence here showing that the sound changes in the two regions are shared innovations not mutually independent phenomena. I have not so far found work that discusses this issue. As I cautioned in 1.3, linguistic maps do not, on their own, provide us with any history, and the essential role of geolinguistic study is to interpret the historical development of the phenomena reflected on the map. Hence, we should examine several linguistic maps and interpret them to reach a clear conclusion. See also 2.3 for a specific discussion.

Next, I examine some differences in grammatical features. It is relatively difficult to properly assess grammatical issues with the use of a linguistic map alone; here, I refer to an article by Rig-'dzin dBang-mo (2012) concerning a grammatical feature and its geographical distribution in the eastern Tibetosphere. The topic here is the same as hers, namely, the forms of the existential verb stem. The existential verbs that Rig-'dzin dBang-mo (2012) examines are lexical forms that correspond with Written Tibetan *snang* in varieties from the eastern Tibetosphere, and she cites the following toponyms: Bola, Amuquhe, and Yaliji Townships of Xiahe County, Jiamenguan and Lexiu Townships of Hezuo Municipality, and their adjacent Ala, Shuangchua, Larenguan, and Xicang Townships of Luqu County, Wanmao, and Aziatng Townships of Zhuoni County, and Chubu Township of Lintan County, Gannan Prefecture (all of these are in the Amdo Tibetan speaking area); Niba, Daogao, Malu. Muer, Nalang, Duoba, Zangbawa, and Taoyuan Township of Zhuoni County, 12 Tibetan townships of the whole area of Diebu County and their adjacent several townships of Ruoergai County, some townships of Jiuzhaigou County of Sichuan Province, all of the Tibetan townships along the Shanghe and Xiahe rivers of Zhouqu County, Guan-e and Xinchengzi Townships of Dangchang County, Pingya Township of Wudu District, Pingwu and Nanping Townships of Wen County of Longnan Municipality, and Baima Tibetan regions such as Pingwu County of Mianyang District of Sichuan Province, as well as Batang County of Ganzi Prefecture.¹⁵ From a geolinguistic viewpoint, with the exception of Batang County, these areas are in a continuous region of the border zone of Sichuan and Gansu. Here, Batang County appears to be set apart from the rest. Moreover, Rig-'dzin dBang-mo (2013:9-11) identifies this feature as a unique characteristic that differentiates Diebu Tibetan, as well as being a characteristic feature

¹⁵ Rig-'dzin dBang-mo (2012) also provides other toponyms such as Huarui District of the border zone of Gansu and Qinghai, Mozhugongka and Linzhou Counties of Lhasa Municipality, as well as a part of Gongbujiangda, that are the areas of dialects using a form corresponding to *snang* as an existential verb stem.

distinguished it from other subgroups of the 'Khams dialect'. However, the situation of 'the Khams dialect in Khams' is not like this (Figures 13 and 14).¹⁶



Figure 13 Morphological classification of existential verbs (affirmative).

¹⁶ These figures are produced from my data; the dialect points provided by Rig-'dzin dBangmo (2012) are excluded. See the next chapter "Typological description of existential verbs and expressions in the Tibetic languages spoken in the eastern Tibetosphere" for details of the classification.

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Figure 14 Classification and distribution of the structure of existential expressions.

In Figure 13, the dialect points with \heartsuit , \clubsuit , and \bullet use a form corresponding to *snang*. As Figure 13 shows, there are many varieties of 'the Khams dialect in Khams' that use *snang*, and varieties distributed across more than half of the Khams area in the eastern Tibetosphere employs this stem. Therefore, the description of Rig-'dzin dBang-mo (2012) regarding 'the Khams dialect in Khams' is insufficiently provided; further, the verb stem construction of the existential verbs in the Batang dialect (\clubsuit) does not represent the case of 'the Khams dialect in Khams'. We should consider the grammatical structure of existential expressions (Huang 2013); there are at least nine such systems in the eastern Tibetosphere.¹⁷ According to Figure 14, the structure of existential expressions in 'the Khams dialect in Amdo' differs from those in 'the Khams dialect in Khams', and do not identify any shared innovations. Although a lexical form corresponding to *snang* is attested in both areas, we cannot assert that this word form is a historically shared feature of the varieties in the two areas.

As seen indicated above, knowledge of the history of 'Khams dialect in Khams' should be collected before we attempt to establish a dialect classification of 'the Khams

¹⁷ See Suzuki (2016e) for details.

dialect in Amdo'. My provisional conclusion is that the so-called 'Khams dialect in Amdo' and 'that in Khams' are not subgroups of a single dialect but are independent language groups.

2.3. Relationship between Cone Tibetan and Sems-kyi-nyila Tibetan

I have already discussed in 2.2 that 'the Khams dialect in Amdo' is not part of Khams Tibetan as understood by Tibetan dialectology. However, if there are descriptions of a historical relationship between the two target regions, we can deal with this issue. In this section, I examine the situation of Cone Tibetan.

Common and striking sound changes are attested in Cone Tibetan (varieties spoken along the Kluchu River) and Sems-kyi-nyila Tibetan spoken in Diqing Prefecture, Yunnan; hence, some scholars have concluded that a historical relationship exists between the two. However, as the maps in Section 2 indicate, Zhuoni and Xianggelila are distant from each other; in addition, they do not have shared history. Although several striking sound changes appear to be present in both, we should examine whether the similarity is derived from a historical relationship rather than a typological coincidence. To discuss the origin of Cone Tibetan, we focus on two points. One is a description from '*Dzam-gling chen-po'i rgyas-bshad snod-bcud kun-gsal melong*,¹⁸ a Tibetan book on geography published around the early nineteenth century (its abridged name is '*Dzam-gling rgyas-bshad*), and the other is a local oral history.

First, in 'Dzam-gling rgyas-bshad, we find that the spoken language of Zhuoni is as follows: co-ne'i mi rnams phal-cher chas rgya-chas la skad 'ba' li rgya gsum sogs dang phyogs mtshung 'Most people in Cone wear Han Chinese clothes, while their spoken language is like three languages, mBathang, Lithang and Han.'¹⁹ Here, rgya in 'ba' li rgya is an error for rgyal, for two reasons: first, the reading pronunciations of rgya and rgyal are not distinctive in many varieties of Amdo Tibetan, so they are realised as the same sound. Second, the collocation 'ba' li rgyal in the Khams region has a fixed meaning, namely, three 'thang' (mBathang, Lithang, and rGyalthang²⁰). If my view is correct, this nineteenth-century written document reports a similarity between Cone Tibetan and Sems-kyi-nyila Tibetan. However, we should note that, from my dialectal classification of Khams Tibetan (Suzuki 2014c), the dialects of mBathang and Lithang belong to a single group called the Southern Route, whereas the

¹⁸ The author is Bla-ma bTsan-po. The establishment is considered 1820–1830. See Wylie (1962:xiii–xvi).

¹⁹ Wylie (1962:45). The source document is on page 78b.

²⁰ The present Xianggelila Municipality, Diqing Prefecture.

rGyalthang dialect belongs to another group called Sems-kyi-nyila. The three together do not form a single dialectal group.

It is noteworthy that there are items in the oral history of several tribes in Zhuoni County that tell that their ancestors were from Dartsendo. Dartsendo corresponds to the present Kangding Municipality, where Minyag Rabgang Tibetan and Darmdo Minyag are spoken. We should note that the people who live in Zhuoni at present always say Dartsendo, not Kangding. In the Minyag region, Dartsendo often denotes the specific city of Lucheng Town (the municipal seat), not the entire area of the Minyag region. In this region, I have never heard that there people had migrated to Zhuoni. At any event, should there be oral historical stories that tell of such a migration, a certain genetic relationship may appear in Cone Tibetan and Minyag Rabgang Tibetan; in this case, it is valuable to discuss the mutual relation from the perspective of historical linguistics.

Regardless of the historical situation of Zhuoni County, I begin with a discussion of linguistic actuality. I add maps of other sound correspondences in Figures 15 and 16 to the materials in Figures 9–12.

Figures 15 and 16 show the common features of Cone Tibetan and Sems-kyi-nyila Tibetan; however, they differ from those in Minyag Rabgang Tibetan. In considering a sound change, we should consider it within the entire system of sound changes, and attention to a single sound change is not recommended. In the Tibetic languages, the establishment of the obstruent series in a given variety functions as a criterion for dialectal classification (Nishi 1986; Jiang 2002; Zhang 2009). If a sound change lacks a systematic correspondence, I provisionally do not regard it as a piece of evidence of affiliation to a single dialect group. Taking only the cases of Cone Tibetan and Semskyi-nyila Tibetan into consideration, we find that the sound correspondences between these two groups represented in the Figures 9–11, whereas the sound correspondence in Figure 12 does not. Figure 12 relates to a sound correspondence with the Written Tibetan Pr-series, and this feature should be analysed together with Written Tibetan Py-series, Kr-series, and Ky-series, not dealt with separately. If discrepancies are found among these Written Tibetan series, then the sound change process will have taken place in different ways. At present, I am conducting intensive research on Sems-kyinyila Tibetan and its dialects, and I assume that many sound changes in this dialect group were triggered by language contact with Naxi (Suzuki 2016f). If this view is correct, Cone Tibetan and Sems-kyi-nyila Tibetan have undergone radically different development processes, although they have many commonalities. Therefore, they cannot be classified into a single group.

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3. Issues regarding 'language' and 'dialect'

3.1. No necessity for a common recognition of the levels 'language' and 'dialect' It is not easy to distinguish 'language' form 'dialect' using only scientific criteria; instead, we often refer to many extralinguistic factors to define these terms. In mainland China, scholars consider that Tibetan is a single language and that it has three greater dialect groups, preventing them from recognising that Tibetan is not a single language, as argued by Suzuki (2009d) and Tournadre (2014). My present view is still the same; however, I also think it is not always necessary to have a common recognition of what

²¹ Including all the combinations containing the radical letter c, ch, and j, e.g. chu 'water' and ja 'tea'.

²² See Suzuki et al. (2019) for a recent discussion of relevant sounds corresponding to WrT *sh*, which include $/f_j/$.
is language and what is dialect. Below I present two cases regarding the issue of the levels 'language' and 'dialect' for a reference to studies of Tibetic languages.

The first case concerns Chinese. The question whether Chinese, with more than one milliard native speakers, is a single language has long been in dispute. Some argue that Chinese must be a single language based on the evidence of systematic sound correspondences with a common writing system. This framework has been used for various studies, including linguistic maps (Cao ed. 2008; Iwata ed. 2009, 2012).However, linguists recognise the framework of the Sinitic languages. This approach classifies all Chinese varieties into ten languages, including Mandarin (Guanhua), Wu, Min, and Yue. This view functions well for historical linguistics, including dialectology as well as typology. The two views co-exist simultaneously, and both approaches have produced valuable work.

The second case is the Saami languages (Uralic). These are minority languages spoken in northern areas of the Scandinavian countries, including Norway, Sweden and Finland, extending to Russia as well, and they are often mentioned in discussions of endangered languages and minority language policy. Linguistics considers that there are ten Saami languages (one of which has lost its last native speaker), and all of them are registered in the *Ethnologue*. However, each relevant country regards them as a single language in its language policy, leading to a contradiction language policy and linguistic reality (Todal 1998). The different Saami languages have vastly different numbers of native speakers. Northern Saami has around 30,000 native speakers, but other languages have under ten or around some hundred native speakers. The classification of the languages is based on accumulated works by many scholars, including native scholars (Lagercrantz 1923, 1926; Ruong 1943; Hasselbrink 1944; Bergsland 1946); see also Sammallahti (1998). Northern Saami is divided into four greater dialect groups, of which the mutual intelligibility is low (Eira 2003).

Thus, it may be that for a given group of speech community, the view of it as a single language may not conflict with the view that it is many languages. Even if one's perspective changes, language policy usually does not do so easily. These are valid comparison cases for the Tibetic languages.

3.2. The smaller the size of a language is, the better it is

I do not think that Tibetan is a single language. A good reason for this is that larger languages may not attract attention even if they are considered endangered, and an endangered dialect is even less likely to receive concern. Further, typological considerations are also important. A discussion of linguistic typology generally employs data from many languages but does not bring in differences appearing on the dialect level.²³ Where Chinese is recognised as a language group, data is required from its dialect level varieties. However, typological studies often deal with Tibetan and take Lhasa Tibetan as the only representative. There may be little benefit from such studies for those on Tibetic languages.

As linguistic typological studies have continued to be pursued, the number of typological studies on languages in China has grown. The view that Tibetan is a single language will produce challenges. We have already seen some of these. For example, Huang (2013) discusses the typology of the structure of existential-type verbs in Tibeto-Burman languages and uses examples from Lhasa Tibetan alone for Tibetan. Tibetan varieties generally have many structures for existential-type verbs, and their discrepancies are large. I think that omitting this is incorrect viewed in itself. However, Huang (2013) cannot be blamed he takes one example from each variety of Tibeto-Burman language. We set a rule that a typological study mentions one variety per language; in this case, the smaller the size of a language is, the better it is. For an indepth discussion from the typological perspective, it is essential that Tibetan not be a single language. This view's advantages probably outweigh the disadvantages.

We find great differences regarding the treatment of a language versus a dialect in typological discussions established in international academia. When one studies a variety of a given language, it is to be desired that one clarify the position of the variety in the hierarchy of language-dialect group-subdialect group with a precise, unambiguous name to avoid being discriminated against as a patois. The appellation of each variety should not be decided *ad hoc*. I would propose that an administrative name be used (the best is a hamlet-level name) as a variety name; otherwise, confusion will ensue in later dialectology. For example, 'Seraolongwa' in dKon-mchog rGya-mtsho (1987) is not found in documents in either Tibetan or Chinese, or even on relevant maps. Later I found it as an appellation that is only understood locally (Thewo-smad in Diebu County); moreover, it does not specify the exact area.

Another example is found in Chirkova (2012), who use 'Kami' (Gami) for all the varieties of Khams Tibetan spoken in Muli County. However, this name does not specify any dialect (only meaning Khams Tibetan); besides, it is understood only by locals. Dialectology should not follow local habits, and we suggest that scholars avoid the use of such local terms.

²³ A discussion of linguistic typology generally employs data from many languages but does not bring in differences appearing on the dialect level. See van der Auwera's (2011) *macro-orientation* and *micro-orientation*.

In the dawn of dialectological studies of a given language, we need hypotheses of hierarchies (in language, dialect group, and subdialect group). However, we can always examine hypotheses following the progress of in-depth studies and then conclude whether they are correct. Regardless of the perspective on a given language, a linguistic map neither neglects nor discriminates any research points. A clear definition of a small language will benefit not only dialectology and typology but other relevant studies as well.

4. Conclusion

Dialect studies are not the same thing as dialectology. Further studies on individual dialects can, of course, benefit dialectology, but these will not bring us any breakthrough for our research. Dialectology requires studies based on specific theories, and we should not neglect extralinguistic factors such as geographic distribution and the human geography of each variety.

Tibetan has developed various dialects, vernaculars, and varieties; hence, it is meaningless to continue to insist that 'Tibetan is a single language'. Unfortunately, typological studies are performed that neglect the variation attested among Tibetan dialects. As a dialectological study, every dialect point must be treated in a fair way. Every variety of Tibetan is worth being investigated; we do not need to differentiate between representatives entities and their counterparts. Every variety has its value, since it has native speakers, and their language is the treasure of the culture that they have inherited from their ancestors.

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Photo gallery 1

The morning at gSer mtsho. At Songpan, rNgawa.



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Typological description of existential verbs and expressions in the Tibetic languages spoken in the eastern Tibetosphere

1. Introduction

Existential verbs and expressions in Tibeto-Burman were discussed in Huang (2013), and the basic framework of description and typological analysis are provided in that publication. Unfortunately, Huang (2013) only describes Lhasa Tibetan and Baima from among the Tibetic languages as defined by Tournadre (2014). The typological diversity attested in the Tibetic languages has been overlooked, so a description from wider typological and dialectological perspectives is indispensable. As more and more work is being published on a single variety of the Tibetic languages, the largest challenge is that 'each author has each terminology', as Zeisler (2016) puts it. This unfortunate situation prevents us from obtaining a typological overview.

Among studies on the existential verbs of the Tibetic languages, Tournadre and Konchok Jiatso (2001) provide an overall view of the auxiliaries, including existential verbs in several Tibetic languages. However, their basis of description is the system of Literary Tibetan, hence they do not follow the methodology of descriptive linguistics. Rig-'dzin dBang-mo (2012) attempts analyses of the existential verb roots attested in the Tibetic languages spoken in China, focusing on the use of *snang*.

This chapter, based on Suzuki (2016e),¹ deals with existential verbs and expressions in various Tibetic languages (principally Zalmogang Khams, Minyag Rabgang Khams, Rongbrag Khams, Southern Route Khams, Chaphreng Khams, sPomborgang Khams, sDerong-nJol Khams, Sems-kyi-nyila Khams; Amdo; Sharkhog, Khodpokhog, dPalskyid, mBrugchu, Thewo-smad, Thewo-stod, and Cone) spoken in

An earlier version of this chapter was presented at the 4th Workshop of Sino-Tibetan Languages in Southwest China (8–10 September 2016, University of Washington). I should like to express my gratitude to my Tibetan friends who helped me and taught me their mother tongue. My thanks also go to Nicolas Tournadre for his comments on a draft version.

¹ In recent studies, I follow a different framework for evidentiality in Tibetic languages, based on the discussions of Tournadre (2017), Oisel (2018), and Zeisler (2019); see, for example, Suzuki et al. (2021) and Zhou and Suzuki (2021). In this chapter, however, I follow evidentiality in an earlier sense because the focus of the description is primarily on the existential expression, that is, the relationship among possession, existential, and locational.

the eastern Tibetosphere (Yunnan, Sichuan, and southern Gansu), and displays variation in expressions of existentiality. All of the the linguistic data described here were obtained by the author's fieldwork, conducted over the course of more than a decade, in which language appellation, phonetic description frame and grammatical terminology are identical in each variety (to be reflected in Tournadre and Suzuki 2021). However, this chapter less uses phonetic transcription because of its different purpose.

Huang (2013) generally provides types of existential verbs in Tibeto-Burman, as follows:

- (1) Location-Existential-Possession
- (2) Animacy-Location-Access to information-Manner of existence

Taking classification (1) into consideration, we can find two principal frames attested in the Tibetic languages spoken in the eastern Tibetosphere. In one, there are no differences among Location, Existential, and Possession, and in the other there is a difference between Location+Existential and Possession. Following classification (2), almost all varieties have differences based on access to information as a syntactico-semantic feature, and animacy of arguments also functions in several varieties within the type that features a difference between Location+Existential and Possession.

This chapter discusses not only existential verbs in each Tibetic language but also lexical verbs denoting existence, such as 'stay', 'sit', and 'live'. In most Tibetic languages, the concept of an existential verb is different from that of lexical verbs denoting existence in terms of behaviour as auxiliaries and limitation of possible suffixes. Note that this chapter merely deals with affirmative cases of existentiality; negation forms (inexistentiality) are unfortunately out of scope because of the necessity of taking into account such aspects as how to recognise what does not exist and the scope of negation.

2. Frames regarding existential expressions: classification and distribution

2.1. Classification

To present a comprehensive classification of the existential expressions, I arrange them based on the features of verbs employed to present an affirmative. Three principal classes are to be distinguished from each other concerning existential verbs and expressions are as follows:

(A) no differences among Location, Existential, and Possession.

(B) a difference between Location+Existential and Possession, without an animacy distinction.

(C) a difference between Location+Existential and Possession, with an animacy distinction.

Each class has several subclassifications: A1, A2, A3; B1, B2; C1, C2, C3, and C4, each of which is described below.

(A) no differences among Location, Existential, and Possession.

Many dialects in this class distinguish egophoric access to information. Syntactic construction generally differs in Location, Existential, and Possession.

A1: one root of existential verb; egophoric access depending on a suffix.

Table 1 Class A1		
Location-Existential-Possession		
egophoric EXV1		
non-egophoric EXV1/EXV1+SFX		

Mainly attested in all kinds of Amdo, Minyag Rabgang Khams,² and Rongbrag Khams.

See examples (1) to (4) in Section 3.

A2: two roots of existential verb; access to information (egophoricity-sensory) depending on the root.

Table 2Class A2		
Location-Existential-Possession		
egophoric	EXV1	
sensory	EXV2	
factual	EXV1+CPV	

Mainly attested in Zalmogang Khams and Southern Route Khams.

See examples (5) to (9) in Section 3.

This type is similar to the case of Lhasa Tibetan cited in Huang (2013). Cf. Hoshi (2003:8–10).

² Cf. description by Suzuki et al. (2021), providing the existential verb systems of Mabzhi Tibetan (Amdo) and Lhagang Tibetan (Minyag Rabgang Khams).

A3: two roots of existential verb; egophoric access depending on the root plus a suffix.

Table 3 Class A3			
Location-Existential-Possession			
egophoric	EXV1		
non-egophoric	EXV2+SFX		

Mainly attested in Sharkhog, Cone, Thewo-stod. Under some specific condition, egophoric expressions can also use EXV2 (Suzuki and dKon-mchog Tshe-ring 2009); thus the formulation of this category might be sensory access vs epistemic access as indicated in A2.

See examples (10) to (13) in Section 3.

(B) a difference between Location+Existential and Possession only for egophoric.

Many dialects presenting this class distinguish egophoric access to information.

B1: two roots (one existential verb and one lexical verb); egophoric access distinguished only in the case of Location–Existential.

Table 4 Class B1		
Location–Existential Possession		
egophoric	LV	EXV1
non-egophoric	EXV1	EXV1

Mainly attested in mBrugchu. LV, *lexical verb*, is frequently occupied by 'dug 'stay'.

See examples (14) to (17) in Section 3.

B2: two roots of existential verb; egophoric access distinguished only in the case of Location–Existential.

Table 5 Class B2		
	Location-Existential	Possession
egophoric	EXV1	EXV2
non-egophoric	EXV2	EXV2

Mainly attested in the Thewo-bar subgroup of Thewo-smad. See examples (18) to (21) in Section 3.

(C) a difference between Location+Existential and Possession, with an animacy distinction.

Many dialects presenting this class distinguish an egophoric access to information, in addition to this, sensory (especially visual) and factual are also concerned in Possession.

C1: three roots (two existential verbs and one lexical verb); egophoric access depending on the root.

Table 6 Class C1		
	Location-Existential	Possession
egophoric	LV	EXV1
non-egophoric	EXV2 / inanim.	EXV2
	LV / anim.	

Mainly attested in Thewo-smad (except for the Thewo-bar subgroup). LV is occupied by 'dug 'sit'.

See examples (22) to (26) in Section 3.

C2: four roots (three existential verbs and one lexical verb); egophoric access depending on the root.

	Table 7 Class C2	
	Location-Existential	Possession
egophoric	EXV3	EXV1/EXV3
sensory/ inanimate	EXV2	EXV2/EXV3+SFX
sensory/ animate	EXV3/LV (+SFX)	EXV3
statemental	EXV2	EXV2

Mainly attested in Sems-kyi-nyila (except for the Melung subgroup), sDerongnJol, Chaphreng, and sPomborgang. Difference between EXV1/EXV3 and LV(+SFX) depending on animacy (human–animal–inanimate or animate–inanimate).

See examples (27) to (34) in Section 3.

C3: three roots (two existential verbs and one lexical verb); access to information (egophoricity and epistemisity) depending on the root or existence of a suffix.

Table 8 Class C3		
	Location-Existential	Possession
egophoric	LV	EXV1
sensory/ inanimate	EXV2	EXV1+SFX
sensory/ animate	EXV1+SFX/LV	LV
statemental	EXV2	EXV2

Only attested in the Melung subgroup of Sems-kyi-nyila. LV is frequently occupied by *bzhugs* 'stay', *sdad* 'stay', or *sdod* 'stay'.

See examples (35) to (39) in Section 3.

C4: two roots (one existential verb and one lexical verb); egophoric access depending on the existence of a suffix.

Table 9Class C4		
	Location-Existential	Possession
egophoric	LV	EXV1
sensory/ inanimate	EXV1+SFX	EXV1+SFX
sensory/ animate	LV	LV
statemental	EXV2	EXV2

Only attested in the Gongnong dialect of the Melung subgroup of Sems-kyinyila. Difference between EXV1+SFX and LV depending on animacy.

See examples (40) to (44) in Section 3.

2.2. Geographical distribution

In 2.1, the information of dialect group names is also provided; however, without detailed knowledge of the Tibetic languages, it is not possible to understand the distribution of each type. I do not claim anything regarding a relationship between the variation of existential expressions and influence of non-Tibetic languages in this region; nevertheless, I provide linguistic maps concerning the existential verbs to support further discussion.

I provide two maps: Figure 1 presents the geographical distribution of dialects classified by the nine principal types, and Figure 2 shows the number and forms of existential verb roots. The maps, including 220 geographical points (regiolects), were designed with ArcGIS online. Unfortunately, each map shows unavoidable mistakes that are inevitable within the ArcGIS system.



Figure 1 Geographical distribution of dialects classified by the nine principal types.

As seen in Figure 1, Class A is widely attested in such languages as Amdo, Sharkhog, Thewo-stod, Rongbrag, and Minyag Rabgang. The principal difference in this class is found in the form of the suffix, e.g. /kə/ or /gə/ for Amdo, /rɔ?/ for Rongbrag, and /to/ or /tu/ for Minyag Rabgang. Observing A2 and A3 indicates that A3 has a morphologically redundant suffix. This suffix is also used for any lexical stative verbs, so if the EXV2 (*snang*) is regarded as a stative verb, this category will not continue to follow the present classification. A more detailed analysis is required. From a geolinguistic viewpoint, A3 is distributed in near A1-speaking areas, so the formation of A3 might be rooted in some interaction between A2 and A1. The condition of the

usage of suffix both in A1 and A3 is the same; it appears only in affirmative sentences, neither in interrogative nor negative ones.

In Class B, only egophoric utterances have a distinction between Location-Existential and Possession. This class is attested in a small area, north-eastern edge of the Tibetosphere. The difference between B1 and B2 is the nature of verb for egophoric Location-Existential, and in the case of B1, the verb root for egophoric Location-Existential ('dug) can take any TAM markers for lexical stative verbs, which implies that it is not a existential verb ty but a lexical verb with an existential meaning. Existential verbs are generally tense-aspectless and merely take limited suffixes expressing various modalities.

Class C is the type that Location-Existential and Possession are always distinguished; in addition to this, the animacy is concerned for a selection of verb roots. The subclassification of this class is mainly concerned with animacy and the nature of verb roots. The verb root for the Location–Existential of animates is various, either an existential verb or a lexical verb which can take TAM suffixes. This class is dominant in the southern Khams region and is also found in part of Thewo.

If one existential verb is used for Location–Existential–Possession (Class A and partial case of Class B), the syntactic pattern of a sentence appears differently, especially with reference to case marking. A possessor is marked by a dative (or locative, if applicable); an existent element occupies the beginning of a given sentence for an Existential, and a location element occupies the beginning of a given sentence for Location.

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Figure 2 Number and forms of existential verb roots (3R=yod, snang, 'dug).

Figure 2 reflects the geographical distribution of existential verb roots. The majority of dialects have *yod*; however, its phonetic variation is rich and includes /jot/, /jo?/, /jo?/, /ju?/, /zo?/, /zu?/, and /cu?/, all of which display an ordinary sound correspondence in a given variety. This also indicates that mBrugchu and some dialects spoken in the north of Jiuzhaigou County (Babzo dialect group of dPalskyid Tibetan) do not use *yod*, which can, however, appear in an epistemically doubtful utterance; for example, mBrugchu employs *yod ra* to say 'it is likely to exist'. Apart from this, some dialects of Thewo-stod always use *yod* with a suffix specialised for this verb: /je: ^hpa/; it is already fixed.

Another root, *snang* (pronounced as /^hnoŋ/, /^hno:/, /^hnu/, /nõ/, /nõ/, etc.), is also used quite widely. The dialects that do not have *snang* are all the varieties from Amdo

(limited within the dialects on Figure 2; marginally existent outside Figure 2, see Ebihara 2012), Rongbrag Khams, Minyag Rabgang Khams and the majority of dialects of Zalmogang Khams. In other words, such dialects are spoken in north-central area of the eastern Tibetosphere.

The 3R type (=*yod*, *snang*, '*dug*) is principally distributed in the southern area: Chaphreng Khams, sPomborgang Khams, Sem-kyi-nyila Khams, and sDerong-nJol Khams (with some exceptions). This type also corresponds to the C2 class.

From a geolinguistic view, based on these two maps, I claim that the distribution of the dialects with the 'A1-*yod*' frame is geographically continuous over some languages and thus can hypothesise that Rongbrag Khams and Minyag Rabgang Khams have had some relationship with neighbouring varieties of Amdo Tibetan because Amdo Tibetan maintains only one type of the frame to express existentiality, regardless of its neighbouring languages. Looking at the distribution of A3, we can also consider a possibility that dialects with A3 originally had the A2-*yod*+*snang* frame; however, the strong influence of Amdo created A3, an intermediate pattern between A1 and A2.

3. Description

This section provides a detailed description of the existential verbs in question. I arrange common words with all varieties, such as *nga* 'I', *kho* 's/he', *mi/myi* 'person', *phag* 'pig', and *yi ge* 'book', so many as possible. For the sake of simplicity, I use Literary Tibetan spellings (de Nebesky-Wojkowitz's (1956) transliteration: '⁰' indicates the absence of the given form in Literary Tibetan) to denote word forms instead of phonetic symbols.

The dialects described here are as follows: Lhagang (Minyag Rabgang Khams; Kangding Municipality; see Suzuki and Sonam Wangmo 2016b and Suzuki et al. 2021 in detail), Lithang (Southern Route Khams; Litang County), sKyangtshang (Sharkhog; Songpan County; see Suzuki and dKon-mchog Tshe-ring 2009 in detail), dGonpa (mBrugchu; Zhouqu County), Khaba (Thewo-smad; Diebu County), sDedgudgon (Thewo-smad; Diebu County), Choswateng (Sems-kyi-nyila Khams; Shangri-La Municipality; see Suzuki 2014a and Suzuki et al. 2021 in detail), Zhollam (Sems-kyi-nyila Khams; Weixi County; see Suzuki 2012, 2017a in detail), and Gongnong (Sems-kyi-nyila Khams; Weixi County).³

³ The analysis in this section has not been updated for the evidential system. My recent analysis do not follow the model provided here. From the viewpoint of the existential expressions, the present framework is still useful.

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Absolutive case (the *zero* morpheme) is uniformly not marked in glosses. No existential expressions can take the ergative case marking for any argument components. Each example presented below conveys an acceptable meaning; discussions of acceptability are excluded.

3.1. Class A

There are three subcategories in Class A.

A1: Lhagang (Minyag Rabgang Khams)

(1) Location–Existential egophoric: $nga \ khang \ pa \{^{A}nang/^{B}nang-la/^{C} \ 'go/^{D} \ 'go-la\}$ yod 1sg house $\{^{A}inside/^{B}inside-LOC/^{C}top/^{D}top-LOC\}$ EXV 'I am $\{^{A}in/^{B}in/^{C}on/^{D}on\}$ the house.' [Some position nouns are on the way to grammaticalisation.]

(2) Location–Existential non-egophoric: *kho khang pa* nang yod-[◊]du
3sg house inside EXV-SFX
'S/He is in the house.' [as I have seen before.]

kho khang panangyod-red3sg houseinsideEXV-CPV'S/He is generally in the house.'[as everyone knows. 'non-direct sensory experience']

(3) Possession egophoric: *nga-la phag yod* 1sg-DAT pig EXV 'I have pigs.'

[I raise pigs. The locative and dative morphemes are synchronically the same, however, the conditions for omission differ between the two. Additionally, from a diachronic viewpoint, location and possessor are marked with different cases in Literary Tibetan (Hoshi 2016:124–125).]

(4) Possession non-egophoric: *kho-la* phag yod-[◊]du
3sg-DAT pig EXV

'S/He has pigs.' [S/He raises pigs, as I have seen before.]

kho-la phag yod-red
3sg-DAT pig EXV-CPV
'S/He has pigs.'
[That person is responsible for caring the village's pigs.]

A2: Lithang-Gemo (sPomborgang Khams)

(5) Location–Existential egophoric: *nga khang pa* {^A*nang-la*/^B*thog-la*} *yod* 1sg house {^Ainside-LOC/^Btop-LOC} EXV1 'I am {^Ain/^Bon} the house.' [Position nouns generally require a locative case marking.]

(6) Location–Existential sensory:

kho khang pa	{ ^A nang-la/ ^B thog-la}	snang
3sg house	{ ^A inside-LOC/ ^B top-LOC}	EXV2
'S/He is in the house.'		
[I saw him/her.]		

[I saw them. It is rare to see pigs in a pastoral area in Lithang, so I just add 'person' for enunciations without a mirative sense.]

(7) Location–Existential factual: *phag phag ra nang-la yod-red*pig pigsty inside-LOC EXV1-CPV
'Pigs are (generally) in the pigsty.'
[Pigs are generally not on the pasture/in the house.]

(8) Possession egophoric:

nga-la	sgor mo	yod
1sg-DAT	money	EXV1
'I have som	e money.'	

[N.B. This does not mean 'I am rich'. Again, the morpheme of locative and dative is synchronically the same. There may be a redundancy in this variety.]

(9) Possession sensory:nga-lasgor mo1sg-DATmoneyEXV2

'I have just become aware of the fact that I have some money with me (in my pocket or somewhere else, occasionally).'

kho-la	sgor mo	snang
3sg-DAT	money	EXV2
'S/He has so	ome money.'	

A3: sKyangtshang (Sharkhog)

(10) Location–Existential egophoric: $nga \ ^{\circ}phyi-^{\circ}ni$ yod1sg house-LOCEXV1'I am in the house.'

[The locative marker is derived from *nang* 'inside' (the strict appellation should be 'inessive-locative') and is not an inheritance of the locative marker in Literary Tibetan *na*.]

(11) Location–Existential non-egophoric: $kho \ ^{\circ}phyi-^{\circ}ni$ snang-gi3sg house-LOCEXV2-SFX'S/He is in the house.'

(12) Possession egophoric: $nga^{\circ}zhi$ phagyod1sg-DATpigEXV1'I have pigs.'

[I own/raise pigs. Note that a possessor is marked by a dative, the form of which is completely different from the locative.]

nga-⁰zhi	phag	snang-gi
1sg-DAT	pig	EXV2-SFX

'I have pigs.'

[As you see, I occasionally keep pigs for someone. At present, villagers do not raise pigs in the public area, so the use of this utterance is becoming rare.]

(13) Possession non-egophoric: *kho-[◊]zhi phag snang-gi*3sg-DAT pig EXV2-SFX
'S/He has pigs.'
[S/He owns/raises pigs.]

3.2. Class B

There are two subcategories in Class B.

B1: dGonpa (mBrugchu)

(14) Loc	cation–Existential ego	phoric:		
° 'a	sbra-la	'dug		
1sg	house-LOC	stay		
'I am in the house.'				

[LV (stay) can take any suffixes or auxiliaries (e.g. TAM) which are generally used for any lexical stative verbs. N.B. *sbra* (literally meaning 'black tent') is a house made of wood and stone. Black tents are not used in this language area.]

(15) Location–Existential non-egophoric:
[◊]nu sbra-la yod
3sg house-LOC EXV
'S/He is in the house.'

(16) Possession egophoric: ⁶'*a-la phag yod* 1sg-DAT pig EXV 'I have pigs.' [I own/raise pigs.]

(17) Possession non-egophoric:
^onu-la phag yod
3sg-DAT pig EXV
'S/He has pigs.' [S/He owns/raises pigs.]

B2: Khaba (Thewo-smad)

(18) Location–Existential egophoric: nga khang-la yod
1sg house-LOC EXV1
'I am in the house.'

(19) Location–Existential non-egophoric: *kho* [◊]*dag khang-la snang*3sg house-LOC EXV2
'S/He is in the house.'

(20) Possession egophoric:
nga-la phag snang
1sg-DAT pig EXV2
'I have pigs.'
[I own/raise pigs.]

(21) Possession non-egophoric: *kho* [◊]*dag-la phag snang* 3sg-DAT pig EXV2 'S/He has pigs.' [S/He owns/raises pigs.]

3.3. Class C

There are four subcategories in Class C.

C1: sDedgudgon (Thewo-smad)

(22) Location–Existential egophoric: $nga \ ^{\circ}phyi-^{\circ}ni$ 'dug 1sg house-LOC stay 'I am in the house.'

[LV (stay) can take any suffixes and auxiliaries (e.g., TAM) which are generally used for any lexical stative verbs.]

(23) Location–Existential non-egophoric animate: $de \qquad ^{\diamond}phyi \cdot ^{\diamond}ni \ 'dug-bgyid$ 3sg house-LOC stay-CPV 'S/He is in the house.'

(24) Location–Existential non-egophoric inanimate: *yi ge* $^{\diamond}phyi^{\circ}ni$ *snang* book house-LOC EXV2 'The book is in the house.'

(25) Possession egophoric: *nga phag yod* 1sg pig EXV1 'I have pigs.'

[I own/raise pigs. A possessor is generally in absolutive. Note that different roots of the existential verb are used between Location-Existential and Possession.]

(26) Possession non-egophoric: de phag snang 3sg pig EXV2 'S/He has pigs.' [S/He owns/raises pigs.]

C2: Choswateng (Sems-kyi-nyila)

(27) Location–Existential egophoric: nga khyim 'dug
1sg house EXV3
'I am in the house.'
[All of the arguments are in the absolutive.]

(28) Location–Existential non-egophoric animate/human: kho khyim 'dug-red
3sg house EXV3-CPV
'S/He is in the house.'
[EXV3 can take CPV-suffix to express 'non-egophoricity'.] TYPOLOGICAL DESCRIPTION OF EXISTENTIAL VERBS AND EXPRESSIONS IN THE TIBETIC LANGUAGES

(29) Location-Existential non-egophoric animate/non-human:

phagphag khang'dug-red3sgpigstyEXV3-CPV'The pig is in the pigsty.'

phag'dug-red3sgEXV3-CPV'There is a pig.'[Such as in the pasture.]

phagsnang3sgEXV2'There is a pig.'[This 'pig' is an inanimation of the state of the sta

[This 'pig' is an inanimate pig in a photo, or it is a pig doll or a piggybank.]

(30) Location–Existential non-egophoric inanimate:

yi ge khyim snang book pigsty EXV2 'The book is in the house.'

(31) Possession egophoric, animate possessee:
nga phag 'dug
1sg pig EXV3
'I have pigs.'
[=I own/raise pigs. Again, all the arguments are in absolutive.]

nga phag yod 1sg pig EXV1 'I have pigs.' [=I have dead pigs, photos of pigs, or piggybanks.]

(32) Possession egophoric, inanimate possessee:
nga yi ge yod
1sg book EXV1
'I have books.'

(33) Possession non-egophoric, animate possessee: *kho phag 'dug-red*3sg pig EXV3-CPV
'S/He has pigs.'
[S/He owns/raises pigs.]

kho phag snang
3sg pig EXV2
'S/He has pigs.'
[S/He has dead pigs (*zhubiao* in Chinese), photos of pigs, or piggybanks.]

(34) Possession non-egophoric, inanimate possessee: *kho yi ge yod*3sg book EXV1
'S/He has books.'

C3: Zhollam (Sems-kyi-nyila)

(35) Location–Existential egophoric: nga khyim bzhugs-da-yin
1sg house stay-PROG-CPV
'I am in the house.'
[All of the arguments are in absolutive.]

(36) Location–Existential non-egophoric animate/human: *kho khyim 'dug-da-snang*3sg house stay-PROG-CPV
'S/He is in the house.'
[describing an existence of a definite person.]

na ga mi[°]'*do gcig yod-snang* over there person one EXV1-SFX 'There is a person over there.' [describing an existence of an indefinite person.]

(37) Location–Existential non-egophoric animate/animal and inanimate:phagphag khangsnang3sgpigstyEXV2

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'The pig is in the pigsty.'

yi ge khyim snang book house EXV2 'The book is in the house.'

(38) Possession egophoric:
nga phag yod
1sg pig EXV1
'I have pigs.'
[I own/raise pigs. Again, all of the arguments are in absolutive.]

(39) Possession non-egophoric: *kho phag yod-snang*3sg pig EXV1-SFX
'S/He has pigs.'
[S/He owns/raises pigs.]

C4: Gongnong (Sems-kyi-nyila)

(40) Location–Existential egophoric: nga khyim 'dug
1sg house stay
'I am in the house.'
[All of the arguments are in absolutive.]

(41) Location–Existential non-egophoric animate/human: *kho khyim 'dug*3sg house stay'S/He is in the house.'

(42) Location–Existential non-egophoric inanimate: *yi ge khyim yod-snang*book house EXV-SFX
'The book is in the house.'

(43) Possession egophoric:
nga phag yod
1sg pig EXV
'I have pigs.'
[I own/raise pigs. Again, all the arguments are in absolutive.]

(44) Possession non-egophoric: *kho phag yod-snang*3sg pig EXV-SFX
'S/He has pigs.'
[S/He owns/raises pigs.]

4. Concluding remarks

This chapter describes the variation of existential expressions in the Tibetic languages of the eastern Tibetosphere (220 valid varieties on the maps). The principal findings are following:

- (1) Three existential verb roots (*yod*, *snang*, '*dug*) are found in varieties from all over the eastern Tibetosphere;
- (2) A variety uses either one, two, or three roots with the options *yod*, *snang*, and '*dug*, under certain conditions in following (3)-(5);
- (3) Varieties in Classes B and C distinguish 'Possession' from 'Existential– Location' in morphology, while those in Class A and some in B do so in a syntactic (case marking) pattern;
- (4) Every variety reflects a difference in access to information, i.e. distinction between 'egophoric' and 'non-egophoric', among 'sensory experience just confirmed', 'sensory experience obtained before', and 'non-direct experience', and/or among 'sensory experience', 'non-sensory experience', and 'factual'; and,
- (5) Varieties with Class C (principally Southern Khams) have a system that distinguishes 'animate' from 'inanimate'.

The description and classification are to some extent simplified here to focus on characterising each variety. In addition, the discussion was limited to the range of the discussion for affirmative expressions. Negations of existential expressions are more complex than affirmatives regarding the scope of negation, statements of 'nonexistence', and implications of negation. This is just a first step in an overview of the complexity of existential expressions in the Tibetic languages. From a typological standpoint, Tibetan is not a single language, and a description of each variety enriches the typological perspective not only for Tibetic languages but also for Tibeto-Burman languages. Tibetic languages should receive much more attention than they have received in previous investigations. The grammatical terminology to describe the Tibetic languages must be well elaborated.

Fortunately, the framework for existential verbs and constructions provided in Huang (2013) is valid for all of the members of Tibeto-Burman, and the data discussed in the present paper can be unified from a typological perspective, and hence is ready for a geolinguistic analysis in further research from a broader perspective such as an ongoing research project *Studies in Asian Geolinguistics* (see Endo 2016; Suzuki et al. 2016b; Endo et al. (eds) 2021). On the other hand, the framework developed by Huang (2013) is insufficient to describe the case of the Tibetic languages. Firstly, the existential verbs in some Tibetic languages also function as an attributive so that they are called ELPA (Caplow 2000). Second, epistemic variation is also reflected in a syntactico-semantic structure, as described in Vokurková (2008). For a perspective of the linguistic contributions of the Tibetic languages, an adjustment to theor descriptive framework is also needed.

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Studies in Geolinguistics, Monograph Series 1

Photo gallery 2

The northern side of gNyan po gYu rtse. At gCig sgril, mGo log.



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Migration history and *tsowa* divisions as a supplemental approach to dialectology in Amdo Tibetan: A case study on Mangra County

1. Introduction

A geolinguistic analysis to some extent needs extralinguistic information to explain why a given feature exists or distributes in a specific area. Behind geolinguistics' key understanding *each word has its own history*, we may search for external factors other than internal, linguistic factors. However, when we conduct research on Amdo Tibetan, we face several issues regarding carelessness towards the extralinguistic information as well as the relationship between the language classification and their lifestyle ---how to deal with mobile pastoralists' dialects on a linguistic map. The article will primarily deal with the former issue.

The authors recently encountered a fine article introducing a dialect of Amdo Tibetan¹ from Chapcha (Tib. Chab cha) in Qinghai. However, its identification of the dialect in question as 'Gonghe dialect' (Ebihara 2011:42, 44) begs some questions; the author is, as explicitly stated in the article, quoting Nishi's category of 23 dialects for Amdo Tibetan (1986). What is wrong with calling the dialect 'Gonghe dialect' since all the speakers are residents of present-day Gonghe county?² Naming dialects based on administrative toponyms is not the best way to categorize the dialect has at least three shortcomings. Firstly, the use of administrative names naturalizes the sometimes violent reterritorialization of Tibetan areas since the 1950s. These terms, in most cases, neither reflect a group with a shared dialect nor comply with how locals refer to emic toponyms, but are newly invented designations. Secondly, it is not specific enough to locate the speakers of the language under study with such nomenclatures since a few

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¹ See Tournadre (2014) for a classification of Tibetic languages from a wider perspective.

² Gonghe is an administrative toponym for a county in Tsolho (Chi. Hainan) Prefecture, Qinghai Province. As for the etic toponym Gonghe, the establishment of *Gonghe* County in this appellation dates back to 1929 (*Gonghe Xianzhi* 1991:3).

dialects are prevalent in one administrative region. Thirdly, these administrative terms often do not reflect the indigenous toponyms of localities since they are generally invented as mentioned above. All in all, there are speakers of at least two distinctive Amdo dialects in Gonghe, namely 'innovative '*brog skad*' (Cham-tshang Padma IHun-'grub 2009), or Kokonor dialect group spoken by pastoralist *tsowa* (Tib. tsho ba)³ alliances, and the Tsongkha dialect group (following Tournadre and Suzuki 2022) spoken by most of the area's farming communities. Therefore, the term 'Gonghe dialect' does not reflect the linguistic reality of the place and instead engenders unnecessary confusion.

To demonstrate the shortcomings of using current administrative toponyms for dialects, this article proposes the prioritization of local migration history in the studies of dialectology in Amdo, examining Mangra (Chi. Guinan⁴) County as a case study. Mangra county neighbors Gonghe which shares similar distinctions between the dialects and linguistic practices of pastoral and farming communities. The Mangra case sheds light on the relationship between linguistic diversity and the migration history of Tibetan communities in Amdo. The ultimate goal of the article is to provide scholars of Amdo dialects with a broader set of concerns for assigning dialect names, and to provide more nuanced approaches to understanding the origin and distribution of major dialects of Amdo.

2. Mangra County

Mangra County is located on the northeast edge of the Tibetan Plateau, south of Kokonor (Chi. Qinghaihu; Tib. mtsho sngon po), and approximately 200 km southwest of Xining, the capital city of Qinghai Province.

³ This term can loosely be translated as 'clan'; however, *tsho ba* is not exclusively based on consanguinity as it can sometimes be an overarching term for a group alliance of a few pastoralist communities. A variety of terms are used for a *tsowa* group alliance in Tibetan society by scholars; 'tribe' (Gelek 1998) and 'clan' (sNying-bo-rgyal and Rino 2008) are two examples among many. Since both "tribe" and 'clan' misrepresent what a *tsowa* really is in the context of Amdo, we use the native term *tsowa* in the present study.

⁴ The establishment of Guinan County is in 1953 (*Guinan Xianzhi* 1996:16).



MIGRATION HISTORY AND TSOWA DIVISIONS AS A SUPPLEMENTAL APPROACH TO DIALECTOLOGY

Map 1 Administrative communities of Mangra County.

Mangra County consists of four administrative townships (Chi. xiang; blue circle in Map 1) and two towns (Chi. zhen; blue star in Map 1),⁵ among which Sum mdo and Thar shul are exclusively pastoral (Tib. *'brog pa*) and Bya mdo and Mang ra are mostly agricultural (Tib. *rong ba*) communities. The latter two are not only administrative townships but also geographical names for two valleys where most of the agricultural communities in Mangra County reside. mGo mang⁶ is mostly pastoral with two agricultural communities while Mang chu is the county administrative center with some adjacent non-Tibetan agricultural communities. Pastoralists in Mangra county can be

⁵ Four townships are Sum mdo (Chi. Senduo), Thar shul (Chi. Taxiu), Mang ra (Chi. Mangla), and Bya mdo (Chi. Shagou); and two towns are mGo mang (Chi. Guomaying) and Mang chu (Chi. Mangqu).

⁶ For a linguistics study of the use of humilifies in mGo mang, see Tsering Samdrup and Suzuki (2019).

divided into a few *tsowa* alliances, and they are relatively early to occupy the territory compared to farming communities (Bla-nag-pa Ye-shes bZang-po 2001; Gangs-'tsho 2016).

Below we list pastoral *tsowa* alliances in Mangra County. Major *tsowas*, which have more population and occupy larger land than surroundings *tsowas*, are shown in bold.

Table 1 Pastoral <i>tsowa</i> alliances in the administrative units in Mangra County.			
Town/Township	tsowa alliances		
mGomang	Rungan (Tib. ru sngan), Drogru Gongzhu (Tib. 'brog ru gong zhol),		
	Chutsa (Tib. chos tsha), Markham (Tib. smar khams), Shakhog (Tib.		
	bya khog), Wanser (Tib. ban ser)		
Sumdo	Lutsang ⁷ (Tib. klu tshang), Wongya (Tib. bon brgya), Wanshul (Tib.		
	ban shul), Khagya (Tib. kha gya)		
Tarshul	Tarshul (Tib. thar shul), Kagya (Tib. ka rgya), Datsang (Tib. bda'		
	tshang), Tsaga (Tib. tsag ga), Gyasu (Tib. rgya su), Gonga (Tib. gong		
	ba)		
Shamdo	Wonkor ⁸ (Tib. bon skor)		

Other than the names listed above, there are two geographically collective names for groups of multiple *tsowas*: Mabzhi (Tib. smad gzhi/rma bzhi) and Mangra (Tib. mang ra), which are respectively distributed in the north (Mgomang and Shamdo) and the south (Sumdo and Tarshul) of the County. These areas are divided by a mountain range where the pass Khingon Nyaga (Tib. khis sngon nyag ga) connects the one with the other.

3. Dialects of Mangra with connection to tsowa alliances and migration

In terms of language, most pastoral *tsowas* in Mangra County speak a variation of innovative *'brog skad* can best be described as part of the Kokonor dialect group (Tournadre and Suzuki forthcoming), and one *tsowa* alliance speaks the Banak (Rwanak) dialect group in addition to agricultural communities who speak the Tsongkha dialect group of dPa' lung/Ba yan (Chi. Hualong),⁹ Khri ka (Chi. Guide) and

⁷ Another pronunciation is Luzang.

⁸ Tibetans in this *tsowa* alliance practice a semi-pastoralist semi-agricultural lifestyle.

⁹ The traditional Tibetan toponym of Hualong is Ba yan. Another Tibetan spelling dPa' lung is originally a phonetic transcription of the Chinese name in a local (Amdo) way; however, it is widely accepted by locals. We follow the latter in the article.

Gcan tsha (Chi. Jianzha) since they are all originally from those areas to Mangra less than a century ago (see Table 1. and Table 2. for specific dates of migration).¹⁰



Map 2 Distribution of dialects of Amdo in Mangra County.

¹⁰ It is also apparent that there is a lack of internal comparative studies between these branches of *rong skad* and other *rong skad* varieties of Amdo in general. In order to clarify similarities, linguistic examples are helpful but we will skip citing them since this task is beyond the scope of the article.

The difference of the two pastoralists' speeches is related to their different *tsowa* alliances.¹¹ No previous studies explored the situation of difference in the dialects in Mangra County. Furthermore, few scholarly works have mentioned the ancestors of agriculturalists in Mangra by investigating the numerous people from dPa' lung (Chi. Hualong) who fled west to places including Mang ra and Bya mdo (Chen 2004:190; Roche 2015:212; Roche and Lugyal Bum forthcoming; Cham-tshang Padma IHun-'grub 2009:136) due to the oppressive rule of Muslim warlord Ma Bufang (Tsering Bum et al. 2008:24). It is important to acknowledge the variations in dialects across the farming communities,¹² but this will not be dealt with in detail here since it does not affect the central argument presented in this essay. The variations are not only due to their origin, but also migration history as well as their interaction with other dialects such as pastoralists speaking the Kokonor dialect in surrounding areas.¹³

Therefore, from a linguistic point view, lumping dialects of both farming communities and pastoralists in Mangra county under one single label 'Guinan dialect' would be not only inaccurate but also problematic. As already mentioned, people living under the administrative umbrella of Guinan do not speak one dialect for certain; moreover, it is still verifiable that agricultural communities in both Mang ra and Bya mdo townships mostly immigrated from dPa' lung and gCan tsha less than a century ago (see Appendix for details). Therefore, it is more worthwhile for linguists to conduct comparative studies of dialects in Mangra county with that of dPa' lung and gCan tsha than with other types of Amdo dialects.

To revisit the case mentioned at the beginning of the article, residents of Gonghe County speak the Kokonor dialect, the Tsongkha dialect, and a mixture of both due to their migration history, which makes 'Gonghe dialect' an imprecise category at best, and a misleading and nonexistent one at worst. Native names should be privileged; however, there are counties in Amdo occupied merely by speakers of more or less one homogenous dialect; therefore, it should also be recognized that using administrative toponyms for dialect is permissible as far as they are based on emic terms.¹⁴

¹¹ The variety spoken by Bon brgya, a *tsowa* alliance in Mangra (see Table 1), probably, should be included in the Banak dialect group according to Tournadre and Suzuki (2022).

¹² rTa-mgrin sGrol-ma (2017) is one of the works on the farmers' dialect spoken by immigrants from other places such as dPa' lung and gCan tsha. However, she just mentions her native tongue as a farmers' dialect without any description on the history of her ancestors' migration (2017:7).

¹³ For a list of communities in Mangra and Shamdo and their approximate migration years and origins, see Table 1 and Table 2 in Appendix.

¹⁴ For example, Them chen (Chi. Tianjun) County, which was created as an administrative term based on the name of a local mountain in 1955 (*Tianjun Xianzhi* 1995:5), in Haixi (Tib. mtsho

4. Conclusion

This article aimed to present an alternative method for dialect studies in Amdo Tibetan by using Mangra County as a case-that is an approach emphasizing migration history of farming communities and *tsowa* alliance of pastoral communities. Unfortunately, it was unable to provide any descriptive linguistic evidence, which should be systematically investigated in future studies. Though this is not entirely an innovation in dialect studies, it seems this approach is critically important and must not be ignored in the linguistic exploration of Amdo Tibetan. It is also closely related to the social reality of Amdo Tibetans after 60 plus years of the People's Republic of China's redrawing of maps. All in all, the single suggestion that this article aims to make is that instead of using administrative divisions, many of which were created in the 1950s, linguists studying language variations amongst Amdo agriculturalists and pastoralists should pay heed to the traditional *tsowa* group divisions and micro-migrations that have taken place in the Amdo area.

Appendix

Table 1. Agricultural communities in Shamdo (Tib. Bya mdo) Township and their migration history according to sKal bzang legs bshad sgrog pa'i sgra dbyangs (2016:159-176).

No.	Community name ¹⁵	Origin	Migration year	Notes
1	Phyugs nyal/She'u nyal	dPa' lung	c.1926	
	(Shiyan)			
2	Nog ge mtsher	dPa' lung	c.1926	
3	sDong gzhongs	Khri ka	Unknown	
	(Dongwayang)	(Chi.Guide)		
		and Dpa' lung		
4	Glegs shing	dPa' lung	c. 1916	
	(Luohexiang)			
5	Ba lang gad pa	Unknown	Unknown	
	(Walanggaba)			

nub), almost entirely consists of Wongtak (Tib. bong stag) Tibetans who are speakers of the Kokonor dialect group. Haller (2004) describes a grammar of this dialect called Themchen; however, we need to note that there are other Tibetan communities also speak the same dialect in other counties such as rKang tsha (Chi. Gangcha) and Chapcha.

¹⁵ A Chinese name (pinyin) is in parentheses if available.

6	mTshe thang (Saitang)	Khri ka	c. 1946	Mixture of Tibetans and
				Chinese
7	sPrel nag (Shinnaihai)	dPa' lung	c. 1931	
8	Tshal rnga (Chana)	Unknown		Chinese
9	Bon skor (Wangshenke)	Unknown	c.1583	Originally a pastoralist
				community and speaks
				innovative 'brog skad
10	Gor mdo (Guorenduo)	dPa' lung	c.1902	
11	Ra rdza (Lazha)	Khri ka	c. 1906	
12	Grog ra (Juhula)			Separated from Gur lhas
13	Gur lhas (Guole)	dPa' lung	c. 1906	
14	sDong ring (Dongrang)	dPa' lung		Separated from sDe mang
15	rKa mgo	dPa' lung		It is a small community in
	-	-		Sde mang
16	sDe mang (Demang)	dPa' lung	Before 1886	
17	Thang nags	dPa' lung		Separated from sDe mang
18	Kyal rta khugs	dPa' lung		Separated from sDe mang
19	dGon thang (Guantang)	Unknown	Unknown	A community with a mixture
				of Chinese and Tibetans, it
				had been moved to Khri ka
				since 2007 due to a
				hydropower plant
				construction

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Table 2. Agricultural communities in Mangra (Tib. Mang ra) Township and Mangchu (Tib. Mang chu) according to *Mang ra'i lo rgyus*, or *History of Mangra* (Bla nag pa ye shes bzhang po 2001:147-188).

No.	Community name	Origin	Migration year	Notes
1	gDan 'jog	dPa' lung	c. 1943 and 1949	Chinese Muslims
	(Zhanjiang)	-		
2	Hi krig (Hezhou)	He zhou, Gansu	c. 1940	Chinese
3	sKe ba	Khri ka, dPa'	c. 1940	
		lung, and gCan		
		tsha		
4	mTha' ba (Tawa)	dPa' lung and Klu	c. 1930 to 1940	A mixture of pastoralists
	[in Sumdo Township]	tshang		and agricultural households
5	lCang sdong gong	dPa' lung and Ya	c. 1940	Chinese Muslims
	ma	rdzi (Chi.		
	(Shang Jiangdong)	Xunhua)		
6	Na rin (Naran)	dPa' lung and Ya	c. 1940	Chinese Muslims
		rdzi		
7	Tu lan (Dulan)	Dur lam/Tu'u lan	1949	They are probably
		(Chi. Dulan)		originally from Dpa' lung
8	Lo ba gong ma	dPa' lung and	1936 to 1946	Mixture of Chinese and
	(Shang Luowa)	Gcan tsha		Tibetans
9	Lo ba zhol ma (Xia	dPa' lung and	1913 to 1918	
	Luowa)	gCan tsha		
10	mChod rten thang	gCan tsha and	c.1920 to 1930	
	(Quedantang)	dPa' lung		
11	Hor ran (Heran)	Ya rdzi	1903	

MIGRATION HISTORY AND TSOWA DIVISIONS AS A SUPPLEMENTAL APPROACH TO DIALECTOLOGY

12	Khang gzhung (Kangwuyang)	gCan tsha	c.1920s	
13	Gur	dPa' lung	c. 1940s	
14	mGo ra (Guola)	dPa' lung?	c. 1930s	
15	Thur sbrul (Tulu)	gCan tsha	c. 1850s and 1930s	
16	lCang sdong zhol ma (Xia Jiangdong)	Reb gong (Chi. Tongren) sa dkyil; dPa' lung kho tshe; Gcan tsha'i snang ra	c. 1928; 1947; 1948	
17	Zhing sa gong ma	gCan tsha'i lo khog; lha sde	1938; 1943	
18	mGur 'og (Guoyuhu)	gCan tsha	c. 1900	
19	rMa kha'i thang (Maketang)	gCan tsha	Before 1930?	
20	Tho le (Tuole)	dPa' lung and gCan tsha	c. 1900	
21	Rab rgan (Lagan)	gCan tsha	1903	
22	Khu sgyo'u (Kezhou)	dPa' lung	c. 1930	
23	Shwa rwa (Shala)	gCan tsha; Hezhou; Minhe		There are some Chinese households in the community
24	Nang so (Angsuo)	dPa' lung; Hezhou; Khri ka	c. 1900	There are some Chinese households in the community
25	Nags rul	gCan tsha		
26	mDa' bzhi (Dayu)	dPa' lung; gcan tsha		
27	rGya thog (Jiatuhu)	Khri ka		Mostly Chinese

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Photo gallery 3

Rice field after harvest along a country road. At Tacheng, Weixi.



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A geolinguistic analysis of the 'rice' category in Tibeto-Burman

1. Introduction

Collecting data for producing a geolinguistic map of 'rice plant' for the second topic of the project *Studies in Asian Geolinguistics* (Suzuki et al. 2016a), we have noticed that Tibeto-Burman languages have different semantic division regarding the word 'rice'. This chapter basically addresses the issue of the complicated way of representing the semantic field of 'rice'.

As the first step, we arrange the semantic category of 'rice'. For example, Japanese possesses a series of words corresponding to 'rice' in English, such as: *ine* 'rice plant', *kome* 'rice grain', *momi* 'hulled rice', *genmai* 'polished (brown) rice', *hakumai* 'polished (white) rice', and *mesi/gohan* 'cooked rice'. Since Tibeto-Burman languages are spoken in the rice cultivation region, it should be noticed that there is a possibility of distinguishing rice species, such as *japonica* and *indica*, non-glutinous rice (*urutimai* in Japanese) and glutinous rice (*motigome* in Japanese), and water rice plant (*suitoo* in Japanese) and land rice plant (*rikutoo* in Japanese). Among these semantic categories, for instance, most Tibetic languages have only one word to express all of these categories, whereas Burmic languages typically classify them into several categories.

We should also pay attention to the terminology which is frequently used in articles written in English, in which we have found crucial problems. One of them is 'husked rice'. The lexicographical definition of the word 'husked' is 'of which the husk was removed'; however, it is widely used for denoting both the original meaning and another meaning, 'with a husk'. And, predictably, 'unhusked', the counterpart of the word 'husked', is also employed for both 'with a husk' and 'without a husk' in practical use. Therefore, in this chapter, we use 'hulled' for 'with a husk' and 'polished' for 'without a husk'. Concerning 'paddy', we avoid this term for any kinds of 'rice' because of its polysemy.

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This chapter deals with the rice as a biological form (plant and grain) of nonglutinous *oryza sativa*, planting rice. Words of other categories, such as 'glutinous rice' and 'rice field', are out of scope. Referring to Bradley (2011), we can see a more complicated situation of semantic changes over several important grain crops in the Tibeto-Burman languages. Such information will be mentioned when necessary.

2. Variation of the semantic category for 'rice' in Tibeto-Burman: examples

This section presents several examples which reflect a complicated situation regarding the semantic category for 'rice' in Tibeto-Burman based on the data collected and/or confirmed by the present authors. Some previous works do not provide any clear information regarding the classification of 'rice', to which we must pay attention because we cannot know whether the given languages have different semantic subdivisions or not. Such data might not be ready for use in geolinguistic analyses. This prudent attitude will certainly enhance the quality of linguistic maps.

We describe languages classified in the following linguistic groups: Tibetic, Burmese, Jinghpaw, Yi, Bai, Karenic, Newar, and Qiangic. Following the description of each language group, a summary regarding the variation of semantic division is provided. An appendix at the end of the chapter provides a word list for the 'rice' category of Burmese and Yi languages.

2.1. Tibetic

The major part of the Tibetosphere does not belong to the rice cultivation culture because of its climate condition. Hence, the word for 'rice' in the Tibetic languages is not abundant, and most varieties have a common word form derived from Literary Tibetan (LT) 'bras. This LT form is related to Proto-Tibeto-Burman (PTB) *b-ras 'RICE / FRUIT / BEAR FRUIT / ROUND OBJECT' as mentioned in Suzuki et al. (this volume). This case can be displayed as follows:¹

category rice (plant, hulled, polished, cooked)	
example ${}^{n}d\varepsilon$; ${}^{m}br\varepsilon$; ${}^{m}di$, etc.	

¹ Note that some Tibetans consider that 'cooked rice' is to be called the form derived from LT za ma or zan. This word generally means 'food, meal', not specifically 'cooked rice' among various kinds of food and meals.

However, two exceptions are found: Khams Tibetan in Yunnan and Dzongkha, which are described below.

The first one is a part of dialects of Khams Tibetan spoken in Yunnan, which has two different forms for 'rice' as follows:

Table 2 Several Tibet			eties spoken in Yunnan.
category	rice plant		rice grain (hulled, polished, cooked)
example	ⁿ dze:, ^m b&∶		ti: ma, tə- me

This type distinguishes 'rice plant' from 'rice grain', comparable with *ine* and *kome* in Japanese. The form of 'rice plant' corresponds to LT *'bras* and that of 'rice grain', to LT *drus ma*. See Suzuki (this volume) for details.² All the dialects which possess this distinction are spoken in the rice cultivation area.

The second one is Dzongkha, which has a more complicated type for 'rice', which classifies the semantic category in four sorts:

	Table 3 Dzongkha's system.				
category	rice plant	rice grain (hulled)	rice grain (polished)	cooked rice	
example	bdza:	chum	re:	to	

Two word forms correspond to LT forms. /bdza:/ 'rice plant': LT 'bras, and /to/ 'cooked rice': LT *lto*. The latter is also employed for 'meal' including 'cooked rice' in other dialects spoken in Lhokha, the area along Yarlung Tsangpo River south to Lhasa, such as rGyantse and rTsethang.

2.2. Burmese³

Burmese, as is typical of languages of rice cultivation area in mainland Southeast Asia, has multiple words associated with 'rice', thus separating words for rice with and without a husk, and words for cooked and uncooked rice, all of which are expressed by distinct roots, e.g. $z\breve{a}b\acute{a}$ (Written Burmese (WB) $cap\bar{a}^3$) 'hulled, uncooked rice grain', *shàn* (WB *chan*) 'polished, uncooked rice grain', and *thămín* (WB *thaman*³) 'cooked rice; food'. An appositional compound *shàn-zăbá* is also used in order to refer to rice grain regardless of whether it is covered with a husk or not. In Burmese, 'rice plant' is expressed by a word *kau*? (WB *kok*) or by compound nouns involving a morpheme $?\breve{a}pin$ 'tree, plant', i.e. *kau*?-pin and $z\breve{a}b\acute{a}-bin$.

² See also Suzuki (2012b), which is the first description regarding this topic.

³ The transcription of Colloquial and Written Burmese are based on Kato (2008) and Duroiselle (1916), respectively.

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Table 4 Buttlese type.				
category	rice plant	rice grain (hulled)	rice grain (polished)	cooked rice
example	kau?, kau?-pìn, zăbá-bìn	zăbá	shàn	thămín

Table A Deserve and tame

Many of these rice-related words are, diachronically speaking, inheritance from Proto-Burmic, a reconstructed ancestor of Lolo-Burmese languages: *?gok 'unhusked japonica paddy', *čan¹ 'husked rice' and *man² 'cooked rice', the first of which appears to have a historical connection to the Chinese word $g\check{u}$ (Old Chinese *[k]'ok) 'grain' (Bradley 2011:135, 137-9). The word $z\check{a}b\acute{a}$, on the other hand, is considered to be a loanword from Mon, an Austroasiatic language which was predominantly spoken in Lower Burma before the southward expansion of Burmese speakers (ibid., p.135).

2.3. Jinghpaw

Jinghpaw, spoken in the northern edge of rice cultivation area in Southeast Asia, makes fine distinctions between 'hulled' and 'polished' rice as well as between 'cooked' and 'uncooked' rice, as is the case with other neighbouring languages of Southeast Asia, e.g. mam 'hulled, uncooked rice grain', ngu 'polished, uncooked rice grain', and càt 'cooked rice; food', the last of which has its diachronic source in suffixation of the obsolete nominalizing suffix -t to a verbal base cá 'eat'. The word mam can also refer to 'rice plant'. Jinghpaw also has a morpheme khàw which is only found in compound words associated with rice plants, e.g. khàw-na (rice plant-paddy field) 'irrigated paddy field'. The morpheme khàw is a loanword from Shan, a Tai language whose speakers occupy river valleys in the Jinghpaw region, cultivating rice in irrigated fields.

Table 5Jinghpaw type.				
category	rice plant	rice grain (hulled)	rice grain (polished)	cooked rice
example	mam, khàw	тат	ngu	£àt

2.4. Yi languages in Loloish

Within the Loloish languages, especially the languages of the Yi (Lolo) people in China and VietNam will be discussed here. According to the official Chinese classification, there are six dialects spoken in the Southwestern part of China. In a few mountainous areas in northern Viet Nam⁴, it is said that there are two dialects spoken by Hoa Lolo (Flower Lolo) and Den Lolo (Black Lolo). Amongst the Yi languages, there exist

⁴ Loloish language is spoken in a part of Laos as well. However, unfortunately, its data have not been available hitherto, due to a certain reason.

distinctive words referring to 'rice' and 'cooked rice' as the examples of Nesu⁵ and Sani⁶ show as follows; on the other hand, many of them also demonstrate a distinction between 'rice plant' and 'hulled rice', and 'polished rice' and 'cooked rice' such a case in Nersu.⁷ However, throughout most of them, 'polished rice' is generally expressed by such a word formation as 'rice' + 'white'.⁸ As shown in Bradley (2011), the etyma of *tsp*³³ 'rice grain', *te*^hr³³ 'paddy' and *tsp*³³ 'cooked rice' for Sani are respectively *dza¹, *čan¹ and *dza¹. This seems to be the case with the words of Sani in the chart below.

Table 6 Loloish type.				
category	rice plant	rice grain (hulled)	rice grain (polished)	cooked rice
Nesu	tche21	tche21 se33	tche21 thu55	dzo21
Sani	tchI33	tchI33 si21	tchI33 łu33	tsa33
Nersu	tşhi21	tşhi21 se33 mo33	dzo21 thu33	dzo21

2.5. Bai

Bai, spoken in the western part of Yunnan Province, China, possesses several types of sematic distinctions within the 'rice' category:

1. four distinctions, i.e. 'rice plant', 'hulled rice grain', 'polished rice grain', and 'cooked rice', as is the case in Chinese; e.g., Jinshan, spoken next to Ancient Town of Lijiang Municipality, and Zhaozhuang, spoken next to New Town of Xiaguan, Dali Municipality.

Table 7 Bai four-distinction type.

Tuble / Bui tour distinction type.				
category	rice plant	rice grain (hulled)	rice grain (polished)	cooked rice
Jinshan	gu22	sr44	mei33	xɛ55zə33
Zhaozhuang ⁹	kuo21	si44	mɛ33	xɛ55si33

2. three distinctions, i.e. 'rice plant', 'hulled grain', and 'polished and cooked rice'; e.g., Jiuzhai, Baoshan, and Jintang, Liuhe, Heqin.

	Table 8	Bai three-distinction ty	/pe.
category	rice plant	hulled rice grain	polished and cooked rice
Jiuzhai ¹⁰	gɔ31	sv44	me33
Jintang ¹¹	ŋku21	sə44	mɛ33

Table 8 Bai three-distinction type.

⁵ The data are cited form Chen (2010).

⁶ The data are cited form Chen (2010).

⁷ The data are cited form Chen (2010).

⁸ In the Yi languages, an adjective is placed after a noun.

⁹ The data are cited from Zhao (2012).

¹⁰ The data are cited from Wang (2008).

¹¹ The data are cited from Wang (2008).

3. two distinctions, i.e. 'rice plant and hulled grain' and 'polished and cooked rice'; e.g., Qiping, Heqin, and Yinyuan, Yuanjiang, Yuxi.

Table 9 Bai two-distinction type.			
category	rice plant and hulled grain	rice grain (polished, cooked)	
Qiping ¹²	ku21	me33	
Yinyuan ¹³	kə12	me33	

Table 9 Bai two-distinction type

There are small differences in sound of each word form; however, we can easily find four types: /k, g/-type, /s/-type, /m/-type, and /x/-type. The examples above display that the /m/-type, which is perhaps originally employed only for 'polished rice' as shown in Table 7, expands to other semantic categories.

2.6. Pwo and Sgaw Karen

Karenic languages, such as Pwo and Sgaw Karen, are spoken in the Irrawaddy delta of Burma and in highlands of northwest Thailand. Pwo Karen (Hpa-an dialect) separates words associated with 'rice' into the following three categories, each being coded by distinct roots, i.e. $b\dot{u}$ 'hulled rice; rice plant', $y\hat{u}ch\dot{a}$ 'uncooked rice', and $m\dot{i}$ 'cooked rice; food' (Kato 2004:575). The same distinction can be found in Sgaw Karen as well, as illustrated by $b\dot{u}$ 'hulled rice; rice plant', $h\dot{u}\theta a$? 'uncooked rice' and $m\bar{e}$ 'cooked rice; food'.

Table To Kalenic type.			
category	rice plant and hulled grain	rice grain (polished)	cooked rice
Pwo	bú	yûchá	mì
Sgaw	bú	húθa?	mē

Table 10 Karenic type.

2.7. Newar

Newar is mainly spoken in the Kathmandu Valley of Nepal, and the central and eastern parts of Nepal belong to the 'rice cultivation region'. This is supported by the existence of a combined word $j\bar{a}$ - $k\bar{e}$: 'rice-bean.soup' which is the principal dining menu of Newar people. Five varieties of the Newar language collected for the project show three-category division of 'rice': 'hulled rice; rice plant', 'polished rice', and 'cooked rice', and each word corresponding to these three subcategories is shown in Table 11. $W\bar{a}$ is used to mean 'rice plant and hulled rice' in Kathmandu, Patan, Baktapur and Bhanepa, except for Dolakha $y\bar{a}$. $W\bar{a}$ seems to preserve the older form than $y\bar{a}$, because

¹² The data are cited from Wang (2008).

¹³ The data are cited from Wang (2008).

Newar has the word $b\tilde{u}$: 'field', in addition to $w\bar{a}$ and $y\bar{a}$. Considering the reconstructed form of Proto-Tibeto-Burman **b*-*ras* and the Karenic word *buu*, $w\bar{a}$ is closer to them from the phonological point of view.

In Table 11, the compound word $j\bar{a}$ -ki is used for 'rice grain'. $J\bar{a}$ is the stem of the compound word; however, the suffix -ki also has the meaning of 'rice' according to Kölver (1994).

Table 11 Newar type.				
category	rice plant and hulled grain	rice grain (polished)	cooked rice	
Kathmandu	wā	jāki	jā	
Dolakha ¹⁴	yā	jāki	jā	

2.8. Qiangic

Many Qiangic languages are spoken within the Tibetopshere and thus the language area generally does not belong to the rice cultivation culture. Because of this reason, many languages merely have one form for 'rice' as in English, such as Qiang, rGyalrongic languages, nDrapa, and Darmdo Minyag:

1 4010 12	inajointy of the Quangle varieties.
category	rice (plant, hulled, polished, cooked)
Yadu Qiang ¹⁵	$qh\partial^{_{II}}$
Kyomkyo Situ rGyalrong	<i>k^hrw</i> ²³⁵
Munashan Chuchen	$^{m}bras^{24}$
rGyalrong	
Shade Darmdo Minyag	$^{n}dze^{55}$
Thamkhas Lhagang Choyu	$^{m}dwa^{55}$
Zhongni nDrapa	nde3

Table 12 Majority of the Qiangic varieties.

Several rGyalrongic languages have two different forms for 'rice', as seen in Table 12, i.e. / k^{h} rui/-type and /^mbras/-type. The latter is evidently a Tibetan loan (LT 'bras; see 2.1). However, one variety only possesses one of two, and the meaning is completely the same between the two of them.¹⁶ The former form might be related to LT *khre* 'millet'; in some Tibeto-Burman languages such as Kuki-Chin, the form of which proto-semantic meaning is 'millet' is used for 'rice' (Bradley 2011; Suzuki et al. this volume). Therefore, it is highly possible that a similar phenomenon happened in some rGyalrongic languages and dialects.

¹⁴ The data are cited from Genetti (2007).

¹⁵ The source of the word form is LaPolla & Huang (2003).

¹⁶ Elder speakers, as well as local intellectuals such as monks may know both the word forms; however, this does not mean that a distinction of these two word forms is attested in a given variety.

It is noteworthy that some Qiangic languages have a semantic division for 'rice', e.g., Prinmi and nGochang.

	Table 13 Pr	inmi and nGochang type.	
category	rice plant	rice grain (hulled and polished)	cooked rice
Maoniuping Prinmi	sjəw ⁵⁵	$t s^h w \varepsilon^{13}$	dzi ⁵⁵
Qianxi nGochang ¹⁷	$ku^{55}ts\gamma^{33}$	dz^{35}	zi ³⁵

Table 13Prinmi and nGochang type.

These two languages are separately distributed from one another, however, they have the same semantic division for 'rice'. The form of 'rice plant' in Qianxi nGochang is a Chinese loan, which corresponds to the form attested in Southwestern Mandarin. Another dialect of nGochang, Maibeng, in this Asian Geolinguistic Project, has only one form for 'rice', $/do^{35}/$ (Huang ed. 1992). This may be the only inherited word for both 'rice plant' and 'rice grain'.

2.9. Summary

Based on the description above as well as the data collected for the project *Studies in Asian Geolinguistics*, the semantic division within 'rice' (non-glutinous *oryza sativa*; plant and grain) attested within Tibeto-Burman is classified as follows:

A. only one semantic category (as in the English word 'rice')

no classification needed: most Tibetic languages and many Qiangic languages

- B. two semantic categories
 - 1. rice plant vs. rice grain: some Tibetic languages spoken in Yunnan
 - 2. rice plant and hulled grain vs. polished and cooked rice: Loloish languages, Bai
 - 3. rice not ready to eat (plant and grain) vs. rice ready to eat

C. three semantic categories

- 1. rice plant and polished rice *vs.* hulled rice *vs.* rice ready to eat: several Loloish languages
- 2. rice plant and hulled grain vs. polished rice vs. cooked rice: Jinghpaw,¹⁸ Karenic, Newar
- 3. rice plant vs. rice grain (hulled and polished) vs. rice ready to eat: Prinmi, nGochang
- 4. rice plant vs. hulled grain vs. polished and cooked rice: Bai

¹⁷ The source of the word form is Song (2011).

¹⁸ A Shan loan taken into consideration, Jinghpaw should be classified as D. See Table 5.

D. four semantic categories

rice plant *vs.* hulled rice *vs.* polished rice *vs.* cooked rice: Burmese, Bai, several Loloish languages, and Dzongkha (Tibetic)

As displayed above, the semantic division attested in Tibeto-Burman languages is so variegated that generalisation to give an overall explanation regarding the diachronic acquisition of semantic categories of 'rice' within Tibeto-Burman languages is a complicated task. The classification above can be displayed as in Table 14:

classification	rice plant	hulled rice	polished rice	cooked rice
А	word form a	word form a	word form a	word form a
B1	word form a	word form b	word form b	word form b
B2	word form a	word form a	word form b	word form b
B3	word form a	word form a	word form a	word form b
C1	word form a	word form b	word form a	word form c
C2	word form a	word form a	word form b	word form c
C3	word form a	word form b	word form b	word form c
C4	word form a	word form b	word form c	word form c
D	word form a	word form b	word form c	word form d

Table 14 Classification of the 'rice' category.

The purpose of this chapter is limited to elucidate the geographical distribution of the above-mentioned categories. The classification and the name of each category (A-D) are to be applied for linguistic maps and analyses in Section 3.

3. Map design and analysis

This chapter presents five maps. The basis of the dataset is quite similar to that employed in Suzuki et al. (this volume); however, several data are omitted due to lack of the specific explanation of the semantic field of 'rice'. The maps will, based on available data, show how many semantic divisions a given language at least possesses. Figures 1 and 2 are designed regarding the number of word forms employed for 'rice', i.e. the four categories A, B, C, and D found in 2.9; Figure 2 is an enlarged version of Figure 1 regarding the southern half part of the Tibeto-Burman area. Figures 3, 4, and 5, are, respectively, the maps of the whole TB area, the southern part of the TB area, and Yunnan-Northernmost Myanmar area, based on the full classification displayed in 2.9.

The shape of symbols of the legend is common to all the maps, featured as follows: A-type small dot

B-type	star
C-type	square
D-type	diamond

Because of the dense distribution of recorded varieties in the eastern part of the TB area, use of coloured symbols can enhance readability, which is applied for all the maps. However, the colour used in Figures 1 and 2 is redundant for better readability, whereas it is related to the classification and functions as a display of distinctions in Figures 3, 4, and 5.



Eari, USGS | Eari, HERE, Garmin, FAO, NOAA, USGS | Eari, HERE, Garmin, FAO, NOAA, USGS Figure 1 Overall distribution of the number of word forms for 'rice'.

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Figure 2 Distribution of the number of word forms for 'rice': Southern TB area.

Figure 1 and Figure 2 display an overall distribution of the number of distinct word forms for 'rice'. They basically show that languages mainly spoken in the rice cultivation area have multiple semantic categories for 'rice' expressed with distinct word forms. The northernmost point in the data which have multiple distinct semantic categories for 'rice' is the Qianxi dialect of Guiqiong (nGochang), at the point of 30.170 latitude north and 102.208 longitude east. This dialect is spoken in a valley along the Daduhe River, and the climate condition is warm and appropriate for rice cultivation. The languages with four semantic categories for 'rice' are, according to Figure 1 and Figure 2, spoken between Xide (28.182 latitude north; Nosu Yi) and Myeik (12.433 latitude north; Burmese).

It is interesting that some Tibetic languages spoken in the rice cultivation area acquired a detailed semantic division for 'rice', as in Dzongkha and Yunnan Khams (see also 2.1). Looking at Loloish languages, the distributions of 'three-division' type and 'four-division' type are not related to each other from a geographical viewpoint. The major part of the 'four-division' type is attested within the territory of China, i.e. within the linguistic Sinosphere. This most complicated type may be related to the semantic division for 'rice' in Chinese (e.g., *dao* 'rice plant', gu(zi) 'rice grain', *(da)mi*

'rice ready to cook/ rice grain', (mi) fan 'cooked rice')¹⁹ other than the inheritance of the semantic division with multiple word forms in a given language.



Esri, USGS | Esri, HERE, Garmin, FAO, NOAA, USGS | Esri, HERE, Garmin, FAO, NOAA, USGS Figure 3 Overall distribution of word forms for 'rice' with the classification provided in 2.9.

¹⁹ A The lexical form and meaning may differ depending on dialects of Chinese, even withen South-western Mandarin. See Yagi & Ueya (2016).



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Figure 4 Distribution of word forms for 'rice' with the classification provided in 2.9: Southern TB area.



Figure 5 Distribution of word forms for 'rice' with the classification provided in 2.9: Yunnan-Myanmar.

Figures 3, 4, and 5 present a distribution of word forms for 'rice' with the classification provided in 2.9. The criterion of the classification is the number of word forms connecting with their division of semantic fields. Categories B1, C3 (symbols in orange), and C4 (symbols in green) distinguish 'rice plant' from 'grain'. This type is principally found in the north-western part of Yunnan, in Trung, Khams Tibetan, and Bai languages. Categories B2 and C2 (symbols in sky blue) are common in that a variety has the same word form for 'rice plant' and 'hulled rice'. In Loloish languages, except for the 'four-division' type, the 'three-division' type with C2 category is found the most. In addition, the C2 type is found in Jinghpaw.

4. Concluding remarks

This chapter analysed the semantic category of 'rice' in Tibeto-Burman languages by presenting 5 maps regarding the number of word forms for 'rice' with a classification of its semantic categories. The maps basically show that the complexity of the semantic category for 'rice' is related to the region where a given language is spoken as well as where the rice cultivation culture is location; however, because of limitation of data, in-depth analysis was unable to be provided.

The chapter, though, presents a basic view for an investigation of 'rice' category in the Tibeto-Burman languages. The appendix provides a list of word forms for 'rice' in Burmese and Loloish languages collected from the authors' fieldwork and previous works. The task in coming works is to elucidate the semantic division of 'rice' in every related Tibeto-Burman variety.

Appendix: Data for 'rice' in Burmese and Yi languages

Bannese rangaa	8				
language/ variety	rice plant	rice grain	rice grain	cooked	source
		(nuneu)	(polisileu)	TICE	
Yangon	kau?, kau?-pìn,	zăbá	shàn	thămín	
5	zăbá-bìn				
Arakanese/Sittwe			seŋ		Ohno (1969:94)
Intha/Inle		pà		mèn	Okell (1995:69)
Marma/Chittagong	cəbá		chain	thəmón	Huziwara
0.0			,	5	(2008:831)
Myeik	zabábĩ	zabá	shầ	mĩ	Kato (2012:154)
Palaw	ko?pan ^M	zăba ^H	shan ^M	man ^H	Otsuka
	-				(2014:186)
Taungyo/Pindaya			shain	thəmîn	Yabu (1981:163)
Tavoyan/Dawei		ba:		hman:	Ohno (1971:114)

Burmese languages

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Yaw/Gangaw shen thəman Yabu	(1980:170)

Yi languages

language/ variety	rice plant	rice grain (hulled)	rice grain (polished)	cooked rice	source
Yi Northern/ Lizixiang	tşhu:33		tşhu:33	dza33	ZYC (1991)
Yi Northern/Xide	tshui33	tshw34 sj33	tsur33 tehu33	dza33	TBL (1992)
Yi Northern/ Liangshan	tşhu33		tşhu:33 qu33		DCQG (1984)
Senza/Xichang	tshui33	tshui34 si33	tshui33	dza33	Chen (2010)
Yino/Leibo	tshui22	tshu22 si22	tshui22	dza22	Chen (2010)
Lidim/Ganluo	tshui33	tshu33 si33	tshu33	dza33	Chen (2010)
Sodi/Huili	tshui33	tshui33 ma33	tshui33	dza33	Chen (2010)
Yi Western/Wuju	tchi55		dza21 kha55	dza55	ZYC (1991)
Yi Western (Laluba)/ Baiwudi	tchi55	tchi55 sE21	dza21 kha55 fu55	dza55	TBL (1992)
Lalu/Binchuan	tchi55	tchi55 şe21	dza21 kha55 fu55	dza55	Chen (2010)
Lalo/Lincang	tchi55	tehi55	dza21 kha55	dza33	Chen (2010)
Lipo/Huaping	tche33	tshe33 sc21	kho33	dzo33	Chen (2010)
Lolo/Mouding	tche33	tche33 sæ21	tche33 phy33 o33	dzo33	Chen (2010)
Toloza/Lijiang	tşhi21	tshi21 kha33	tşhi33	dza21	Chen (2010)
Talu/Yongsheng	tchu55	tshu55 mu55	tshu55 pu55	dzu55	Chen (2010)
Lavu/Shunchuan	tshui55 sa21	tshu55 mu55	dzu55 khu55	dzu55	Chen (2010)
Zoko/Maguan	tchi21	tchi21 ci44	tchi21 ku55	dzo21	Chen (2010)
Polo/Wenshan	tshe33	tshe33 ci33	tshe33 phi33	dzo33	Chen (2010)
Yi Eastern/Luquan	tshe21		dzo33 kho33	dzo21	DCQG (1984)
Yi Eastern/Panxian	tche21		tche21 thu33	dzo21	DCQG (1984)
Yi Eastern/Daxiyi	tşhe11	tshe11 mu11	tshe11 thy33	dzu11	TBL (1992)
Yi Eastern/ Weining	tฐา21		dzu21 thu33	dza33, dzu21	DCQG (1984)
Yi Eastern/ Chengguanzhen	tshj21		dzo21 thu33	dzo21	ZYC (1991)
Yi Eastern/Dafang	tshj21 mu21		dzu21 thu33	dzu21	DCQG (1984)
Yi Eastern/Longlin	tshe21		tshe21 thu21	dzou21	DCQG (1984)
Nasu/Dongchuan	tşhe21	tshe21 mo21	dzo33 kho33	dzo21	Chen (2010)
Naso/Daguan	tche21	tche21 mo21	tshe21 thu33	dzo21	Chen (2010)
Alo/Fumin	tşhe21	tşhe21 mu21	dzo33 kho33	dzu21	Chen (2010)
Mongi/Haoming	kho13	kho13 khe13 i13	kho13	dzo13	Chen (2010)
Nersu/Weining	tşhi21	tşhi21 se33 mo33	dzo21 thu33	dzo21	Chen (2010)
Nipu/Zhijin	tshi21	tche21 ci33	dzo21 thu33	dzo21	Chen (2010)
Noso/Xingren	tchI21	tehI21 ei33	tchI21 thu55	dzo21	Chen (2010)
Yi Southern/ Shuangbo	tshiə21		tshiə21 thu21	dzo21	DCQG (1984)
Yi Southern/ Mocedian	tche21				Iwasa (forthcoming) ²⁰
Yi Southern/ Jingxing	tche21		tche21 thu55	dzo21	ZYC (1991)
Neshu/Yuxi	tchI21	tchI21 sp33	tchI21 thu55	dzo21	Chen (2010)
Narsu/Geiju	tche21	tche21 sc33	tchI21 thu55	dzo21	Chen (2010)
Nesu/Yuanjiang	tche21	tche21 sc33	tche21 thu55	dzo21	Chen (2010)

²⁰ An article including this data is currently being written.

Yi Central/ Yangjiatian	tchi33		tche33 phiu33	dzo33	ZYC (1991)
Yi Central (Luoluobo)/Wujie	tche33 sæ21	tche33 sæ21	tche33 phyo33	a55 m <u>e</u> 21, dzo33	TBL (1992)
Yi Central/Pujiehei	tshe55 thu55	tshe55			Xu et al. (2013)
Kopo/Zhanyi	tchI33	tchI33 sc21	dzo33 te <u>i</u> 55	tso33	Chen (2010)
Yi Southeastern (Axi)/ Dapingdi	tchi33 tsɛ33, tso33 bi33 tsɛ33		tso33 bi33, tşho33 tho33	tso33	ZYC (1991)
Yi Southeastern (Axi)/ Lanniqing	tso33 sa11			tso33 bi55 tso33	Iwasa (2004)
Yi Southeastern (Axi)/ Moxiangjing	tso22 bi22		tso22 bi22, tşho22 tho21	tso22	Yuan (1953)
Asi/Chengjiang	tchi33	tchi33 sa21	tso33 bi33	tso33	Chen (2010)
Yi Southeastern (Sani)/Lunan	tchI33 ma33		tchI33 lu33	tsa33	DCQG (1984)
Yi Southeastern (Sani)/Weize	tchI33 mp33	tchI33 sz11	tchI33 łz33	tsp33	TBL (1992)
Yi Southeastern (Sani)/Lunan	tchI33, tchĨ33	tchI33 me33	tchI33 łu33	tse33	YHJMCD (1982)
Sani/Luliang	tchI33	tchI33 si21	tchI33 łu33	tsa33	Chen (2010)
Nise/Lunan	tchi21	tchI21 sc33	tchI33 tłu33	dzu21	Chen (2010)
Sanni/Kunming	tchi33	tchi33 sə 55	tshi33 şu33	dza33	Chen (2010)
Yi Southeastern (Azha)/Madi	tso31				Iwasa (2004)
Azi/Kaiyuan	tchI33	tchI33 sc21	dzo33 tei55	dzo33	Chen (2010)
Lopo/Mile	tche21	tchi21 sc33	a21 thu21	dzu21	Chen (2010)
Ma Ndzi/Baolac	qa13				Iwasa (2003)

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Semantic shifts in expressions for 'it rains' in Tibeto-Burman

1. Introduction

This chapter aims to examine the semantic shifts of constituents found in the expressions that mean 'it rains' (rainfall expressions) in Tibeto-Burman (TB).

Shirai et al. (2018a) survey the types of the rainfall expressions in TB and analyse their geographical distribution from the synchronic perspective. However, certain problems in analysing such expressions are not discussed in detail because of limited space. The present chapter aims to examine one of such problems: the semantic shift. For example, in different Tibeto-Burman languages and dialects, words derived from the Proto-Tibeto-Burman (PTB) root **r-məw* 'sky/heavens/clouds' (#2473¹) may mean 'rain (n.),' 'cloud,' 'fog,' 'sky,' 'weather,' or more than one of them as a polysemy. We will examine the semantic shifts of such words. Moreover, we will focus on the forms and meanings of the arguments of TB rainfall expressions and will conduct a geolinguistic analysis.

The analysis of this chapter is based on the data of the rainfall expressions of 493 Tibeto-Burman languages/dialects that are compiled by the member of the TB team of the Asian Geolinguistic Project at the Research Institute for Languages and Cultures of Asia and Africa (see Shirai et al. 2018a). Moreover, we added words for 'rain (n.)' from 10 languages to our database.² As for the genetic classification of TB, this chapter tentatively follows Matisoff (2003) and STEDT.³

This chapter is organised as follows: Section 2 illustrates the variation of semantic shifts; Section 3 conducts the geolinguistic analysis on the arguments of rainfall expressions; and Section 4 will summarise the chapter.

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¹ The PTB forms in the present chapter are based on the database of *Sino-Tibetan Etymologycal Dictionary and Thesaurus* (STEDT). The numbers preceded by a sharp mark indicate the identification numbers given to each PTB root in the STEDT database.

² Gurung, Tamang (Mazaudon 1994), Thulung (Allen 1975), Nocte, Konyak (Marrison 1967), Thado, Sizang, Lai (VanBik 2009), Ao (Bruhn 2014), and Leqi (Dai and Li 2007).

³ The genetic classification of TB is still controversial, thus there are many other proposals such as Jacques and Michaud (2011) and Thurgood (2017).

2. Variety of semantic shift found in the rainfall expressions in TB

All the rainfall expressions in our data consist of an argument and a predicate. Interestingly, we can find semantic shifts involving all of the (i) argument, (ii) predicate, and (iii) the set of argument and predicate have undergone semantic shifts. In this section, we will introduce examples of each pattern.

2.1. Argument

As we mention in Shirai et al. (2018a), all the rainfall expressions in TB are monovalent, that is, each involves a single argument. We can find a variety of meanings in the arguments, such as 'rain (n.),' 'sky,' 'sun,' 'water,' 'thing,' and a set of more than one of them. We will make a detailed discussion on the semantic shift of arguments in Section 3. Here, we just introduce one set of examples.

(1) shows examples of rainfall expressions in three Tibetic varieties. All expressions there correspond to Written Tibetan (WrT) *gnam 'bab*. Nonetheless, they are classified into two different types in Shirai et al. (2018a), since the meaning of argument differs. The noun that corresponds to WrT *gnam* primarily means 'sky' but also means 'rain' in many Tibetic varieties, such as bLabrang Tibetan, as shown in (1a). However, the cognate noun exclusively means 'sky' in Chabcha Tibetan⁴ (1b), while one means 'rain' in other varieties such as gZari Tibetan⁵ (1c). Consequently, (1a, b) are classified into the split argument-predicate type, while (1c) is classified into the argument type (Shirai et al. 2018a).

(1) 'It rains' in Tibetic varieties

a. bLabrang (Suzuki, fieldwork):	^h nam	^m bap
	sky/rain(n.)	fall
b. Chabcha (S. Ebihara, p.c.):	hnem	nbep
	sky	fall
c. gZari (Suzuki, fieldwork):	[?] nã	^m ba
	rain(n.)	fall

⁴ The independent noun for 'rain' in Chabcha is *te^har (wa)*, which is completely different from *hnem* in (1b) (S. Ebihara p.c., 2018).

⁵ In gZari Tibetan, the word for 'sky' is *`nã ŋkha*, which corresponds to WT *nam mkha'*.

For this type of semantic change and acquisition of new lexical contrast, see Suzuki's (2018d) discussion on the case of Tibetans' languages in Lithang County (Sichuan).

2.2. Predicate

We can also find semantic shifts of predicates, for example, in Nungic. Our data include three Nungic languages: Anong, Rawang, and six dialects of Trung. These varieties show three different types of rain expressions: Anong and Maku Trung have the argument type (2a, b), Rawang has the synonymic argument-predicate type (2c), Lula and other four dialects of Trung have the split argument-predicate type (2d) (Shirai et al. 2018a).

(2) 'It rains' in Nungic varieties		
a. Anong (Sun and Liu 2009: 279):	ts ^h 731	dzaŋ55
	rain(n.)	fall
b. Maku Trung (L. Qin, p.c.):	si31	wa53
	rain(n.)	do
c. Rawang (LaPolla and Sangdong 2015:277): <i>shø</i>	zaq
	rain(n.)	rain(v.)
d. Lula Trung (L. Qin, p.c.):	nəm31	za?53
	sun	fall

Note that the verbs in Anong (dzay55 'fall'), Rawang (zaq 'rain (v.)'), and Lula Trung (za253 'fall') are related diachronically, but synchronically their meanings differ from each other. The verb zaq specifically means 'rain (v.)' in Rawang, which has other verbs for 'fall' such as loq 'fall,' ja 'drop, fall from high to low,' and dvm 'fall, roll down.' One of the factors of the semantic difference between 'rain (v.)' (in Rawang) and 'fall' (in Anong and Trung) is language contact: Rawang is under the influence from languages such as Burmese, Jinghpaw, and Shan (all of which belong to the argument-predicate type; see Shirai et al. 2018a), while Lula Trung may be influenced by Tibetic varieties that have the argument gnam 'sky/rain (n.),' since we can find at least such two varieties around the Trung area: Sangdam Tibetan and Bodgrong Tibetan.

2.3. The clause for 'it rains' identical with the independent noun for 'rain'

In certain languages, each element found in the expression 'it rains' is different from the noun that means 'rain' in the same language.

For example, in Sani, according to K. Iwasa (p.c., 2017), the sentence m^{11} $hp^{33}=tso^{33}$ it rains' consists of the noun m^{11} sky,' verb hp^{33} 'rain (v.),' and the durative

marker $=t_{so}^{33}$, as in (3). The verb hv^{33} is used exclusively to rainfall phenomena, as it cannot express even snowfall. The independent noun $m^{11} hv^{33}$ is a compound that consists of the noun stem and verb stem. A parallel pattern is found in Darmdo Minyag, as in (4).

Interestingly, in all varieties with the pattern 'SKY+RAIN(v)' in our data, including Sani and Darmdo Minyag, the noun that means 'rain' has the same form with the phrase 'it rains,' leaving morphological requirements to each word class aside.

(3) Sani (Loloish) (Kazue Iwasa p.c., 2017)
a.
$$m^{11}$$
 $hv^{33} = t_s o^{33}$ 'It rains.'
sky rain(v.)=DUR
b. m^{11} hv^{33} 'rain (n.)'
(4) Darmdo Minyag (Qiangic) (Suzuki, fieldwork)
a. mo^{55} $na^{55} - q^h \Lambda^{55}$ 'It rains.'
sky DWN-rain(v.)
b. mo^{55} $q^h \Lambda^{55}$ 'rain (n.)'
(5) Shihing (Qiangic) (Sun et al 2014: 163)
a. ϕui^{55} $ce^{33}ce^{33}$ $za^{35} - ji^{55}$ 'It rains heavily.
rain(n.)(?) hard rain(v.)-PROG
b. $\phi ui^{55} za^{55}$ 'rain (n.)'

Shihing shows a slightly different pattern, as in (5). In the original data (Sun et al. 2014: 163), the argument ϕui^{55} is glossed as \overline{m} (rain (n.)). However, the independent noun collected in the wordlist is $\phi ui^{55} za^{55}$, as in (5b), that is, the compound of the noun and verb stem. Depending on Sun et al. (2014: 163), we tentatively give the gloss 'rain (n.)' to ϕui^{55} in (5a).⁶

3. A geolinguistic analysis of the argument of rainfall expressions

Here, we examine the semantic shifts of the arguments of rainfall expressions in TB. We will make a geolinguistic analysis of the etymologies and synchronic meanings of the arguments. We use the PTB forms reconstructed by the STEDT project (http://stedt.berkeley.edu/) in the analysis of the etymologies. Thus, if we cannot assume the corresponding PTB forms, such arguments are omitted from the analysis

⁶ We can find its cognates in our data: For example, Lhagang Choyu h^{w_i} 'rain (n.)'.

here.⁷ Table 1⁸ at the end of this chapter shows representative nouns that are used as the argument of rainfall expressions in each TB subgroups.

3.1. Classification of types

The etymologies of nouns include PTB roots **tshyar* 'rain(n)' (#5902), **r-məw* 'sky / heavens / clouds' (#2473), **r/s/g-wa* 'water / rain' (#2080),⁹ **g-nam* 'sun / sky' (#2484), **m/s-raŋ* 'rain' (#3571), **rəy* 'water / liquid / bodily fluid' (#1013), etc., and compounds such as **r-məw* plus **r/s/g-wa*.¹⁰

The synchronic meanings of the arguments derived from such PTB forms include 'rain,' 'sky,' 'sun', 'rain/sky' (that is, it means both 'rain' and 'sky'), 'sky/rain' (it primarily means 'sky' but also means 'rain' in certain contexts), 'sun,' etc.

Note that we ignored general nominal affixes in the classification. For example, though Mulan Situ *təmɔ?* 'rain' and Lhasa Tibetan *chaapa* 'rain' contain a prefix (*tə-*) and a suffix (*-pa*) respectively, they are simply classified as a word derived from **r*-*məw* and **tshyar* respectively.

We classify them as follows:

[A] **tshyar*. In this type, the arguments derived from **tshyar* mean 'rain' exclusively in our list (labelled as "**tshyar* : rain" in Figure 1). Examples: Tielou Tibetan (WrT)¹¹ char, Daan Tibetan t_s^{ho} wa, Guiqiong $t_s^{ha} \eta^{53} wi^{24}$, Anong $t_s^{h} \eta^{31}$, etc.

[B] **r-məw*. In this type, the argument is derived from **r-məw*. We found three types of synchronic meanings for this root: (i) 'rain' (**r-məw* : rain), (ii) both 'rain' and 'sky' (**r-məw* : rain/sky), and (iii) 'sky' (**r-məw* : sky). Examples: (i) Lisu mu^{33} , (ii) Burmese *mo*:, (iii) Sani m^{11} , etc.

[C] **g*-*nam*. In this type, the argument is derived from **g*-*nam*. We found four types of synchronic meanings for this root: (i) 'rain' (**g*-*nam* : rain), (ii) primarily 'sky'

⁷ Examples follow: Pwo *chə* 'thing' (Kato 2004: 110, A. Kato p.c.); Newar *noka* 'rain' (I. Matsuse p.c.); Rawang *shø* 'rain' (LaPolla and Sangdong 2015:277); Zbu *tərzi* 'rain' (Nagano and Prins 2013); etc.

⁸ In this section, the examples listed in Table 1 or collected in the authors' fieldwork are cited without reference.

⁹ Both **r*-*m* ∂w and **r*/*s*/*g*-*wa* involve the prefix **r*-. According to Matisoff (2003: 127), the PTB prefix **r*- is attached to various roots including natural objects.

¹⁰ Lhagang Tibetan and Ganbao Situ have *chu* 'water' (PTB **tsyu* 'water') and *te^honak* 'rain' (PTB **tsyu* 'water' + **s-nak* 'black') respectively. However, we omitted **tsyu* from the geolinguistic analysis since it is found only in these two varieties. Moreover, Lhagang Tibetan also uses *char pa* (<**tshyar*).

¹¹ Examples of some Tibetic varieties are shown in their equivalent Written Tibetan (WT) forms transcribed with the Wylie style. In such cases, the name of language variety is followed by '(WT)'.

but also 'rain' in certain contexts (**g*-*nam* : sky/rain), (iii) 'sky' (**g*-*nam* : sky), and (iv) 'sun' (**g*-*nam* : sun). Examples: (i) gSerpo Tibetan $n\tilde{a}$, (ii) Lithang Tibetan $-in\tilde{a}$, (iii) Chabcha Tibetan *hnem*, (iv) Buer Trung $n\partial m^{3l}$, etc.

[D] **r/s/g-wa*. In this type, the argument derived from **r/s/g-wa* means 'rain' exclusively (**r/s/g-wa* : rain). Examples: Taoba Prinmi gui^{55} , Nesu $a^{55} xo^{55}$, Tiddim *gua*?, etc.

[E] *m/s-ray. In this type, the argument derived from *m/s-ray means 'rain' exclusively (*m/s-ray : rain). Examples: Jinghpaw məray, Kadu həláy, etc.

[F] **r* ∂y . In this type, the argument derived from **r* ∂y means 'rain' exclusively (**r* ∂y : rain). Examples: Mojiang Hani $u^{31} j \varepsilon^{55}$, etc.

[G] Compound types. There are varieties of compounds. Among them, the following four types of compounds are found in a number of language varieties and thus indicated in the map: (i) $r-m\partial w+ r/s/g-wa$: rain, (ii) tshyar+s-nak: rain (s-nak means 'black'), (iii) $r-m\partial w+r\partial y$: rain, and (iv) $r-m\partial w+$: rain (compounds consist of $r-m\partial w$ and other morphemes). Examples: (i) Xide Yi $ma^{33} ha^{33}$, (ii) bTsanlha rGyalrong $tfan^{44}nak^{44}$, (iii) Mianchi Southren Qiang mz_i , (iv) Tujia $mue^{35} tsie^{21}$, etc.

3.2. Geographical distribution and geolinguistic analysis

Figure 1 shows the geographic distribution of the abovementioned types. The etymologies are distinguished by shapes: [A] a diagonal line, [B] triangles, [C] a circle, [D] rhombuses, [E] rectangles, and [F] an arrow. Moreover, colors indicate their meanings: blue indicates 'rain,' black indicates 'sky,' red indicates 'sun,' orange paint indicates 'rain/sky,' and brown with a vertical line (in rhombus) indicates 'sky/rain.'

Below, we will make a geolinguistic discussion on [A]-[F] and compounds with them.

SEMANTIC SHIFTS IN EXPRESSIONS FOR 'IT RAINS' IN TIBETO-BURMAN



Figure 1 The argument of 'It rains' in Tibeto-Burman: the whole area. Drawn by Satoko Shirai.

3.2.1. *tshyar and *r-məw

[A] **tshyar* and [B] **r-maw* are the most broadly found forms from the geographical viewpoint, as shown in Figure 2. However, the following facts suggest that [B] is considerably old but [A] is relatively new.





Figure 2 *tshyar and *r-maw as the argument of rainfall expressions. Drawn by Satoko Shirai.

The distribution of [A] is mostly limited in the Tibetosphere (Tibetan cultural area), although it is less found in the northeastern Tibetosphere, where [D] **g-nam* is predominant in Tibetan dialects. Moreover, in all such spots, the arguments of rainfall expressions derived from **tshyar* can be traced back to Written Tibetan (WrT) *char* (*pa*) and share a single meaning: 'rain.' The variation of compounds with **tshyar* is also limited. The only pattern of such compound is derived from WrT *char nag* (**tshyar* + **s-nak*, that is, [G-iii] listed above), which is found in certain rGyalrongic variations, such as Miyaluo Situ rGyalrong tc^hanak (Nagano and Prins 2013), spoken in the northeastern periphery of Tibetosphere.

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Figure 3 Semantic variation of **r-məw* as the argument of rainfall expressions. Drawn by Satoko Shirai.

[B] is found in the southern and eastern area of TB (except for Gyayu Manang mo^2 , a TGTM [Tamang-Gurung-Thakali-Manang] variety spoken in Nepal), among multiple genetic groups—Burmish, Loloish,¹² Qiangic, rGyalrongic, and Bai. There are at least three types of meanings: (i) 'rain,' (ii) 'sky,' and (iii) 'rain/sky.' The geographic distribution of the semantic variation is illustrated in Figure 3. (i) distributes mainly in the central area with an exception of Manang, (ii) distributes mainly in the eastern area, and (iii) is found in Myanmar and China-Myanmar border area, with an exception of Puxi sTodsde (a rGyalrongic variety spoken in Sichuan, China). Logically, we can

¹² The forms in Burmish and Loloish can be traced back to Proto-Lolo-Burmese (PLB) : PLB mo^2 'sky' (Bradley 1979: 324), PLB mow^2 'sky' (Matisoff 2003: 183).

analyze that the words derived from $*r-m\partial w$ used to mean 'sky,' then have come to be used in the rainfall expressions, and finally part of them have come to mean 'rain' even as an independent noun. This analysis could be supported by the fact that $*r-m\partial w$ is also found as a constituent of compounds used as the argument of rainfall expressions, which are listed as [G-i, iii, iv] above. Most of such compounds mean 'rain.' This suggests that the morpheme derived from $*r-m\partial w$ originally did not mean 'rain' by itself.





Esri, HERE, Garmin, FAO, NOAA, USGS | Esri, HERE, Garmin, FAO, NOAA, USGS Figure 4 **g-nam* and **tshyar* as the argument of rainfall expressions. Drawn by Satoko Shirai.

The spots of [C], that is, language varieties with the argument derived from **g*-*nam* are found in the northeastern, central, and southwestern area of TB. Comparing with the distribution of **tshyar*, as illustrated in Figure 4, we can find that the spots with **g*-*nam* are divided into north and south of those with **tshyar*. This is a clear "ABA distribution," which suggests that **g*-*nam* is older than **tshyar*. Genetically, [C] is found in Tibetic, TGTM, and Nungic, although geographically concentrated in the northeastern periphery and southern side of Tibetosphere. The meanings of [C] vary among 'rain,' 'sky,' 'sun,' and 'sky/rain.' Again, we can logically assume that **g*-*nam*

used to mean 'sky,' and later semantic shifts toward 'rain' and 'sun' occurred respectively.¹³

3.2.3. * r/s/g-wa, *m/s-raŋ, and *rəy

Figure 5 illustrates the geographical distribution of [D], [E], and [F], that is, language varieties with the argument derived from *r/s/g-wa, $*m/s-ra\eta$, and $*ra\eta$ respectively.



Esri, HERE, Garmin, FAO, NOAA, USGS | Esri, HERE, Garmin, FAO, NOAA, USGS | Figure 5 *r/s/g-wa, *m/s-raŋ, and *rəy. Drawn by Satoko Shirai.

[D] r/s/g-wa shows relatively broad distribution: eastern Nepal, India-Myanmar border, and southwestern China. Genetically, it is found in Loloish, Kuki-Chin, Qiangic, Naxi, Newar, and Lepcha. Moreover, some of the Kiranti, Naga, and Northern Naga varieties also have the noun for 'rain' derived from r/s/g-wa, although we could not ascertain whether it is the argument of the rainfall expressions. Semantically, all arguments derived from r/s/g-wa in our list mean 'rain.' Moreover, compounds

¹³ Discussions on **g*-*nam* with the meaning of 'sun' are found in Shirai et al. (2016) and Shirai (2018).

consist of **r*-*mw* and **r*/*s*/*g*-*wa* is broadly found in the southeastern and central spots (cf. Figure 3).

The distribution of [E] **m/s-raŋ* is limited to northern Burma, northeastern India, and eastern Bangladesh. Apparently, it divides the distribution of [D] **r/s/g-wa* into the eastern and western side, showing the so-called ABA distribution. Thus, we can assume that **m/s-raŋ* is newer than **r/s/g-wa*. This is further supported by the fact that languages with **m/s-raŋ* genetically belong to a single group called "Sal," thus considered to be an innovation in this group, in contrast to languages with **r/s/g-wa*, which involve a wide range of TB groups. **m/s-raŋ* is reflected with the meaning of 'rain' or 'sky' (Burling 1983: 11, 20).¹⁴

Only certain dialects of Hani have arguments of rainfall expressions that have their diachronic sources in PTB **rəy* 'water,'¹⁵ suggesting a semantic shift from 'water' to 'rain.' This hypothesis is supported by the fact that more varieties of Qiangic and Loloish have compounds that consist of **r*-*məw* and **rəy*, e.g., Taoping Southern Qiang $ma^{31}zi^{55}$ (Sun 1981) and Lahu $mv^{53} ze^{31}$.

4. Conclusion

In this chapter, we examined the semantic shifts found in the constituents of rainfall expressions in TB, especially focusing on the nouns used as the arguments of rainfall expressions. Most of such nouns are classified into the following types:

[A] the words for 'rain' derived from PTB **tshyar* 'rain(n)' (#5902)

[B] the words derived from **r-məw* 'sky / heavens / clouds' (#2473) that mean either (i) 'rain'; (ii) both 'rain' and 'sky'; or (iii) 'sky'

[C] the words derived from **g-nam* 'sun / sky' (#2484) that mean either (i) 'rain'; (ii) primarily 'sky' but also 'rain' in certain contexts; or (iii) 'sky'

[D] the words for 'rain' derived from **r/s/g-wa* 'water / rain' (#2080)

[E] the words derived from *m/s-ray 'rain' (#3571), that mean either (i) 'rain' or (ii) both 'rain' and 'sky'

[F] the words for 'rain' derived from **rəy* 'water / liquid / bodily fluid' (#1013)

¹⁴ Burling (1983) points out that the root *raŋ* independently means 'sky': "The syllable *raŋ* crops up in most of these languages as the first syllable of compounds that refer to celestial phenomena such as 'sun' and 'rain.' When *rang* occurs by itself, it seems always to have the meaning 'sky.'" (1983:11).

¹⁵ Written Burmese re 'water', PLB *re (Bradley 1979: 326).

[G] compounds

The geolinguistic analysis suggests the chronological order of them as in (6).

(6) Tentative chronological order among types [A]-[F]

$$[B] > [C] > [A] \\ [D] > [E] > [F]$$

However, we found it difficult to analyze the chronological order of their semantic variation from their geographical distribution. For example, though the semantic variation of [B] show certain areal tendency (Figure 3), it does not suggest the relative time depth. We tentatively drew a conclusion from a logical perspective: the words derived from **r*-*mw* used to mean 'sky,' then have come to be used in the rainfall expressions, and finally part of them have come to mean 'rain' even as an independent noun. The existence of compounds with morphemes derived from **r*-*mw* supports this conclusion. We also made parallel analysis on the semantic shifts of **g*-*nam*: it used to mean 'sky,' and later semantic shifts toward 'rain' and 'sun' occurred respectively.

Group	Language (Place)	Form	*PTB	Meaning	Data source
North Assam	Galo (Siang)	nidóo	?	'rain'	Post 2007
Kuki-Chin	Tiddim (Tedim)	gua?	*r/s/g-wa	'rain'	K. Otsuka p.c.
	Mizo (Aizawl)	rùah	*r/s/g-wa	'rain'	VanBik 2009
Naga	Ao (Mokokchung)	tsəŋ¹lu¹	? +*r/s/g-wa	'rain'	Bruhn 2014
Meithei	Meithei (Manipur)	chumthang	?+*twaŋ ¹⁶	'rain/ rainbow'	Marrison 1967
Mikir	Mikir (Karbi Anglong)	arve	*r/s/g-wa	'rain'	Marrison 1967
Mru: n.d.					
Sal					

Appendix (Table 1)

¹⁶ PTB **tway* 'rainbow' (#6002)

Bodo-Garo	Meche (Jhapa)	noka	?	'rain'	Meche & Kiryu 2012
Northern Naga	Nocte (Tirap)	rangpat	*m/s-raŋ+?	'rain'	Marrison 1967
	Konyak (Sibsagar)	wai	*r/s/g-wa	'rain'	Marrison 1967
Jingpho- Luish	Jinghpaw (Myitkyina)	məraŋ	*m/s-raŋ	'rain'	Maran 1978
	Duleng (Machanbaw)	məlaŋ	*m/s-raŋ	'rain'	Kurabe (fieldnote)
	Kadu (Banmauk)	həláŋ	*m/s-raŋ	'rain/sky'	Huziwara 2013
Tibeto- Kanauri					
Western Himalayish	Kanauri (Sătlăj Valley)	tī / lăgĕt tī / lăgĕts tī	?	'rain'	Bailey 1910
Tibetic	Tibetan (Loshod)	⁻tɕʰa: pa	*tshyar	'rain'	Suzuki (fieldnote)
	Tibetan (gSerpo)	'nã	*g-nam	'rain'	Suzuki (fieldnote)
	Tibetan (Lithang)	⁻⁶ nã	*g-nam	'sky/rain'	Suzuki (fieldnote)
	Tibetan (Chabcha)	hnem	*g-nam	'sky'	S. Ebihara p.c.
	Tibetan (Lhagang)	⁻ tɕ ^h ɯ	*tsyu	'water'	Suzuki (fieldnote)
Lepcha	Lepcha (Kalimpong/Sikkim)	SO	*r/s/g-wa (?)	'rain'	Plaisier 2007
TGTM	W. Tamang (Sahu)	'nam	*g-nam	ʻrain'	Taylor 1972 via STEDT
	Manang (Gyayu)	mo2	*r-məw	ʻrain'	Nagano 1984 via STEDT
Newar	Newar (Kathmandu)	wā	*r/s/g-wa	'rain'	I. Matsuse p.c.
Kiranti	Athpare (Dhankuțā)	wet	*r/s/g-wa	'rain'	Ebert 1997
Kham-Magar- Chepang	Takale Kham (Rukum)	nəm	*g-nam	'sky'	Watters 2002
Qiang- rGyalrong					

Qiangic	nDrapa (Zhongni)	mokku3	*r- məw+*r/s/g- wa	ʻrain'	Shirai (fieldnote)
	Prinmi (Taoba)	gui ⁵⁵	*r/s/g-wa	'rain'	Lu 2001
	S. Qiang (Mianchi)	mzì	*r- məw+*rəy	'rain'	Evans 2001
	Guiqiong (Qianxi)	dz'eŋ	*tshyar	'rain'	Jiang 2015
	Darmdo Minyag (Shade)	mə ⁵⁵	*g-nam	'sky'	Suzuki (fieldnote)
rGyalrongic	Geshitsa (Jiaju)	mə ^{s55}	*r-məw	'rain'	Suzuki (fieldnote)
	Zbu (Ribu)	tərzi	?	ʻrain'	Nagano & Prins eds. 2013
	bTsanlha rGyalrong (Qiaoqi)	t∫an ⁴⁴ nak ⁴⁴	*tshyar+*s- nak	'rain'	Shirai (fieldnote)
	sTodsde (Puxi)	mo	*r-məw	'rain/sky'	Nagano & Prins eds. 2013
	Zbu (Rongan)	təmu	*r-məw	'sky'	Nagano & Prins eds. 2013
Nungic	Rawang (Putao)	shø	?	ʻrain'	LaPolla & Sangdong 2015
	Anong (Mugujia)	$ts^{h}\gamma^{31}$	*tshyar	'rain'	Sun & Liu 2009
	Trung (Buer)	nəm ³¹	*g-nam	'sun'	L. Qin p.c.
Tujia	Tujia (Pojiao)	mue ³⁵ tsie ²¹	*r-məw+?	'rain'	TBL 1992
Burmish					
	Lhaovo (Tsawlaw)	muk ^L	*r-məw	'rain/sky'	Sawada 2004
	Burmese (Yangon)	mo:	*r-məw	'rain/sky'	Ohno 2000
Loloish					
N. Loloish	Yi (Xide)	ma ³³ ha ³³	*r- məw+*r/s/g- wa	'rain'	TBL 1992, K. Iwasa p.c.
	Nesu (Yuanjiang)	a ⁵⁵ xo ⁵⁵	*r/s/g-wa	ʻrain'	Chen 2010, K. Iwasa p.c.

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	Lipo (Huaping)	a ⁵⁵ mu ²¹	*r-məw	'sky'	Chen 2010, K. Iwasa p.c.
C. Loloish	Lisu (Kangpu)	mɯ ³³	*r-məw	'rain'	Suzuki (fieldnote)
	Lahu (Lancang)	mv ⁵³ ze ³¹	*r- məw+*r/s/g- wa	ʻrain'	TBL 1992
	Jinuo (Youle)	mi ³³ tha ⁵⁵	*r-məw+?	'rain/ weather'	Hayashi 2009
	Sani (Lunan)	m ¹¹	*r-məw	'sky'	K. Iwasa p.c.
S. Loloish	Hani (Mojiang)	$u^{31}j\epsilon^{55}$	*rəy	ʻrain'	TBL 1992, K. Iwasa p.c.
SE. Loloish	Phola (Wadie)	mə ³¹ xi ⁵⁵	*r- məw+*r/s/g- wa (?)	ʻrain'	Pelkey 2011
	Azha (Binglie)	$\underline{a}^{45} x \mathfrak{d}^{21}$	*r/s/g-wa (?)	'rain'	Pelkey 2011
Naxi	Na (Yongning)	hiJ	*r/s/g-wa	'rain'	Michaud 2015
Karenic	Geba (Leiktho)	ψĒ	?	'rain'	Kato 2008
	Pwo (Hpa-an)	chə	?	'thing'	A. Kato p.c.
Bai	Bai (Dali)	v33	*r-məw	'rain'	Wang 2008

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Legend

? : The corresponding PTB form is unknown; C. : Central; N. : Northern; n.d. : no data; S. : Southern; SE. : Southeastern; W. : Western.

- Gray rows indicate that it is uncertain whether it is used as the argument of the expression 'It rains.' The forms in such rows are nouns that mean 'rain' from secondary sources.

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Part II

Case studies

Overview of the Tibetic languages spoken in rGyalthang from a historical perspective

1. Introduction

rGyalthang is located in the south-eastern corner of Khams, i.e. the south-eastern corner of the Tibetan cultural area, which faces other cultural areas, namely, those of Naxi, Lisu, Bai, Yi, Pumi, Nu and Han Chinese groups. This multiethnic environment produces multi-linguistic contacts, so the state of local Tibetan languages is inevitably complicated. Most previous linguistic research in this region has focused only on one variety of rGyalthang, namely, that spoken in the centre of rGyalthang, the present Jiantang 建塘 Town, the administrative centre of Shangri-La (Xianggelila 香格里 拉) Municipality as well as Diqing 迪庆 Tibetan Autonomous Prefecture. From previous work, it is clear that the Tibetan dialects spoken in Yunnan (or Diging) can be classified into an independent group of Khams Tibetan (Qu and Jin 1981, Zhang 1993); however, according to my research and analysis, rGyalthang Tibetan is only a subgroup member of the so-called Sems-kyi-nyila dialectal group of Khams Tibetan (Suzuki 2009a, 2018a).¹ Thus, the reference of previous works is exclusively relevant to the Sems-kyi-nyila dialectal group of Khams Tibetan. Dialects that belong to the other dialectal groups called sDerong-nJol and Chaphreng are quite different from rGyalthang. These three groups may be treated as three different language-like complexes, given a narrow definition.² The classification of the full members of Yunnan Tibetan (with recommended English and Chinese names) is as follows:

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¹ All data without citations has been collected by the present author. My concept of the phonetic description applied for the Tibetan dialectology may be called a *pandialectal phonetic description system*, following that proposed by Tournadre and Suzuki (2022). See Section 3 for details.

² The argument that Tibetan is one single language is generally considered obsolete among linguists, and so-called three major dialects described in Chinese sources, namely, Central, Khams and Amdo, are considered three independent languages, among which Khams is the most unstable dialectal complex. See Suzuki (2014g, 2016c), Suzuki and Sonam Wangmo (2015b), and Tournadre and Suzuki (2022) for details.

1 4010 1	Dialectar classification of Taiman T	ioetaii.	
Group	Subgroup	Chinese name	
Sems-kyi-nyila	rGyalthang	建塘	
(香格里拉)	East Yunling Mountain	云岭山脉东部	
	Melung	维西塔城	
	dNgo	翁上	
	Lamdo	浪都	
sDerong-nJol	mBalhag	巴拉	
(得荣德钦)	West Yunling Mountain	云岭山脉西部	
	sPomtserag	奔子栏	
	gYagrwa	羊拉	
	Bodgrong	丙中洛	
Chaphreng (乡城)	gTorwarong	东旺	

Table 1 Dialectal classification of Yunnan Tibetan

In the information presented in Table 1, the dialectal position of rGyalthang is clear. Detailed information of the geographical distribution of each subgroup of the Sems-kyi-nyila group is as follows:³

- rGyalthang: Jiantang 建塘, Geza 格咱 [Geza, Xiageza 下格咱], Sanba 三坝 [Annan 安南], Luoji 洛吉 [Niru 尼汝], Xiaozhongdian 小中甸, Hutiaoxia 虎跳 峡 [Ludui 鲁堆] (Shangri-La 香格里拉), Maoniuping 牦牛坪 (Yulong 玉龙, Lijiang 丽江), Yongning 永宁 (Ninglang 宁蒗, Lijiang)
- East Yunling Mountain: Nixi 尼西, Wujing 五境 (Shangri-La), Tacheng 塔城 [Qizong 其宗, Bazhu 巴珠] (Weixi 维西), Tuoding 拖顶, Xiaruo 霞若, Benzilan 奔子栏 [Duotong 夺通] (Deqin 德钦)
- Melung: Tacheng [Yingduwan 英都湾, Kenuo 柯那, Haini 海尼], Pantiange 攀 天阁 [Gongnong 工农, Gagatang 嘎嘎塘] (Weixi) and Daan 大安 (Yongsheng 永胜, Lijiang)
- dNgo: Geza [Wengshang 翁上, Nagela 纳格拉] (Shangri-La)
- Lamdo: Langdu 浪都 Hamlet (Geza, Shangri-La) only

Of the subgroups above, this article provides an overview of the vernaculars classified into the rGyalthang subgroup, with a brief mention their environments.

2. Previous linguistic works on rGyalthang Tibetan

In the 1950s, the Chinese Government conducted extensive field research on minority languages in China, including over a hundred data points recording Tibetan dialects.

³ Names of hamlets are in square brackets; county names are in parentheses.
According to Zhang (1996), six points in Yunnan were studied at that time: Zhongdian 中甸 (=rGyalthang), Dongwang 东旺 (=gTorwarong), Benzilan 奔子栏 (=sPomtserag), Deqin Shengping 德钦升平 (=nJol), Lapu 腊普 (=mThachu⁴), and Dapogang 大坡岗 (=rTaphogang⁵).⁶ These six names also appear in Qu (1991). Fortunately, each of these six dialects belongs to a different subgroup in Table 1 The categorisation of these dialects according to Table 1 is:

rGyalthang:	rGyalthang subgroup of Sems-kyi-nyila group
gTorwarong:	gTorwarong subgroup of Chaphreng group
sPomtserag:	sPomtserag subgroup of sDerong-nJol group
nJol:	West Yunling Mts. subgroup of sDerong-nJol group
mThachu:	Melung subgroup of Sems-kyi-nyila group
rTaphogang:	East Yunling Mts. subgroup of Sems-kyi-nyila group

The data obtained from the government sponsored fieldwork conducted in the 1950s reflects the diversity of Yunnan Tibetan, but unfortunately, previous works seldom used the data effectively.

2.1. The best known variety of rGyalthang Tibetan

- Preliminary linguistic reports: Lu (1990, 1992), Hongladarom (1996), Wang (1996, 2007), bSod-nams rGya-mtsho (2007), Pan (2013)
- Vocabulary: YS59 (1998:651–1318), Hongladarom (2000), Suzuki (2007a: appendix 496–510)
- Phonetics: Zhao and Li (2014)
- Grammatical studies: Hongladarom (2007a, b)

⁴ In Tacheng, Weixi. Also written as 拉普. The Tibetan name is written as *Gla-phi* or *lHa-phu*, and *mTha'-chu* is the name corresponding to Tacheng. The exact research point unspecified. The dialects spoken in Tacheng are divided into two subgroups, Melung and East Yunling Mountain. Judging from the examples cited in Zhang (2009), 'Lapu' is a member of Melung.

⁵ In Benzilan, Deqin. There still exists a hamlet named Dapugong 打扑贡, one of the hamlets under Duotong administrative Village.

⁶ In this chapter, I uniformly use current proper names except for citations and historical contexts.

Bibliographical works: *Zhongdian Xianzhi* (1996:147–153), YS59 (1998:421–441), *Diqing Zangzu Zizhizhouzhi* (2003:1282–1293), which include a description of 'Zhongdian' Tibetan

In addition to the works cited above, Jin (1983) includes examples of the 'Zhongdian' dialect, which was probably based on description from the 1950s. This well-described dialect plays an important role as a language of wider communication in the region of rGyalthang,⁷ and I believe that the choice of these researchers to investigate this dialect was reasonable. However, there still remain many undescribed varieties spoken around the centre of rGyalthang in spite of their abundance near Jiantang Town.

From a dialectological viewpoint, rGyalthang Tibetan is often considered to represent all of the Tibetan dialects spoken in Yunnan, but this is inaccurate. Some bibliographical works, such as Min (2001:27) and *Diqing Zangzu Zizhizhouzhi* (2003:1281), mention differences among Tibetan dialects spoken in Diqing Prefecture, which unfortunately lack concrete linguistic data. Other works, such as those of Qu (1991), Zhang (1997), Pan (2008), and Zhao (2010) also use the data from rGyalthang, recorded in the 1950s or collected by authors.

2.2. rGyalthang Tibetan as a member of Yunnan Tibetan

At present, the dialects of Khams Tibetan spoken in Yunnan are classified into at least three dialectal groups, as shown in Table 1. The basis of my study on Yunnan Tibetan began as a contradiction of this widespread claim, the philosophy of was presented in Suzuki (2008c) and was put into practice in Suzuki (2009a, 2018e), in which I have established a basis why and how to classify the varieties of Diqing as Table 1. I give below a brief introduction to each dialectal group in Table 1 with reference to previous works on that dialect, largely written by the present author.

2.2.1. Chaphreng group

The Chaphreng group is the smallest group of Yunnan Tibetan, but it is an important member of the dialectal group. It is mainly spoken in Xiangcheng 乡城 County,⁸ to the north of Shangri-La Municipality. The variety spoken in Dongwang 东旺 Township belongs to this group but it cannot be considered an independent dialect, as

⁷ However, this variety is now, unfortunately, one of the most Sinicised vernaculars among the dialects of Yunnan Tibetan.

⁸ The dialect spoken in Xiangcheng is divided into one independent subgroup of Khams by Qu and Jin (1981). See Suzuki (2009d).

noted in Tournadre (2005, 2008).⁹ In some hamlets of Geza 格咱 Township such as Wengshui 翁水, the vernaculars belong to this group. Two descriptive grammars namely, of the sPangsteng dialect and the Horzung dialect, of the gTorwarong subgroup, Bartee (2007) and Tshe-ring gYang-sgron (2021), respectively have been provided.

2.2.2. sDerong-nJol group

The sDerong-nJol group, named after its two main toponyms sDerong (Deirong 得荣 County, Sichuan) and nJol (Deqin 德钦 County), is spoken mainly in Deqin County and its surroundings on the Yunnan side.¹⁰ The descriptions of DTLF (1899) and Giraudeau and Goré (1956) include some influence from the spoken varieties belonging to this group.

A rough introduction to this group has been given by Suzuki (2008a, 2015d, 2019b). A grammatical sketch of the Sakar dialect (West Yunling Mountain subgroup) has been provided in Suzuki (2012a). A brief phonological analysis of the Agdong dialect has been done by a native speaker (Chos-mo 2013). Wordlists of the dialects of nJol, sNyingthong, Lothong and Tsharethong (West Yunling Mountain subgroup) as well as sPomtserag (sPomtserag subgroup) have been published in Suzuki (2007a: appendix; 2009i; 2012h). Recently, Suzuki (2014h) reported a variety, Bodgrong, that is spoken in Gongshan County in Nujiang Prefecture, together with a wordlist.

Basically, the dialects of this group are not spoken in the rGyalthang area, except for mBalhag, spoken only in Bala 巴拉 Hamlet (Nalang 那浪 and Shuizhuang 水庄 hamlets at present) and Nixi 尼西 Township.¹¹ The mBalhag dialect is very similar to the dialects of the sDerong subgroup spoken in Deirong County, see Suzuki (2012f) for details.

Between this group and the Sems-kyi-nyila group there are many differences in every aspect of linguistic features; in addition, there is low intelligibility between these two groups, see Suzuki (2011b, 2012h, 2013c) for details.

⁹ One may easily consider a vernacular of Yunnan to be related to that of rGyalthang. gTorwarong is regarded as a peculiar dialect from the perspective of Yunnan Tibetan, but in contrary, it is regarded as a very similar dialect to the Chaphreng vernacular from the dialectological perspective. See Suzuki (2009a) for dialectal classification of Eastern Tibetan cultural area. Tournadre (2014) and Tournadre and Suzuki (2022) have presented a new view of dialectal classification.

¹⁰ The distribution area of this group may be quite similar to that of *sPo-'bor-sgang* in the traditional geographical category of Khams.

¹¹ Several families from Bala live in Jiantang Town. See Suzuki (2012f, 2013b).

2.2.3. Sems-kyi-nyila group

The Sems-kyi-nyila group, associated to the official Tibetan name *Sems kyi Nyi-zla* 'Sun and moon in the heart' for Shangri-La Municipality,¹² is mainly spoken in Shangri-La Municipality and Weixi 维西 County. The reason why I do not use rGyalthang as the name of this dialectal group is that rGyalthang is a simple member of this group and inappropriate as a name for the entire group.

This group has three major subgroups (rGyalthang, East Yunling Mountain and Melung) with two minor subgroups (Lamdo and dNgo). The minor subgroups are spoken in an area connected to another dialectal area: Lamdo is spoken on the boundary of rGyalthang subgroup of the Sems-kyi-nyila group and the sPomborgang group¹³ (Suzuki 2010b), and the dNgo subgroup is spoken on the boundary of the rGyalthang subgroup of the Sems-kyi-nyila group and the gTorwarong subgroup of the Chaphreng group, in the hamlets such as Wengshang 🛱 上 (Suzuki 2018a). The dialect distribution forms a *continuum*, so there are no independent dialects *per se*.

Of the three major subgroups, the rGyalthang and East Yunling Mountain subgroups are very similar to each other, even from the linguistic viewpoint (cf. Suzuki 2007a, 2014i, 2016d, h, 2019a). However, there several important differences appear between the two; in addition to this, native speakers seem to prefer to classify them into two pieces. On the other hand, the dialects belonging to the Melung subgroup are so different from the former groups that there is no basic intelligibility between them; however, from the viewpoint of historical linguistics, we can see that this subgroup has had a strong influence from Naxi (*'jang* in Tibetan), and because of this contact, it is evident that sound changes attested only in the Melung subgroup, i.e. innovations limited in this subgroup, were triggered by Naxi; therefore, I believe that Melung can

¹² I have already inspected seriously the relation of the pronunciation between *Sems kyi Nyi-zla* and Shangri-La with a geolinguistic methodology, with the result that the claim of the government is *linguistically* reasonable (Suzuki 2008d). The toponym Shangri-La merely designates *Sems kyi Nyi-zla*, as defined officially, as does my use in the linguistic field, even though there still exists a misunderstanding based on the folk etymology that Shangri-La is equivalent to *Sham-bha-la*, a kind of Utopia.

¹³ The sPomborgang group is mainly spoken in Daocheng 稻城, Muli 木里 and the southernmost area of Litang 理塘 in Sichuan (see Suzuki 2007b, 2018c for its data). The Tibetan dialects spoken in Muli are often called "Gami/Kami" (cf. Chirkova 2012), but this nomenclature is entirely inappropriate as regards Tibetan dialectology because it is relates to the socio-ethnological field based on Muli. In addition, the dialects of the Sems-kyi-nyila and sPomborgang groups are not close to each other in terms of the aspect of intelligibility in spite of their typological similarity.

regarded as a member of the Sems-kyi-nyila group from a genetic point of view.¹⁴ See Suzuki (2009f, 2010c, 2011a, d, 2012c, 2013f) and Suzuki and Tshering mTshomo (2007, 2009) for related discussions.

Grammatical sketches of the Choswateng dialect and the Zhollam dialect (Melung subgroup) is provided in Suzuki (2014a) and Suzuki (2011a), respectively. Wordlists of the dialects of mTshomgolung, Gyennyemphel, Choswateng (rGyalthang subgroup), Thangteng, Byagzhol, Semzong, and Qizong (East Yunling Mountain) as well as Melung, Daan and sKobsteng (Melung subgroup) were published in Suzuki (2007a:496–510; 2011i; 2013f, 2014c).

Three Tibetan dialects in Lijiang 丽江 also belong to this group: Maoniuping 牦 牛坪 (a.k.a. Xuehua 雪花; Yulong 玉龙 County), Daan 大安 (Yongsheng 永胜 County) and Yongning 永宁 (Ninglang 宁蒗 County). Maoniuping is largely inhabited by Tibetan immigrants from the present Geza area (cf. *Lijiang Diqu Minzuzhi* 2001:247) and their dialect is also similar to that of Geza, a member of the rGyalthang subgroup. Tibetans living in Daan tell a traditional narrative that their ancestors have come from around Yanjing 盐井 Township, Mangkang 芒康 County in the Tibet Autonomous Region in the sixteenth century, but a linguistic analysis by Suzuki (2009f) shows that their specific dialect, belongs to the Melung subgroup. Tibetans living in Yongning speak a dialect belonging to the rGyalthang subgroup, but their history regarding immigration remains unknown.¹⁵

3. Sound structure of two dialects from rGyalthang

In this section, I present the sound structure of two dialects from the rGyalthang subgroup: mTshongu and Choswateng. The former has the simplest phonological system, spoken in the northernmost area of rGyalthang, whereas the latter has one of the most complicated phonological systems, spoken in the southernmost area of rGyalthang (cf. section 4). Thus, we provide an overview of the synchronic phonological diversity of the rGyalthang subgroup using the description given in this section.

¹⁴ However, there are some characteristic grammatical features peculiar to Melung (Suzuki 2011a, 2012d, 2017a).

¹⁵ Nine volumes of Chinese-Tibetan vocabulary were edited in the eighteenth century under the title *Xifan Yiyu*, one of which records a Tibetan dialect spoken in the present Yanyuan-Muli counties at that time. It is possible that this language is an ancestor of the modern Yongning dialect. See Nishida and Sun (1990), Suzuki (2007a), and Matsukawa and Miyake (2015).

The phonetic description follows the *pandialectal phonetic description system* proposed by Tournadre and Suzuki (2022), which includes the phonetic symbols and their display of the type proposed by Suzuki (2005a) and Zhu (2010), in addition to the International Phonetic Alphabet (IPA). For more details, see also Suzuki (2011g, 2016g) and Zhu (2012). The tonal system is, however, phonologically analysed.

3.1. mTshongu dialect

3.1.1. Suprasegmentals

The mTshongu dialect shows a four-way distinction in word tone. The following phonemic signs will be used at the beginning of a word:

initial initinitia initial initial initial initial initial initial initia

3.1.2. Vocalism

The mTshongu dialect has a rich vowel inventory. Each vowel has a normal and a nasalised realisation. Moreover, non-nasalised short and long vowels are distinctive.

Table 2 Vowel inventory of the mTshongu dialect. i u u u e θ ϑ o ϵ ϑ a a

3.1.3. Consonantism

The mTshongu dialect has a rich consonant inventory:

Table 3 Consonant inventory of the mTshongu dialect.								
		А	В	С	D	Е	F	G
plosive	aspirated	$\mathbf{p}^{\mathbf{h}}$	t ^h	ť			$\mathbf{k}^{\mathbf{h}}$	
	non-aspirated	р	t	t			k	?
	voiced	b	d	d			g	
affricate	aspirated		ts ^h	t₽ ^h	tc ^h			
	non-aspirated			tş	te			
	voiced		dz	d z	dz			
fricative	aspirated		$\mathbf{s}^{\mathbf{h}}$	$\boldsymbol{\vartheta}^{\mathrm{h}}$	\mathbf{c}^{h}		$\mathbf{x}^{\mathbf{h}}$	
	non-aspirated	ф	S	ş	c		х	h
	voiced		Z	Z,	Z			ĥ
nasal	voiced	m	n		ŋ		ŋ	
	voiceless	m	ņ		ή <u></u>		ů	

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liquid	voiced	1	r		
	voiceless	l	ŗ		
semi-vowel	voiced	W		j	
A: bilabial	B: denti-alveolar	C: retroflex		D: prepalatal	E: palatal
F: velar	G: glottal				

3.1.4. Phonotactics

The mTshongu dialect includes the following type of syllable construction:

^CC_iGVCC

This dialect shows the following types of initial consonant clusters:

- prenasalisation: ⁿC (C = voiced or aspirated occlusives and fricatives)
- preaspiration: ${}^{h}C$ (C = non-aspirated and voiced consonants)

- glide: C + w or j

- triple clusters: preaspiration/prenasalisation-C-glide

3.2. Choswateng dialect

A more detailed description of Choswateng phonology is provided in Suzuki (2014d).

3.2.1. Suprasegmentals

The Choswateng dialect shows a four-way distinction in word tone. The following phonemic signs are used at the beginning of a word:

⁻ : high level [⁵⁵ / ⁴⁴]	' : rising [^{24/35}]
`: falling $[^{53}/^{31}]$	^ : rising-falling [¹³²]

3.2.2. Vocalism

The Choswateng dialect has a rich vowel inventory. Each vowel has a normal and a nasalised realisation. Moreover, non-nasalised short and long vowels are distinctive.

Table 4	Vow	el in	vento	ory	of tl	he C	bo	swaten	g dialect	•
	1-Ն	i		u				u u		
		e		θ	ə		r	0		
			ε			э				
			a			a				

Note that the description $/\gamma - \gamma/$ is a single phoneme with two different symbols, depending on the real articulatory manner. This phoneme is often with a pharyngealised feature.

3.2.3. Consonantism

The Choswateng dialect has a rich consonant inventory:

Table 5 Consonant inventory of the Choswateng dialect.								
		А	В	С	D	Е	F	G
plosive	aspirated	$\mathbf{p}^{\mathbf{h}}$	t^{h}	ť		$\mathbf{c}^{\mathbf{h}}$	\mathbf{k}^{h}	
	non-aspirated	р	t	t		c	k	3
	voiced	b	d	d		J	g	
affricate	aspirated		tsh	t§ ^h	t¢ ^h			
	non-aspirated		ts	ts	tc			
	voiced		dz	d z	dz			
fricative	aspirated		$\mathbf{s}^{\mathbf{h}}$	$\boldsymbol{\vartheta}^{\mathrm{h}}$	\mathbf{c}^{h}	ç ^h	\mathbf{x}^{h}	
	non-aspirated	ф	S	ş	c	ç	х	h
	voiced		Z	z	Z	j	Y	ĥ
nasal	voiced	m	n	η	ŋ		ŋ	
	voiceless	m	ņ		ή <u></u>		ů	
liquid	voiced		1	r				
	voiceless		l	ŗ				
semi-vowel	voiced	W				j		
A · bilabial	Di donti alvicalar	C: not-	flow		D: mrcm	alatal		E: polete
A: DIIADIAI	B: denu-alveolar	C: retro	nex		D: prepa	aiatal		E: palata
F: velar	G: glottal							

3.1.4. Phonotactics

The Choswateng dialect can have the following syllable construction:

^CC_iGVCC

This dialect shows the following types of initial consonant clusters:

- prenasalisation: ${}^{n}C$ (C = voiced or aspirated occlusives and fricatives)
- preaspiration: ${}^{h}C$ (C = non-aspirated and voiced consonants)
- glide: C + w or j
- triple clusters: preaspiration/prenasalisation-C-glide

4. Diversity in the dialects of the rGyalthang subgroup

In this section, I present an overview of the diversity of sound changes attested in the regiolects¹⁶ of the rGyalthang subgroup (see Figure 1 for the distribution), focusing on the relation of all the subgroups of the Sems-kyi-nyila group. Here, sound changes are uniquely related to historical linguistics through a comparison with Written Tibetan forms (henceforth WrT).¹⁷ All data mentioned below were recorded and described by the present author ro prevent misunderstandings caused by different conventions of phonetic notation (cf. Zhang 2009) and guarantee the uniform quality of the phonetic description.



Figure 1 Dialect location of the data cited in Section 4.2.

¹⁶ This article deals with regiolects, i.e. dialects with regional differences. Sociolects may exist in the rGyalthang area. However, they are not as evident as those appearing in Lhagang Tibetan (Suzuki and Sonam Wangmo 2015c).

¹⁷ The phonetic value represented by WrT is based on sKal-bzang 'Gyur-med and sKal-bzang dByangs-can (2004:379–390).

Several examples of sound correspondences of WrT in initials in dialects belonging to the Sems-kyi-nyila group are shown in Table 6:

No.	1	2	3	4	5	6	7	8	9	10
WrT initial	by	gy	khy	br	khr	gr	dr	ch	j	Z
mTshongu	G	tc	tch	G	tch	tc	t	t₽ ^h	tş	S
rTsegnyi	G	tc	tch	G	tch	tc	t	t₽ ^h	tş	S
Myigzur	G	-	tch	ç	c ^h	k	t	t₽ ^h	tş	S
Lamzang	G	tc	t¢h	G	tch	tc	t	tş ^h	tş	S
rGyalbde	G	tc	tch	G	tch	tc	t	t₽ ^h	tş	S
mTshomgolung	G	tc	tch	¢h	tch	-	t	t₽ ^h	tş	S
Wangchukha	G	tc	tch	¢h	tch	tc	t	t₽ ^h	tş	S
Byagkar	G	tc	tɕʰ	¢h	tch	tc	t	t₽ ^h	tş	S
Nyishar	G	tc	tɕʰ	G	tch	tc	t	t₽ ^h	tş	S
Alangu	G	tc	tɕʰ	G	k ^{jh}	k	t	t₽ ^h	tş	S
Gyennyemphel	G	tc	tch	G	c ^h	с	t	t₽ ^h	tş	S
Khyimphyuggong	G	tc	t¢h	G	c ^h	с	t	tş ^h	tş	S
gNasgsar	G	tc	tch	G	c ^h	с	t	tş ^h	tş	S
Yangthang	G	tc	tch	G	t¢h	tc	t	tş ^h	tş	S
Shingkhogteng	G	tc	tch	ç	c ^h	с	t	tş ^h	tş	S
Choswateng	G	tc	t¢h	ç	c ^h	с	t	ts ^h	ts	S
Jesha	G	tc	t¢ ^h	ç	c ^h	с	t	tş ^h	tş	S
bLobde	G	tc	t¢ ^h	ç	c ^h	с	t	tş ^h	tş	S
Thangstod	G	tc	t¢ ^h	ç	t¢h	tc	t	tş ^h	tş	S
Yarkha	G	tc	t¢ ^h	ç	t¢h	tc	t	tş ^h	tş	S
rTswamarteng	G	tc	t¢ ^h	ç	t¢h	tc	t	tş ^h	tş	S
gYaglam	G	tc	t¢ ^h	ç	t¢h	tc	t	tş ^h	tş	S
mKhangu	G	-	t¢ ^h	G	tş ^h	tş	t	tş ^h	tş	S
sGosgang	G	tc	tch	ç	t¢h	tc	t	tş ^h	tş	S
rTsethong	G	tc	tch	G	t¢h	tc	t	tş ^h	tş	S
Thangteng	G	tc	tch	G	t¢h	tc	t	tş ^h	tş	S
Semzong	G	-	t¢h	G	tch	t	t	tş ^h	tş	S
Shugphungthong	G	tc	tch	G	t¢h	tc	t	tş ^h	tş	S
Byaglungnang	G	-	tch	G	t¢h	tc	t	tş ^h	tş	S
Zhollam	G	tc	t¢ ^h	р	kh	k	t/t	t§ ^h	tş	S
Melung	G	-	t¢ ^h	р	t¢ ^h	k	t	t§ ^h	tş	S
sKobsteng	G	tc	t¢ ^h	р	kh	k	t	t§ ^h	tş	S
mThachu	G	tc	t¢ ^h	р	kh	k	t	t§ ^h	tş	S
Daan	G	-	tch	x ^h	kh	k	t	t₽ ^h	tş	S
dNgo	G	tc	tch	ç	c ^h	с	t	th	t	ł
Nagskerags	G	tc	tch	ç	c ^h	с	t	th	t	ł
Adma'	G	tc	tch	ç	c ^h	с	t	th	t	4
Phuri	ç	tc	tch	G	t¢ ^h	tc	t	tch	tc	S
Lamdo	G	-	tch	c	c ^h	c	t	th	t	S
1. bya 'chicken'	1. bya 'chicken' 2. gyang 'wall' 3. khyod 'you' 4. brag 'cliff'									
5. khrag 'blood'	5. gri '	knife	,	7	. drug	'six'			8. ch	u 'water

Table 6	Sound correspondences of WrT Py Ky Pr Kr Tr C s z in the Sems-kyi-nyila group
1 abic 0	Sound correspondences of with ty, Ky, 11, Ki, 11, C, S, Z in the Senis-Kyr-nynd group

10. zan 'food'

9. ja 'tea'

Table 6 presents the main differences regarding sound correspondences within the Sems-kyi-nyila group. The most remarkable feature is attested in the cases such as WrT *ra-btags* (*r*-glide) in the Melung subgroup (examples 4–6). Examples 8 and 9 have the same correspondences in all dialects except for Phuri and Lamdo. The sound correspondence attested in Phuri is the same as that in the gTorwarong dialect, and the one that appears in Lamdo is somewhat close to the nDappa dialect. For a better analysis of this type of issue, we can try to use the methods of geolinguistics shown in Suzuki (2012f, 2014c, 2015c, 2016a, b, c). Looking at examples 1–3 and 10, it is clear that these examples cannot be a criterion for analysing dialectal differences because of a lack of significant differences among dialects. From this brief consideration, I will concentrate on a discussion of the dialectal variation of examples, including WrT *ra-btags*. To analyse the historical linguistics of the rGyalthang group.

4.2. Diversity within dialects of the rGyalthang subgroup

In this subsection, I analyse dialectal variations attested in the dialects of the rGyalthang subgroup in detail. The dialects are the first eighteen dialects listed in Table 6. The geographical locations of the dialects follow:

mTshongu:	Chugu Hamlet, Geza Township
rTsegnyi:	Zini Hamlet, Jiantang Town
Myigzur:	Niru Hamlet, Luoji Township
Lamzang:	Luorong Hamlet, Jiantang Town
rGyalbde:	Jidi Hamlet, Jiantang Town
mTshomgolung:	Cuogulong Hamlet, Jiantang Town
Wangchukha:	Wangchika Hamlet, Jiantang Town
Byagkar:	Xiagei Hamlet, Jiantang Town
Nyishar:	Nishi Hamlet, Jiantang Town
Alangu:	Annan Hamlet, Sanba Township
Gyennyemphel:	Jinianpi Hamlet, Xiaozhongdian Town
Khyimphyuggong:	Qixuegu Hamlet, Xiaozhongdian Town
gNasgsar:	Naisi Hamlet, Xiaozhongdian Town
Yangthang:	Xiaozhongdian Hamlet, ¹⁸ Xiaozhongdian Town
Shingkhogteng:	Shenkeding Hamlet, Xiaozhongdian Town
Choswateng:	Chuiyading Hamlet, Xiaozhongdian Town
Jesha:	Jisha Hamlet, Xiaozhongdian Town

¹⁸ It used to be called Zongba, which means the place where the local governmental office is located.

bLobde: Ludui Hamlet, Hutiaoxia Town

4.2.1. WrT initial with a glide r

As Table 6 shows, the most distinctive variation of the dialects of the rGyalthang subgroup is attested in the sound correspondence of WrT initials with a glide r, i.e. Pr, Kr and Tr.¹⁹

Both Tables 7 and 8 deal with a combination Pr.

	Table /	Examples of I	7-series except	Ur.	
meaning	cliff	cloud	thin	rob	snake
WrT	brag	sprin	phra bo ²⁰	'phrog	sbrul
mTshongu	´sa?	¯€ĩ	`¢ ^h ə ^h tse	`¢ ^h u?	` ^m bu zu: ²¹
rTsegnyi	´ca?	^{-h} cĩ	`¢ ^h ə ^ĥ li	`¢ ^h u?	^{-h} ju:
Myigzur	´ça?	¯ ^h çĩ	^çʰε ʰtsi	`x ^h 0?	´ ^ĥ ɣuː
Lamzang	´ca?	Ē	´¢ ^h e za	`¢ ^h u?	′zʉ?
rGyalbde	´ca?	Ē	´¢ ^h e za	`¢ ^h u?	′zʉ?
mTshomgolung	´¢ ^h a?	-cĩ	`¢ ^h e ri	`¢ ^h u?	′zʉ?
Wangchukha	´ca?	Ē	^c ^h ə li	`¢ ^h u?	` ^ĥ Zʉ:
Byagkar	´ca?	Ē	^c ^h ə li	`¢ ^h u?	` ^ĥ Zʉ:
Nyishar	´sa?	-cĩ	´ɕʰə li	`ɕ ^h u?	^{-h} zu?
Alangu	´ca?	-cĩ	¯ɕʰə ʰtsi	`¢ ^h u?	` ^ĥ zʉ?
Gyennyemphel	´sa?	-cĩ	¯ɕʰə ʰtsi	`ɕ ^h u?	-zʉ
Khyimphyuggong	´sa?	^{-h} cĩ	`¢ʰa ʰli	`x ^h u?	′ ^ĥ gʉ:
gNasgsar	´sa?	^{-h} cĩ	-	-	` ^ĥ zʉ:
Yangthang	´sa?	^{-h} cĩ	^c ^h ə ^h tse	`x ^h u?	` ^ĥ zʉ:
Shingkhogteng	´ça?	¯hçĩ	^çʰə ʰtsi	`x ^h u?	` ^ĥ zʉ:
Choswateng	´ça?	¯ ^h çĩ	´ç ^h ə ^h tse	`x ^h u?	` ^ĥ ɣuː
Jesha	-	^{-h} xẽ	^çʰə lej	`x ^h u?	´ĥγʉ:
bLobde	'ca?	^{-h} cĩ	-che:	`¢ ^h u?	` ^ĥ zʉː

Table 7 Examples of *Pr*-series except '*br*.

There are multiple types of articulatory position: prepalatal (/ c^h , c, z/), palatal (/ c^h , c, j) and velar (/ x^h , x, χ /). Prepalatal fricatives are attested in many dialects. All of the examples in Table 7 feature a prepalatal fricative, especially the dialects of mTshongu, rGyalbde, mTshomgolung, Alangu and Gyennyemphel. The other three dialects Myigzur, Khyimphyuggong and Choswateng have multiple sound correspondences in each dialect. Of these three dialects, Myigzur and Choswateng have a similar pattern of sound correspondences, i.e. palatal and velar fricatives; Khyimphyuggong has

¹⁹ *Pr*, *Kr* and *Tr* designate all the combinations of initials including the radical letter p, ph and b plus *r*-glide, the radical letter k, kh and g plus *r*-glide, and the radical letter t and d plus *r*-glide respectively.

²⁰ There are various suffixes depending on dialects, which generally do not correspond to a WrT form.

²¹ The first syllable of this form corresponds to WrT 'bu 'worm'.

prepalatal fricatives and a velar plosive. The conditions for the appearance of velar sounds are common to the three, that is, the velar sound appears when a vowel /u, u, Θ / follows an initial. The examples cited in Table 7 show that the articulatory position depends on the vocalic quality; in Choswateng there is at least one exception, found in the example /^{-h}çu:/ 'monkey year' (WrT *sprel*). It is thus not a perfectly complementary distribution.

Of all the combinations of *Pr*-series, WrT '*br* is different from the others. It generally corresponds to prenasalised plosives or affricates.

C 11

T 11 0 F

1	able 8 Exam	iples of <i>br</i> .	
meaning	dragon	female yak	thin
WrT	'brug	'bri	'bras
mTshongu	′¹dzə?	⁻ⁿ dzə	^{-ŋ} gɯː
rTsegnyi	′¹dzɔ?	`ndzə	^{-ŋ} gi:
Myigzur	′¹go?	, ^u tə	^{-ŋ} ge:
Lamzang	′¹dzɔ?	⁻ⁿ dzə	^{-ŋ} gɯː
rGyalbde	′¹dzɔ?	^{-ŋ} dzə	^{-ŋ} gɯː
mTshomgolung	′¹dzɔ?	⁻ⁿ dzə	^{-ŋ} gɯː
Wangchukha	′¹dzɔ?	⁻ⁿ dzə	^{-ŋ} gɯː
Byagkar	` ⁿ dzɔ?	` ^ŋ dzə	` ^ŋ gɯː
Nyishar	′¹dzɔ?	^{-ŋ} dzə	^{-ŋ} gɯː
Alangu	^{′ŋ} g ^j ɔ?	^{-ŋ} g ^j ə	^{-ŋ} gɯː
Gyennyemphel	Sct _u ,	_h19	^{-ŋ} gɯː
Khyimphyuggong	Sct _u ,	, ^u tə	^{-ŋ} gɯː
gNasgsar	,u ^t .	-	^{-ŋ} gɯː
Yangthang	′¹dzɔ?	⁻¹dzə	^{-ŋ} gɯː
Shingkhogteng	Sct _u ,	_h19	^{-ŋ} gɯː
Choswateng	,u ^t .	_h19	^{-ŋ} gɯː
Jesha	, ⁿ fə5	_nfs	^{-ŋ} gɯː
bLobde	` ⁿ 10?	^{-p} I9	^{-ŋ} gui:

We consider that the initial sounds for 'dragon' and 'female yak' are basic sound correspondences with WrT '*br*. Comparing the examples in Table 8 with those in Table 7, the articulatory positions of the initial may be different from each other. For example, the examples in Table 7 have a prepalatal articulation in many dialects; however, in the case of WrT '*br*, there are only two dialects, namely, rGyalbde and mTshomgolung, that have a prepalatal articulation.

The word 'rice' has an exceptional correspondence with a velar plosive (/g/), and it may be regular, for there are several parallel examples of velar articulation, such as in 'dragon' in Myigzur.²² In addition, the example 'snake' in Table 7 also includes a velar initial.

²² For more detailed discussions, see Suzuki (2016d) and Suzuki and Sonam Wangmo (2016c).

Examples of Kr-series

meaning	blood	knife	hair
WrT	khrag	gri chung	skra
mTshongu	`tc ^h a?	íteə dzõ	^{-h} tca
rTsegnyi	`tc ^h a?	íteə dzð	^{-h} tea:
Myigzur	`c ^h a?	´kə ^ĥ dzð	^{-h} ca
Lamzang	-tcha?	'tcə dzõ	^{-h} tca
rGyalbde	-tcha?	'tcə dzõ	^{-h} tca
mTshomgolung	-tcha?	-	^{-h} tca:
Wangchukha	`tc ^h a?	íteə dzõ	^{-h} tca
Byagkar	`tc ^h a?	íteə ^{fi} dzə̃	` ^h tca
Nyishar	`tc ^h a?	íteə dzõ	^{-h} tca
Alangu	`k ^{jh} a?	'ke dzõ	^{-h} k ^j a
Gyennyemphel	`c ^h a?	´cə dzõ	^{-h} ca
Khyimphyuggong	`c ^h a?	´cə dzõ	^{-h} ca
gNasgsar	`c ^h a?	-	^{-h} ca:
Yangthang	`c ^h a?	´cə dzõ	^{-h} tca
Shingkhogteng	`c ^h a?	´cə zõ	^{-h} ca
Choswateng	`c ^h a?	´cə zõ	^{-h} ca
Jesha	`c ^h a?	´cə dzõ	^{-h} ca
bLobde	`c ^h a?	´cə dzõ	` ^h ca

Table 9 deals with a combination Kr.

Table 9

As with the combination Pr, Kr also features multiple types of articulatory position: prepalatal (/tc^h, tc, dz/), palatal (/c^h, c, $_{1}$ /), prevelar (/k^{jh}, k^j, g^j/) and velar (/k, g/). Each dialect has only one corresponding articulatory position, but we should note that Myigzur has two regular sound correspondences, namely, palatals and velars. It is true that all of the dialects mentioned here have a sound correspondence of velars in some specific examples, most of which are common to the dialects, such as 'go' (WrT 'gro). However, Myigzur and Alangu have a velar initial for the word 'knife', which has different initials in the other dialects. Focusing on this phenomenon, we can divide the dialects into three groups: 1) Myigzur and Alangu, which have two regular sound correspondences; 2) mTshongu, rTsegnyi, rGyalbde, mTshomgolung and Byagkar, which have a regular sound correspondence of prepalatals; and 3) Gyennyemphel, Khyimphyuggong, Yangthang, Shingkhogteng, Choswateng, Jesha and bLobde, which have a regular sound correspondence of palatals. In addition, the three groups are clearly divided from a geographical standpoint: 1) is spoken in the eastern area of rGyalthang, 2) is spoken in the central area of rGyalthang; and 3) is spoken in the southern area of rGyalthang.

Returning to the sound correspondence of WrT 'br, mentioned in Table 8, we can see that the articulatory position of the initial corresponding to WrT 'br has a close

relation to that of the WrT *Kr*-series, even in the case of Myigzur, which has two regular sound correspondences. This phenomenon implies that the sound correspondence of WrT *Pr*-series and *Kr*-series should be analysed together.

Table 10 deals with the combination d + r (=*Tr*).

1 401	сто платрі	cs 01 17-series.	
meaning	six	ask	phantom
WrT	drug	dri	sngags 'dre
mTshongu	`tɔ?	´tə	Tha ⁿ dzy
rTsegnyi	`to?	´tə	¯xa ⁿ də
Myigzur	`to?	´tə	-xε μds
Lamzang	`to?	´tə	¯xa ⁿ də
rGyalbde	`tu?	´tə	¯xa ⁿ dr
mTshomgolung	`to?	´tə	`xa ⁿ dx
Wangchukha	`to?	´tə	`xa ⁿ də
Byagkar	`to?	´tə	`xa ⁿ də
Nyishar	`tɔ?	´tə	`xa ⁿ də
Alangu	`tɔ?	´tə	¯xa ⁿ də
Gyennyemphel	`tɔ?	´tə	Tha ndə
Khyimphyuggong	`tow?	´tə	¯xa: ʰdə
gNasgsar	`tɔ?	´tə	¯xa: ʰdə
Yangthang	`tɔ?	´tə	¯xa: ʰdə
Shingkhogteng	`tɔ?	´tə	⁻xa: ʰd̥ə
Choswateng	`tɔ?	´tə	-ŋa ndə
Jesha	`tɔ?	´tə	Txa: "də
bLobde	-tə3	´tə	¯xa ⁿ də

Table 10Examples of Tr-series

Fundamentally, WrT *Tr* corresponds illustrates retroflex plosives (/t, d/) in each dialect, with some exceptions in mTshongu. These retroflex plosives may be distinctive from retroflex affricates (/ts^h, ts, dz/), which mainly originate from the WrT *c*, *ch*, *j*: *C*-series. The sound correspondence in the WrT *C*-series is quite stable across whole dialects, but a conditional variation is attested in Table 11.

		Examples of C.	-series.	
meaning	water	tea	one	cf. beautiful
WrT	chu	ja	gcig	mdzes pa
mTshongu	-tshm	´tşa	` ^h tɕi?	⁻ⁿ dzi: wu
rTsegnyi	-tshm	´tşa	^{-h} tci?	⁻ⁿ dzi: bwə
Myigzur	⁻ ts ^h u	´tşa	` ^h tɕi?	^{-ŋ} dzi: bwə
Lamzang	⁻ ts ^h u	´tşa	` ^h tɕi?	⁻ⁿ dzi: b y
rGyalbde	⁻tş ^h x	´tşa	` ^h tɕi?	⁻ⁿ dzi: b y
mTshomgolung	⁻ ts ^h u	´tşa	` ^h tɕi?	^{¬ŋ} dzi: ba
Wangchukha	⁻ ts ^h u	´tşa	` ^h tɕi?	^{¬ŋ} dzi: ba
Byagkar	`tsʰɯ	´tşa	` ^h tɕi?	⁻ⁿ dzi:
Nyishar	⁻ ts ^h u	´tşa	` ^h tɕi?	^{-ŋ} dzi: bwə
Alangu	⁻ ts ^h u	´tşa	` ^h tɕi?	^{¬ŋ} dzi: bwə

 Table 11
 Examples of C-series.

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Gyennyemphel	⁻tşʰɯ	´tşa	` ^h tɕi?	⁻ⁿ dzi: bo
Khyimphyuggong	⁻tşʰɯ	´tşa	` ^h tɕi?	^{-ŋ} dzi: bwə
gNasgsar	⁻tջ ^h ɯ	´tşa	` ^h tɕi?	^{-ŋ} dzi: bwə
Yangthang	⁻tջ ^h ɯ	´tşa	` ^h tɕi?	^{-ŋ} dzi: bwə
Shingkhogteng	⁻tşʰɯ	´tşa	` ^h tɕi?	^{¬ŋ} dzi: bə
Choswateng	⁻tsʰɯ	´tşa	` ^h tɕi?	^{-ŋ} dzi: bwə
Jesha	-tshm	<u>ít</u> sa	` ^h tɕi?	⁻ⁿ dzi: bə
bLobde	`tsʰɯ	´tşa	` ^h tɕi?	⁻ⁿ dzi: bə

The sound correspondence of the WrT C-series is basically retroflex affricates, but before /i/ or WrT i, they becomes prepalatal affricates. This is also true for the combination of WrT dz and e, as in the example 'beautiful', which also systematically occurs in WrT ts, tsh, dz: TS-series, except for the mTshongu dialect. This is a common feature of the rGyalthang subdialect, and other subgroups of the Sems-kyi-nyila group do not have it.

To understand the complete image of sound development mentioned above in each dialect,²³ I summarise the main sound correspondences related to *ra-btags* and its surroundings (cf. Table 6) in Table 12.

WrT	С	C(_i)	Ky	Py	Kr	Pr	'br	dr	sh/zh
mTshongu	tş	tc	tc	G	tc	G	⁰dz	t	ş
rTsegnyi	tş	tc	tc	G	tc	G	⁰dz	t	ş
Myigzur	tş	tc	tc	G	c/k	ç/x	ⁿ J∕ng	t	ş
Lamzang	tş	tc	tc	G	tc	G	⁰dz	t	ş
rGyalbde	tş	tc	tc	G	tc	G	⁰dz	t	ş
mTshomgolung	tş	tc	tc	G	tc	G	⁰dz	t	ş
Wangchukha	ts	tc	tc	ç	tc	G	⁰dz	t	ş
Byagkar	ts	tc	tc	ç	tc	G	⁰dz	t	ş
Nyishar	tş	tc	tc	G	tc	C	ⁿ dz	t	ş
Alangu	tş	tc	tc	G	k ^j /k	C	ŋgj	t	ş
Gyennyemphel	tş	tc	tc	G	с	C	ⁿ J	t	ş
Khyimphyuggong	tş	tc	tc	G	с	C	ⁿ J	t	ş
gNasgsar	tş	tc	tc	G	с	C	ⁿ J	t	ş
Yangthang	tş	tc	tc	G	tc	G	⁰dz	t	ş
Shingkhogteng	tş	tc	tc	G	с	ç	ⁿ J	t	ş
Choswateng	tş	tc	tc	G	с	ç/x	ⁿ J	t	ş
Jesha	tş	tc	tc	G	с	ç/x	ⁿ J	t	ş
bLobde	tş	tc	tc	G	c	G	ⁿ J	t	ş

Table 12 Summary of sound correspondences.

Abbreviations:

t: retroflex plosives c: palatal plosives k^j: prevelar plosives k: velar plosives ts: retroflex affricates tc: prepalatal affricates s: retroflex fricatives c: prepalatal fricatives

²³ To understand the change of the phonological system is as important as clarifying each sound correspondence of individual WrT and dialect forms (Nishida 1987).

ç: palatal fricatives x: velar fricatives

In every dialect, the phonological system is simplified relative to that of WrT. Thus, the more complex it is, the more conservative it is. Table 12 focuses on the series of WrT Ky, Py, Kr and Pr. The WrT Ky-series and Py-series have an identical sound correspondence feature of prepalatal articulation in every dialect, whereas the WrT Kr-series and Pr-series have multiple and various sound correspondences, as shown in this section. However, the sound correspondences of the WrT Ky-series and Kr-series and of the WrT Py-series and Pr-series are the same in the dialects such as mTshongu and rGyalbde. This means that the WrT Kr-series and Pr-series are merged into WrT Ky-series and Py-series, respectively. Hypothetical processes of sound development²⁴ are arranged in Table 13.

 Table 13
 Hypothetical sound development process.

WrT	•	1 st attested stage	>	2 nd attested stage
Kr	:	/c/, /k ^j /	>	/tɕ/, /k/
Ky	:	/tc/	=	(maintained)
Pr	:	/ç/, /x/	>	/ c /
but 'br	:	n J n	>	/ndz/
Py	:	/ɕ/	=	(maintained)

The dialects in the present article are classified into the following grades:

1) reflecting the first stage in all the examples (i.e. the most conservative pattern): Myigzur, Shingkhogteng, Choswateng, and Jesha

2) reflecting the second stage in all of WrT Py except 'br:

Alangu, Gyennyemphel, Khyimphyuggong, gNasgsar, and bLobde

 reflecting the second stage in all the examples (i.e. the most innovative pattern): mTshongu, rTsegnyi, Lamzang, rGyalbde, mTshomgolung, Wangchukha, Byagkar, Nyishar, and Yangthang

²⁴ The sound change WrT Kr > /k/ should not be interpreted as an omission of the *r*-glide, because a parallel relation is also attested as WrT Pr > /x/, a velar series. Concerning the sound change from WrT Pr to palatal-velar sounds, there is no direct attestation of the process of sound change process; however, some hypotheses of the sound change will be suggested. 1) palatalisation of the r-glide (Pr > Py) after the sound change (Py > the first attested stage); 2) velar-uvularisation of *r*-glide, which caused a sound change from Pr to palatal-velar sounds. The latter hypothesis may be applicable to the case attested in the Daan dialect (Melung subgroup of the Sems-kyi-nyila group; see Suzuki 2009f, 2011d).

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From a phonological view, these data shows that palatal plosives may be better conserved than palatal fricatives. Focusing on the geographical distribution of each dialect, one sees that the most innovative pattern is found in the dialects spoken in the central to northern area of rGyalthang, with the exception of Yangthang and bLobde,²⁵ whereas the most conservative pattern is found in the dialects spoken in the peripheral

²⁵ The bLobde dialect is isolated from other Tibetan dialects. We need more research on the migration history of Tibetans living in Ludui Hamlet.

area of rGyalthang (see Figure 2). This type of distribution follows a widespread dialectological theory: the linguistically or socially prestigious varieties change the most rapidly, and in contrast the archaic features remain on the periphery (the *concentric circle theory* in dialectology²⁶). Therefore, from a linguistic viewpoint, we can say that rGyalthang (Jiantang Town) is the centre of (greater-)rGyalthang region.

4.2.2. WrT rhyme with a final r and other features

The sound development of WrT *r*-final can indicate the influence of another language, Naxi. Table 14 contains some examples corresponding to WrT *r*-final.²⁷

	Table 14	4 Examples of <i>-r</i> series.		
meaning	gold	wet	butter	white
WrT	gser	gsher ba	mar	dkar dkar
mTshongu	^{-h} so:	-sə wa	´mθ:	^{-h} kə: s ^h ẽ ²⁸
rTsegnyi	^{-h} si:	`şə lje	´mε:	^{-h} kə ^h ki:
Myigzur	^{-h} se:	-şaj ^h te	íma:	^{-h} qa ^h qa:
Lamzang	^{-h} sj:	_ຄ_lwa	ímo:	^{-h} kə ^h ku:
rGyalbde	^{-h} sj:	_າ_ຫa	ímo:	^{-h} kw ^h kw:
mTshomgolung	^{-h} sj:	´şə lo wa	ímo:	^{-h} kə ^h kə:
Wangchukha	^{-h} sj:	_⊊ງ wa	ímo:	^{-h} kə ^h ku:
Byagkar	^{-h} sj:	_5ງ Iwa	ímo:	^{-h} kə ^h ku:
Nyishar	^{-h} sj:	_⊊ງ wa	´mu:	^{-h} kə ^h ku:
Alangu	_sງ:	-	´mu:	^{-h} kuu ^h kuu
Gyennyemphel	⁻ s ^h]:	`ຄ: tee	ímu:	^{-h} kuu ^h kuu
Khyimphyuggong	^{-h} sj:	_ຊງ∶ tɕə	ímo:	^{'h} kw ^h kw:
gNasgsar	^{-h} sj:	`ຄ_: tce	-	^{-h} ku:
Yangthang	^{-h} SJ	`ຄ: tce	ímo:	^{-h} kw ^h kw:
Shingkhogteng	^{-h} SJ	`ຄ: tຼອງ	ímu:	^{-h} kw ^h kw:
Choswateng	^{-h} sj:	_າ_ຫa	ímu:	^{-h} kw ^h kw:
Jesha	^{-h} sj:	`ຄ: tce	ímõ	^{-h} kw ^h kw:
bLobde	` ^h sղ:	`ຄ_lje	ímo:	` ^h ku: s ^h e

We note the existence of the phoneme /1-1/. This sound can accompany a strong pharyngealised feature, which is not often attested in other Tibetic languages and

²⁶ This concept was first proposed by Yanagita (1930) in Japanese dialectology. See Kobayashi (2014) for detailed discussions of this idea.

²⁷ See also Suzuki (2019a) for the present topic.

²⁸ The second syllable of this form is used for other colour term in mTshongu as well as other dialects belonging to the Sems-kyi-nyila group except for the rGyalthang subgroup.

dialects,²⁹ but is attested in Sanba \equiv <math> $Maxi.^{30}$ The sound development of this phoneme may have been influenced by Naxi.^{31} It is only absent in Myigzur, mTshongu, and rTsegnyi, located in the northern area of rGyalthang, where contact between Naxi and Tibetan may have been less frequent than in the rest of the region, or even non-existent. In addition, the development of the rhyme in mTshongu is peculiar, and it may mean that an independent sound change has occurred that separates it from other dialects.

It should be noted that the relative chronological order of the sound change corresponding to WrT final r is relatively conservative in the dialects belonging to the Sems-kyi-nyila dialectal group. Some dialects from the East Yunling Mts. subgroup still maintain /r/ as the final consonant, while others pronounce it as a retroflex vowel. Consequently, we suppose that a /r/-final element would have been kept up to relatively recently, even in the rGyalthang subgroup. This also means that this group and Naxi have had a long-term contact with each other, which would influence the sound development in relation to the present topic.

Another noteworthy particularity is found in Myigzur. Uvular consonants, such as /q/, frequently appear as a regular sound correspondence of WrT *k*, *kh*, *g* (cf. Suzuki 2014f). The existence of uvular plosive phonemes in the Tibetic languages has been closely investigated, by Huang (2012) among other. The reason that Myigzur has these phonemes is still unclear, but it may be an internal development, not an external factor, such as language contact.³²

²⁹ Sounds related to 'r' may cause various phonetic developments, such as retroflexion and velarisation, as well as pharyngealisation. Suzuki (2011h) reports sound variations in the final r in dialects of the sDerong-nJol group.

³⁰ Detailed discussion can be found in Kurosawa (2001) and Suzuki (2011g, 2013f). See also He (2015).

³¹ I think that the influence of Naxi on Tibetan can be most clearly seen in the dialects of the Melung subgroup among the subgroups of the Sems-kyi-nyila group. A basic discussion is provided in Suzuki (2013f). Several descriptive analyses on this subgroup also mention this issue (Suzuki 2009f, 2011c,d). Another perspective of the relation between Naxi and Tibetan exists, namely, Tibetan loanwords in the Dongba reading pronunciation studied by He (2012), which includes some pronunciations specific to the Sems-kyi-nyila group.

³² This supposition does not exclude the possibility that the Myigzur dialect originally possessed uvular sounds, for the sKobsteng dialect, a member of the Melung subgroup, has a few examples of a uvular plosive initial (Suzuki 2013f). A similar case is also attested in the region of Minyag Rabgang (west of Kangding Municipality, Sichuan). Some dialects have uvular sounds (e.g. Rangakha dialect; cf. Suzuki 2007c). Some dialects do not (e.g. Lhagang dialect; cf. Suzuki 2006, Suzuki and Sonam Wangmo 2015a), even where those with and those without are genetically close to each other. In this case, language contact with Darmdo Minyag

4.3. Historical linguistics in the rGyalthang subgroup

In this subsection, I analyse a specific phonetic feature shared by the dialects of the rGyalthang subgroup, briefly mentioned in Table 11 in 4.2, that is, the phenomenon of sound correspondence between the WrT *C*-series and the *TS*-series becoming prepalatal obstruents. We discuss the phonological conditions of this sound correspondence because it is a relatively rare phenomenon in the Tibetic languages.³³

4.3.1. Examples regarding WrT C-series and TS-series

Prepalatal articulation as a sound correspondence of the WrT *C*-series and the *TS*-series is also found in the case of the WrT fricatives sh, zh, s and z. WrT *C*-series, sh and zh, as shown in Tables 11 and 12, generally correspond to retroflexes, whereas WrT *TS*-series, s and z to correspond to denti-alveolars. In sum, the above-mentioned WrT obstruents have a prepalatal articulation under certain conditions.

Table 15 contains examples of WrT prepalatal obstruents, i.e. *C*-series, *sh*, and *zh*, which correspond to prepalatal sounds:³⁴

Table 15 Examples of Wr1 prepalatal obstruents.					
meaning	one	dharma	louse	damaged	
WrT	gcig	chos	shig	bshig	
mTshongu	` ^h tɕi?	-tc ^h u:	-	-	
rTsegnyi	^{-h} tci?	-	-	` ^h ɕi?	
Myigzur	` ^h tɕi?	⁻tɕ ^h ʉ:	`ş ^h i?	-	
Lamzang	` ^h tɕi?	⁻tɕ ^h ʉ:	`c ^h i?	-ci?	
rGyalbde	` ^h tɕi?	⁻tɕʰʉ:	-ş ^h i?	`ci?	
mTshomgolung	` ^h tɕi?	⁻tɕʰʉː	-	-ci?	
Wangchukha	` ^h tɕi?	-tc ^h u:	`¢ ^h i?	-ci?	
Byagkar	` ^h tɕi?	-tc ^h u:	`¢ ^h i?	-ci?	
Nyishar	` ^h tɕi?	⁻tɕʰʉː	`ş ^h i?	-	
Alangu	` ^h tɕi?	⁻tɕʰʉː	`¢ ^h i?	-	
Gyennyemphel	` ^h tɕi?	⁻tɕʰʉː	-ş ^h i?	-	
Khyimphyuggong	` ^h tɕi?	`ţş ^h ʉj	`ş ^h i?	` ^h şəj?	
gNasgsar	` ^h tɕi?	-	-	-	
Yangthang	` ^h tɕi?	-	`ş ^h i?	` ^h ci?	
Shingkhogteng	` ^h tɕi?	-	`ş ^h i?	` ^h şi?	
Choswateng	` ^h tɕi?	-tc ^h u:	`¢ ^h i?	` ^h ɕi?	
Jesha	` ^h tɕi?	-	`ş ^h i?	` ^h şəj?	
bLobde	` ^h tɕi?	-ts ^h uj	`ş ^h i?	-	

 Table 15
 Examples of WrT prepalatal obstruents.

⁽a Qiangic language; cf. Dawa Drolma and Suzuki 2016) may be a factor either in *maintaining preexisting uvular sounds* or in their *acquisition*.

³³ See also Suzuki (2018b) for the present topic.

³⁴ The examples shown in 4.3. will be either a word or a syllable concerning the present issue. The tonal sign of the latter form is not indicated.

Of the examples in Table 15, straightforward sound correspondence is attested only in 'one'. This implies that the prepalatal sounds are not conditioned by a phonological feature; however, it is quite possible that the nature of the following vowel /i/ or /u/, i.e. high non-back position, may be a factor in the generation of prepalatal sounds. Because /u/ is attested only in one example ('dharma'), I will examine the case of /i/. As in Table 15, /i/ is a factor that causes a prepalatal sound; however, it cannot be formulated as a phonological rule, for there are too many exceptions, such as $/\bar{s}^{h}i:/$ 'know' (WrT *shes*) of all dialects other than the examples 'louse' and 'damaged' in some dialects, as in Table 15. On the other hand, vowels other than /i/ (and /u/) usually cannot generate a prepalatalisation, for example, /^htse?/ 'cut off' (WrT *bcad*). However, such examples as /⁻te^hə/ 'what' (WrT *chi*) are also attested. Hence, there are multiple conditions that can generate prepalatal initials, of which the vowel /i/ is well attested in dialects.

As noted above, it remains difficult to find a sufficient condition to determine a phonological rule for the phenomenon regarding WrT prepalatal obstruents. Table 16 contains examples of WrT denti-alveolar obstruents, i.e. *TS*-series, *s*, and *z* which correspond to prepalatal sounds:³⁵

1 4010 1	Difference of the second secon	of will define a	veolar oostraen	c 5.
meaning	life span	beautiful	clear	leopard
WrT	tshe	mdzes	gsal	gzig
mTshongu	⁻ ts ^h ə	⁻ⁿ dzi:	` ^h si:	` ^ĥ zi?
rTsegnyi	⁻ ts ^h ə	⁻ⁿ dzi:	^{-h} si:	` ^ĥ zi?
Myigzur	¯tɕʰə	⁻ⁿ dzi:	^{-h} ci:	^ĥzej?
Lamzang	¯tɕʰə	⁻ⁿ dzi:	` ^h si:	` ^ĥ zi?
rGyalbde	¯tɕʰə	⁻ⁿ dzi:	` ^h si:	` ^ĥ zi?
mTshomgolung	¯tɕʰə	⁻ⁿ dzi:	-ci:	` ^ĥ zi?
Wangchukha	¯tɕʰə	⁻ⁿ dzi:	^{-h} ci:	` ^ĥ zi?
Byagkar	¯tɕʰə	⁻ⁿ dzi:	^{-h} ci:	` ^ĥ zi?
Nyishar	`tɕʰə	⁻ⁿ dzi:	′ ^h ci:	` ^ĥ zi?
Alangu	¯tɕʰə	⁻ⁿ dzi:	^{-h} ci:	` ^ĥ zi?
Gyennyemphel	-tc ^h ə	⁻ⁿ dzi:	′ ^h ci:	-
Khyimphyuggong	-tc ^h ə	⁻ⁿ dzi:	^{-h} ci:	-ĥzi?
gNasgsar	-tc ^h ə	⁻ⁿ dzi:	^{-h} ci:	-
Yangthang	⁻ ts ^h ə	⁻ⁿ dzi:	^{-h} ci:	-ĥzi?
Shingkhogteng	-tc ^h ə	⁻ⁿ dzi:	^{-h} ci:	-fizi?
Choswateng	-tc ^h ə	⁻ⁿ dzi:	` ^h ci:	`fizi?
Jesha	¯tɕʰə	⁻ⁿ dzi:	^{-h} ci:	-ĥzi?
bLobde	-tchə	⁻ⁿ dzi:	` ^h si:	^{-fi} zej?

 Table 16
 Examples of WrT denti-alveolar obstruents.

³⁵ This phenomenon is partially noted by Lu (1990:150), but Lu does not add any comments on the origin of this exceptional sound correspondence.

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The case of WrT denti-alveolars is evidently different from that of WrT prepalatal obstruents. The mTshongu dialect does not behave the same as other dialects do with regard to these sounds. This tells us that the mTshongu dialect is typologically different from the other dialects, so I remove it from the following discussion. Focusing on the nature of the vowels, we can point identify that the prepalatalisation is related to /ə/ and /i/.³⁶ It may be surprising that /ə/ influences a prepalatalisation of the initial. Adding data from the Choswateng dialect, we find some other vowels followed by prepalatal sounds, as in /'c^ha:/ 'hail' (WrT *ser ba*) and /'c^ha mõ/ 'nail' (WrT *sen mo*). From this observation, I note that there are multiple examples of vowels influencing prepalatalisation, including *e* in WrT. It is also true that WrT *e* does not always generate prepalatalisation, as in /⁻s^hə s^hl:/ 'yellow' (WrT *ser ser*) and /⁻s^hẽ ⁿJə/ 'lion' (WrT *seng ge*) from Choswateng, but it is probable that WrT *e*, to some extent, influences prepalatalisation.

4.3.2. Examples regarding WrT velar initials

To consider the phonetic phenomenon described in 4.3.1., I shall mention a characteristic indication of WrT velar initials. Although they are a simplex, their sound correspondence is indeed quite similar to the case of WrT *Kr*-series shown in Table 9 as well as WrT *'br*-series shown in Table 8.

I present examples below. Table 17 contains examples of the *second* syllable of the words 'wolf' (*spyang ki*), 'lion' (*seng ge*), and 'script' (*yi ge*) compared with the word 'hair' (*skra*):

Table 17 Examples of Kr-series.				
meaning	wolf	lion	script	cf. hair
WrT	ki	ge	ge	skra
mTshongu	tɕʰə	ກູວ	dzə	^{-h} tca
rTsegnyi	¢ ^h ə	ndzə	ZƏ	^{-h} tca:
Myigzur	k ^h e	^ŋ gə	γjə	^{-h} ca
Lamzang	tɕʰə	⁰dzə	dzə	^{-h} tca
rGyalbde	tɕʰə	⁰dzə	dzv	^{-h} tca
mTshomgolung	tɕʰə	⁰dzə	dzə	^{-h} tca:
Wangchukha	tɕʰə	⁰dzə	dzə	^{-h} tca
Byagkar	tɕʰə	⁰dzə	dzə	` ^h tca
Nyishar	tɕʰə	ηdzə	dzv	^{-h} tca
Alangu	k ^{jh} ə	ge	g ^j ə	^{-h} k ^j a

Table 17 Examples of *Kr*-series

³⁶ The phenomenon that the palatalisation of WrT denti-alveolar obstruents is caused by /i/ and other higher vowels is also attested in mBrugchu Tibetan dialects (spoken in Zhouqu County, Gannan Prefecture, Gansu; Suzuki 2015a). These dialects and those belonging to the Sems-kyi-nyila group are not genetically related in the narrow sense. We consider that the same phenomenon may have developed independently in each dialectal group.

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Gyennyemphel	c ^h ə	ցե _մ	dzə	^{-h} ca
Khyimphyuggong	c ^h ə	°ffu de la construction de la co	fə	^{-h} ca
gNasgsar	c ^h ə	-	fə	^{-h} ca:
Yangthang	e ^h ə	⁰dzə	dzə	^{-h} tca
Shingkhogteng	c ^h ə	ցե _մ	fə	^{-h} ca
Choswateng	c ^h ə	ցե _մ	fə	^{-h} ca
Jesha	ç ^h ə	-	jə	^{-h} ca
bLobde	-	efu	1 9	` ^h ca

As Table 17 shows, the sound correspondence of the syllables ki and ge in WrT is quite similar to that of WrT *Kr*-series. Thus, the question at present is why the velar initial changed into prepalatal-palatal sounds by itself, for it is not realistic to reconstruct an *r*-glide after a velar in the examples given in Table 17 in the context of Tibetan historical linguistics. Of the examples above, 'lion' and 'script' also include the WrT *e* vowel, which is similar to the case presented in 4.3.2.

4.3.3. Analysis

The examples discussed in 4.3.1. and 4.3.2. demonstrate the presence of peculiar phonetic correspondences with WrT. Here I will mention the possibility that WrT *e* has the common proto-form $*/j_{9}/$.

The so-called *palatalised* forms have probably been generated with an influence from the vocalic element following an initial consonant, especially /i/. To explain the palatalisation attested in 'life span' shown in Table 16 and the examples in Table 17, the possibility that WrT *e* possesses a kind of front high vowel characteristics must be taken into consideration. However, the main sound correspondence of WrT *e* seems to be /ə/ in this case, and we cannot explain the above-mentioned phenomenon. Hence, I propose that a possible sound correspondence for WrT *e* is /jə/, of which the glide /j/ can cause palatalisation.

This hypothesis finds support from the two following phenomena: parallel sound correspondence between WrT o and /wə/ (Table 18) and other examples of WrT e in open syllables (Table 19):

ruble to Examples of with o in an open synable.					
meaning	tooth	he/she	stone		
WrT	SO	kho	rdo		
mTshongu	⁻ s ^h wə	¯k ^h wə	` ^ĥ du		
rTsegnyi	⁻ s ^h wə	¯k ^h wə	^{-h} do		
Myigzur	⁻ s ^h u	⁻ q ^h wə	^{-h} do		
Lamzang	⁻ s ^h wə	¯k ^h wə	^{-h} dwə		
rGyalbde	⁻ s ^h x	⁻ k ^h w y	^{-h} dx		
mTshomgolung	⁻ s ^h wə	¯k ^h o	^{-h} dwə		
Wangchukha	⁻ s ^h wə	¯kʰwə	^{-h} dwə		

Table 18Examples of WrT o in an open syllable.

Byagkar	`s ^h wə	⁻ k ^h wə	` ^ĥ dwə
Nyishar	⁻ s ^h wə	⁻ k ^h wə	` ^ĥ do
Alangu	⁻ s ^h wə	⁻ k ^h o	´ĥdo
Gyennyemphel	⁻ s ^h u	⁻ k ^h o	^{-h} do
Khyimphyuggong	⁻ tswə	⁻ k ^h u	′ ^ĥ dwə
gNasgsar	⁻ s ^h wə	⁻ k ^h wə	′ ^ĥ dwə
Yangthang	⁻ tswə	⁻ k ^h wə	′ ^ĥ dwə
Shingkhogteng	⁻ s ^h wə	⁻ k ^h wə	^{-h} dwə
Choswateng	⁻ s ^h wə	¯k ^h wə	^{-h} dwə
Jesha	⁻ s ^h wə	⁻ k ^h wə	^{-h} dwə
bLobde	`s ^h wə	`k ^h wə	⁻⁶ do

Table 19Examples of WrT e in a second syllable.

meaning	saw	cat	plain
WrT	(sog) le	(a) le ³⁷	(leb) leb
mTshongu	-	ljuu	-
rTsegnyi	ljə	ljuu	ljo?
Myigzur	ljə	ljuu	ljo?
Lamzang	ljə	ljuu	ljo?
rGyalbde	lj x	ljuu	-
mTshomgolung	ljə	ljuu	lju?
Wangchukha	ljə	lju	ljo?
Byagkar	ljə	lju	ljo?
Nyishar	ljə	lju	ljo?
Alangu	-	lju	-
Gyennyemphel	ljuu	ljuu	ljuu
Khyimphyuggong	ljə	lju	ljə
gNasgsar	-	lju	ljo?
Yangthang	-	lju	lju?
Shingkhogteng	-	lju	-
Choswateng	ljə	lju	ljo?
Jesha	ljə	lju	-
bLobde	liə	liu	ljo?

A simple synchronic description shows that WrT e corresponds to /a/ in every dialect, but through a discussion concentrated on a special sound correspondence (Section 4.3), we can produce another hypothesis: WrT e can correspond to /ja/, which is comparable to the relation between WrT o and /wa/. I apply this hypothesis to examples from Table 16:

Table 20 Hypothetical sound change process on a denti-alveolar initial.

meaning	WrT	apply the hypothesis	after a sound change
life span	tshe	*tshjə	*tɕʰə
beautiful	mdzes	*mdzjəs	*mdzəs

³⁷ The WrT orthography of 'cat' as *a le* or *le le* is provided in DTLF (1899:682, 1081) and Giraudeau and Goré (1956:55). See also Suzuki (2014c).

Next I apply it to examples from Table 17:

Table 21 Hypothetical sound change process on a velar initial.							
meaning	WrT	apply the hypothesis	after a sound change				
lion	(seng) ge	*gjə	*ājə \ *fə				
script	(yi) ge	*gjə	*gjə / *fə				

In Table 13 of 4.2, I noted that the historical development for related sounds could be $/c/-/k^j/ > /tc/-/k/$. We note that the sound $/k^j/$ is certainly attested in the Alangu dialect. It is already evident that $/c/-/k^j/$ correspond to WrT *Kr*-series in the dialects belonging to the rGyalthang subgroup. After an application of the rule WrT *e*: *jə, the glide *j can be seen as causing a palatalisation of the preceding denti-alveolar and velar initials in the same way as found in the WrT *Kr*-series.

Now let us recall the WrT *Ky*-series. The WrT *ya-btags* also designates *j, however, the combination *Ky* always corresponds to prepalatal affricates in the rGyalthang subgroup, as shown in examples 2 and 3 in Table 6. This implies the existence of the chronological order of sound changes: where WrT *e* corresponds to *j \Rightarrow should be after the WrT *Ky*-series has already completed its sound correspondence with prepalatal affricates and before the WrT *Kr*-series completed the sound change from the first stage to the second stage, as displayed in Table 13.

I have argued in this discussion that a factor of palatalisation is the vowel /i/ and a hypothetical glide /j/ developed from a WrT rhyme *e* that we are unable to attest in the examples. The relation between WrT *e* and *j9 is still hypothetical, and *j9 may have another possible sound, such as *je for example. Because we cannot observe an older form corresponding to WrT *e* in contemporary dialects, it is impossible to determine the most accurate form. The advantage for choosing *j9 is its parallel relation with the form corresponding to WrT *o*, as shown in Table 18. If WrT *e* directly corresponds to *je, WrT *o* can also correspond to *wo; then, as the next step, we should hypothesise two sound changes *e > 9 and *o > 9. This makes the sound change process more complex. It is better to take a one-step sound correspondence WrT *e* : *j9 and WrT *o* : *w9, which means that each glide would inherit its articulatory feature from the vowels.

5. Conclusion

In this article, I have provided a linguistic overview of rGyalthang Tibetan, i.e. the dialects belonging to the rGyalthang subgroup of the Sems-kyi-nyila group of Khams

Tibetan with a brief introduction to its neighbouring dialects. It is evident that in the Tibetan cultural area, each village has its own tongue, and rGyalthang is no exceptional. This article provides a detailed aspect of characteristic dialectal differences through the linguistic method of geolinguistics one. The result shows that the rGyalthang area is an excellent field for building up a model for Tibetan dialectology and even the general dialectology, and it clearly manifests the relationship between the dialectal distribution and the historical sound development, including *concentric circle theory* and the contact with Naxi.

The goal of dialectology is to describe all of the dialects in a given area. A dialectological work on the rGyalthang region requires more data from villages that I did not mention here. In addition, this article was unable to deal with generational differences in speech forms. This research field remains to be developed in the future.

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Photo gallery 4

Sharp curve of rGyal mo rNgul chu (Nujiang). At Bingzhongluo, Nujiang.



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Historical development of Bodgrong [Bingzhongluo] Tibetan (Gongshan, Yunnan) from a geolinguistic perspective

1. Introduction

This chapter discusses a development in Bodgrong Tibetan, spoken in Bingzhongluo [Bod-grong] Township, Gongshan Trung and Nu Autonomous County, Nujiang [rGyal-mo rNgul-chu] Lisu Autonomous Prefecture, Yunnan Province, based on oral history of the speaking group's migration history, using other dialectal materials of the dialects spoken in Diqing [bDe-chen] Prefecture. Bodgrong Tibetan may have several vernaculars; here, I deal with the vernacular of Rithang [Ri-thang].



Figure 1 Bingzhongluo Village. © 2013 Tshewang nGyurmé.

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Bodgrong Tibetan is spoken by Tibetans and Nu-nationality people living in the central area of Bingzhongluo 丙中洛 Township, Gongshan 贡山 County, Nujiang 怒江 Prefecture, Yunnan 云南. Bingzhongluo Township contacts Cawalong 察瓦龙 Township of Tibet Autonomous Region and Yunling 云岭 and Yanmen 燕门 villages of Deqin 德钦 County, Diqing 迪庆 Prefecture, both of which are part of the Tibetan cultural area. In Nujiang, Tibetan dialects are distributed in Bingzhongluo and Bangdang 棒当 Townships, and they are a minority language in this area, where Lisu, Nung (a.k.a. Anu, regarded as a dialect of Dulong; see Qin & Suzuki 2016), and Chinese are spoken. There is dialectal divergence inside of the two townships to a certain extent, and there are at least three varieties: Bodgrong (Bingzhongluo [Bodgrong]; 'luo' is a Lisu word which designates 'place'), Chunagthang (Qiunatong [Chunag-thang] 秋那桶), and Dimalo (Dimaluo 迪麻洛).

The Tibetans living in Nujiang are thought to have migrated from gYanggril (Yongzhi [Glang-sgril] 永支, Yunling) and Tshodrug (Cizhong [Tsho-drug] 茨中, Yanmen) villages in the present Deqin County several generations previously, around 200 years ago. No specific relationship between Bodgrong and Tshawarong (Chawalong [Tsha-ba-rong]) has been attested, however.





Figure 3 Location of related varieties.

According to Suzuki (2013e, 2014b), the dialectal position of Bodgong Tibetan is an independent subgroup of the sDerong-nJol group of Khams Tibetan. The dialects of the sDerong-nJol group spoken are Yunnan are classified into five subgroups: West Yunling Mountain, mBalhag, sPomtserag, gYagrwa and Bodgrong. Almost all of the dialects spoken in the area mentioned above belong to the West Yunling Mountain group. The Tshawarong dialect is, however, comes from of another dialectal group,

which is still unclear and has been temporarily classified into the rDzayul dialect group, including the sGola (Gula [sGo-la] 古拉) dialect, spoken to the north of Tshawarong.

The dialects belonging to the West Yunling Mountain subgroup show interesting differences in term of sound development; hence, they do not seem to form a single group (Suzuki 2019b). Differences within this group are discussed in Section 3. The other dialects spoken in Gongshan County, Chunagthang and Dimalo, also belong to the West Yunling Mountain subgroup. Their ancestors, like the speakers of Bodgrong Tibetan, came from Yunling and Yanmen villages, Deqin County, Diqing Prefecture; however, all of them have diverged from each other to some extent.

This chapter consists of two parts: a brief phonological description of Bodgrong Tibetan and a discussion of its historical development. First, an overview is given of the phonological system of Bodgrong Tibetan, along with a brief description of its sound correspondences with Written Tibetan (henceforth WrT), which is given to show the pattern of its historical development pattern in phonology status, are presented. These are the basic materials of Bodgrong Tibetan. Second, two comparisons with the cases of the gYanggril and Tshedrug dialects are provided. The first regards the sound correspondences with WrT, and the other is regards dialectal lexical forms. The discussion includes linguistic maps, which display differences attested within the dialects spoken along the Lancangjiang River (the West Yunling Mountain subgroup). These maps clarify the typological differences of the gYanggril and Tshedrug dialects.

The data used to create the linguistics maps within the chapter (Figures 4–10) are all from first-hand materials collected by the author. The linguistic maps reflect socalled 'regiolects', i.e. dialects with regional differences. Sociolects, which certainly exist in the given area, are not dealt with in this chapter. All the maps were designed with ArcGIS online.

2. Bodgrong Tibetan: phonology and basic sound correspondence with WrT

2.1. Sound system

The phonological inventory of Bodgrong Tibetan (vernacular of Rithang) is as follows:

	Tal	ble 1 Con	sonantis	sm.				
		А	В	С	D	Е	F	G
plosive	aspirated	$\mathbf{p}^{\mathbf{h}}$	t^h	ť			$\mathbf{k}^{\mathbf{h}}$	
	non-aspirated	р	t	t			k	?
	voiced	b	d	d			g	
affricate	aspirated		tsh		t¢ ^h	cc^h		
	non-aspirated		ts		te	cç		
	voiced		dz		dz	Jj		
fricative	aspirated		$\mathbf{s}^{\mathbf{h}}$		\mathbf{c}^{h}		$\mathbf{x}^{\mathbf{h}}$	
	non-aspirated		S		c		х	h
	voiced		Z		Z			ĥ
nasal	voiced	m	n		ŋ		ŋ	
	voiceless	m	ņ		ή,		ů	
liquid	voiced		1	r				
	voiceless		l	ŗ				
semi-vowel	voiced	W				j		
A: bilabial	B: denti-alveolar	C: retro	flex		D: prepa	alatal		E: palatal
F: velar	G: glottal							

	Table	2 V	'ocalis	m.
i		u		u u
e		ə	0	
	ε		э	
	а	(a	

Tones

A four-way distinction in word tone. The following phonemic signs are used at the beginning of a word:

: high level [⁵⁵/⁴⁴] ': rising [²⁴/³⁵]
 : falling [⁵³/³¹] ^: rising-falling [¹³²]

For details of the sound structure of Bodgrong Tibetan, see Suzuki (2014h).

2.2. Sound correspondence with WrT

For the sake of simplicity and explicitness, I present several peculiar sound correspondences of Bodgrong Tibetan with WrT as follows.

2.2.1. WrT voiced obstruents

The sound correspondence of Bodgrong Tibetan with WrT voiced obstruent simplexes is voiceless non-aspirated simplex in low tone (rising or rising-falling), as:

/'pa/ 'cow' ba /'tɔ̃/ 'bear' dom /'cı̃/ 'field' zhing /'si: ba/ 'dew' zil ba

When any of the initials of this category appears on the second syllable, they are voiced as follows:

/'cça/ 'tea' <i>ja</i>	/'me: jja/ 'butter tea' mar ja
/'sẽ/ 'meal' <i>zan</i>	/'co: zẽ/ 'breakfast' zhogs zan

When voiced obstruents in WrT have a glide, they correspond to voiceless nonaspirated simplex in the low tone as well:

/'ca/ 'chicken' bya /'ta?/ 'cliff' brag /'tc3/ 'wall' gyang /'tẽ/ 'think' dran

There are some exceptional examples; however, they are common to the dialects of the sDerong-nJol group:

/`ts ^h ə/ 'dog' khyi	(a denti-alveolar affricate appears)
/`tɔ?/ 'six' <i>drug</i>	(a falling pitch appears)

2.2.2. WrT including a glide y, r, or c/ch/j/sh/zh

These series are systematically analysed, as it is easier to understand the mergers and divergences of their sound correspondences in this way. The summary of the sound correspondence is as follows:

WrT	Basic corresponding sound (articulation)
c/ch/j	palatal affricates
Ky-series	prepalatal affricates
Py-series, sh/zh	prepalatal fricatives
r-glide included	retroflex plosives

Table 3 Principal sound correspondence of Bodgrong Tibetan with WrT.

Examples of c/ch/j /`cç^hu/ 'water' chu /`^hcçu/ 'ten' bcu /`^pJjə ^htẽ/ 'world' 'jig rten

Examples of *Ky*-series /^{`fi}dza/ 'hundred' *brgya* /^{¯t}c^he?/ 'you' *khyod* /^{`h}tcu fie/ 'sour' *skyur po*

Examples of *Py*-series /'ca/ 'chicken' *bya* /⁻c^ho: bu/ 'rich' *phyug po* /^{`h}co k^hə/ 'wolf' *spyang khu*

Examples of *sh/zh*-series /`ɕ^ha/ 'meat' *sha* /'^{fi}zə/ 'four' *bzhi* /'co: le/ 'morning' *zhogs legs*

Examples of *r*-glide (*Kr*-, *Pr*-, and *dr*-series) /'tə p^he:/ 'knife' *gri* ? /'^hta/ 'hair' *skra* /'ⁿdu/ 'go' '*gro* /'tə/ 'write' *bri* /^{'fi}di:/ 'snake' *sbrul* /^{'h}tī/ 'cloud' *sprin* /⁻xa ⁿdə/ 'evil' *sngags 'dre* /'tə/ 'ask' *dri*

Other than these, WrT *sr* corresponds to an aspirated fricative /s^h/ as follows: /`s^ho?/ 'life' *srog* /`s^how?/ 'thin' *srab* /`s^ha ^hto?/ 'solid'*sra* ?

2.2.3. WrT l and y

These series are systematically analysed, as it is easier to understand the mergers and divergences of their sound correspondence in this way. The summary of the sound correspondence is as follows:

Examples of *l*-series

/'lã/ 'road' *lam* /`^ĥlɔ̃/ 'bull' glang /`^{fi}la gɛː/ 'moon' *zla dkar*

Examples of *y*-series

/'ji:/ 'rabbit year' vos /^je?/ 'have' vod /`^{fi}ja?/ 'yak' g.yag

2.2.4. WrT w-glide included

The WrT w-glide does not have a corresponding sound in dialect forms, as follows:

/'rə^hcçu?/ 'horn' *rwa cog* /'za mo/ 'hat' *zhwa mo* /`ts^ha/ 'salt' *tshwa*

2.2.5. List of sound correspondence with WrT rhymes

A summary list of the sound correspondence with WrT rhyme is as follows:

Table 4 Principal sound correspondence of Bodgrong Tibetan rhyme with WrT.										
	#/- '	b	d	g	т	п	ng	r	l	S
а	а	ow?/əw?	e?	a?	ã	ẽ/ẽ	õ	£:	i:	e:/i:
i	ə		i?	i?		ĩ/ẽ	ĩ		i?	i:
и	u/ɯ	ũ?	i?	u?	ũ	ẽ	ũ	ə:	i:	i:
е	i/e	ej?/əw?	e?	i?	ã	ĩ	ĩ	e:/ə:	wi:	e:
0	u		e?	03	õ	ẽ	õ/ũ	u/u:	e:	i:

From a typological viewpoint of Khams Tibetan, sound correspondences of WrT -u in open syllable, -or, -os, etc. are noteworthy, for example:

/`^hcçu/ 'ten' *bcu* /^figuu figuu/ 'round' sgor sgor /^figi:/ 'need' dgos
HISTORICAL DEVELOPMENT OF BODGRONG [BINGZHONGLUO] TIBETAN (GONGSHAN, YUNNAN)

3. Comparison of Bodgrong with gYanggril and Tshodrug dialects of Khams

Based on the description of 2.2, I discuss the similarity and difference between Bodgong and other two dialects spoken in bDechen County: gYanggril and Tshodrug. Sound correspondences with WrT and lexical forms are compared.

3.1. Overview of the dialects of the West Yunling Mountain subgroup: a geolinguistic description

I am responsible for making the dialectal classification provided in Suzuki (2013); however, the subgroup named West Yunling Mountain (WYM) includes so many varied dialects that it seems that a more detailed classification is possible. Indeed, this group can be divided into two major groups with one continuum-like transitional group, which can be displayed in Figure 6, drawn based on two following criteria provided in Figures 4 and 5, i.e. X: sound correspondence of WrT *l* as in *lag pa* 'hand', and Y: pronunciation of the word 'go' (WrT 'gro). This analysis is also provided in Suzuki (2018e).



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There have been several descriptive studies on these dialects, for example, by Suzuki (2008a, 2011h, 2012h), Suzuki and rTa-mgrin Chos-mtsho (2012), Chos-mo (2013), and Ikeda and Pad-ma mTsho-mo (2014). In the 1950s, China's survey of the ethnic minority languages recorded a variety belonging to the WYM subgroup, according to Zhang (1996). A part of the description of DTLF (1899) and Giraudeau and Goré (1956) includes data of this subgroup. However, the dialectal varieties are

complex, as seen in Figure 4; previous works are insufficient to provide comprehensive understanding of the WYM group.

The two dialects to be compared with Bodgrong Tibetan, namely, gYanggril, and Tshodrug, are categorised in 1 and 3, respectively, in the next subsection.

3.2. Comparison

From the description provided in 2.2, the three dialects Bodgrong, gYanggril, and Tshodrug are compared from the viewpoint of sound correspondences with WrT in Table 5 and of dialectal lexical forms in Table 6.

no.	WeT item	Bodgrong	gYanggril	Tshodrug	Similarity of B
		[B]	[Y]	[T]	
1	ba 'cow'	/'pa/	/'pa:/	/'pa/	quasi-common to Y/T
2	bya 'chicken'	/'ca/	/'şa:/	/'ca/	common to T
3	<i>ja</i> 'tea'	/´cça/	/'tca/	/'tca/	different from Y/T
4	zan 'meal'	/ˈsẽ/	/ˈsẽ/	/ˈsẽ/	common to Y/T
5	brgyad 'eight'	/` ^ĥ dze?/	/ ^{-ĥ} dzi?/	/ ^{-h} dzi?/	similar to Y/T
6	bzhi 'four'	/'fzə/	/^ĥzə/	/'ĥzə/	different from Y/T
7	<i>skra</i> 'hair'	/` ^h ta/	/ ^{-h} ta/	/ ^{-h} tə ^h pɯ/	similar to Y
8	bri 'write'	/′tə/	/ˈtə/	/′tə/	common to Y/T
9	srog 'life'	/`s ^h o?/	/` ^h su?/	/` ^h su?/	different from Y/T
10	lam 'road'	/'1ã/	/′jã/	/'lã/	common to T
11	<i>zla dkar</i> 'moon'	/`fla gɛ:/	/'je ^ĥ ga:/	/¬nla gɛ:/	similar to T
12	yod 'have'	/^je?/	/^ z u:/	/′jʉ?/	similar to T
13	g.yag 'yak'	/` ^ĥ ja?/	/`fiza?/	/` ^ĥ ja?/	common to T
14	zhwa 'hat'	/'za mo/	/ˈsə wa/	/´şə wa/	different from Y/T

 Table 5
 Dialectal comparison regarding the sound correspondence with WrT.

Table 6Dialectal comparison on dialectal lexical forms.

no.	WeT item	Bodgrong	gYanggril	Tshodrug	Similarity of B
		[B]	[Y]	[T]	
15	'ja' 'rainbow'	/` ^ĥ za/	/ ^{-h} za/	/` ^ĥ za ^ĥ zõ/	similar to Y/T
16	a myes	/^?a kʰə̃/	/'?a mi:/	/'?a mi:/	totally different
	'grandfather'				
17	phag phrug 'piglet'	/'pha: le/	/'pʰa la/	/'pha: lje/	similar to T
18	<i>bya de</i> 'cock'	/´ ^ĥ da ^ŋ gu:/	/'ko tɛ:/	/'ko te/	totally different
19	<i>byi la</i> 'cat'	/'na me/	/'li la/	/'na me/	identical to T
20	nas	/~kə rə/	/~kə rə/	/'kə rə/	similar to Y/T
	'highland barley'				
21	rtswa 'grass'	/′pə za/	/ ^{-h} sə wa/	/ ^{-h} sə wa/	totally different
22	gnyis 'two'	/` ^ĥ ŋiː/	/`mə/	/ ` ŋi:/	similar to T

Table 5 shows that the following:

(A) Bodgrong Tibetan is entirely different from gYanggril Tibetan in terms of the sound correspondence of WrT *l* and *y* (10, 11, 12, 13);

- (B) there are no examples that merely correspond to those of gYanggril;
- (C) on the contrary, there are several examples that merely correspond to those of Tshodrug (2, 10, 11, 12, 13); and
- (D) some examples do not correspond to both of the two (3, 6, 9, 14).

The results of (A), (B), and (C) imply that Bodgrong Tibetan is typologically close to Tshodrug Tibetan. Regarding (D), more investigation is needed.

Table 6 shows a more complex situation than Table 5, as there are a number of dialectal words that do not clearly correspond to WrT; however, the difference among the dialects belonging to the WYM group of the sDerong-nJol group is small. We can find some examples that have different word forms in gYanggril and Tshodrug, such as (18, 19, 20), but the word forms in Bodgrong correspond either to those of gYanggril (20) or those of Tshodrug (19), or do not correspond to both (18, 22). Such examples as (16, 21) must be loanwords obtained from the Nujiang region. However, the existence of word forms such as (15, 17) and (19, 20) implies that Bodgrong Tibetan is related to dialects of the WYM subgroup.

To summarise, Bodgrong Tibetan is close to dialects of the WYM subgroup. However, as shown in Figure 6, the WYM subgroup originally had various types of dialects. We should evaluate *how* Bodgrong shares word forms in its phonetic and morphological aspects with the various dialects spoken along the Lancangjiang River.

3.3. Geolinguistic analysis

Among the words in Table 6, I display linguistic maps for 'piglet', 'cat', 'highland barley', and 'two' as Figures 7 to 10 below. These are also discussed in Suzuki (2019b); however, the present version includes more data. Figure 7 displays a vowel variation of the second syllable of the ford for 'piglet' (see also Suzuki 2012f). Figure 8 presents the first initial of the word for 'cat' (see also Suzuki 2014c, Qin and Suzuki 2016). Figure 9 deals with the difference of the word form for 'highland barley'. Figure 10 notes a difference of the initial of the word form for 'two' (see also Suzuki 2009b, 2014i).

HISTORICAL DEVELOPMENT OF BODGRONG [BINGZHONGLUO] TIBETAN (GONGSHAN, YUNNAN)



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Legend: A: lateral initial B: nasal initial Figure 8 Word 'cat'.

HISTORICAL DEVELOPMENT OF BODGRONG [BINGZHONGLUO] TIBETAN (GONGSHAN, YUNNAN)



Legend: A: /ka ra/, /kə rə/ B: /ka/ C: /s^ho wa/ Figure 9 Word 'highland barley'.

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Legend: A: prepalatal nasal initial B: bilabial nasal initial Figure 10 Word 'two'.

These maps reflect the difficulty of dividing a group into gYanggril and Tshodrug varieties with a bundle of isoglosses. More data help establish a clearer classification with isoglosses.

3.4. Another view and remaining questions

We review another source of data, the 100 words of the Swadesh list (Swadesh 1971:283), to check the proportion of lexical similarity. The data and interpretation themselves are provided in Suzuki (2018e); thus, I briefly recapitulate here the simple statistic points as follows:

Of the 100 word forms on the list:

- 50 are common or quasi-common to the three dialects;
- 4 are only similar to gYanggril;

- 16 are only similar to Tshodrug;
- 25 in Bodgrong are independent of the other two; and
- 5 data are unavailable.

The data suggest that Bodgrong Tibetan is relatively different from the two dialects compared here; however, it shares more *basic* words with Tshodrug than gYanggril.

In summary, we can conclude that Bodgrong Tibetan is closer to Tshodrug Tibetan than gYanggril Tibetan according to two features: (1) it does not undergo innovation regarding the WrT l and y attested in gYanggril, and (2) it has more shared word forms shared only with Tshodrug Tibetan.

However, questions still remain. For instance, does this conclusion accurately reflect the historical development of Bodgrong? It is not guaranteed that the present phonological system of the two dialects Tshodrug and gYanggril is the same as what it was at the beginning of the migration of the ancestors of the Bodgrong Tibetan speakers. A possibility is that gYanggril Tibetan experienced an extensive sound development after the migration. However, even though it has multiple peculiar features, it is not so peculiar as a dialect, because it shares multiple similar features with the dialects spoken from Yungling to nJol (quite equivalent to Yunling Village and Shengping Town of Deqin County). Therefore, it is difficult to say that only gYanggril Tibetan has changed much.

Another possibility is that Tibetan immigrants from Deqin to Bingzhongluo selected Tshodrug Tibetan as their communication language in spite of the variation in languages when their ancestors came to the place. This hypothesis is also possible, but at present, it remains difficult to give a concrete history for Bodgrong Tibetan. Using multiple linguistic maps, as seen in Figure 4, may advance discussions more in detail. A basic wordlist for Bodgrong Tibetan is published in Suzuki (2014h), which may be useful for subsequent next investigation.

4. Conclusion

This chapter presents an overview of the phonological characteristics of Bodgrong Tibetan, a Khams Tibetan dialect spoken in Nujiang Prefecture, Yunnan, and discusses its historical position through a dialectal comparison with the gYanggril and Tshodrug dialects spoken along Lancangjiang River, which have the strongest resemblance to Bodgrong Tibetan. The result shows that Bodgrong Tibetan is more similar to Tshodrug Tibetan than gYanggril Tibetan. This may imply that the people from southern Yanmen area were dominant among the ancestors of speakers of Bodgrong Tibetan. The full description of Bodgrong Tibetan will be an indispensable step to understanding the dialectal development of Khams Tibetan spoken in Yunnan.

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Geolinguistic significance of the Phongpa dialect in the history of Yunnan Tibetan

1. Introduction

The Phongpa dialect of Khams Tibetan (spoken in Badi Township, Weixi County, Diqing Prefecture, Yunnan Province, China) is a recently recognised Tibetic language that possesses an archaic phonological feature: retention of the /r/-glide (Suzuki 2020). In this chapter, I discuss how this peculiarity of the Phongpa dialect can be explained within Yunnan Tibetan and give a historical interpretation based on geolinguistic methods.

The target area and dialects are shown in Figure 1, adapted from Suzuki (2018e:14). The classification is as follows:

- 1. Sems-kyi-nyila Tibetan
 - a. rGyalthang
 - b. East Yunling Mountain
 - c. Melung
 - d. dNgo
 - e. Lamdo
- 2. sDerong-nJol Tibetan
 - a. West Yunling Mountain
 - b. sPomtserag
 - c. gYagrwa
 - d. Bodgrong
 - e. mBalhag
- 3. Chaphreng Tibetan
 - a. gTormarong

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The dialects surrounded with a line in Map 1 are all classified as 2a (West Yunling Mountain subgroup of sDerong-nJol group), except for Phongpa, a recently recognised variety (Suzuki 2020). However, this group contains dialects that have various phonological features, as indicated by Suzuki (2019b). The dialects along the Lancangjiang River from Yanjing (Mangkang County) to Badi (Weixi County) fall into five groups based on their phonological and lexical features, as in Figure 2, adapted from Suzuki (2019b:33).



Figure 2 Dialectal variation along Lancangjiang.

Figure 2 presents the previous understanding of the state of dialectal variation along the Lancangjiang River: a single dialect group called sDerong-nJol was divided into several subgroups, in which the black symbols showed points older than the white symbols (ABA distribution). However, for several lexical features, dialects with the black square symbol together with the Phongpa dialect have similarity to those in another dialect group (Sems-kyi-nyila; especially Groups 1a, 1b and 1c in Map 1), distributed along a different tributary to the Lancangjiang River.

2. Data

I primarily discuss specific phonological features to examine this issue. I deal with four sound correspondences in Written Tibetan forms: the Ky-series, Kr-series, Pr-series, and the Py-series.

Table 1 Sour	nd correspondence	s of dialects spoke	n along the Lanca	ngjiang River.
Dialect	Ky-series	Kr-series	Pr-series	Py-series
nJol	tc ^h /tc/dz	tşʰ/ts̥/dz	tşʰ/ts̯/dz	¢ ^h /¢/ℤ
Tsharethong	tc ^h /tc/dz	t ^h /t/d	t ^h /t/d	ş ^h /ş/z
sNyingthong	tc ^h /tc/dz	t ^h /t/d	t ^h /t/d	¢ ^h /¢/ℤ
sBrulyul	tc ^h /tc/dz	t ^h /t/d	t ^h /t/d	¢ ^h /¢/ℤ

Although we find some differences in the sound correspondences of Kr-series, Prseries, and Py-series in Table 1,¹ they are not significant criteria for a dialectal classification in the case of Phongpa (Table 2).

T	Table 2 Sound con	rrespondences of th	ne Phongpa dialect	•
Dialect	Ky-series	Kr-series	Pr-series	Py-series
Phongpa	tc ^h /tc/dz	k ^h r/kr/gr	p ^h r/pr/br	c ^h /c/z

The retention of the /r/-glide is a significant feature in Tibetic languages.² It is characteristic of the case of the mThachu subgroup (1c) in Table 3:

Dialect	Ky-series	Kr-series	Pr-series	Py-
				series
Zhollam	tc ^h /tc/dz	k ^h /k/g+V ^ç	p ^h /p/b+V ^ç	€ ^h /€/Z
		[pharyngealised]	[pharyngealised]	
nKhorlo	tc ^h /tc/dz	k ^h /k/g+V~	p ^h /p/b+V~	c ^h /c/z
		[retroflex]	[retroflex]	

Sound correspondences in dialects of the mThachu subgroup. Table 3

The dialects of the mThachu subgroup exhibit a vocalic feature corresponding to Written Tibetan ra-btags (r-glide) in Kr- and Pr-series.³ This sound change is characterised in the Sems-kyi-nyila group, in which the rGyalthang (1a) and East

¹ See Suzuki (2012h) for Tsharethong Tibetan.

² See Suzuki (2007c) for a description of sProsnang Tibetan (spoken in Rongbrag County, Kandze Prefecture, Sichuan), another dialect with a /r/-glide.

³ See Suzuki (2009c, 2011c, 2013f) for an overall description. See Suzuki (2010c, 2011d, 2013g) for examples of nKhorlo Tibetan, Zhollam Tibetan, and sKobsteng Tibetan, respectively.

Yunling Mountain (1b) subgroups show a further systematic sound change process (Table 4).⁴

Class	Ky-series	Kr-series	Pr-series	Pv-series
Class 1	te ^h /te/dz	c ^h /c/I	c ^h /c/i	e ^h /e/z
Class 2A	te ^h /te/dz	c ^h /c/I	6 ^h /6/Z	$e^{h/c/z}$
Class 2B	tc ^h /tc/dz	tc ^h /tc/dz	c ^h /c/i	c ^h /c/z
Class 3	tc ^h /tc/dz	tc ^h /tc/dz	c ^h /c/z	c ^h /c/z

 Table 4
 Sound correspondences in the rGyalthang and East Yunling Mountain subgroups.

See Suzuki (2017b, 2022) for a detailed description of the phenomena presented in of Table 4 and distribution of dialects of each class, which does not correspond to the grouping in Figure 1. Also note the existence of the exceptions mentioned in Suzuki (2018b, 2019a).

3. Discussion

Based on the data above, we can discuss two directions of the analysis regarding the historical position of the Phongpa dialect (Table 2). Because the existence of the /r/- glide implies retention of the phonetic status represented in Written Tibetan, Phongpa can be posited as an ancestor of both the cases in Tables 1 and 3; if the /r/-glide influences an initial consonant, the system changes into the case of Table 1, whereas if it influences a vowel, it changes into the case of Table 3.

To consider the affiliation of Phongpa, we should refer to other sound correspondences and lexical features. Due to the restriction of the content, I skip the discussion regarding the first issue and focus on the second. As Suzuki (2018e) notes, some dialects spoken in the southern parts along the Lancangjiang River have lexical similarities to dialects of East Yunling Mountain (1b) and mThachu (1c); however, at that time, I did not see anything to explain why the lexical similarity happened in geographically non-continuous places. The existence of Phongpa could imply an incorrect analysis of the presupposition that dialects spoken in the southern parts along the Lancangjiang River belong to the West Yunling Mountain subgroup (2a).

My preliminary conclusion is that the Phongpa dialect is affiliated to the Semskyi-nyila dialect group. However, it is not a member of the mThachu (1c) subgroup due

⁴ See Suzuki (2014d) for an example of Class 1. See Suzuki (2011i) for examples of Class 2a. See Suzuki (2016h) for an example of Class 2b. Class 3 includes the best-described variety: rGyalthang Tibetan. See Lu (1990, 1992), Hongladarom (1996), Wang (1996, 2008), YS59 (1998), and bSod-nams rGya-mtsho (2007), as well as Suzuki (2018a).

to its phonological features, which are shown in Table 2. It contains more archaic features than the ones given in mThachu (1c). The principal factor that triggered the sound changes attested in mThachu (see Table 3) is the heavy contact with Naxi (people and language). However, Phongpa did not undergo the same sound changes as mThachu.

Another question with regard to the data provided here is how to deal with the affiliation of dialects marked with black and white squares in Figure 1, that is, with the fact that the lower two dialects in Table 1 show the same tendency in the sound change as the other dialects of the West Yunling Mountain (2a) subgroup. The lexical similarity pointed out by Suzuki (2018e) should be taken into consideration. I have not found any written documents that report a historical relationship between the dialects spoken in the southern parts along the Lancangjiang River and those affiliated with the subgroups (1a), (1b), and (1c). However, according to oral tradition in the area along the Lancangjiang River, the locals' ancestors had a connexion to villages in Xiaruo Township, where dialects belonging to the East Yunling Mountain (1b) subgroup are spoken. I have not obtained any further evidence on the migration pattern between the two areas; however, linguistic features suggest a genetic relationship.

If the hypothesis is correct, at least the dialects marked with a black square in Figure 1 are to be analysed as members of the Sems-kyi-nyila group, in spite of the fact that their sound change pattern differs from this group, especially regarding the sound correspondence of Kr- and Pr-series. With the support of the Phongpa dialect, which displays an archaic system on these sound correspondences, this hypothesis functions effectively. The /r/ sound of as a glide may have been preserved for a longer time than dialects in other areas. Hence, it may have changed under the influence of the dialects of the West Yunling Mountain (2a) subgroup without any direct strong contacts with Naxi.

If the dialects marked with a black square are members of the Sems-kyi-nyila group, then those marked with a white square will be more significant; they have features of both the dialect groups of Sems-kyi-nyila and sDerong-nJol.⁵ A similar phenomenon is also attested in the dNgo (1d) subgroup, spoken between rGyalthang (1a) and gTormarong (3a).⁶ Between two or more dialect groups, there is a *buffer zone*, where dialects can contact and influence each other, with the potential of generating a complex dialect subgroup.

⁵ See also Suzuki (2011h) for specific examples of sNyingthong Tibetan.

⁶ See Suzuki (2018a) for specific examples.

4. Conclusion

The data on phonology from the Phongpa dialect can support the interpretation of the lexical similarity attested between the dialects along the Lancangjiang River and those next to them. The discussion here implies that dialects in the southern area (at least those points given in a black square) are initially (or genetically) related to the Sems-kyi-nyila group, and that the previous interpretations of the classification are to be corrected, as displayed in Figure 3.



Figure 3 Reconsideration of the classification.

Of course, dialects marked with a black square exhibit many phonological differences from the Sems-kyi-nyila group. A more detailed analysis of their extralinguistic features is also necessary to support the hypothesis provided in this chapter.

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Remarks on 'rain' in Tibetans' languages in Lithang County

1. Introduction

In Lithang [Li-thang] County, located in the central area of Kandze [dKar-mdzes] Tibetan Autonomous Prefecture of Sichuan Province, three Tibeto-Burman languages are spoken: Khams Tibetan, Amdo Tibetan, and Choyu (Suzuki 2018c, see Figure 1; cf. *Litang Xianzhi* 1996). The first two languages are Tibetic, and the last one is Qiangic. These three languages are not directly contacted with each other except for the county seat; however, there has been mutual contacts for a long time.



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Looking at the form 'it rains' in the three languages, we can find an interesting phenomenon concerning language contact and semantic change. This chapter focuses on examining the word form of 'rain' in the languages spoken in Lithang County.

Before beginning the discussion, I introduce the major cases of the form for 'rain' in Khams and Amdo with a transliteration of Written Tibetan (henceforth WrT). As Shirai et al. (2018a, b) present, the majority of Khams uses a form corresponding to WrT *char pa* (cf. Suzuki 2018c), whereas that of Amdo uses WrT *gnam*. WrT *char pa* is a noun denoting 'rain' or 'raindrop', and WrT *gnam* designates 'rain (phenomenon)', which is the same form as 'sky' in several dialects.¹ Shirai et al. (2018a, b) pay attention to the semantic development concerning the latter type because it is related to the construction of weather expressions (Malchukov and Ogawa 2011:24-27).

2. 'It rains' and 'rain' in the varieties of Lithang

I present principal examples of the expression 'it rains' in the languages of Lithang as in Table 1. All the data were obtained and described by the present author through the fieldwork conducted in 2017.

For the Tibetic languages spoken in Lithang, the forms of 'it rains' are derived from WrT *char pa 'bab* or *gnam 'bab (babs)*.² The construction of weather expression for 'it rains' is either 'rain+fall' or 'rain/sky+fall'. We should note that some dialects of Khams³ use WrT *gnam* for 'rain' whereas a dialect of Amdo uses WrT *char pa*. This situation is against the general tendency of the use of the lexical form for 'rain' in Khams and Amdo stated earlier. I will examine this issue by drawing a linguistic map later.

Language	Dialect	Form for 'it rains' (with glossing and WrT)
Khams	Lithang	^{-ĥ} nã ^{(m} bə?
		[rain/sky fall]; WrT gnam 'bab
Khams	Gyongba	īte ^h a ⁿ ba ´ ^m bɔ?
		[rain fall]; WrT char pa 'bab
Khams	dGakhog	īte ^h a ⁿ ba ´ ^m bɔ?
	-	[rain fall]; WrT char pa 'bab
Khams	Jowo	^{-tsha h} pa ' ^m bo?
		[rain fall]; WrT char pa 'bab

Table 1 List of word forms for 'it rains'

¹ See also Suzuki (2013d).

 $^{^2}$ For the inflection of the verb 'bab 'fall', many varieties of Khams do not have a stem alternation of verbs between perfect and nonperfect.

³ For details and a classification of Khams Tibetan spoken in Lithang, see Suzuki (2018).

Khams	nJawa	^{-fi} nõ ′ ^m bo?
		[rain/sky fall]; WrT gnam 'bab
Khams	Dewo	^{-h} nã ^m bo?
		[rain fall]; WrT gnam 'bab
Khams	sNapo	íte ^h wa: ^m bo?
		[rain fall]; WrT char pa 'bab
Khams	dBrarikha	^{-ĥ} nã ' ^m ba?
		[rain/sky fall]; WrT gnam 'bab
Khams	nGramna	^{-ĥ} nã ´ ^m bə?
		[rain/sky fall]; WrT gnam 'bab
Khams	rDzipa	ītc ^h a: ba ' ^m bə?
		[rain fall]; WrT char pa 'bab
Amdo	gYongru ⁴	te ^h ar wa wap
	(Tshonkhor)	[rain fall]; WrT char pa babs
Amdo	sDegzhungma	[⊮] nam wap
	(mChodrten)	[rain/sky fall]; WrT gnam babs
Amdo	gYongru	^{fi} nam wop
	(Horra rNyingba)	[rain/sky fall]; WrT gnam babs
Choyu	Gayibuli	⁻ hu ´lə-tu
		[rain <i>prefix</i> -fall]
Choyu	Atsong	⁻ hu ⁻ tu
		[rain fall]

REMARKS ON 'RAIN' IN TIBETANS' LANGUAGES IN LITHANG COUNTY

Regarding the word form corresponding to WrT *gnam*, the gloss has two types: 'rain' and 'rain/sky'. The former means that the word form corresponding to WrT *gnam* is reserved just for 'rain', and the latter means that the word form for 'rain' and 'sky' is a homonym derived from WrT *gnam*. For example, the word form for 'sky' in the Dewo dialect is /'nã ^hk^ha/, which corresponds to WrT *nam mkha'*. This form is not widely used in Khams; however, its use in the Dewo dialect might be in order to avoid a semantic conflict between 'rain' and 'sky'. In this case, since there are more than one word for 'sky' in the language, another word form but *gnam* has been employed for 'sky'. Another manner is also attested: derivation from *gnam*. In the Jowo dialect, the word for 'sky' is /^hnõ ňjõ/, which corresponds to WrT *gnam sngon*, literally meaning 'blue sky'. However, this dialect uses /⁻te^ha ^hpa/ for 'rain'; thus, this derivation has not occurred for the same reason as the Dewo dialect.⁵</sup></sup></sup>

Two dialects of Choyu display the same structure of the expression 'it rains', which takes a 'rain+fall' type. In addition to this, there is another expression for 'it rains', which is used less frequently: /mu tu/ 'sky+fall'. The speakers always correct this way of expression because it is not considered as an adequate use of Choyu but as a calque of the Tibetic languages.

⁴ For the dialect name of Amdo Tibetan, I follow *tshowa*'s names suggested by Tsering Samdrup and Suzuki (2017).

⁵ The phenomenon to avoid a semantic conflict by using different word forms for 'rain' and 'sky' is also attested in Tibetic languages of Eastern Section (Tournadre and Suzuki 2022) such as Sharkhog, Khodpokhog, mBrugchu, and Thewo-smad (see Shirai et al. 2018b).

3. Geolinguistic analysis on the form for 'rain' in the varieties of Lithang

In order to examine how we can explain the situation attested in Table 1 from a geolinguistic viewpoint, I display two maps below.

Figure 2 is based on the word form and language. In Figure 2, the colour of the symbols represents the difference of lexical forms (Black: char pa; Purple: gnam; Yellow: /hu/) and their shape does that of languages (Square: Amdo; Rhombus: Khams; Star: Choyu). Paying attention to the distribution of the colours, we find that Purple is located in the central and western area of the region, and Black surrounds it. Then, Types CA and NK should be noted. Type CA is attested in just one example: the gYongru dialect practised to the north of the county seat of Lithang. This area is close to another Khams-spoken region to its north. The distribution of Khams continues further to the north, and the part of northern Lithang is just a tip of the greater Khamsspoken zone. Hence, the use of Khams might have influenced a part of the gYongru dialect. Type NK is attested in a wider area, in the county seat as well as on the border zone between Amdo and Khams. Interestingly, in the western area of Lithang (dBrakhog district), two dialects use Type NK, and the rest one uses Type CK. This area is mountainous, and the traffic condition is not convenient even within the district. The form for 'rain' suggests that the eastern part of dBrakhog has had a stronger connexion with the Amdo-spoken area on its north because there has been a principal traffic route before.⁶ To the south of the county seat, Type NK is distributed in line. This area is a prairie-like scenery along the main traffic route. Most residents there are half-farmers-half-pastoralists, and they have frequent communications with Amdospeaking communities. If this lifestyle influences their language, Type NK has developed by an influence from Amdo.

⁶ At present, the main traffic route from/to dBrakhog is directly connected to the county seat on its east.





Figure 2 Word forms for 'rain' and languages.

Some dialects with Types NA and NK also use a form corresponding to WrT *char pa* for 'raindrop'. They distinguish the object 'raindrop' from the natural phenomenon 'rain'.

Next, I examine the semantic field regarding the word for 'rain'; see Figure 3.

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Figure 3 Semantic field of 'rain'.

Type A means the existence of a specific word form reserved for 'rain', whereas Type B demonstrates polysemy. Type B corresponds to Types NA and NK in Figure 2 except for one dialect: Dewo. Although the Dewo dialect has Type NK, its word forms for 'rain' and 'sky' are different from each other, and the dialect is thus classified into Type B on Figure 3.

Regarding Choyu, even based on the cases shown in Figures 2 and 3, we cannot point out any clear reason why Choyu speakers use the 'sky+fall' type for 'it rains' in an incorrect way instead of the 'rain+fall' type. However, referring to the case and history of Lhagang Choyu, a sister language spoken by descendants of the migrants from the Choyu-spoken are more than 200 years ago (cf. Suzuki and Sonam Wangmo 2016a, 2019a), we can also find the use of the 'sky+fall' type for 'it rains' (Suzuki and Sonam Wangmo 2017b). The migrants might have been together with an Amdo-

speaking group from that area (Suzuki and Sonam Wangmo 2016d, 2019b), and this suggests that Choyu people have also had a connexion with Amdo-speakers. If this is the case, the phenomenon attested in Choyu is influenced by Amdo.

4. Conclusion

In this chapter, I presented a microscopic analysis of the word for 'rain' in three languages in Lithang County. Khams and Amdo use word forms for 'rain' derived from WrT *char pa* or *gnam*. The former principally appears in Khams, and the latter in Amdo. However, in some dialects on the Khams-Amdo contact zones, the word form is replaced. The word form corresponding to *gnam* is originally a homonym of 'sky', and most dialects have both the meanings. However, the Dewo dialect uses different forms by changing the word form for 'sky'. Choyu distinguishes a word 'rain' from 'sky'; however, the "sky+fall" pattern is to a lesser extent used for 'it rains'. This might be because of influence from Amdo.

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Photo gallery 5

Glang sgril, the first village of a circumambulation of Kha ba dkar po.



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Preliminary report on the Darmdo Minyag linguistic area, with a geolinguistic description of terms for 'sun'

1. Introduction

This chapter aims to provide an overview of the present Darmdo Minyag linguistic area, and attempts to describe a dialectal difference of the word 'sun' attested in this language. Darmdo Minyag is generally known as the western dialectal group of Minyag,¹ a member of the Qiangic languages, mainly spoken inside the valley called Minyagrong,² between Jiagenba Village of Kangding Municipality and Tanggu Village of Jiulong County, both in Ganzi Tibetan Autonomous Prefecture, Sichuan Province, China.³ Multiple scholars have already described this language in several articles, and wordlists have already been published, including Huang (1985, 2007c), Sun (1983), Ikeda (1998, 2002, 2006, 2007), ZYC (1991), and TBL (1992). However, a dialectological study of Darmdo Minyag has not been conducted so far, and hence we cannot assess how large the dialectal difference is within this language. According to the first author's brief research, native speakers of Darmdo Minyag consider the dialectal difference to not be particularly evident. However, to some extent, difference is perceived between the varieties of Kangding and Jiulong, though not to the extent that mutual intelligibility is effected.

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¹ The eastern counterpart of Darmdo Minyag is henceforth called Shimian Minyag, which is spoken mainly in Shimian County, east of Mt. Minyag Gongkar. There are two main reasons why we propose to distinguish Darmdo Minyag from Shimian Minyag: firstly, there are rare occasions for communication between the two populations, and secondly, there is low intelligibility between the two varieties according to the description by Sun (1983); see also Ikeda (2003). At present, there is no contact between the speakers of the two Minyag languages, which also display large linguistic differences.

² The Minyag area is principally divided into two parts: Minyaggang and Minyagrong. The name Minyag Rabgang is also used in traditional Tibetan geography to refer to both areas together (cf. Karma rGyal-mtshan 2002:438). See also Suzuki and Sonam Wangmo (2017a) and Dawa Zhuoma (2014).

³ Additionally, there are a small number of Darmdo Minyag speakers living in Zhusang Township, Yajiang County, to the west of Kangding Municipality.

Darmdo Minyag is estimated to have 10,000 speakers.⁴ The area where Darmdo Minyag is spoken is gradually decreasing, as we can see in the description of Huang (2007b). Meanwhile, the area where Khams Tibetan is spoken is growing.⁵ Speakers of Darmdo Minyag are generally bilingual in the local Khams Tibetan dialect, which we refer to as Minyag Rabgang Khams.⁶ The area where Darmdo Minyag is spoken is also adjacent to another region, where a different variety of Tibetan, Muli-nDappa, is spoken (Suzuki 2014g). The latter is spoken by Darmdo Minyag-speakers living in the west of Pusharong Township.

We have collected data on 44 varieties spoken in the Minyagrong Valley through fieldwork conducted in Kangding.⁷ Most of the people who provided the data were in their 20s. The data reflected in the linguistic maps are limited to our first-hand materials for the sake of the consistency of the phonetic description. The list of varieties is in Table 1.⁸

Town/township	Hamlet (vernacular name)
Pengbuxi (Phung-po- gshis or Bon-po-gshis)	Jiagenqiao (Zam-pa-kha), Xishaka (Shing-zam-kha), Mugu ('Bor-khul), Ritou (Ri-thog), Geerdi (Kun-legs-sde), Mudu (Mun-gtub), Mada (dMar-sde), Duorang (rDo-ra), Riwu (Ri-'og), Jiangde (Cag-'dul), Naze (Lha-btsan), Tiku (mThul-lung), Mase (Ming-gser), Nadi ⁹ (Lha- brtse-gshis)
Shade (Sa-bde)	Shade (Sa-bde), Shenggu (gSer-'go), Wayue (Wa-yod), Ebarong-1 ('Go-pa-rong), Ebarong-2 ('Go-pa-rong), Laha (La-'o), Chijixi-Bayi (Khrod-rgyu-gshis stod), Chijixi-Wuyi (Khrod-rgyu-gshis smad)
Gonggashan (Klu-pa)	Liuba (<i>Klu-pa</i>), Sewurong-1 (<i>Se'u-rong</i>), Sewurong-2 (<i>Se'u-rong</i>), Shangchengzi (<i>Khri-'dzin stod</i>), Xiachengzi (<i>Khri-'dzin smad</i>), Shangmuju (<i>Mun-rgya stod</i>), Xiamuju (<i>Mun-rgya smad</i>), Yulongxi (<i>gYang-legs-gshis</i>), Chimei (<i>Tsher-ma</i>)

Table 1 Research sites

⁴ This number is also mentioned in Sun et al. (2007:905), which, however, includes Darmdo and Shimian Minyag. Shimian Minyag is estimated to have 3,000 speakers (p.c. with Yin Weibin 2015).

⁵ At present, Darmdo Minyag seems to have no native speakers in Minyaggang. According to oral histories narrated by elders living in Minyaggang (Xinduqiao Town and Waze Township), there might have been Darmdo Minyag speakers in Mingyaggang in the past. See also the description of Huang (2007b).

⁶ See Suzuki (2007b) and Suzuki and Sonam Wangmo (2017a) for detailed information regarding Minyag Rabgang Khams. However, meanwhile, some vernaculars of Minyag Rabgang Khams face language endangerment because of various sociolinguistic factors (Suzuki and Sonam Wangmo 2015b).

⁷ We were unable to find speakers from Zhusang Village.

⁸ Each name is given with a Written Tibetan (WrT) form in parantheses. This essay consistently uses the pinyin name for each vernacular.

⁹ Also called Lazexi, which we use in the essay.

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Pusharong (dPa'-sreg-	Yidai ('Jig-rten), Binggu (dPe-'go), Changcaoping (rTswa-ring),
rong)	Kuxirong (Khu-shi-rong), Huoshan (Me-ri), Pusharong-1 (dPa'-sreg-
	rong), Pusharong-2 (dPa'-sreg-rong)
Jiju (sKyid-yul)	Jiju (Ce-cus), Mati (Ma-mo), Geba (Dar-sha-gting), Songyu (gSer-
	gzhong), Caiyu (Tsha-yul)
Tanggu (Thang-mgo)	Tanggu (<i>Thang-mgo</i>)

Regarding the Lazexi dialect, we recorded varieties from three different generations (in their 70s, 40s, and 20s), in which the form used by people in their 40s will be used for the linguistic maps here.

We have had information that Darmdo Minyag was also spoken in Jiagenba Village, just north of Pengbuxi Village, around 30 years ago, however, our preliminary investigation of the village did not locate any speakers. Hence, Jiagenba was determined to be beyond the scope of our current research.

Through the present research, we have added detail to our knowledge of the distribution of Darmdo Minyag. The whole area listed in table 1 is generally known as the Darmdo Minyag linguistic area by people living in Minyaggang, non-local officials, and non-local scholars, however, in several of the above-mentioned hamlets, the inhabitants speak Tibetic languages (Minyag Rabgang Khams and sPomborgang Khams¹⁰), suggesting that the Tibetic languages may have already replaced Darmdo Minyag. At present, only a few people are monolingual in Darmdo Minyag, and the majority of Darmdo Minyag speakers are bilingual in Minyag Rabgang Khams. In Pusharong Village, the use of Muli-nDappa Khams is also attested. At present, the number of trilingual speakers of Darmdo Minyag, Minyag Rabgang Khams, and Chinese (Sichuanese, Southwestern Mandarin) is increasing, with an expansion of the use of Chinese in various social contexts, such as media and schooling.

Figure 1 shows the overall distribution of languages spoken in the Minyagrong Valley, designed with ArcGIS online.

The orange stars show the distribution of communities where Darmdo Minyag is spoken, reflecting the present-day geographical range of this language.

¹⁰ See Suzuki (2014g) for a detailed classification of Khams Tibetan. There are many clear differences between Minyag Rabgang Khams and sPomborgang Khams in terms of phonology and morphology.

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Figure 1 Overall distribution of languages spoken in the Minyagrong Valley.

As an additional remark, although Yang (1994) reports the existence of the 'Zhaba' language (including nDrapa and Choyu; cf. Ikeda 2003:97-101) in Jiju Village, it was not found there in our current research.

2. Phonetic description of the word form

This section provides a phonetic description of the word form of 'sun' in each variety, following the main objective in the present volume of *Studies in Asian Geolinguistics*. Since we have not conducted an exhaustive survey of the phonology of each variety,¹¹ the description is highly phonetic. So is the tone; the given 5-grade value of each syllable is based on our phonetic observation and may be subject to change in forthcoming phonological analyses. A list of the phonetic forms attested in the vernaculars of the Minyagrong Valley that we recorded is in Table 2.

Туре	Phonetic form	Distribution of hamlets (village name in parentheses)
A-1	nx ³⁵	Geerdi, Mudu, Mada, Duorang, Riwu, Jiangde, Naze,
		Tiku, Mase, Lazexi (Pengbuxi)
A-2	nγ ^{\$55}	Shade, Shenggu, Wayue, Ebarong-1, Ebarong-2, Laha,
		Chijixi-Bayi, Chijixi-Wuyi (Shade); Sewurong-1,
		Sewurong-2 (Gonggashan)
B-1	nə ³⁵	Liuba, Shangchengzi, Xiachengzi, Shangmuju,
		Xiamuju, Yulongxi, Chimei (Gonggashan)
B-2	nə ⁵³	Yidai, Binggu, Changcaoping, Kuxirong, Pusharong-1,
		Pusharong-2 (Pusharong)
С	na ⁵⁵	Tanggu (Tanggu)
MR	ηi ²⁴ ma ⁴⁴	Jiagenqiao, Xishaka, Mugu, Ritou (Pengbuxi)
MD	η: ²⁴	Huoshan (Pusharong); Jiju, Mati, Geba, Songyu, Caiyu
		(Jiju)

Table 2 Phonetic description of 'sun'.

The first five forms (A-1, A-2, B-1, B-2, and C) are regarded as descendants of a common Darmdo Minyag etymon. MR is a form of Minyag Rabgang Khams, while MD is a form of Muli-nDappa Khams.¹² Additionally, we collected the form of the Lazexi dialect of 'sun' from three different generations: from people in their 70s, 40s, and 20s. The word from the eldest generation is $[nx^{635}]$, with a slight pharyngealisation of the vowel, which is not attested in table 2. That of the other two generations is $[nx^{35}]$, the A-1 form.

Regarding the description of Darmdo Minyag in previous works, Huang (2007c) describes $/n2^{24/13}$ for 'sun' (in the Muju dialect spoken in Gonggashan), which is close

¹¹ Except for the Lazexi dialect, which was described and analysed by the second author. A part of the analysis is provided in Suzuki (2011g).

¹² 'Muli-nDappa' Khams has been renamed as sPomborgang Khams by Suzuki (2018f). See also Li and Suzuki (2020) for the Tibetic language spoken in Jiju Township.

¹³ The underlining of the vowel designates a 'tense' vowel (Chn. *jin yuanyin*). The 'tense' vowel in Darmdo Minyag is so problematic that Suzuki (2011g) attempted to elucidate the basic vocalic characteristics of the Phungposhis dialect, which said: the 'tense' vowels are basically

to A-2 in terms of a clear appearance of the 'tense' vowel, as well as to B in terms of the vowel tongue position. Ikeda (2006:110) describes $/na^{35}/$ for 'sun' (in the Shenggu dialect spoken in Shade) and $/n\underline{u}^{35}/$ (in the Tanggu dialect spoken in Tanggu). The former is close to B-1 in terms of its lack of the 'tense' feature of the vowel, however, the Shenggu dialect in our data clearly has the 'tense' feature. It may imply the existence of difference among generations of speakers, however, more detailed investigations are needed. Thub-bstan dGe-legs et al. eds. (2008) give two forms for 'sun' (*nii* and *nii* '*bus lus lus* in Tibetan script), however, we have not found the latter form. The form of the four hamlets of Pengbuxi corresponds to WrT *nyi ma*, and the phonetic form is close to the form attested in the Minyag Rabgang Khams (a dissyllabic form corresponding to WrT), whereas the form of the five hamlets of Pusharong and Jiju corresponds to that of the sPomborgang Khams (a monosyllabic form corresponding to WrT).¹⁴ See Section 3 for details.

3. Map and analysis

Based on the phonetic description in section 2, here, we draw a linguistic map and describe the geographical distribution of forms of the term 'sun' in Darmdo Minyag and discuss the features of this distribution.

Figure 2 is designed with the Arc GIS online. The word forms with a / η /-initial (MR and MD), similar to that of Khams Tibetan, are attested in the north of Pengbuxi Village and in the west of the Pusharong Valley. They are a Tibetic etymon. The vernaculars using them are not Darmdo Minyag but Khams Tibetan (Minyag Rabgang Khams and sPomborgang Khams respectively), and their distribution is already inside the Minyagrong Valley and its tributaries. On the other hand, the word form with a /n/-initial is regarded as Darmdo Minyag in origin. This type has differences regarding the vowel quality, e.g. whether it has a 'tense' (mainly pharyngealised here) feature or not, and whether the tongue position is low, mid-central, or mid-back. From an historical viewpoint, the 'tense' feature realised as a pharyngealisation is gradually being lost, hence the form A-2 may be the most archaic form, and the form with a mid-back vowel (x), A-1, is the second-most archaic one. Both of them are distributed in the northern

pharyngealised or simply more back vowels to their counterpart caused by retraction of the tongue. $\frac{1}{2}$ in Huang (2007c) basically corresponds to $\frac{1}{2}$ in our description here.

¹⁴ See Suzuki (2016a) for a detailed description of the word form 'sun' in Tibetic languages in the eastern Tibetosphere.

part of the Minyagrong Valley, which adjoins the area of Minyag Rabgang Khams. We explore possible reasons for this below.



Figure 2 Overall distribution of Darmdo Minyag 'sun'.

The distribution of the two above-mentioned archaic forms is, however, a bit peculiar from the viewpoint of dialectology. The main road goes through Pengbuxi and Shade, where there might be the most occasions for language or dialect contact, which could easily trigger phonetic changes. However, the present data reflected in Figure 2 shows a different pattern. In this case, we rather assume that the varieties spoken in the central area of Minyagrong—Sewurong, just south of the present Shade Village (see Yudru Tsomu 2009)—maintain archaic traits. Investigations regarding other word forms are needed.

4. Conclusion

This chapter provided a linguistic map displaying the current Darmdo Minyag linguistic area within the Minyagrong Valley and its tributaries, and presented a preliminary geolinguistic analysis of Darmdo Minyag, taking the word 'sun' as an example. The analysis has shown that a great lexical difference is not attested regarding this word form, and that the vernaculars spoken in the northern area of the Minyagrong Valley maintain a more archaic form.

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Chasing a cat from the Mekong to the Salween: A geolinguistic description of 'cat' in Trung and Khams Tibetan in Northwestern Yunnan

1. Linguistic overview of Trung and Khams Tibetan in Gongshan County

This chapter uses a geolinguistic methodology to examine the distribution of the word form for 'cat' in Trung and sDerong-nJol Khams Tibetan spoken in the three counties Gongshan, Deqin, and Weixi, located in north-western Yunnan . Although both languages have a similar word form regarding 'cat', due to the lack of information on their geographical distribution, it has been difficult so far to discuss the mutual relationship between these two languages. The chapter provides a preliminary geolinguistic analysis of the issue using first-hand data.

The focus of this essay is mainly the languages of Gongshan County. We will thus present an overview of two languages of Gongshan: Trung and Khams Tibetan, including geographical distribution, language situation, dialectal difference, and phonological system. Regarding Trung, since few references explain its dialectal differences, we provide a detailed description below.

1.1. Trung

The Trung people are one of the cross-border nationalities with small population in China. They are distributed in the Gongshan Dulong and Nu Autonomous County of the Nujiang Lisu Autonomous Prefecture (*Dulongzu Jianshi* 1986:1). Most Trung people live along the banks of the Dulongjiang River, and Xiaochala Mountian. Bingzhongluo Township along the Nujiang River is also a Trung settlement. A few Trung people are scattered in Qile Village, Weixi County, in Yunnan Province, and Chawalong Township, Chayu County in the Tibetan Autonomous Region (TAR). Within Myanmar, people who speak the Trung language (possibly up to 100,000 people) live in northern Kachin State (LaPolla 2003). According to the 2000 census, China has 7426 Trung people. The origin and migration of Drung people has been

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discussed by *Nujiang Jiuzhi* (1998), Yang and Li (2010), Gao (2009), Wang (2011), He and He (2007), Sun (2013), Liu (2009), and so on.

Trung is a Tibeto-Burman language. The geolinguistic location of Trung is similar to its geographical distribution: in the east it is close to the Loloish languages, in the south it is adjacent to Rawang in Burma, in the west there are a multitude of languages in the Himalayan Massif, and in the north it adjoins the Tibetan language area (Huang 1997). The affiliations of the language are still unclear. Scholars tentatively put it under the Jingpo branch of Tibeto-Burman. Sun Hongkai (1983) classified the Trung language in China into two dialects: Dulong River (Dulonghe) dialect of Trung and the Nujiang dialect of Trung. The latter is spoken by the Nu people in Gongshan who call themselves "Nung".¹ However, according to local people's opinions and the first author's research on Trung vocabulary, the diversity between vernaculars in Dulong River (the vernaculars in the upper, middle and lower reaches of Dulong River) is much bigger than that between the Dulong River dialect and the Nujiang dialect. Therefore, that classification does not reflect the internal divergence of Trung along the Dulong River. In fact, according to the specific situations of the Trung language in the upper, middle, and lower reaches in Dulong River, the Trung language can be classified into four dialects based on the areas where it is spoken; see Table 1.

Table I D	datectal classification and names.
Based on the administrative names	Local simplified name
Dizhengdang & Longyuan	Yixiang 'first township' & Longyuan administrative village
Kongdang	Sanxiang 'third township'
Maku	Sixiang 'fourth township'
Nujiang dialect (according to Sun 1983)	Shuangla

Table 1Dialectal classification and names.

Local names are generally used by the Trung people and also appear in LaPolla (2000). However, they are nonexistent as administrative toponyms. And although some names include the word 'xiang', normally translated as 'township' in English, in this case it designates an administrative village level. Therefore, in this chapter we consistently use the administrative names.

Except tone differences, the Dizhengdang dialect (especially the Trung in Longyuan Village) is very close to the Nujiang dialect of Trung. In Randy J. LaPolla's discussion (1997), the Nujiang dialect of Trung seems to be the same as the Kwinpang dialect spoken in Myanmar, which should thus be considered a dialect of Trung.

 $^{^1}$ Nung people who live along the lower reaches of the Nujiang River call themselves /nuŋ^{31}ts^haŋ^{55/}.
However, Nung people claim that their Nung language is different from Trung, even though they know Nung is similar to Trung. See also the description of 1.2.

Since these places inhabited by Trung people are hard to get to and people there rarely make contact with the outside world, the proportion of monolinguals is rather high. The transmission of Trung is natural, and it is the major medium of communication for local people. Chinese and/or Lisu languages are Trung people's second language. In addition, due to the close contact with the Tibetans and Lisu people in old days, the Trung language in the upper reaches of Dulongjiang River and in the lower reaches is respectively influenced by Tibetan language and Lisu language. Of loan words, 80% are Chinese loans, 10% are Tibetan, and 5% are Yi (LaPolla 1987). According to UNESCO's nine criteria and Chinese experts'6-scale criteria used to test language vitality, Trung is at the 2nd level (vital or still active) (Sun 2006). Moreover, according to Daniel Nettle's calculating standard (1999), the existence and maintenance of Trung in the Dulong River area is still at a safe stage.

The following are some words extracted from the 400 core words which can reflect the divergence of the dialects (vernaculars) between the upper (Dizhengdang & Longyuan hamlets), middle (Kongdang Hamlet) and lower (Maku Hamlet) reaches of Dulong River.

Through interviews we learned that the Trung language in the Longyuan hamlet (upper reaches of Dulong River) differs greatly from other places' Trung language, and is much more similar to the Shuangla vernacular of Trung 'Nujiang dialect'.

			U	0	
Kongdang	Buer-	Nung/Shuangla	Xiaochala	Maku	English
	Longyuan				
ŋa ⁵³	a ³¹ go ⁵³	gw ⁵³	ŋa ⁵³	ŋa ⁵³	Ι
a ³¹ mei ⁵³	a ³¹ me ⁵³	a ³¹ ma ⁵³	a ³¹ mei ⁵³	a ³¹ mei ⁵³	mother
a ³¹ pei ⁵³	$a^{31}pe^{53}(B)^2$	a ³¹ pa ⁵³	a ³¹ pei ⁵³	a ³¹ pei ⁵³	father
a ³¹ pi ⁵³	a ³¹ ts ^h i ⁵³	$a^{31}ts^{h}t^{53}$	a ³¹ pi ⁵³	a ³¹ pi ⁵³	grandmother
in ⁵⁵	$a^{31}in^{53}(B)^{3}$	iŋ ⁵³	in ⁵⁵	in ⁵⁵	we
nə ³¹ niŋ ⁵⁵	$n \mathfrak{d}^{31} \mathfrak{i} \mathfrak{g}^{53} (B)^4$	nə ³¹ niŋ ⁵³	nə ³¹ niŋ ⁵⁵	nə ³¹ niŋ ⁵⁵	you
pə ³¹ tc ^h i? ⁵⁵	pə ³¹ tc ^h u ⁵⁵	pə ³¹ tc ^h u? ⁵⁵	pə ³¹ tc ^h i? ⁵⁵	pə ³¹ tc ^h i? ⁵³	bird
-	(1/2)	_			
a? ³¹ ti ⁵³	a? ³¹ tc ^h i ⁵³	kən ³¹ ki ⁵³	a? ³¹ ti ⁵³	a? ³¹ ti ⁵³	greens
ta ³¹ boŋ ⁵⁵	taŋ ³¹ boŋ ⁵⁵	taŋ ³¹ boŋ ⁵⁵	tan ³¹ boŋ ⁵⁵	ta ³¹ boŋ ⁵⁵	corn
	$(B)^5$				

 Table 2
 Lexical comparison of Trung dialects and Nung.

² This form is similar to Rawang spoken in Myanmar.

³ B=the form of Buer; $/i\eta^{55}/$ for Longyuan.

⁴ B=the form of Buer; $/na^{31}in^{55}/$ for Longyuan.

⁵ B=the form of Buer; $/ta^{31}bon^{55}/$ for Longvuan.

kə ³¹ la ⁵³	$k a^{31} la^{53} (B)^{6}$	kəm ³¹ di ⁵⁵	kə ³¹ jə ⁵⁵	ke ³¹ la? ⁵³ /	spoon
				kə ³¹ roŋ ⁵⁵	
si ³¹ te? ⁵⁵	tsi ³¹ te ⁵⁵ (1/2)	tsə ³¹ te? ⁵⁵	si ³¹ te? ⁵⁵	si ³¹ te? ⁵⁵	scissors
di ⁵³	dzi ⁵³	dzi ⁵³	di ⁵³	di ⁵³	go
tin ⁵⁵	kin ⁵⁵	dziŋ ⁵⁵	diŋ ⁵⁵	diŋ ⁵⁵	the 2 nd boy
neŋ ⁵⁵	niaŋ ⁵⁵	nien ⁵³	dai ⁵⁵ / nieŋ ⁵⁵	nien ⁵⁵	the 2 nd girl
te? ⁵⁵	ge? ⁵⁵ / leŋ ⁵³	te? ⁵⁵	te? ⁵⁵	te ³³	weed

In addition, there is a large amount of synonyms in the upper and middle reaches of the Dulong River. Also, there exists phonetic correspondence between these words. For example, the consonant /p/ in the 3^{rd} Township corresponds to /ts/ and /ts^h/ in the 1^{st} Township , the same as the correspondence of /b/ to /z/; the vowels /uu, ui/ in the 3^{rd} Township corresponds to /i/ in the 1^{st} Township; the consonant /c/ corresponds to /tc/; /m/ corresponds to /n/ and /n/.

The phonological inventory of Trung (vernacular of Kongdang⁷) is as follows:

	Table 3 Consonantism of Kongdang Trung.							
		А	В	С	D	Е	F	G
plosive	voiceless	р	t			c	k	3
	voiced	b	d			J	g	
affricate	voiceless		ts		te			
	voiced		dz		dz			
fricative	voiceless		S		c		Х	
	voiced		Z		Z			
nasal	voiced	m	n		ŋ	ŋ	ŋ	
liquid	voiced		1	r				
semi-vowel	voiced	W		I		j		
		G (a		D	1 / 1		F 1/1
A: bilabial	B: denti-alveola	r C: retro	flex		D: prepa	alatal		E: palatal
F: velar	G: glottal							

The Trung language has 28 consonants and 14 consonant clusters: /pl, bl, ml, kl, gl, pJ, bJ, mJ, kJ, gJ, xJ, m?, n?, ŋ?/. The consonants /p, t, k, ?, m, n, ŋ, l, r/ often occur in final position.

⁶ B=the form of Buer; /(ky)tcie³¹roŋ⁵⁵/ for Longyuan.

⁷ The current township government of Dulong River is located at Kongdang, therefore, Trung people who live there take the Kongdang dialect as the lingua franca of Trung and the "Pinyin Plan of Trung" is made upon it.

CHASING A CAT FROM THE MEKONG TO THE SALWEEN





The vowel length (short/long) is distinctive. Nine diphthongs are attested: /ai, ɔi, ui, ui, ua, a:i, ɔ:i, u:i, u:i/.

Tones of Kongdang Trung: A three-way distinction in word tone as follows. high level [55], falling [53], low falling tone [31].

1.2. Khams Tibetan

The Khams Tibetan variety spoken in Gongshan County, e.g. Bodgrong Tibetan (Suzuki 2014e, h), belongs to the sDerong-nJol dialect group. Bodgrong Tibetan is spoken by Tibetans and Nu-nationality people living in the central area of Bingzhongluo [Bod-grong]⁸ Township. This township adjoins Chawalong [Tsha-barong] Township, Chayu County of the TAR and Yunling [Lung-gling] and Yanmen townships of Deqin ['Jol] County, Diqing [bDe-chen] Prefecture, both of which belong to the Tibetan cultural area. In Nujiang, Tibetan dialects are found only in Bingzhongluo and Bangdang townships, and they are a minority language in this area, where Lisu, Nung (a.k.a. Anu, regarded as a dialect of Trung), and Chinese are also spoken. And whereas Lisu has played a role as *lingua franca*, this role is currently being replaced by Chinese. Dialectal divergence within the two villages is to some extent attested. There are at least three varieties: Bodgrong (Bingzhongluo [Bod-grong] - 'luo' is a Lisu word designating 'place'), Chunagthang (Qiunatong [Chu-nag-thang]), and Dimalo (Dimaluo).

According to local oral tradition, the Tibetans living in Nujiang have migrated from gYanggril (Yongzhi [Glang-sgril], Yunling) and Tshedrug (Cizhong [Tsho-drug], Yanmen) villages in the present Deqin County several generations and around 200 years ago. On the other hand, no specific relation between Bodgrong and Tshawarong (Chawalong [Tsha-ba-rong]) has been attested.

According to native speakers in Ridang Hamlet, Bingzhongluo, it used to be ordinary that they are multilingual of Khams, Lisu, Yunnanese (a variety of Southwestern Mandarin), Nung, and Trung. Still now, most of them are trilingual of Khams, Lisu, and Yunnanese. A noteworthy thing is that the language data described

⁸ Each name is given with a Written Tibetan (WrT) form in square brackets. This essay consistently uses the pinyin name for each vernacular.

in Suzuki (2014h) was obtained from Nu nationality people. Not a few Tibetanspeakers in Bingzhongluo are officially registered as Nu nationality. Hence they do have to some extent competence of Nung, which may influence the formation of the local Khams vernacular. They also consider the Nung language to be different from Trung but quite similar to it. They have a frequent contact with Trung people living in Xiaochala (see 1.1).

The phonological inventory of Bodgrong Tibetan (vernacular of Rithang) is as follows:⁹

Table 5. Commentium of Dadaman Tileton

		А	В	С	D	Е	F	G
plosive	aspirated	$\mathbf{p}^{\mathbf{h}}$	t^h	ť			$\mathbf{k}^{\mathbf{h}}$	
	non-aspirated	р	t	t			k	?
	voiced	b	d	d			g	
affricate	aspirated		ts ^h		tc ^h	cç ^h		
	non-aspirated		ts		tc	cç		
	voiced		dz		dz	Jj		
fricative	aspirated		$\mathbf{s}^{\mathbf{h}}$		\mathbf{c}^{h}		$\mathbf{x}^{\mathbf{h}}$	
	non-aspirated		S		G		х	h
	voiced		Z		Z			ĥ
nasal	voiced	m	n		ŋ		ŋ	
	voiceless	m	ņ		ή		ů	
liquid	voiced		1	r				
	voiceless		1.	ŗ				
semi-vowel	voiced	W				j		
A: bilabial	B: denti-alveolar	C: retroflex			D: prepa	alatal		E: palatal

Fable 6: Vocalism of Bodgrong Tibetan.								
i			u				u u	
e			a	1		0		
	ε				э			
		a		a				
	e 6: i e	e 6: Vo i e ε	e 6: Vocali i e ε a	e 6: Vocalism o i μ e ə ε a	e 6: Vocalism of E i ʉ e ə ε a α	e 6: Vocalism of Bod i ʉ e ə ε ə a α	e 6: Vocalism of Bodgro i ʉ e ə o ε ə a α	e 6: Vocalism of Bodgrong Tib i ʉ ɯu e ə o ε ɔ a α

Tones of Bodgrong Tibetan: A four-way distinction in word tone. The following phonemic signs will be used at the beginning of a word.

-: high level [55/44] : rising [24/35]

G: glottal

F: velar

⁹ See Suzuki (2014h, 2017c) for a detailed description.

 \therefore falling [⁵³/³¹] \land : rising-falling [¹³²]

2. Data and phonetic description of the word form

This chapter uses a geolinguistic methodology to examine the distribution of the word form for 'cat' in Trung and sDerong-nJol Khams Tibetan spoken in the three counties Gongshan, Deqin, and Weixi, located in north-western Yunnan. Although both languages have a similar word form regarding 'cat', due to the lack of information on their geographical distribution, it has been difficult so far to discuss the mutual relationship between these two languages. The chapter provides a preliminary geolinguistic analysis of the issue using first-hand data.

2.1. Research sites

We have collected data from 42 locations, of which 7 varieties are Trung, 2 Nung, and 33 Khams Tibetan affiliated with the sDerong-nJol dialectal group. The data reflected in the linguistic maps are limited to our first-hand materials for the sake of the consistency of the phonetic description. The list of vernaculars is in Table 7.

Township,	Hamlet (language name)
County	
Dulongjiang,	Buer, Dizhengdang, Longyuan, Kongdang, Mabilidang, Bapo, Maku (Trung)
Gongshan	
Bingzhongluo,	Xiaochala (Trung)
Gongshan	Shuangla, Gongka (Nung)
-	Ridang [<i>Ri-thang</i>] (Khams Tibetan)
Bangdang,	Dimaluo (Khams Tibetan)
Gongshan	
Badi,	Jieyi [sBrul-yul], Luotong [Lo-thang] (Khams Tibetan)
Weixi	
Yanmen,	Badong [dPa'-gdong], Cizhong [Tsho-drug], Siga [Sa-dkar], Gongniang
Deqin	[sGo-gnyan], Chunduole [Chu-mdo-log], Nitong [sNying-thang], Guzha
	[sGo-grags], Yeka [Yar-kha], Muda [Mo-rtags], (Khams Tibetan)
Yunling,	Yongzhi-2 [gLang-sgril], Yongzhi-3 [gLang-sgril], Chalitong [Tsha-re-
Deqin	thang], Chaliding [Tsha-re-steng], Hongpo [dNgul-phung], Jiunongding
	[lCang-nang-steng], Balida [Ba-ri-steng], Guonian [sGo-nyan], Jiabi [lCags-
	spel], Yubeng [gLegs-sbam], Xidang [Shar-thang], Mingyong [Me-long]
	(Khams Tibetan)
Shengping,	Adunzi, Wunongding [mGo-nang-steng], Niangyi [Nyang-yas], Gongda
Deqin	[rKang-rtags], Zhiren ['Bri-zhing], (Khams Tibetan)
Foshan,	Foshan, Jiangpo [<i>lCang-phud</i>] (Khams Tibetan)
Degin	

Table 7 Research sites.

Other than these, a variety of Trung, Lula, spoken in the Lula hamlet near Kongdang, was also recorded, but it is not included the linguistic map because its data awaits confirmation.

2.2. Phonetic description of the word form

Table 8 is a phonetic description (segmental part $only^{10}$) of the word form of 'cat' in each variety. The tonal description is uniformly omitted in order to provide a classification of word forms.

		ruore c rinonette uesemption or eut.
Туре	Segmental form	Distribution of hamlets (Language name in parentheses)
A-1	na me / na mje	Shuangla (Nung); Chaliding, Chalitong, Muda, Yeka, Nitong, Guzha,
		Gongniang, Siga, Chunduole, Cizhong, Badong, Jieyi, Luoyi, Ridang,
		Dimaluo (Khams Tibetan)
A-2	na me / na me	Longyuan, Kongdang, Mabilidang, Bapo*, Xiaochala* (Trung),
В	ə li / a li	Buer, Dizhengdang, Bapo*, Maku, Xiaochala* (Trung); Gongka (Nung)
C-1	li la	Shengping, Wunongding, Niangyi, Gongda, Zhiren, Foshan, Jiangpo,
		Mingyong, Xidang, Yubeng, Yongzhi-2* (Khams Tibetan)
C-2	luı luı / lʉ lʉ	Jiabi, Balida, Guonian, Jiunongding, Hongpo, Yongzhi-2*, Yongzhi-3
		(Khams Tibetan)

Table 8 Phonetic description of 'cat'.

The data points with an asterisk means that they use two forms. They do not designate different semantic categories of 'cat' (e.g. 'domestic cat' and 'wild cat'), but mainly reflect a difference of the speakers' generation. The case of Bapo and Xiaochala is that the B form (/ \Rightarrow li/) is principally used by elder people, and the A-2 form, by younger and middle-aged speakers. In the data from Kongdang, which also uses the A-2 and B forms, the B form is mostly spoken by people from Dizhengdang or Maku who work or do business in Kongdang. This is the reason why we do not regard the Kongdang dialect as a dialect with two forms in the map; the variation is due to sociolinguistic factors.¹¹

The case of Yongzhi-2 is, on the other hand, unclear in terms of the use of each form (C-1 and C-2). Noticing the Yongzhi-3 dialect, spoken in the village next to Yongzhi-2, situated in an area above it, we can see that only the C-2 form is used. It

¹⁰ Suprasegmental phenomena are hereby not considered.

¹¹ Whether a linguistic map reflects sociolinguistic variations or not depends on the purpose of a geolinguistic analysis. In this article, same as in most cases of geolinguistic analysis, sociolinguistic differences are not dealt with if the current sociolinguistic situation is evident. See also Suzuki (2016a) and Suzuki and Sonam Wangmo (2017a).

may imply that the C-2 form is a more localised word. We will see the geographical distribution in greater detail in the next section.

3. Map and analysis

Based on the phonetic description in 2.2, we will draw a linguistic map and describe a geographical distribution and its features. Figure 1 is an overall distribution of the word form of 'cat' in Trung and Khams Tibetan spoken in Northwestern Yunnan, designed with ArcGIS online.

The word forms for 'cat' are principally divided into two categories as displayed with a 'pin'-type (forms including a nasal initial; A-1 and A-2) and a 'circle'-type (forms including a lateral initial; B, C-1, and C-2) on the map. However, the green 'pin' indicates dialects with two word forms. These dialects are of Trung only, and each of Khams Tibetan dialects has one form. Seen from a distribution of each word form, the A-1 and A-2 forms are attested in the central area of the map. In Trung, in both the northern and southern edges, the B-type is employed, where the word form for 'cat' demonstrates the so-called 'ABA distribution' in the geolinguistic method (See Iwata 2010). It implies that the A-1 and A-2 forms are newly developed or acquired ones, and that the form distributed in its periphery is thus usually analysed as a more archaic one. In addition, the main pathway just exists from the riverside of Nujiang to the central area of Dulongjiang Township, which can also be regarded as a factor of language change. On the other hand, the data of sDerong-nJol Khams does not show the ABA distribution for 'cat'; however, its language area is already at the southernmost tip, beyond which no Tibetic languages, are spoken.¹² Comparing the map with a wider perspective regarding 'cat' (see Suzuki 2014c), the limited distribution of the A-2 form to the area demonstrated in Figure 1 implies a loan from a surrounding language.

¹² The next place where a Tibetic language is spoken is Gagatang, located near to the administrative centre of Weixi County (see the maps of Suzuki 2014c, 2016a). Lisu is a dominant language between these two areas.

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Figure 1 Overall distribution of the word form of 'cat' in Northwestern Yunnan.

Then, we describe the case of two Trung dialects (vernaculars) which possess two forms for 'cat' in more detail. The first author's research has found that the vernaculars spoken from Longyuan to Bapo along Dulong Rivier can use two forms, in which the /na me/-type (A-2) is much more frequently used than the /ə li/-type (B). According to the information provided by a native of Mabilidang, the /ə li/-type (B) existed in the speech of elder people, and, perhaps, current elders do not use it but the /na me/-type (A-2) instead. This description makes it more interesting that the vernacular of

Xiaochala, spoken by Trung people who lived on the mountain along Nujiang River, also has two forms for 'cat'. The Trung-speakers in this village are descendants of immigrants from Kongdang Township in 1950s. People lived isolated from the rest of the Trung-speaking area as a language island; hence they maintain the language situation at the moment that their ancestors' dialect, in which the two forms for 'cat' might already exist. Notably, the form for 'cat' in Nung (the vernacular of Shuangla) is the /na me/-type (A-1), not the /na me/-type (A-2). This sound form, A-1, is common to Khams (Bodgrong Tibetan), and this situation suggests that Nung has to some extent been influenced by Khams, which is discussed in articles about Nung's origin and migratory route (Liu 2009, Yang 2010, Wang 2011, Sun 2013). Meanwhile, it is also noticeable that some Nung-speakers also speak Bodgrong Tibetan (see 1.2). Another Nung form (the vernacular of Qiunatong) for 'cat' (B) is also interesting from the viewpoint of geographical distribution. Because of the lack of data of the Chunagthang dialect of Bodgrong Khams, it cannot be asserted that Qiunatong Nung and Chunagthang Khams have the same form, which would indicate a mutual influence between them

Next, we examine the geographical distribution of the form for 'cat' in sDerongnJol Khams in more detail. As Suzuki (2014c) shows, the distribution of the A forms is limited in the area demonstrated in Figure 1, whereas the B and C forms are attested to everywhere in the eastern Tibetosphere. Suzuki (2014c) does distinguish C-1 from C-2 on the maps present in that article, neither does it explain whether they two are cognates or not. As far as the geographical distribution, each form of the C type to some extent has its own field, and in Figure 1, the C-2 form exhibits much limited distribution. On the other hand, the C-1 form is not only distributed in a wider range than C-2, but also occurs further north, in such regions as Batang County (Suzuki 2014c). The question regarding the distribution of the C forms within Figure 1 should be an independent appearance of the C-1 form in the Yongzhi dialect. As the role and position of Yongzhi is crucial for this chapter, a detailed analysis is provided later. In the area of Figure 1, the B form does not appear within Khams Tibetan dialects, however, the dialects belonging to the Sems-kyi-nyila group, mainly spoken in Figure 1's eastern neighbour Shangri-La Municipality, use the B form.¹³ However, Trung does not have any occasion to contact dialects of the Sems-kyi-nyila group, the B-form attested to in these two languages has independently been developed from each other. The A form is

¹³ It appears most frequently in the eastern Tibetosphere from the viewpoint of geographical distribution.

just peripheral, but to some extent has a certain geographical continuity of distribution. In addition, it is shared by the dialects spoken alongside Lancangjiang and Nujiang.

As introduced in 1.2, Khams Tibetan spoken in Gongshan County (Nujiang) seems to be genetically related to that spoken in Degin County (along Lancangjiang). There are at least three main pathways to connect the one to the other: Qiunatong-Yongzhi (3 to 4 days' walk), Dimaluo-Yongzhi (3 days' walk¹⁴), and Dimaluo-Cizhong (1 to 1.5 day's walk). All of these routes are used by local people, especially local Tibetans. Hence, we can easily find numerous dialectal similarities and shared lexical items between Khams varieties along the Lancangjiang and Nujiang. Then, a question emerges: why does the Yongzhi dialect use the C-1 type regardless of its geographical position and appear to have a closer relationship with Bodgrong Tibetan? Unfortunately, we have no sufficient evidence to speculate it. It is certain that the Yongzhi dialect is considered by local Tibetans outside Yongzhi Hamlet as a somewhat divergent speech form.¹⁵ Indeed, the distribution of the word form for 'cat' in Yongzhi seems curious seen from a geolinguistic view. However, if the A forms are not an inherited word but a loan, an explanation would be simple: the Yongzhi dialect maintains an older form, which has now replaced by elsewhere. If this hypothesis is true, the A forms came from the Nujiang area, and entered the sDerong-nJol-spoken area alongside Lancangjiang through the three paths. It implies that Bodgrong Tibetan, which is *derived* from the Yongzhi dialect and Cizhong dialect (see 1.2), could have played a role as a donor language regarding the A forms for 'cat', which has not originally been attested in these dialects. Thinking of this point, we suppose that Bodgrong Tibetan also borrowed the A forms from a non-Tibetic language at a certain period, which should be after the Tibetans' immigration to Bingzhongluo, i.e. 200 years ago, at earliest.

As mentioned earlier, the A forms attested in Trung might be a loan, which possibly originates from non-Trung languages spoken alongside Nujiang. So are those in Khams. In consequence, the A forms (A-1 and A-2) are likely to have a donor language which is neither Khams Tibetan nor Trung. The terms for 'cat' in surrounding languages which are not displayed on Figure 1 are as follows:

¹⁴ At present a motorway is being constructed between these two hamlets, and it will become the first motorway between Deqin and Gongshan counties.

¹⁵ The reason why the Yongzhi dialect is well known to outsiders is because Yongzhi Hamlet is a starting point of circumambulance of *Kha-ba dKar-po*, one of the great sacred mountains in the Tibetan cultural area, and many pilgrims come through here. Meanwhile, Tibetans in Yongzhi also generally know that surrounding dialects of sDerong-nJol Khams uses the A-1 form for 'cat', which is different from theirs. This fact should be considered, however, we lack data enough to analyse linguistic features.

Lisu: /a nia/¹⁶ (Gongshan dialect), / a^{31} ni³³ z a^{53} / (Lushui dialect¹⁷), /xwa⁵⁵ l e^{22} /¹⁸ (Weixi-Kangpu dialect)

Nusu: $/mu^{35} \eta \epsilon^{31}/^{19}$

Anong: /mu³¹ ni³¹/²⁰

With the examples displayed above, it is difficult to claim to which language(s) Trung and Khams Tibetan are related. However, Lahu Xi, a Loloish language spoken in Xishuangbanna and the area south to it, also has $/nA^{35}$ mi³⁵/ for 'cat' (YS59 1998). Thus, the forms attested in Trung and Khams might have a donor language which is close to Loloish in the point of word form of 'cat'.

Nevertheless, questions still remain: (1) How have Trung Khams Tibetan dialects acquired different initials (/n/) or /n/) for the word 'cat'? (2) Is the B form in Trung an inherited word or a loan? For the first question, the linguistic map tells us nothing. The consonantism in each language taken consideration. We cannot directly know the background of this sound correspondence. There is still a possibility to consider that this word originated as an onomatopoeia. A way to solve this problem would be hamlet-to-hamlet research (Dawa Drolma and Suzuki 2016) of whichever languages are spoken in a given area, which must be Gongshan County here.²¹ For the second question, we must examine the word form for 'cat' spoken in Chayu, TAR, north of the Trung-spoken area, which may establish connection between the A and B forms.

4. Conclusion

This chapter discussed the word form of 'cat' in Trung and sDerong-nJol Khams Tibetan dialects spoken in north-western Yunnan from a geolinguistic view, with an introduction to Trung and Bodgrong Tibetan. The linguistic map of 'cat' shows that the forms such as /na me/ or /na me/ are an newly acquired forms from an unspecified donor language, which must be or have been spoken alongside the Nujiang. Both Trung and sDerong-nJol Khams have a word form including the /l/-sound (e.g. /ə li/ and /li la/), however, they two are unlikely to possess the same origin. But other Khams Tibetan dialects do have a /ə li/-like form, which thus implies the Trung word for 'cat'

¹⁶ A suprasegmental description is omitted in the forms of the Gongshan dialect.

¹⁷ From YS59 (1998).

¹⁸ This form is similar to the Naxi form (YS59 1998).

¹⁹ From Sun & Liu (2009).

²⁰ From Sun & Liu (2009).

²¹ A similar issue regarding the nasal initial is attested in Khams Tibetan spoken alongside Lancangjiang. See Suzuki (2009a).

is related to the Tibetan spoken form. The lack of data from the TAR (especially Chayu County) is a crucial problem at present, but when this is resolved, we will obtain a more reliable interpretation regarding the distribution of the word form for 'cat'.

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Cultural contexts of the expansion of a Tibetan word *'bras* 'rice' in the easternmost Tibetosphere

1. Introduction

Suzuki et al. (2016ab) have drawn linguistic maps of 'rice plant' and 'rice' in general in Tibeto-Burman languages, with which we can see that word forms for 'rice' employed in most Tibetic languages as well as languages spoken in the eastern Tibetosphere are common to each other, i.e., a form corresponding to Written Tibetan (henceforth WrT) 'bras.¹ However, as we can imagine, most parts of the Tibetosphere are not suitable to cultivate rice and this word must not be a basic word in these languages. Indeed, it is known that more than 70 per cent of word forms are shared with varieties of the Tibetic languages (Jin ed. 1983:144), and more than 90 per cent of word forms correspond to a WrT form. Hence, it is not quite peculiar that the word for 'rice' is also shared with many varieties within the Tibetic languages. However, if the word 'rice' is acquired through a cultural contact, how can this word form be widely shared within the Tibetic languages distributed in the widest area among the Tibeto-Burman languages? For this question, the present authors will raise a hypothesis that the word 'rice' spreaded as a religious word all over the Tibetosphere, and because of this reason, this word can be borrowed by other non-Tibetic languages spoken in the eastern Tibetosphere, such as rGyalrongic and Qiangic languages, some of which have originally had their own word forms of 'rice' (and a semantic division of 'rice' if applicable).

This chapter provides a detailed description of the geolinguistic analysis of the word forms for 'rice' derived from WrT 'bras in the languages spoken in the easternmost Tibetosphere. The geographical scope of the eastern Tibetosphere follows the definition of Suzuki (2016a), and the easternmost Tibetosphere corresponds the

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¹ Note that WrT *'bras* corresponds to Proto-Tibeto-Burman (PTB) **b-ras* 'RICE / FRUIT / BEAR FRUIT / ROUND OBJECT'. Tibetic languages principally employ this PTB etymon for 'rice' among the Tibeto-Burman languages. See STEDT: <u>http://stedt.berkeley.edu/~stedt-cgi/rootcanal.pl/etymon/2071</u>, accessed 16th March 2016.

places confronting to other cultural areas. The chapter focuses on Tibetic and Qiangic languages spoken in Sichuan and Yunnan. The linguistic maps reflect so-called 'regiolects', i.e., dialects with regional differences. Sociolects, which certainly exist in the given area, are not dealt with in this chapter.

2. WrT 'bras and its phonetic variation

There are many phonetic realisations of the word form derived from WrT *'bras*, some of which are: [$^{n}d\epsilon$:], [^{m}di :], [$^{n}dz\epsilon$:], [$^{m}b\epsilon$ ·:], [$^{m}b\epsilon$ °:], [$^{m}br\epsilon$:], [^{n}du fiu], [^{n}gu :], and [$_{n}gi$:]. Paying attention to the initial sound of this word form, we draw Figure 1 for the distribution of various phonetic realisations attested in the Tibetic languages (from Suzuki 2016b).

Other than them, phonetic forms attested in non-Tibetic languages are following:

rable i will bras in non-ribette languages.						
Language	Dialect	Word form for WrT 'bras				
Chuchen rGyalrong	Munashan	^m bras				
bTsanlha rGyalrong	Sengge	^m bras				
sTau	Mazur	^m brɛ				
Geshitsa	brGyargyud	^m brɛ				
Lhagang Choyu	Thamkhas	^m dwa				
nDrapa	Ngwirdei	^m dɛ				
Darmdo Minyag	Lhatseshis	ndze				
Nyagrong Minyag	Shoring	ⁿ dri				

Table 1 WrT 'bras in non-Tibetic languages.²

Even though the phonetic variation is wide, it is easy to understand that they are derived from the single WrT form *'bras*. Phonetic variation is generally not a criterion to classify word forms. However, an irregular sound correspondence should be noted, because it might show a spreading process of the irregular form.³

 $^{^2}$ The data has been collected by the first author. The suprasegmental description of word forms is uniformly omitted.

³ A partial discussion for the irregular phonetic form of WrT *'bras* 'rice' was provided in Suzuki (2012).





Esri, © OpenStreetMap contributors, HERE, Garmin, FAO, NOAA, USGS | Esri, © OpenStreetMap contributors, HERE, Garmin, FAO, NOAA, USGS

Figure 1 Distribution of the main initial (with a glide) sound corresponding to WrT 'bras.⁴

An overall distribution of the word form 'rice' derived from WrT 'bras over the languages spoken in the eastern Tibetosphere is displayed in Figure 2.

⁴ This map is designed with ArcGIS online. The legend does not reflect the preinitial feature (prenasalisation in most cases); 'd' includes both a plosive /d/ and an affricate /dz/; '#' means lack of the form corresponding to WrT '*bras*.

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Map data © OpenStreetMap contributors, Microsoft, Esri Community Maps contributors, Map layer by Esri Figure 2 Distribution of the word form 'rice' in the languages in the eastern Tibetosphere.⁵

⁵ Legend: TT: Tibetic languages using WrT *'bras*; TQ: : non-Tibetic (especially Qiangic) languages using WrT *'bras*; NonT: non-Tibetic languages not using WrT *'bras*; T drus ma: Tibetic languages using WrT *drus ma*.

As shown in Figure 2, the issue regarding this chapter is mainly limited to the Minyag-rGyalrong area and the north-western part of Yunnan because these areas display a complicated situation. The authors are going to analyse these two cases in detail. First, we describe the usage of rice in the religious life under the Tibetan cultural area, taking Lhagang, the sacred place worshipped by Tibetans inhabiting the surrounding areas, as an example, and show the importance of the rice in their belief. Second, we analyse the way of spreading word (phonetic) forms for 'rice' by drawing specific linguistic maps. The basic data is common to Suzuki et al. (2016ab), the project of *Studies in Asian Geolinguistics*.

3. Use of 'rice' in everyday life and rituals: example from Lhagang Village

Lhagang Village is located on the Minyag Rabgang region,⁶ a part of the easternmost Tibetosphere, where a monastery with a locally well-known Bodhisattva statue lays⁷ and attracts many pilgrims not only from Minyag but also from its surrounding areas including rGyalrong. Under this perspective, Lhagang Village functions as a 'crossroad' of various local cultures within the easternmost Tibetosphere.

At present, rice is widely eaten as a part of staple food by Tibetans in Minyag and rGyalrong. Since rice does not grow on the plateau of Minyag Rabgang, it is certainly 'imported', at least in Lhagang Village, from Dartsendo Town (known as Lucheng Town), the administrative centre of this region. However, there are no rice fields in the town. Hence, rice should be transported from other places, perhaps from the Han territory such as Yaan. In the rGyalrong valley, rice can be cultivated, however, we rarely see rice field there. Rice in the rGyalrong area should also be imported from the contacting Sinosphere.

Rice is also employed when people practise rituals. Lhagang Monastery belongs to the Sakyapa sect of Tibetan Buddhism; however, the use of rice in rituals is quite common to any sects. In Lhagang Village, we can principally see two rituals using rice: *bdun mtshon chus skyes* and *'bras bsres ma sku. bdun mtshon chus skyes* is to consecrate rice to water by soaking it in water or alcohol; *'bras bsres ma sku* is to prepare boiled rice cooled and hardened with butter in a small bowl, used when a monk comes to a laypeople's house to recite a sutra for eliminating misfortunes and driving bad luck out from the house. In addition, Tibetans put crops including rice in a *man dal*,

⁶ Administratively, Lhagang Village is in Tagong Town, Kangding Municipality, Ganzi Tibetan Autonomous Prefecture, Sichuan Province.

⁷ See Sonam Wangmo (2013) and Suzuki & Sonam Wangmo (2015a) for details.

a circle-shaped religious box symbolising a mandala in order to make offerings. According to the abbot of Lhagang Monastery, there are three monastic rituals utilising rice: *man dal bzhi mchod, rab gnas,* and *sbyin bsreg cho ga.* Other than them, rice is also used in any rituals as a replacement of white stones and/or white ritual objects just when they lack. This situation indicates that rice plays an important role in religious ceremonies even though its use is limited.

Ritual use of rice is widespread in the Tibetosphere. Since it is not recent expansion, the supply of rice to the Tibetosphere in the past and present is a question, which has not been well investigated so far. The present description is not enough to figure out a complete way from the provenance to the destination of rice. However, we can understand how rice is treated in the Tibetosphere and functions in the Tibetan culture. Therefore, the languages spoken under the strong influence of the Tibetan culture must have received the word *'bras* 'rice' as one of the cultural objects.

4. Word spreading process of WrT 'bras: cases of two areas

4.1. Minyag-rGyalrong area

Figure 3 is a linguistic map regarding the word form for 'rice' in the languages spoken in the Minyag-rGyalrong area. In this region, many non-Tibetic languages and varieties employ the form corresponding to WrT '*bras*, so do all the Tibetic languages reflected on Figure 3. The majority of non-Tibetic languages spoken there belong to the Tibetosphere, which means that the influence of the Tibetan culture and custom is extremely strong. Hence, this distribution is not extraordinary.

First of all, we should note that the border area of the varieties using this word form and those using their own word form. There are two places to be described: SiturGyalrong varieties in Maerkang County and nGochang (generally known as Guiqiong) in Kangding Municipality. Situ-rGyalrong varieties generally have one form for the whole 'rice' category, whereas nGochang, at least three forms (Suzuki et al. 2016b). This situation implies that nGochang has once been spoken in a rice cultivation area, or been a desceendent of a language spoken in a rice cultivation area. Another view can be pointed out: the contact of nGochang with Sinitic varieties, which have at least four words for the 'rice' category. In fact, the form for 'rice plant' of Qianxi nGochang is a Sinitic loan (*guzi*). In Situ-rGyalrong, there is an inherent word for 'rice', /k^hre/, which is, in fact, problematic; it might be an earlier Tibetan loan corresponding to WrT *khre* 'millet'. Situ-rGyalrong is mainly spoken inside steap valleys, where cultivation of crops except for barley is difficult, hence the rice has not occupied an important place in the language landscape. However, varieties spoken in the region which is much closer to the Tibetic-spoken area have accepted a form corresponding to WrT *'bras* 'rice' as shown in Figure 3, see the distribution of TQ. Moreover, various phonetic forms of 'rice' related to WrT *'bras* in rGyalrongic languages (see Table 1) reflect the origin and period of borrowing from Tibetic varieties. For example, the pronunciation /^mbras/ attested in Situ, Chuchen, and bTsanlha rGyalrong has already disappeared in the majority of Tibetic varieties surrounding the rGyalrongic languages.⁸ It means that this word form is an archaic loan.



Esri, GEBCO, DeLorme, NaturalVue | Esri, © OpenStreetMap contributors, HERE, Garmin, FAO, NOAA, USGS Figure 3 Word form for 'rice' in the Minyag-rGyalrong area.

⁸ In fact, it is extremely difficult to find a variety of any Tibetic languages which has a phonetic form as /^mbras/. For example, an initial /^mbr/ is attested near the rGyalrongic-spoken area (see Figure 1), but its rhyme is not /as/. On the other hand, Ladak (Tibetic language spoken in North India) has an /as/ rhyme but its initial is /br/, lacking prenasalisation.

Next, we will consider several factors that non-Tibetic languages accepted the Tibetan loan regarding 'rice'. The primary purpose of use of 'rice', especially 'rice grain', within the Tibetosphere might be religious ceremonies mentioned in Section 3. Since the Tibetic-spoken area is normally located higher than 3,000m altitude, rice cannot grow; however, Tibetan inhabitants employ rice for several special religious ceremonies, whether they practise Buddhism or Bon. If their use of rice is highly associated to the religious purpose, the word for 'rice' itself can be counted as a cultural word.

To sum up, the distribution of the word form is basically related to WrT 'bras in non-Tibetic varieties in Figure 3 is connected to Tibetic varieties. In addition, this word form is not a recent loan but an archaic one judging from the phonetic variation attested in rGyalrongic languages. A detailed process of borrowing should be investigated by referring to the historical sound development of Tibetic varieties.

4.2. Yunnan area

Figure 4 is a linguistic map regarding the word form for 'rice' in the languages spoken in the Tibetosphere in Yunnan.

An interesting point in the Tibetosphere of Yunnan which is different from the case in Minyag-rGyalrong region is that there are no non-Tibetic languages and varieties employing the form corresponding to WrT *'bras*. Moreover, some Tibetic varieties do not use WrT *'bras*-form for 'rice' (T drus ma-type in Figure 4). In Yunnan, we should pay more attention to exceptional phonetic realisations, especially a velar sound, attested in Tibetic varieties mainly distributed in Shangri-La Municipality (see Figure 1) which are not reflected on Figure 4, as well as varieties with a semantic division between 'rice plant' and 'rice grain'.

The idea 'every word has its history' is the most fundamental for geolinguistc research. If a given sound change cannot be explained in a straight way of the regular process, we should seek other factor(s) which caused the exception. The phenomenon observed in many varieties spoken in the central area of Shangri-La Municipality is that the velar sound /ⁿg/ appears on the position where the apparition of /ⁿdz/ or /ⁿJ/ is expected. It is certain that some varieties has a regular sound correspondence between WrT '*br* and /ⁿg/, however, the distribution of such varieties is limited, and it is also complicated that they give some influence to varieties spoken in a wider region. Returning to Figure 1, we notice that the distribution of /ⁿg/ forms a 'line' from the central area of Shangri-La Municipality to Lijiang Municipality. What does this shape of distribution mean? Thinking of this issue with other background information of the region and history, we can raise a hypothesis that there has been influence from Naxi,

previous prestige language functioned while the Mu-chieftain period from Ming to Qing dynasties. In Lijiangba Naxi, phonetic realisations among prepalatal, palatal, and velar are not well distinct. In Shangri-La, rice is not cultivated but used as religious purposes as well as frequently eaten by inhabitants at present. In addition, the provenance of rice as a commercial item is Dali and Lijiang. In other words, the word for 'rice' was somewhat influenced from the pronunciation of Naxi-speakers and the oral form might have transmitted from south to north.⁹



Esri, GEBCO, DeLorme, NaturalVue | Esri, © OpenStreetMap contributors, HERE, Garmin, FAO, NOAA, USGS Figure 4 Word form for 'rice' in the Tibetosphere in Yunnan.

⁹ See Suzuki (2016b) for a detail.

Since the climate condition is appropriate for rice cultivation, Tibetans practise to plant rice in a part of the Tibetosphere of Yunnan, especially along lower Jinshajiang within Shangri-La and Weixi. In this area, Tibetans' language also have a semantic division within the 'rice' category, i.e., 'rice plant' and 'rice grain' (Suzuki 2016b). Of them, the form of 'rice plant' generally corresponds to WrT 'bras, as reflected on Figure 4, while that of 'rice grain', to WrT drus ma (see also Suzuki 2012). The class 'T drus ma' of Figure 4 could have been generated by replacing WrT 'bras for WrT drus ma over the whole semantic division of 'rice' because 'rice' as a food is more important than that as a plant in the non rice cultivating area.

5. Conclusion

The word form of 'rice' in the Tibetic languages in the eastern Tibetosphere mainly corresponds to WrT 'bras, and its geographical distribution is nearly pervasive. Most regions do not belong to the rice cultivation area, however, varieties have the same stem for rice. It is probably because the rice is used for religious rituals, whether they are of Bon or Buddhism. The rice is generally a kind of staple food, but in the case of Tibet, it can be used for a religious purpose.

In the Minyag-rGyalrong area, the loan of the word form WrT 'bras is certainly related to the distribution of non-Tibetic languages. Most varieties spoken in the vicinity of Tibetic-spoken area employ a WrT 'bras form for 'rice'. Its expansion is highly connected with the strength of Tibetan cultural influence.

In the Tibetosphere in Yunnan, however, a complicated system is attested. Several dialects spoken under the rice cultivation culture distinguish 'rice grain' from 'rice plant' by using different stems. The irregular sound correspondence of WrT 'bras is also seen in Yunnan, which might have spreaded from the Naxi area to its north following the cultural influence of Lijiang.

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Lhagang Choyu: A first look at its sociolinguistic status

1. Introduction

This chapter aims to shed light on a Qiangic language named Lhagang Choyu (Tagong Queyu 塔公却域语¹), spoken only in one hamlet, called Tage 塔格 [*Thabs-mkhas*] of Tagong 塔公 [*lHa-sgang*] Town, Kangding 康定[*Dar-mdo*] Municipality,² Ganzi 甘孜 [*dKar-mdzes*] Tibetan Autonomous Prefecture, Sichuan 四川 Province, China.



Figure 1 Geographical position of Tagong Town.³

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¹ The character ± 0 que is pronounced as [te^hio] in the local Sichuanese (a member of southwestern Mandarin) of Kangding.

² Kangding became a municipality-level administrative unit on the 1st of June, 2015.

³ All the maps in the chapter are designed with ArcGIS online.

This language is currently moribund, and there might not, unfortunately, be any more *native* speakers who acquired the language as a mother tongue.⁴ Although there are around 20 households living in Tage Hamlet, there are less than a hundred people who know the language, most of whom are now habitual speakers of Khams Tibetan (the Thamkhas dialect; Minyag Rabgang Khams), with a knowledge of Lhagang Choyu as a second language. Hence, they do not habitually use this language, and speak Khams Tibetan instead. Khams Tibetan is even used within families in which all members are from Tage Hamlet.

The existence of Lhagang Choyu⁵ was incidentally found in the course of the first author's investigation of the historical area of Darmdo Minyag, a Qiangic language which may have been dominant in this region in the past (Dawa Drolma & Suzuki 2016). Collecting local narratives related to non-Tibetic languages, he encountered information concerning a non-Tibetic, non-Darmdo Minyag language spoken in two hamlets located to the west of Tagong Village.

Despite long-standing academic interest in endangered languages, and intense ethnographic explorations in the region, this language has remained unrecorded until now. Even the second author, a native of Tagong Village, only learnt of the language during this research. Most middle-aged and younger villagers living in Tagong Village do not know it either. In such a situation, it is not unimaginable that outsider linguists have never had any contact with Lhagang Choyu speakers, even though local non-Tibetic languages spoken in the Ethnic Corridor of West Sichuan (a.k.a. Tibeto-Lolo Corridor or Tibeto-Qiang-Lolo Corridor) have attracted a great deal of attention in the past four decades (Sun 1983, Dai et al. 1990, Ikeda 2003). In addition, the linguistic situation within Tagong Town is complicated (Suzuki & Sonam Wangmo 2015a, 2017a). Figure 2 shows the distribution and classification of various languages spoken within the administrative territory of Tagong Town.

Two sites associated with Lhagang Choyu are indicated in Figure 2. However, it is no longer spoken in one of them; see Section 2.

⁴ Recent descriptive works on Lhagang Choyu are available; see Suzuki and Sonam Wangmo (2017b, 2019a).

⁵ This language is briefly mentioned in Suzuki and Sonam Wangmo (2017a).

LHAGANG CHOYU: A FIRST LOOK AT ITS SOCIOLINGUISTIC STATUS



Figure 2 Language distribution within Tagong Town.

The chapter consists of two main sections: a description of the background of Lhagang Choyu, followed by a brief sociolinguistic description. We also provide an appendix containing a brief description of four word forms that characterise Lhagang Choyu. Field research in Tagong Village was conducted in the summer of 2015 and the spring of 2016. The description of toponyms is uniformly in pinyin, whereas that of languages and varieties utilises a Tibetan-based spelling.

2. Background: languages, geography, and history

This section describes the context of the Lhagang Choyu language, including language distribution in its surrounding area, the geographical location, and historical features.

As an undescribed variety, the name "Lhagang Choyu" must remain tentative, indicating that the variety is most closely-related to four known dialects of the Choyu language⁶ (registered in *Ethnologue* as Queyu;⁷ ISO 639-3 code: qvy): Youlaxi 尤拉 西 [*gYang-la-gshis*] Township of Xinlong 新龙 [*Nyag-rong*] County (Wang 1991; TBL 1992), Rongba 绒坝 [*Rong-pa*] Township of Litang 理塘[*Li-thang*] County (Nishida 2008), and Tuanjie 团结 Township (Lu 1985; ZYC 1991) and Xiala⁸ 呷拉 Township (Nagano and Prins 2013) of Yajiang 雅江 [*Nyag-chu-kha*] County (see Fig. 3 for the geographical distribution of theses varieties).



Figure 3 Geographical distribution of Choyu and Lhagang Choyu.

There are two principal reasons why we call this language *Choyu*: first is its linguistic similarity to Choyu, including phonetic, morphological, and lexical traits, and second is sociolinguistic information we collected on the language that suggest historical links with Choyu speakers. The former characteristics (see Appendix) are beyond the scope of this chapter. The latter much attracts us and will be discussed here. It remains to be seen whether Lhagang Choyu is linguistically independent from other Choyu dialects; however, the present status of Lhagang Choyu to be discussed in the chapter suggests that we should treat it as an independent language facing severe

⁶ "Choyu" can be analysed as the autonym of Choyu speakers "Cho" and WrT *yul* 'place'. It is unclear what "Cho" means and how it is spelt in WrT (or completely nonexistent). Dawa Drolma (2015) uses WrT *khyo yul* for this name, however, no interpretation is given. The article continues to use the spelling "Choyu".

⁷ As mentioned in footnotes 1 and 6, "Queyu" as a language name, just following the pinyin, has no significance; hence we recommend the use of "Choyu" instead.

⁸ A Locally pronounced as Gala, in a way of Sichuanese, as shown in Nagano and Prins (2013). The spelling 'Gala' is used throughout this article.

endangerment.⁹ When we refer to the Expanded Graded Intergenerational Disruption Scale (EGIDS) provided by *Ethnologue*,¹⁰ Lhagang Choyu can be classified as 8b (Nearly extinct),¹¹ whereas Choyu is 6b (Threatened), with around 7,000 speakers.

Lhagang Choyu *has been spoken* in at least two hamlets called Tage and Xiya 西 雅 [Shing-nyag], in the southwest of Tagong Town (see the description later in this section); however, at present, it *seems to be used* only in Tage. This means that the speech community of this language has already disappeared and that limited users remain there. Xiya Hamlet belongs to a pastoral area located on the grassland, now inhabited by speakers of a nomadic variety of Amdo Tibetan, whereas Tage Hamlet belongs to an agricultural area surrounded by mountains. There are no motorable roads between these hamlets and any main surrounding villages, and transportation is therefore primarily limited to horses and motorbikes. It used to take one whole day to walk from Tage to the town centre of Tagong (i.e., Tagong Village), however, it now takes three hours by motorbike. A direct distance from Tage Hamlet to the closest speech community of Choyu found in Gala Township of Yajiang County is around 30 kilometres, taking one day by horse. According to our interviews, there is no specific relationship between Tage and Gala. As Figure 3 shows, the geography between them consists of steep mountainous terrain.

Due to this situation, connections between Tage and other villages have been limited. However, at present, several families of Tage Tibetans have immigrated to the centre of Tagong Village from Tage, and live together with locals. Some households also immigrated from Tage to the area beside the main road between Tagong and Xinduqiao 新都桥 [*Ra-rnga-kha*], mainly to Shang Baisang 上柏桑 [*Bal-bsrung stod*] Village.¹²

Written documents do not provide any information on the origins of speakers of Lhagang Choyu. However, according to a local oral narrative, they migrated from the direction of Yajiang in the relatively recent past. Previously, Tage Hamlet had a Bon

⁹ At present, the authors are planning to edit a vocabulary and a phonetic description as an independent article. A part of the lexical data of Lhagang Choyu is used as a research outcome of the project of *Studies in Asian Geolinguistics*, as in Shirai et al. (2015), Suzuki et al. (2016ab), Suzuki & Sonam Wangmo (2016c), and Ebihara et al. (2016).

¹⁰ See Lewis et al. (2016). Online version: <u>http://www.ethnologue.com/about/language-status</u>, accessed 17th March 2016..

¹¹ Among the Tibetic languages in the easternmost Tibetosphere, there exists a variety to be labeled as 8b: Dartsendo Tibetan. See Suzuki & Sonam Wangmo (2015b).

¹² An interview conducted in Lucheng Town (Kangding), 2015.

monastery, but it has now become Nyingmapa.¹³ Taking this religious culture into consideration, Tage might have had relations to its western neighbours, such as Zhaba 扎坝 ['*Dra-pa*] and Xinlong, where Bon culture is still strong.¹⁴

As for the situation of Xiya Hamlet, the eastern neighbour of Tage Hamlet, according to a woman from the community currently in her 20s, elders there used to speak a language that others could not understand when they wanted to discuss secrets.¹⁵ She last heard this language when she was six or seven years old, i.e., in the late 1990s. At present, it is not longer spoken in Xiya. However, the existence of a 'secret language' is still known and this memory is shared even among youngsters. Our informant, unfortunately, does not what the language was or what it was called. Therefore, we assume that the variety of Xiya is already extinct and inaccessible. The variety might be Lhagang Choyu, or another type of language, such as 'Tibetan Pig Latin,' the use of which has been attested to in some nearby areas. However, the reason why we consider this 'secret language' to be a kind of Lhagang Choyu is because of the word form of 'meal' still remembered by our interviewee: [ⁿdu].¹⁶ This form is peculiar to Choyu and Lhagang Choyu, and no similar phonetic forms are attested in surrounding languages (Suzuki et al. 2016a).¹⁷

Based on the descriptions above, Lhagang Choyu would have two regional varieties, Thamskhas and Shingnyag, though they might have been one variety before. However, the variety of Shingnyag is now extinct, and there is no way to know what it was like.

3. Sociolinguistic description

This section presents a description regarding the current sociolinguistic situation of Lhagang Choyu, divided into three topics: accessibility to the language, current language use, and possible reason why Lhagang Choyu has been unrecognised so far.

¹³ Interviews conducted in Lucheng Town (Kangding), 2015 and 2016. Karmay & Nagano eds. (2003:519-520) describe a Bonpo monastery in Lhagang Town called Grib-srib, founded in 1646, according to oral tradition. However, it is just a ruin now, and the hamlet has a Nyingmapa monastery called dPal-ri instead.

¹⁴ Interestingly, the relationship between local Bon communities and ethnic minority languages speakers is to some extent attested. This chapter, however, will not discuss this issue in detail. ¹⁵ An interview conducted in Tagong Village, 2015.

¹⁶ Lhagang Choyu is a tonal language, however, since the mother tongue of the interviewee is Amdo Tibetan, non-tonal language, and she thus cannot reproduce the exact tonal phonomenon.
¹⁷ However, a similar form /tɔ/ is attested in nGochang (Guiqiong), which designates 'rice' in general.

3.1. Accessibility to Lhagang Choyu

Before providing a sociolinguistic overview, we make a short notice regarding the accessibility to Lhagang Choyu, which could be one reason why this language has not received attention so far.

As mentioned above, there are presently no speakers who have acquired Lhagang Choyu as their first language. This means that all the Lhagang Choyu users are multilingual, most of whom acquired Khams Tibetan (a variety of Thamskhas) as their mother tongue. This variety, according to our preliminary analysis, belongs to the southern subgroup of Minyag Rabgang Khams, including the Rangakha (Xinduqiao) dialect. It is close to the variety spoken in the centre of Lhagang Town (called Lhagang-B in Suzuki and Sonam Wangmo 2015c, 2016b). However, the intelligibility between them is not always high. Difference of intonation features, in particular, lowers the intelligibility. Therefore, even native speakers of Lhagang-B can to some extent have difficulty communicating with Tage Tibetans.

When the first author initially recorded Lhagang Choyu with an elderly woman in her 70s living in Tagong Village, he needed two "interpretors". Firstly, his principal communication language is Lhagang-B, a dialect of Minyag Rabgang Khams, however, as the old woman does not understand it well, and thus the first interpretor, from Xiya Hamlet of Tagong, translated Lhagang-B Tibetan into Shingnyag Tibetan, a dialect of nomadic Amdo with peculiar local features. The second interpretor, from Tage Hamlet, translated Shingnyag Tibetan into Thamkhas Tibetan, a dialect of Minyag Rabgang Khams highly influenced by nomadic Amdo. Finally, since the elderly woman understood Thamkhas Tibetan, communication was thus made possible.

This situation implies that no lingua franca existed in the past, hence the mutual relationship over hamlets has also been weak. Indeed, such low intelligibility is probably limited to the case that an outsider talks with an elderly person regarding such things without any context as a questionnaire of linguistic materials. The first author was successfully able to communicate with the second interviewee from Tage, who was in her 50s and already accustomed to life in Tagong Village, by using Lhagang-B.

As mentioned above, the communication language with Tage Tibetans should be Minyag Rabgang Khams, especially Lhagang-B. There is no use using Chinese or Derge Tibetan (so-called *standard* Khams). This specific linguistic situation might have been a great barrier to reach Lhagang Choyu from a practical aspect. However, there are persons who know of this "unknown" language. Then, why have linguists had no occasion to access this language before? This question will be discussed later.

3.2. Current language use

Based on our research, Lhagang Choyu no longer functions as a communicative tool. In this case, what do the local people, including speakers and non-speakers of Lhagang Choyu, know about this language? We will describe below several views regarding this question, based on oral descriptions obtained by interviews conducted in Lhagang Village.

The multilingual situation in Lhagang Village appears in our field research. Suzuki & Sonam Wangmo (2017a) describe the rapid language change occurring due to urbanisation in Lhagang Village, including the resettlement of pastoralists. Speakers of Lhagang Choyu living in Lhagang Village are also involved in this situation, even though their number is small.

Sociolinguistic information was obtained from some interviewees living in Tagong and Xinduqiao towns.¹⁸ Some elderly people know that Lhagang Choyu is to some extent intelligible to Choyu speakers in Xinlong. One of the interviewees even observed a person from Tage Village speaking in a non-Tibetan language with some people from Xinlong; he later learnt that the language spoken in Xinlong was called "Choyu". Thus, his assumption is that the non-Tibetan language of Tage Hamlet is a kind of Choyu.

Elder Tibetans from Tage Hamlet also know the name Choyu as a toponym, but not as an autonym or a glottonym. However, they cannot specify the exact geographical area of Choyu. They have no specific autonym for themselves, either. Some Lhagang Choyu speakers identify themselves as /'po pe/, an older loan from a surrounding Tibetic language corresponding to Written Tibetan *bod pa*. Note the vowel in the second syllable of this word, where we can find a sound correspondence between WrT a in an open syllable and /e/ in Lhagang Choyu. This is a specific feature shared with many Qiangic languages, not with Tibetic languages, hence this phonetic form is considered as an archaic loan.

One of the interviewees told us that Lhagang Choyu is a mixed language of Choyu (i.e., varieties spoken in Xinlong, Litang and Yajiang) and Tibetan (i.e., Minyag Rabgang Khams and Amdo). However, since she did not know what the Choyu language is like, this story should be treated as hearsay. As seen in this discourse, Lhagang Choyu is a low-prestigious variety; speakers often adopt negative attitudes to its use. However, a negative attitude taken by non-Thamkhas Tibetans against Lhagang

¹⁸ Interviews conducted in 2015 and 2016.

Choyu has not been attested in the present survey.¹⁹ The negative view is also observed in another regard, which will be explained later.

Lhagang Choyu is no longer used for communication. Moreover, some differences in the linguistic features between the elder and middle generations are already clearly evident; for example, specific sounds, such as complex initials and velarised vowels, are simplified in the pronunciation of the middle generation. At present, we cannot evaluate whether this phenomenon is because of an ordinary process of historical sound change or because of interrupted intergenerational transmission of the language. Many Tibetans from Tage have now migrated to Tagong Village and Shang Baisang Village of Xinduqiao Town. After moving there, they rarely speak Lhagang Choyu and generally use Khams Tibetan, and other sedentary Tibetans do not know that Tage Tibetans speak a kind of "unintelligible Khams Tibetan," however, they do not understand that it is a non-Tibetic variety. Why does such a misunderstanding occur? Following, we describe a noteworthy factor which can help explain this situation.

3.3. logs-skad and skad-logs: why Lhagang Choyu has been unrecognised so far

More than three decades have already passed since the study of language endangerment emerged as a trend in linguistics. As Minyag Rabgang is located within the "Ethnic Corridor" in West Sichuan, and regarded as the centre of the Corridor by Fei (1980), intense works on minor languages and language endangerment have been conducted; in consequence, various languages, such as Minyag (Darmdo Minyag), Lyuzu, and Daohua, were recognised by linguists.²⁰ Yang (1994) even provides *incorrect* information regarding the distribution of non-Tibetic languages, mentioning Tibetic varieties as non-Tibetic languages. Then, an essential question has emerged: why has Lhagang Choyu gone unrecognised so far in spite of scholars' great interest in this area?

Local non-Tibetic languages in Khams are often referred to as *logs-skad* 'locallybased non-Tibetic language' in Tibetan, wherever such languages are distributed within Khams, in Sichuan (Ganzi) and Qinghai (Yushu), and even in the Tibet Autonomous Region (Chamdo).²¹ The word *logs*, derived from a verb *log* 'inverted, irregular, incorrect,' in Tibetan, originally means 'biased, leaning'. However, as far as the authors

¹⁹ Some pejorative expressions to denote non-Tibetic languages are attested in communities in Ganzi Prefecture, for example, WrT '*dre skad* 'ghost language' for Nyagrong Minyag (Van Way & Bkrashis Bzangpo 2015:249) and /^rgu skə/ 'cattle language' for Geshitsa or SiturGyalrong spoken in Danba County.

²⁰ See Sun (1983), Huang and Rig-'dzin dBang-mo (1990), A-tshogs (2004), and Dawa Drolma & Suzuki (2015).

²¹ See Zla ba sgrol ma (2012).

observed, the present usage of *logs-skad* lacks negative implications, and primarily designates a language which cannot be understood by Khams Tibetan speakers.²² The word formation of *logs-skad* is parallel to that of *rong-skad* 'farmers' language' and '*brog-skad* 'pastoralists' language'. But if the word is used in a reversed word order, i.e., *skad-logs*, the word is understood as a completely different, very negative sense: 'leaning language'.

Lhagang Choyu-speakers consider the language not as *logs-skad*, but as *skad-logs*. Talking with them, we have realised that they do not understand the word *logs-skad*, which we initially used in our conversations with them. After that, one speaker used the word *skad-logs* to refer to Lhagang Choyu, and we finally understood the manner to designate this language. Unfortunately, the word *skad-logs* implies that it is a very strange vernacular of a given language --- which must be Lhagang Tibetan here --- and Lhagang Choyu-speakers understood their language as it is. In other words, Lhagang Choyu is regarded as an abnormal, unintelligible variety of Lhagang-B. Tibetan languages cannot specify whether a speech form is an independent language or a dialect of somewhat larger languages within the Tibetan lexical items, because it merely has one word *skad* for 'speech', 'language', and 'dialect'.

4. Conclusion

This chapter reported for the first time the existence of a newly recognised language which we refer to as Lhagang Choyu, spoken in Tage Hamlet, Tagong Town, Kangding Municipality, Sichuan, based on our fieldwork. It is unfortunate that this language has no more native-competent speakers, however, meanwhile, it is certainly fortunate that it was found before it was completely lost. This chapter also analysed the possible factors that have resulted in linguists having no access to this type of minority language, i.e., speakers' multilingualism of a given language and a Tibetic regiolect, the polysemy of WrT word *skad*, which cannot distinguish a language from a dialect in general.

The history of speakers of Choyu currently seems to be the least obvious among the Qiangic languages of the Tibetosphere. Linguistic characteristics may be able to elucidate the history of the Choyu-speaking community. The chapter has not particularly discussed its linguistic features. However, the authors will continue to seek possible linguistic descriptions regarding Lhagang Choyu, for this highly endangered

²² However, users of this word might have to some extent pejorative feelings to designate a language which they cannot understand. A sociolinguistic survey is needed regarding its use.

language could tell us about various typological traits, and consequently we need an urgent documentation of Lhagang Choyu before it really is forgotten.

Appendix: Commentary for four words in Lhagang Choyu

Four words (of which three are taken from the SAG project) in Lhagang Choyu are explained in detail below: 'sun', 'rice', 'milk', and 'tooth'.

- 'sun' (see Shirai et al. 2016)

The form of Lhagang Choyu is $/\mbox{mi tsi}/$. In Choyu, it is $/\mbox{mima}/$ in Gala, $/\mbox{nj}^{55}$ mu³³/ in Tuanjie, $/\mbox{H}pp$ / in Rongpa, and $/\mbox{pu}^{55}/$ in gYanglagshis. The form of Lhagang Choyu is different from that in any dialects of Choyu, furthermore, the /m/-initial is also characteristic in the Tibeto-Burman languages.

- 'rice' (see Suzuki et al. 2016ab, Suzuki & Sonam Wangmo 2016c)

The form of Lhagang Choyu is $/{}^{m}$ dwa/. In Choyu, it is $/ndz\epsilon^{35}/$ in Tuanjie, and $/mdzi\epsilon^{13}/$ in gYanglagshis. This form is evidently a Tibetan loan. The form is quite similar to the present nomadic Amdo variety spoken in Lhagang Town, however, the form attested in Lhagang Choyu is more archaic. The period of borrowing is thus suggested in an earlier time.

- 'milk' (see Ebihara et al. 2016)

The form of Lhagang Choyu is $/ n\epsilon^{y}/.$ In Choyu, it is $/k^{hi}$ 'noŋ/ in Gala, $/nu^{55}/$ in Tuanjie, and $/\eta i^{55} n\epsilon^{55}/$ in gYanglagshis. The /n/-initial for 'milk' is not peculiar in Tibeto-Burman; however, the existence of a velarised vowel in Lhagang Choyu should be noted, because any Choyu dialects do not have this articulatory manner.

- 'tooth'

The form of Lhagang Choyu is /ki/. In Choyu, it is /ku/ in Gala, $/ku^{53}/$ in Tuanjie, and $/ski^{55}/$ in gYanglagshis. The /k/-initial attested in the word 'tooth' is noteworthy in Tibeto-Burman, it is just similar to Zhangzhung *skod* (Nagano 2009) and Xixia (Tangut) $k\mu o^2$, which is related to PTB **s-k-lu* (STEDT)²³ within the languages considered as those with a genetically closer relationship to Lhagang Choyu. Since the SAG project does not provide a linguistic map for 'tooth', we will display a map for 'tooth' based

²³ See <u>http://stedt.berkeley.edu/~stedt-cgi/rootcanal.pl/etymon/1322</u>, accessed 28th March 2016.

on a simplified classification of the initial sound within the easternmost Tibetosphere (Figure 4):





This map shows that the form of Choyu and Lhagang Choyu (K-type; the type of which the initial is /k/) is isolated; however, there is a similar type (X-type; the type of which the initial is /x/) distributed around the Choyu-region, which is Darmdo Minyag and brGyargyud Geshitsa.

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Geolinguistic approach to the route of Tibetic loanwords in Lhagang Choyu

1. Introduction

Choyu (also known as Queyu; ISO 639-3 code: qvy) is a Qiangic language spoken by less than 10,000 Tibetans in Nyagrong, Lithang and Nyagchukha counties, Kandze Prefecture, Sichuan Province, China. Recently, Suzuki and Sonam Wangmo (2016a) reported that there is one hamlet within Lhagang Town in Dartsendo Municipality where Tibetans used to speak a Choyu-like language known as Lhagang Choyu, and they (2017) provide a Lhagang Choyu word list with forms from Thamkhas Tibetan, a dialect substituting Lhagang Choyu. This language comprises many Tibetic loanwords. However, phonetic features evident in them are quite different from those of surrounding Tibetic languages. For this reason, we examine whether we can elucidate a route of lexical borrowing from Tibetic to Lhagang Choyu language, by comparing loanwords to the original word forms found in Choyu dialects and surrounding Tibetic languages and dialects (see Figure 1 for their location).

The data that will be discussed comprises Tibetic loanwords in Lhagang Choyu (Thamkhas dialect; Suzuki and Sonam Wangmo 2017). We first compare them with those in five dialects of Choyu (Lhayul, Rongpa, gYanglagshis,¹ Phubarong, and Bezi²) and Lhagang Choyu (Thamkhas) to examine the differences in lexical forms and phonetic realisations. Second, we examine peculiar sound correspondences demonstrated in Tibetic loanwords in Lhagang Choyu compared to examples of surrounding dialects of the Tibetic languages,³ Khams and Amdo.⁴ All the data except

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¹ See Wang (1991) for a concise description of gYanglagshis Choyu.

² See Lu (1985) for a short description of Bezi Choyu.

³ See Tournadre (2014) for the definition of the term 'Tibetic'.

⁴ Several vocabulary lists are on public resources. See Suzuki (2007b) for Rangakha (Minyag Rabgang Khams), Suzuki and Sonam Wangmo (2015c) for Lhagang (Minyag Rabgang Khams), Suzuki and Sonam Wangmo (2016d) for Shingnyag (Washul Amdo), and Suzuki and Sonam Wangmo (2017b) for Thamkhas (Minyag Rabgang Khams).

for gYanglagshis and Bezi Choyu was collected by the present authors. gYanglagshis and Bezi were retrieved from TBL (1992) and ZYC (1991) respectively.⁵



Figure 1 Location of relevant languages and dialects.

Figure 1 contains the following points [in order from the west to the east]:

Khams: Jowo, Lithang, Gyongpa, dGakhog, Nyagchukha, Bajiaolou (Riji), Bajiaolou, Thamkhas, mGologthog, Phagso, Lhagang, Balsrung

Amdo: mChodrten (sDegzhongma⁶), Horra rNyingpa (gYonru), Tshonkhor (gYonru), Horlung (Othog), Shingnyag, Warnangsumdo, Nongskor, Goroma, rDorakarmo (rMewa)

Choyu: Lhayul (Gayibuli), Lhayul (Tshorong), gYanglagshis, Rongpa (Atsong), Phubarong, Bezi, Gala

Lhagang Choyu: Thamkhas

We have additional data on varieties of Khams and Amdo other than those shown on Figure 1. However, the map only includes varieties that have had contact with Choyu and Lhagang Choyu. In addition, we note that non-Tibetic languages are mainly

⁵ Bezi occupies an independent dialect branch among Choyu dialects. See Huang et al. (forthcoming).

⁶ Regarding pastoralists' dialects of Amdo Tibetan, we can use another way of classification other than geographical location. See Tsering Samdrup and Suzuki (2017).
distributed mainly at the north of the Choyu-speaking region, such as nDrapa and Nyagrong-Minyag. See Roche and Suzuki (2017, 2018) and Shirai (2018).

As Figure 1 shows, Choyu and Lhagang Choyu are spoken in the mountainous area where the Nyagchu River flows through. Based on historical narratives of Lhagang Choyu-speakers, their ancestors came along this river from the western part of the Choyu-speaking region, making this a potential migration route (Suzuki and Sonam Wangmo 2019b). Choyu-speakers are generally bilingual in Choyu and a local variety of Khams Tibetan. However, depending on the location of their communities, some might also have contact with Amdo Tibetan-speakers. Amdo-speakers' ancestors are also considered migrants; those living in Lithang County (in the west of Figure 1) mostly came from the current Qinghai Lake area in Qinghai Province (Suzuki 2018c, Suzuki and Tsering Samdrup 2018), while those living around Lhagang Village (in the east of Figure 1) mostly came from the current Palyul, northern Nyagrong, and Kandze counties (Suzuki and Sonam Wangmo 2019b). Since we do not have any access to past detailed social situations of Choyu-speakers, an investigation of Tibetic loanwords in Choyu and Lhagang Choyu could aid in understanding their society to some extent.

2. Examples of Tibetic loanwords in Lhagang Choyu and Choyu dialects

We present typical Tibetic loanwords in Lhagang Choyu (Thamkhas), five Choyu dialects (Lhayul, Rongpa, gYanglagshis, Phubarong, and Bezi), and Literary Tibetan (henceforth referred to as LT) in Table 1. The order is based on geographical location: from the west to the east.

rubie r ribette touits in endyt und Endgung endyt (in nutive word, e. eninese touit)							
Meaning	Choyu/	Choyu/	Choyu/	Choyu/	Choyu/	Lhagang	LT
						Choyu/	
	Lhayul	Rongpa	gYanglagshis	Phubarong	Bezi	Thamkhas	
axe	′ ⁿ ts ^h e /n	⁻ⁿ ts ^h e /n	-	^{-§} ts ^h e /n	tse ⁵³ /n	^{-h} te ri	sta re
bean	⁻ĥdza' rə	^{-m} ηε /n	mŋye ⁵⁵ /n	¯χõ t ^h uj /n	-	^{-h} sε ma	sran ma
	mə						
book	⁻ĥg⊖ /n	^{-h} gwə /n	χpe ⁵⁵ t∫ha ⁵⁵	´zi ke	dzw ³⁵ dzw ³⁵	⁻ĥgʷə /n	yi ge/
	_	-				_	dpe cha
bridge	^{-h} tso /n	^{-h} tso /n	tso ⁵⁵ /n	^{-h} tso /n	dzã ⁵⁵	´zã ^m be	zam pa
chicken	^{-fi} dza ^v za	′ ^ĥ dza ^v za	rdza ¹³ bza ⁵⁵	′ ^ĥ dzə ^b zwa	za ⁵³	´∳ca	bya
cloth	ŕε	´rja	rie ¹³	´ri	re ³⁵	′ra	ras
copper	⁻xɯ rə /n	′ra	$ra^{13} \gamma \epsilon^{55}$	´ra	ra ³⁵	źź	zangs/
							rag
coral	^{′¢} cui rui	´∲cə ^ĥ du	pci55 rdye33	´cu ^ĥ du	-	¯eu rui	byu ru
dragon	^{′m} dʉ	^{′m} dµ	mdzy ¹³	⁻¹du	ndzy ⁵³	′¹du	'brug
deity	-le	-li	-	-li	łi ⁵³	-le	lha
flower	´mə tu	´mə t u	mu ¹³ tye ⁵⁵	-me tu	mo ³⁵ to ⁵³	-mə to	me tog
forehead	⁻ t ^h ə pə	⁻ t ^h ə pə	the ⁵⁵ pe ⁵⁵	´t ^h ε ^ĥ bə li	the ⁵⁵ pv ⁵⁵ li ⁵⁵	ít ^h a pe	thod pa

 Table 1
 Tibetic loans in Choyu and Lhagang Choyu (n: native word; c: Chinese loan)

fox	¯qa t∫wa	^{−p} t∫wa /n	pt∫a ⁵⁵ /n	-	wa ³⁵	´γa	wa
glass	´xe	'xe ^{fi} gu	-	-ce ^{fi} gu	-	-ce	shel
gold	^{-x} se	na gu	ůə⁵⁵ /n	-nai	ne ⁵⁵ /n	^{-h} sə ^y	gser
grandson	'no nə /n	źżi	zi ¹³ yə ³³ zi ¹³ /n	su ts ^h ə /c	sõ ⁵⁵ sõ ⁵⁵ /c	⁻ ts ^h a wu	tsha bo
khatak	⁻ k ^h a da	⁻ k ^h a da	-	⁻ q ^h a da	-	⁻ k ^h a te	kha btags
kidney	-	⁻ ůk ^h e lə	rvu ¹³ lo ³³ /n	′ ^{ij} k ^h e lə	khe ⁵⁵ lø ⁵⁵	^{-ŋ} k ^h i ma	mkhal ma
lake	⁻ ^m ts ^h o	⁻ ^m ts ^h u	mtshy ⁵⁵	⁻ ^m ts ^h u	tshi ⁵⁵	⁻ ⁿ ts ^h u	mtsho
monastery	-	-	-	⁻ ⁿ gũ ^m bi	-	^{-fi} gõ ^m be	dgon pa
monk	⁻ fila ma	⁻ fila ma	pe ¹³ ndi ³³	^{-h} la' mo	-	^{-w} la me	bla ma/
			-				ban de
new	^{-h} sa ^h be	^{-h} sa pa	xsar ⁵⁵ pe ⁵⁵	-sə ^{fi} bi	se ⁵⁵ pi ³³	^{-h} sa ^h be	gsar pa
old	⁻⁶ ŋi ⁶ be	⁻⁶ ŋi pa	nur ¹³ pe ⁵⁵	⁻⁶ ŋĩ' ^m bi	η̃e ⁵⁵ pi ³³	⁻ⁿ ŋĩ ^m be	rnying ba
owl	-	⁻ k ^h u /n	khu ⁵⁵ lu ⁵⁵ xu ³³	-	-	´yu pa	'ug pa
			/n				
power	¯k ^h ε hõ	-	-	-	-	, _u R _w a	dbang
rabbit	írə vo	írə kõ	łi ¹³ /n	'¤li	zi ³⁵ ko ⁵⁵	′rə γõ	ri bong
rice	- ^m dε	- ^m dε	mdzie ¹³	^{-m} dwa	ndze ³⁵	^{-m} d ^w a	'bras
sand	′ [¢] ci ma	′ ^h sa	ci ¹³ ma ⁵⁵	´ɕwə ^ĥ ga	¢i ³⁵ ma ⁵³	íteə ma	bye ma
shadow	-	´ni t ^h ə	ne ¹³ qo ⁵⁵ /n	⁻ѿpʰə /n	na ⁵⁵ /n	'tə na	grib ma
shoulder	^{-m} p ^h ε rə	^{-m} p ^h ə rə	phie ⁵⁵	^{-m} p ^h i /n	kho ⁵⁵ te ⁵³ /n	^{'p} t ^h a pe	phrag pa
	/n	/n	-	_			
Sichuan	′ ^ĥ dza ^ĥ ge	⁻sə /n	rdze ¹³ rgo ⁵⁵	⁻sə /n	la ⁵⁵ tsə ⁵³ /c	⁻⁶ ja ma	g.yer ma/
pepper							rgya
							rgod ⁷
Tibetan	́рө ri	ípe ri	pe ⁵⁵ ri ⁵⁵	´pe ^ĥ ba	-	po pe	bod
tiger	-ĥta	-ĥta	sta ⁵⁵	-ĥta	ta ⁵³	$-\hat{h}ta^{\gamma}$	stag

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The native word for 'book' in Lhagang Choyu as seen in Table 1 indicates a relationship between Lhagang Choyu and Choyu. The form $/{}^{-6}g^{w}$ only appears in Lhagang Choyu, and it corresponds to $/{}^{-6}gw$ in Rongpa Choyu and $/{}^{-6}g\Theta$ in Lhayul Choyu. It is also recorded as $dgod^8$ in the Tibetan script in *Litang Xianzhi* (1996:474). This form might be maintained in dialects spoken within Lithang County because the dialects of gYanglagshis (Nyagrong County) and Phubarong (Nyagchukha County) use Tibetic loanwords that are different from each other, i.e., LT *dpe cha* and *yi ge*, respectively. The former word form is mainly used in Amdo Tibetan while the latter is used in Khams Tibetan. Moreover, the phonetic realisation is noteworthy. An initial uvular sound corresponding to LT *dp*, $/\chi p/$, is analysed as an archaic sound because Amdo Tibetan generally has a $/\chi w/$ sound for LT *dp*, and so do varieties spoken in Lithang. This situation implies that the form of the gYanglagshis dialect is an older borrowing. However, on the contrary, its vowel in the second syllable /a/ suggests a

⁷ The form *rgya rgod* is not a LT word but a local word form that, in fact, denotes 'chili' and not 'Sichuan pepper'. In the Lhagang dialect of Minyag Rabgang Khams, this word means 'wild onion' (Suzuki and Sonam Wangmo 2018).

⁸ This spelling might be pronounced as $[{}^{h}g\theta]$ (tone unspecifiable) in a local manner. The meaning of this LT spelling is 'laugh,' which is not related to the context here.

new loan. In any case, since the description of this dialect is not given by the present author, we cannot consider the sound form a phonetic reality. In the case of the Phubarong dialect, it is worth noting that the dialect uses a /z/ sound corresponding to LT y. This sound correspondence is a minor case in Khams Tibetan (Suzuki 2016c, 2018c), and the same sound correspondence is merely demonstrated in the Lamdo dialect (Sems-kyi-nyila group: spoken in Lamdo hamlet of Shangri-La Municipality) within the closest place. Dialects belonging to the sPomborgang group (Suzuki 2018d) spoken near the Choyu-speaking region have a similar sound correspondence, but it is not the case for the word with a LT simplex y. To sum up, the word 'book' is one of the suggestive examples with which one can access the history of language contact in these languages.⁹

In addition to that, we note that Choyu dialects (and possibly Lhagang Choyu too) receive more Tibetic loanwords due to language contact, therefore experiencing a rapid language change. For example, the word for 'sun' in Lhagang Choyu is a native word /⁻mi tsi/ as is the case in Phubarong Choyu /⁻mə' ^htsə/. However, Lhayul Choyu now employs /[']ni ma/, a Tibetic loan derived from LT *nyi ma*.

For more general discussions, we point out particular sound correspondences illustrated in the Tibetic loanwords in Lhagang Choyu:

LT initial w and ': /y/ ('fox'; 'owl')

LT initial $z : \frac{z}{r}$ ('bridge', 'copper')

LT initial db and ': / \mathbf{k} / ('power')

LT initial phr : /^pt^h/ ('shoulder')

LT vowel *a* at word-final: /e/ ('old', 'god', 'monk', 'monastery', etc.) or /a/ ('owl', 'sand', 'pepper')

LT rhyme *er*: $/\mathfrak{d}^{Y}/(\mathsf{'gold'})$

The features of sound correspondences illustrated in loanwords in Lhagang Choyu are not always common in Choyu dialects. Hence, it is significant to analyse how the differences occurred by comparing the data of potential origins and varieties of the neighbouring Tibetic languages.

⁹ Other than word forms, there is a possibility of discussing the influence from Tibetic languages regarding the semantic field and change if one examines a specific semantic change, e.g., the word form for 'rain' compared to that for 'sky.' This example is an interesting case discussed by Shirai et al. (2018b) and Suzuki (2018c).

3. Analysis of the route of loans

In order to analyse the route of loanwords, we have to find cases in which a LT form corresponds to various sounds following spatial/dialectal (synchronic) and/or temporal (diachronic) differences. The latter case can be examined through the sound correspondence of a LT rhyme *a* (single vowel without finals). As pointed out in Section 2, Lhagang Choyu has two principal sound correspondences: /e/ and /a/. We consider the first sound correspondence to be the oldest. The sound correspondence between LT rhyme *a* and lower front vowels /i, e, ε / is widely illustrated in rGyalrongic and Qiangic languages. Lhagang Choyu also applies this sound change. When we deal with the issue of the route of loanwords, we have to pay attention to the differences in loanwords' strata. In this article, we mainly choose words in the older stratum of loans in order to elucidate the varieties from which the Tibetic language Lhagang Choyu has borrowed Tibetic words.

Among the items in Section 2, we deal with the following limited examples below: 'fox', 'chicken', 'rice', 'bridge', 'glass', and 'shoulder'. We first discuss the variation of word forms in relevant Tibetic languages and then create a linguistic map for a geolinguistic analysis.

3.1. 'fox'

The word for 'fox' in LT is *wa*, and Tibetic languages surrounding Choyu and Lhagang Choyu employ a form corresponding to this. However, there are principally three phonetic realisations demonstrated within Tibetic languages: /wa/, /ʁa/, and /ɣa/.¹⁰ /wa/ is widespread in Khams Tibetan; /ʁa/ is mainly found in Amdo; /ɣa/ is found in several dialects in this area, especially in Lithang, as well as in Lhagang Choyu /'ɣa/.¹¹

The / γa /-form is illustrated in both Khams and Amdo in Lithang. The / κa /-form also appears in some dialects in the surrounding area of the dialects with the / γa /-form. In Amdo especially, uvulars exist in the consonantism. Hence, a / γa /-form demonstrated in Amdo is noteworthy. Lhagang Choyu has borrowed from one of such varieties and maintained it to date. However, Lhagang Choyu has only borrowed this word after borrowing words with /e/ vowel corresponding to LT *a*, e.g., /'po pe/ bod pa 'Tibetan' and / $\lceil le/lha$ 'deity' (see Table 1). In addition, as shown in Table 1, some dialects of Choyu maintain their native word forms. This fact suggests that Lhagang Choyu might have borrowed the Tibetic form for 'fox' recently.

¹⁰ Tonal signs are omitted when we do not specify a given dialect.

¹¹ See Hill (2006) for phonetic forms of various Tibetic languages of the word 'fox'.

GEOLINGUISTIC APPROACH TO THE ROUTE OF TIBETIC LOANWORDS IN LHAGANG CHOYU



Legend: N=native word; U=/ μ /; G=/ γ /; W=/w/ Figure 2 R Word forms for 'fox' and initials.

3.2. 'chicken'

The word for 'chicken' in LT is *bya*, and Tibetic languages surrounding Choyu and Lhagang Choyu employ a form corresponding to this. However, the form applied in Choyu is dissyllabic, and it seems to correspond to LT's *rgya bya*, which literally means 'Chinese chicken'.¹² For the sound corresponding to the LT initial *by*, many Tibetic languages use a prepalatal fricative /c/. Besides, several varieties of Minyag Rabgang Khams also have another correspondence: an affricate /tc/. However, it only appears in a few words including 'chicken', while a fricative /c/ or /z/ appears in other words.

Lhagang Choyu has a monosyllabic form $/{}^{\phi}$ ca/, in which the initial consists of a bilabial fricative as a preinitial and a voiceless prepalatal fricative as the main initial.

In Thamkhas Khams and Lhagang Khams, we find a local native form for 'chicken': /' $k\tilde{0}$ go/.¹³ This means that Lhagang Choyu has already borrowed a word for 'chicken' from other varieties in Lhagang, but not before borrowing words with /e/ vowel corresponding to LT *a*, as in 'fox. Paying attention to voicing, we find that Choyu dialects use a voiced fricative, but Lhagang Choyu does a voiceless counterpart. As seen from the discussion on the form for 'bridge' below, devoicing of fricative series might not have occurred in Lhagang Choyu recently. Thus, Lhagang Choyu has received a voiceless form when borrowing the word. This suggests that the relative time

¹² However, we have never described any Tibetic languages, including Literary Tibetan, which use the form *rgya bya* for 'chicken' so far.

¹³ The etymology of this form is unidentified. Another phonetic variety with uvulars also exists : / qo 8 Go/ (Suzuki and Sonam Wangmo 2018).

of borrowing is neither recent nor archaic: it is highly possible that the origin of the loan is a dialect spoken in Lithang or its surrounding areas. See also the discussion on 'bridge' later.



Legend: N=native word; MF=monosyllabic+/c/; MFV=monosyllabic+/z/; MA: monosyllabic+/tc/ DF=dissyllabic+/z/

Figure 3 Word forms for 'chicken' and initials.

3.3. 'rice'

The word for 'rice' in LT is 'bras, and Tibetic languages surrounding Choyu and Lhagang Choyu employ a form corresponding to this. The word 'rice' in most parts of the Tibetosphere can be considered a cultural word (Suzuki and Sonam Wangmo 2016b), and non-Tibetic languages spoken in the Tibetosphere often use a Tibetic loan.¹⁴ Considering the word form in Lhagang Choyu, we pay attention to the nasal element appearing at the preinitial position because a principal difference in the word forms in Tibetic languages of the given area appears in this feature. We can find a dialectal difference between labial prenasal /^m/ and homorganic prenasal (prenasalisation in a narrow sense).

Lhagang Choyu has a bilabial nasal preinitial, $/{}^{m}d^{w}a/$, which reflects an older sound derived from LT '*bras*: *^mbras < '*bras*. Whether or not a variety can have a heterorganic labial nasal preinitial depends on the sound system. However, in a dialect that allows this heterorganic nasal to appear as a preinitial, a form with a labial nasal is considered an older type as opposed to a homorganic counterpart.

¹⁴ See also Suzuki (2016b) and Suzuki et al. (2016b) for the word 'rice' and its relevant words in Tibeto-Burman.

GEOLINGUISTIC APPROACH TO THE ROUTE OF TIBETIC LOANWORDS IN LHAGANG CHOYU



Legend: M=labial prenasal; N=homorganic prenasal Figure 4 Preinitials for 'rice'.

Figure 4 shows that differences in the preinitial nasal merely depend on the nature of the languages and this determines whether or not a heterorganic nasal appears. In this case, we have not found any significance of geolinguistic analysis. We can say that the Lhagang Choyu form /^{-m}d^wa/ is loaned from a Tibetic variety which can possess a heterorganic bilabial nasal preinitial. We also note that the LT rhyme *-as* corresponds to /a/ in Lhagang Choyu, as evidenced in the word 'cloth' /'ra/ (see Table 1). In the Rongpa dialect of Choyu, we find a similar form /'rja/ for 'cloth' is applied, but /^{-m}dɛ/ applies for 'rice'. There might be a temporal difference of the borrowing between the two words in Rongpa. In any case, the sound correspondence between LT *-as* and /a/ is of a rare type.¹⁵ If the forms in Lhagang Choyu really reflect an archaic sound of the Tibetic languages surrounding it, they will also be useful in investigating a sound change process in Tibetic languages.

3.4. 'bridge'

The word for 'bridge' in LT is *zam pa*, and Tibetic languages around Choyu and Lhagang Choyu employ a form corresponding to this. Regarding the word form in Lhagang Choyu, the voicing of the initial catches our attention because a principal difference in the word forms in Tibetic languages within the given area appears in this feature. We find a dialectal difference of word forms between /s/ and /z/.

¹⁵ Within the first author's field notes, only Hor Bachen dialect shows this sound corresponding within Tibetic languages.

Lhagang Choyu has a voiced initial that is pronounced /'zã ^mbe/. Judging from the vowel of the second syllable, this word form belongs to an older stratum of the loanwords.



Legend: N=native word; S=/s/; Z=/: Figure 5 Initials in 'bridge'.

Choyu's native form includes a /ts/-initial, which is probably a cognate of LT *zam* at the Proto-Tibeto-Burman level (*m-dzam, #3604, STEDT).

However, we cannot specify when the devoicing of Tibetic languages occurred. Presently, the Tibetic varieties spoken in Lithang have a voiceless initial /s/, but it is not guaranteed that this sound was voiceless when Lhagang Choyu received a loanword form. Based on the vocalic quality of the second syllable of the word 'bridge' in Lhagang Choyu, it should be considered a loan belonging to the old stratum. Therefore, even though there are two possibilities of the origin, a variety spoken in Lithang or one spoken in the surrounding area of Thamkhas, the former is a more potential candidate. This interpretation implies that Tibetic languages around Lithang at that time had a sound correspondence between LT z and /z/.

3.5. 'glass'

The word for 'glass' in LT is *shel*, and Tibetic languages surrounding Choyu and Lhagang Choyu employ a form corresponding to this or a compound containing this. Considering the word form in Lhagang Choyu, we pay attention to an articulatory position of the initial because a principal difference in the word forms in Tibetic languages within the given area appears in this feature. We find a dialectal difference

in initials between a prepalatal fricative /c/, a velar fricative /x/, and a prepalatal-velar double-articulated $/f_{\rm f}/^{16}$ (regardless of the aspiration feature).

Lhagang Choyu has a prepalatal fricative initial as $/\[-]{ce}/$. Since the sounds $/\[-]{c}/$ and $/\[-]{x}/$ are distinctive in the sound system of Lhagang Choyu, we can exclude the possibility that the original Tibetic form includes a velar sound. However, the interpretation of the sound [fj] in Lhagang Choyu is unclear, and it is also possible that it is interpreted as an allophone of $/\[-]{c}/$.



Legend: S=/c/; SX=/fj/; X=/x/ Figure 6 Initials in 'glass'.

There is no appropriate way of describing the dorsal sound corresponding to a LT simplex *sh* demonstrated in some Tibetic languages, especially in Khams and Amdo. Here we must distinguish a double-articulated /fj/ from a mono-articulated /x/ with allophones such as [ç] and [x]¹⁷ because Tibetic languages spoken in this area distinguish these two sounds from each other. Amdo Tibetan spoken in Lithang County

¹⁶ [f₃] attested in Amdo Tibetan is close to a double-articulated sound of prepalatal and velar in principle, whereas [f₃] in Swedish, it varies phonetically and it is sometimes described as a "highly rounded, labiodental, velar or velarized fricative" and a "dorsovelar voiceless fricative" (Ladefoged and Maddieson 1996:171-172; based on Lindblad 1980) in spite of the definition of International Phonetic Alphabet as a sound "simultaneous \int and x". As Lindblad (1980) and Ladefoged and Maddieson (1996:172) claim, the sound [f₃] is to be distinguished from a velar fricative [x]. Additionally, [f₃] includes various articulatory manners, and this feature is also a reason why we can apply it for the specific sound attested in Tibetic languages.

¹⁷ When one considers that /x/ has two allophones [c] and [x], the condition is formulated as follows: [c] /_+higher front vowel, [x] / __higher front vowel. Even in this simple case, the phonetic value before /a/ is always problematic.

uses /fj/, whereas that spoken in Lhagang uses /c/ as in the local Khams Tibetan. Varieties of Khams Tibetan spoken in Lithang County use /x/.

Figure 6 shows that the Lhagang Choyu form is common to its surrounding varieties of Tibetic languages. Looking at the Rongpa dialect of Choyu, we find that the word 'glass' is /'xe ^{fi}gu/. Hence, we assume that the word 'glass' is a recent loan. For this reason, the initial sound corresponds to that of surrounding Tibetic languages.

3.6. 'shoulder'

The word for 'shoulder' in LT is *phrag pa*, and the Tibetic languages surrounding Choyu and Lhagang Choyu employ a word form corresponding to this. Considering the word form in Lhagang Choyu, we draw our attention to the existence of a preinitial because a principal difference in the word forms in Tibetic languages of the given area appears in this feature. We find a dialectal difference between forms with and without a labial plosive preinitial /^P/.

Lhagang Choyu has an initial with a bilabial preinitial in the first syllable as $/^{p}t^{h}a$ pe/, which reflects an older sound derived from a LT initial *phr-:* $/^{p}t^{h}-/ < *p^{h}r- < phr-$. Judging from the vowel of the second syllable, this word form belongs to an old stratum of the loanwords. Whether or not a variety can have a labial plosive preinitial depends on the sound system. However, in a dialect that has this preinitial, a form with a labial nasal is considered to be an older type as opposed to being a homorganic counterpart. See 'rice' above.



Legend: N=native word; P=preinitial /^p/; T=no preinitial Figure 7 Word forms for 'shoulder' and preinitials.

Whether or not a variety can have a labial preinitial depends on the sound system. Varieties of Khams Tibetan in this area cannot apply this pattern due to this restriction. This case resembles that of the example 'rice' discussed above. However, the loanword is only applied in Lhagang Choyu while Choyu dialects have a native word. The problem is that, as the Lhagang Choyu form /^{rp}t^ha pe/ suggests, it belongs to the older stratum of Tibetic loans. This situation implies that Lhagang Choyu had borrowed this form before it borrowed the word 'fox' from Tibetic varieties spoken in Lithang. It is unclear whether older varieties of Khams Tibetan allowed a labial preinitial to appear in the phonology. Hence, it is also unclear whether the loan word originated from Khams or Amdo.

4. Conclusion

This article presented an overview of the Tibetic loanwords in Choyu and Lhagang Choyu and discussed their potential borrowing route by examining six words from a geolinguistic perspective. Lhagang Choyu has at least two strata of Tibetic loanwords, and this article discussed words belonging to the older stratum. The discussion found that several phonetic features had originated from varieties of Amdo Tibetan spoken in Lithang County.

The six loanwords that we discussed principally have dialectal differences in sound and not in word form. However, as various aspects of sounds such as phonetics and phonotactics vary within the Tibetic varieties, we can analyse the borrowing route to some extent.

The article's result corresponds to the historical narratives that tell us that the ancestors of Lhagang Choyu speakers, who maybe with Amdo-speaking pastoralists, have come from the present Lithang-Nyagrong border area (Suzuki and Sonam Wangmo 2016ac, 2019b). We can find some traces of the history in Tibetic loanwords.

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Studies in Geolinguistics, Monograph Series 1

Photo gallery 6

dBra khog Valley. At sGam sna, Li thang.



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Part III

Geolinguistic studies on Tibetic languages

Preliminary report on the linguistic geography of the multicoloured Tibetic languages of Yunnan

1. Introduction

Tibetan (or the Tibetic languages, see Tournadre 2014) is the most widely spoken member of the Tibeto-Burman group of languages. Throughout its distribution, it forms dialectal continua. According to the traditional taxonomy used in Chinese scholarship, the following three major dialect groups are attested in the territory of China: dBusgTsang, Khams and Amdo. Each of these dialect groups can be classified into subdialect groups that in turn appear in many vernaculars. The Tibetan proverb 'Each valley has its own speech' describes this remarkable diversity. In spite of this wide variety, Tibetan's unity as a single language is based on the existence of a own script and a written language that is then divided into two main forms, Written Tibetan (WrT) and Old Tibetan (OT).

The north-western part of Yunnan Province is located in the south-eastern corner of historical Tibet and at the southern part of the Ethnic Corridor of West Sichuan [Chuanxi Minzu Zoulang] or Tibeto-Lolo Corridor [Zang-Yi Zoulang]. It lies inside of the scenic area called the Three Parallel Rivers [Sanjiang Bingliu] (world natural heritage), and it is regarded as the inspiration for author James Hilton's Shangri-La (described in his novel *Lost Horizon*); he may even have taken the name for the place from a distorted version of placename there. The Tibetan dialects spoken in this area are classified in the Khams group. Several previous studies have been conducted on Yunnan Tibetan, such as Lu (1990, 1992), Hongladarom (1996, 2000, 2007a, b), Wang (1996), *Zhongdian Xianzhi* (1997:147–153), YS59 (1998:421–441), and bSod-nams rGya-mtsho (2007), which treat the same variety, namely, the rGyalthang dialect. Other dialects have received less attention, although several works do focus on them, such as Bartee (2007), Suzuki (2008a) and Suzuki and Tshering mTshomo (2007, 2009).

The linguistic environment of Yunnan Tibetan is complicated by the ethnic diversity of the region. Yunnan Tibetan dialects are mostly surrounded by speakers of

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Naxi, Lisu, Bai, and dialects of the main language of standard communication, Chinese (Yunnanese, Southwestern Mandarin). All of the Yunnan Tibetan dialects are being endangered because of the development of traffic convenience, Chinese education, tourism, and other factors. Unfortunately, however, no 'endangered dialect' concept exists that could help preserve Tibetic languages.

According to sKal-bzang 'Gyur-med and sKal-bzang dByangs-can (2002:1–2), Tibetan dialectology contains three main methods:

- 1. descriptive study
- 2. historical study
- 3. linguistic geography

Linguistic geography has shown the least progress of any of these fields. Jiang (2002:70–76) introduces the method of linguistic geography to the study of dBusgTsang Tibetan, in which this approach was considered to be a method for use in historical study, a common attitude in linguistics. Suzuki (2007a, g, 2008d, 2009a) indicates that preliminary studies of Tibetan linguistic geography are helpful for understanding areal features or peculiar characteristics. A linguistic map is especially helpful for discussion of the genetic classification of dialects.

It is not necessary to limit analysis of dialect classification to a discussion of their distribution. This chapter presents a special particular issue that is not related to dialectal classification, and discusses it using a linguistic map of the eighteen Tibetan dialects spoken in Yunnan Province.

2. Tibetic languages in Yunnan

The following eighteen varieties are described in this chapter. Each column is displayed as follows: *dialect name* [based on WrT]: Village(/hamlet), County [in *pinyin*].

- *rGyalthang* : Dazhongdian, Xianggelila
- gTorwarong : Dongwang/Pula, Xianggelila
- *Nyishe* : Nixi/Tangman, Xianggelila
- *Foshan* : Foshan, Deqin
- *nJol* : Shengping/Adunzi, Deqin
- Yungling : Yunling/Jiabi, Deqin
- *Yanmen* : Yanmen/Nitong, Deqin
- gYagrwa : Yangla, Deqin
- *sPomtserag* : Benzilan, Deqin
- *Thoteng* : Tuoding, Deqin
- *Byagzhol/B* : Xiaruo/Xiaruo, Deqin

PRELIMINARY REPORT ON THE LINGUISTIC GEOGRAPHY OF THE TIBETIC LANGUAGES OF YUNNAN

- *Byagzhol/S* : Xiaruo/Shirong, Deqin
- Budy/J: Badi/Jieyi, Weixi
- *Budy/L* : Badi/Luotong, Weixi
- Melung : Yongchun, Weixi
- *mThachu/G* : Tacheng/Geluo, Weixi
- *mThachu/Q* : Tacheng/Qizong, Weixi
- Daan : Daan, Yongsheng [Lijiang]

All of the dialects except for Daan are spoken in Diqing Tibetan Autonomous Prefecture. Daan dialect is spoken in Lijiang Municipal Region, which is surrounded by Naxi speakers.

2.1. Classification of Yunnan Khams Tibetan varieties

Several authors, including Qu and Jin (1981), Zhang (1993, 1996), and Min (2001), have presented classifications of Yunnan Tibetan varieties; however, these analyses have been linguistically insufficient.

Using the perspective provided in Suzuki (2008c), a classification of Yunnan Khams Tibetan dialects is presented below:¹

Table 1 Dialect classification of Yunnan Knams Hoetan.				
Group	Subgroup	Varieties in this chapter		
Sems-kyi-nyila	rGyalthang	rGyalthang		
	East Yunling Mountain	Nyishe, Thoteng, Byagzhol/B/S,		
		mThachu/Q		
	Melung	Melung, mThachu/G, Daan		
sDerong-nJol	West Yunling Mountain	Foshan, nJol, Yungling, Yanmen,		
		Budy/J/L		
	sPomtserag	sPomtserag		
	gYagrwa	gYagrwa		
Chaphreng	gTorwarong	gTorwarong		

 Table 1
 Dialect classification of Yunnan Khams Tibetan.

2.2. Location and design of the linguistic map

In the Yunnan Tibetosphere, the following main geographical features create divisions in the north-south direction:

1. Three main rivers:

Nujiang (Salween; *rGyal-mo rNgul-chu*) Lancangjiang (Mekong; *rDza-chu*) Jinshajiang (Yangtse; *'Bri-chu*)

2. Two mountain ranges

¹ See Suzuki (2018e) for a current view.

Taizi Thirteen Peaks including Meili Snow Mountain (*Kha-ba dKar-po*) Baimang/Baima/Yunling Mountains

Figure 1 gives a sketch of the dialect distribution in Yunnan and can also be used as a model map for the consideration of linguistic geography.



Figure 1 Location of Yunnan Tibetan area.

3. The 'nasal problem' of the initial consonant

This section deals with the so-called 'nasal problem', a complicated phenomenon that arises on a linguistic map of phonetic aspects of dialects. In particular, it refers to the initial nasal sound present in the dialects of Yunnan Tibetan. A range of examples are given below to demonstrate the irregular correspondence of this sound with WrT.

All of the linguistic data here are presented in IPA following an arrangement proposed in Suzuki (2005a), with the exception of the tonal signs, which are marked as follows:

⁻ : high-level	´: rising	`: falling
^ : rising-falling	_: low-level	

A word tone system is adopted for all of the dialects treated in the chapter, where the sign is given before each word.

For comparison purposes, I give WrT and OT forms, following a phonological system based on sKal-bzang 'Gyur-med and sKal-bzang dByangs-can (2004:379–390). rNam-rgyal Tshe-ring (2001) can be consulted for the OT form.

3.1. Ordinary correspondence on the nasal initial

Table 2

WrT has four written forms of initial nasal sounds, ng, ny, n, and m, each of which represents different articulations. Tibetan dialects also generally have four nasal phonemes, /m, n, η / and / η /. However, in Tibetan dialects of Yunnan, some words have a problematic initial correspondence between WrT and oral forms.

For the Tibetan dialects of Yunnan, the ordinary correspondence between WrT and the nasal phonemes is shown below:

Corr	espondence	between nasal WrT	and oral forms.
	WrT	phoneme	
	ng	ŋ	
	ny	η	
	п	n	
	т	m	

It should be noted here that there are two oral representations of m in WrT, of which $/\eta$ / originates from OT *my* preceding a front narrow vowel, which was abolished and united to form /m/ during the third reform of Tibetan orthography. In almost all Tibetan dialects of Yunnan, for example, $/'\eta i$ / 'not' and $/'\eta e$?/ 'not to have' originate from OT *myi* and *myed*, not WrT *mi* or *med*.

3.2. Problematic examples with a discussion 'man' : WrT *mi*, OT *myi*

Following the regular sound correspondence in Tibetan dialects of Yunnan, the word for 'man' corresponds to OT *myi* because a front narrow vowel /i/ follows the initial /m/. Thus, the sound expected in the initial position of this word is /n/ or /m/.

In dialectal forms, however, in place of the expected /m/ or /n/, /n/ may be found in the initial position:

rGyalthang : 'nə gTorwarong : 'nə Nyishe : 'nə Foshan : 'mə nJol : 'mə Yungling : 'nə Yanmen : 'mə gYagrwa : 'mə sPomtserag : 'nə Thoteng : 'nə Byagzhol/B : "nə Byagzhol/S : 'nə Budy/J : 'mə Budy/L : 'nə Melung : 'mə mThachu/G : 'mə mThachu/Q : 'nə Daan : 'nə

In addition, because a low tone is expected, the high tone forms found in nJol and Byagzhol/B are notable as exceptions.

Two linguistic maps for 'man' are given in Figures 2 and 3. One indicates the distribution of the initials, and the other shows the extracted distribution of the unique initial /n/.



Regular correspondences are found mainly in the dialects spoken along the Lancangjiang. The /n/ initial is found in the rGyalthang and East Yunling Mountain subgroups. Remarkably, only the Budy/L dialect possesses /n/ initial.

'eye' : WrT mig, OT dmig or dmyig

Following the regular sound correspondence in the Tibetan dialects of Yunnan, the word form for 'eye' should correspond to OT *dmyig* because a front narrow vowel i follows the initial m. Moreover, the tone is high/falling without exception. Thus, an initial $/\eta/$ is expected.

```
rGyalthang : "ŋi?
gTorwarong : `<sup>ĥ</sup>ŋi?
```

Nyishe : `ni:? Foshan : `ⁿni? nJol : `^ĥŋi? Yungling : 'ni: sə Yanmen : `ⁿŋi: tsə gYagrwa : `⁶mej? sPomtserag : `ⁿni? Thoteng : `⁶ni: Byagzhol/B : 'ni? Byagzhol/S : `ni? Budy/J : 'ni? tsa Budy/L : η : ts^hə Melung : ` ni? mThachu/G : -^hni? mThachu/Q: `ni? Daan : 'ŋi:

It should be noted that the Yungling, Yanmen, Budy/J, and Budy/L dialects have a dissyllabic version. All of these dialects are in the West Yunling Mountain subgroup.

The followings are two linguistic maps for 'eye'. One indicates the distribution of all of the initials, and the other the extracted distribution of the special initial /m/.



An exceptional correspondence is only seen in the gYagrwa dialect, the northernmost point in this map. In areas to the north and north-west of Yunnan, a similar phenomenon is seen in the gYagrwa dialect.

'fire' : WrT me, OT mye

According to the regular sound correspondence in the Tibetan dialects of Yunnan, the word form for 'fire' should correspond to OT mye because a front narrow vowel e follows the initial m. Thus, the sound expected in the initial position of this word is /n/ or /m/.

In dialectal forms, however, there are voiceless nasal initials, such as /m, η' , except for the expected /n/ or /m/:

rGyalthang : 'ŋə gTorwarong : 'ni: Nyishe : 'ŋə Foshan : ^ni: nJol : `ůĩ Yungling : `ⁿi? Yanmen : ` ⁿi gYagrwa : ŋə sPomtserag : -⁶ŋx Thoteng : `ŋə Byagzhol/B : 'nẽ Byagzhol/S : 'ŋə Budy/J : `me / `ne Budy/L : `ůi? Melung : 'mi: mThachu/G : 'ni: mThachu/Q : ^ne Daan : 'ŋɔ

In addition, as a low tone is expected, the high tone form (with a voiced preaspiration) seen in gYagrwa and sPomtserag is notable as an exception. The existence of a consonant preceding the nasal initial may be supposed, but it is not attested in either WrT or in OT forms.

Several examples show a voiceless nasal initial, a phenomenon that cannot be easily explained; however, following general origin of the voiceless nasal (i.e., that it originates from an *s*-prefix preceding a nasal initial), another OT form *smye* can be supposed.

Below are two linguistic maps of for fire. One indicates the distribution of all the initials, and the other gives the extracted distribution of the special voiceless initials (/m/and/n/).



The correspondence of the voiceless nasal is found mainly in the dialects spoken along the Lancangjiang, from nJol to Budy/L. It is remarkable that the Foshan dialect does not have a voiceless nasal initial, unlike the other dialects of the West Yunling Mountain subgroup.

'two' : WrT gnyis

Following the regular sound correspondence for WrT initial ny in Tibetan dialects of Yunnan, $/\eta$ / would normally be expected. However, /n/ and /m/ are also found:

rGyalthang : ^{-h}ŋą̃j gTorwarong : `^hŋų̃ Nyishe : ^{-h}ŋą̃j Foshan : ⁻ŋį: nJol : ^{-h}ŋą̃ Yungling : `^hŋą̃ Yanmen : `mą̃ gYagrwa : ⁻ŋį: sPomtserag : ⁻ną̃ Thoteng : ⁻ną̃ Byagzhol/B : ⁻ną̃ Byagzhol/S : ⁻nį: Budy/J : ⁻ŋį: Budy/L : ¬ŋi: Melung : `mə̃ mThachu/G : ¬nʉ: mThachu/Q : `ni Daan : ^ŋi: / `mə

The sound change n > /m/ is not typologically normal in Tibetan, thus the initial /m/ is probably not genetic in Tibetan. Suzuki (2007f) supposes the existence of a substratum of Nusu, in which 'two' is /m⁵⁵/ (Sun and Liu 1986).

It is also remarkable that some dialects possess the same nasal initial in the words for 'two' and 'man', as in:

sPomtserag: /'nə/ 'man', /⁻nə/ 'two' Yanmen: /'mə/ 'man', /⁻mə/ 'two'

These two words are mainly distinguished by tone.

Below are two linguistic maps for 'two'. One indicates the distribution of all the initials, and the other gives the extracted distribution of the special initials (/n/ and /m/).



In these maps, the correspondence of the nasal initials /m/ and /n/ appears mainly in the dialects spoken in the area between the Yunling Mountains and the Jinshajiang plus Yanmen and Daan. The initial /m/ is found in Yanmen, Melung and Daan, and their distributions are separated from each other. The existence of the initial /m/ in the Daan dialect does not sufficiently support the claim in Suzuki (2007f) regarding the Nusu substratum.

'twelve' : WrT bcu gnyis

The initial of the second syllable is treated. This morpheme in WrT is the same as the simple 'two'. Thus, the regular correspondence with WrT is expected to give $/\eta/$; however as in the above examples, there are several irregular oral representations of WrT *ny*. Interestingly, the nasal initials in 'twelve' do not always agree with those found in 'two'.

rGyalthang : ^{-h}tso: nə gTorwarong : îtco: nu Nyishe : ^{-h}tso: nə Foshan : ^{-h}tso: ni: nJol : teo: nə Yungling : ⁻tco: ^hŋə Yanmen : ⁻tcu: mõ gYagrwa : ⁻tcu: ni sPomtserag : co: nə Thoteng : ⁻tsõ: nə Byagzhol/B : ^{-h}tso: nə Byagzhol/S : ^{-h}tso: nə Budy/J : ^ptco: mə Budy/L: `ptco: ^hŋə Melung : ⁻tso mõ mThachu/G : ^{-h}tso: nə mThachu/Q : ^{-h}tso: nə Daan : ^{-h}tsɔ: ^ĥnɔ / ^{-h}tsɔ: mɔ

Two points should be noted: the existence of the initial /m/ and /n/, and the difference of the nasal initial between 'two' and 'twelve'.

A contrastive list on the nasal initial of 'two' and 'twelve' is displayed below:

rGyalthang : $/\eta/ - /n/$ gTorwarong : $/\eta/ - /\eta/$ Nyishe : $/\eta/ - /n/$ Foshan : $/\eta/ - /\eta/$ nJol : $/\eta/ - /\eta/$ Yungling : $/\eta/ - /\eta/$ Yanmen : /m/ - /m/gYagrwa : /n/ - /n/sPomtserag : /n/ - /n/Thoteng : /n/ - /n/Byagzhol/B : /n/ - /n/Byagzhol/S : /n/ - /n/Budy/L : /n/ - /m/Melung : /m/ - /m/mThachu/G : /n/ - /n/mThachu/Q : /n/ - /n/Daan : /n, m/ - /n, m/

The nasal initial is different between 'two' and 'twelve' in rGyalthang, Nyishe, Budy/J, and Daan. The first two dialects possess an /n/ initial in 'twelve', and the /m/ in 'twelve' in Budy/J is noteworthy. In Daan, the nasal initials /m/, /n/ and /n/ exist together.

The followings are two linguistic maps for 'twelve'. One indicates the distribution of all the second initials, and the other gives the extracted distribution of the special initials (/n/and/m/).



The distribution of /n/ and /m/, however, is not common among the certain subdialect group shown in the maps above (/m/ is found only in Daan, Melung, Budy/J, and Yanmen), the existence of /m/ is an important problem. The particular correspondence in Budy/J where only 'twelve' has an /m/ initial may be explained by the existence of the Yanmen dialect, which has an /m/ initial in the morpheme 'two'.

The distribution of /n/ is evident along the Jinshajiang. This type is found in the dialects of the East Yunling Mountain subgroup and in rGyalthang in 'twelve'. The case of the initial /n/ in the word 'two' in rGyalthang and Nyishe can be explained as a standardisation of the most basic numerals.

4. Conclusion

This chapter presents the variety of dialects of Yunnan Tibetan, including the different ethnic and geographical backgrounds and provides a more detailed dialectal classification than is seen in previous works. Extrapolating from this classificatory claim, this chapter provided a presentation of the question of the nasal problem, which cannot be explained with genetic analyses such as the comparative method.

To deal with this phenomenon, this chapter introduced the linguistic map as a tool to illuminate the difference between genetic and areal similarity. Linguistic geography is being used more commonly in Tibetan dialectology, but useful effects can still arise from the use of the linguistic map in Tibetan; for instance, this approach can make spatial distribution obvious, and it can identify differences between areal and genetic features.

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Studies in Geolinguistics, Monograph Series 1

Photo gallery 7

Shwa kha snow mountain and Nags phag lake in the winter. At rGyal thang.



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The words for 'rain' and 'wind' in Tibetic languages spoken in the Ethnic Corridor

1. Introduction

This chapter presents a geolinguistic analysis the words 'rain' and 'wind' in Tibetic languages spoken in the Ethnic Corridor (a.k.a. the Tibeto-Lolo Corridor), i.e. from South Gansu, West Sichuan to Northwest Yunnan. It focuses on difference in morphemes and phonetic realisation.

1.1. Tibetic languages in the Ethnic Corridor

According to Tournadre and Suzuki (2022), the varieties spoken in the Ethnic Corridor belong either to the North-eastern Section, the Eastern Section or the South-eastern Section.

The North-eastern Section is quite similar to the so-called Amdo. The Eastern Section is a language complex including Cone, Thewo, mBrugchu (in Gansu), Shar (divided into dPalskyid, Khodpokhog, Sharkhog and Khromjekhog; cf. Suzuki 2009a) and Zhongu (in Sichuan).¹ The South-eastern Section corresponds to Khams, more or less, so far as the Ethnic Corridor is concerned.

In this chapter, I draw maps using data for Amdo (spoken in Sichuan only), Cone, Thewo, mBrugchu, dPalskyid, Khodpokhog, Sharkhog, Khromjekhog, Zhongu and Khams (spoken in Sichuan and Yunnan only).

1.2. Method

In this chapter, I present lingustic maps designed with ArcGIS online. This system always uses latitude-longitude plots for a dialectal points so that we can freely change the map's proportions. 6 points in Gansu + 69 points in Sichuan + 58 points in Yunnan (133 points in total) are plotted at maximum. Linguistic maps designed with the geocoding method are provided for the preliminary analysis of a forthcoming study on

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¹ Tournadre and Suzuki (2022) add Baima to this section. However, I personally think that Baima is a subsidiary member because it is a creole-like language influenced by certain Tibetic languages.

the geolinguistics of the Tibetan cultural area.² Some issues remain to be decided, e.g. the choice of icons of a legend to enable a high-quality presentation of the analysis and good use of colour.

The data in the chapter were collected by me and were consistently described with pandialectal phonetic description system (= composed by the phonetic symbols defined with one and only one system³) as in Tournadre and Suzuki (2022). This method of description can guarantee the identical quality of the phonetic analysis, which is the foundation of dialectology.

This chapter focuses on morphology and word origins, so minute differences such as tones and segmental phonemes are not strictly reflected in the maps to avoid confusing geolinguistic analysis. See the note for each map.

2. Rain

Basic morphemes of the word 'rain' in Written Tibetan (hereinafter WrT) are *char pa* and *gnam*. Generally speaking, only one of these two is used in a dialect.

2.1. List of lexical forms

Several dialect names are given in the following list. Phonetic forms are omitted except for some exceptional forms.

1. WrT char pa type

The WrT form *char pa* simply means 'rain' (Zhang 1985:790).

(a) disyllabic type

This is the most widespread form; particular forms such as sGogrong /'ce wa/ 4 (b) **monosyllabic type**

A monosyllabic form is originated from a fusion of the two syllables in WrT. E.g. sDerong /'tc^hɔ:/, Agdong /'tcɑ:/

(c) transitional type (having both disyllabic and monosyllabic types)

A few dialects have both disyllabic and monosyllabic types, which can be analysed as being in a transition process from a disyllabic form to monosyllabic one.

² See Endo et al. (2021) for the recent research results.

³ At present, the system includes IPA symbols with several extended symbols added by Zhu (2010), as well as unauthorised but indispensable symbols. Related discussions are found in Minzu Yuwen 2012.5. In this paper, the tonal description, as a word tone, uses the following symbols: ⁻ : high-level, ' : rising, ` : falling, ^ : rising-falling, and _ : low-level.

⁴ Deaspiration may follow a rule concerning the iambic prosody (cf. Suzuki 2011b, 2013c).

E.g. Byagzhol /'tche: ba, 'tcha:/

2. WrT gnam type

The WrT form gnam fundamentally means 'sky' (Zhang 1985:1538). One can say that its use meaning 'rain' is implied in the original meaning (as 'bad sky'); however, the usual use as 'rain' without any adjectives is not provided in WrT.

Attested in almost all dialects of Amdo, Shar, and mBrugchu, and Khams has two types: one in some parts of Northern Route group (Derge, Sershul) and one in some spots such as Grongsum and gDongsum.

2.2 Analysis with a map

Figure 1 is designed for display of the distribution of each morpheme of 'rain'. The differences in phonetic forms are neglected.

From the geolinguistic viewpoint, the word 'rain' is quite clearly divided into north (*gnam*) and south (*char pa*). Amdo and the languages of the Eastern Section use *gnam* without exception. On the other hand, most Khams dialects use *char pa*, but several dialects located in the north use *gnam*. The dialects of Khams using *gnam* are spoken in the area surrounded by pastoral areas where there are Amdo speakers. In this case, the use of *gnam* may be acquired through linguistic contact with Amdo-speaking people.

Figure 1 does not reflect the morphological differences of forms corresponding to *char pa* because they are not related to a geographical feature but to the phonological system of each dialect. Of course, the diversity of the phonological rules is another interesting topic that should be discussed with geolinguistic methods, but more study will be needed (cf. Suzuki 2013c).

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Figure 1 Morphological contrast of the word form 'rain'.

3. Wind

The basic morphemes of the word 'wind' in WrT are *lhags pa* and *rlung*. Generally speaking, only one of the two is used in a dialect.

THE WORDS FOR 'RAIN' AND 'WIND' IN TIBETIC LANGUAGES SPOKEN IN THE ETHNIC CORRIDOR

3.1. List of lexical forms

Several dialect names are given in the following list. Phonetic forms are omitted, apart from some exceptional forms.

1. WrT *lhags pa* type

The WrT form *lhags pa* simply means 'wind' as a noun (Zhang 1985:3095). DTLF (1899:1074) specifies its meaning as ventus frigidus 'cold wind'.

dGonpa /ha hu/, gZhungwa /x^ha p3/, Phyugtsi /ha pa/, Hamphen /°ha& pa/, sKyangtshang / $\hbar\alpha$ pa/, etc. The sound correspondence between WrT lh and /h, h, x^h/ is irregular in any dialects mentioned here.

2. WrT *rlung* type

The WrT form rlung means 'wind' as well as 'air' (Zhang 1985:2735).

(a) WrT stem *rlung* only

This is the most widespread form; particular forms such as rNgawa /qwlon/; gTsangtsa /^wlon/, Thangskya /^{ow}lon/; sDerong /^wlon/, Ragwo /^{-w}lõ/, etc. These forms include a labial feature /w/, of which the origin is unknown.⁵

(b) WrT stem $rlung + suffix /ma/type^{6}$

From Shar: Serpo /ohlõ ma/

From Khams: Rongbrag /^{`ĥ}lũ ma/, sProsnang /^{-ĥ}lu ma/, sNyingthong /⁻iõ ma/, Lothong /^{-w}lo ma/

(c) WrT stem *rlung* + suffix $/m\epsilon/$ type⁷

From Khams: Thangteng / $l\tilde{o}$: m $\tilde{\epsilon}$ /, Shugphongthong / $wl\tilde{o}$ m ϵ /, Byagzhol

 $/ - w l_{3} m \epsilon /$

(d) WrT stem *rlung* + suffix /pe/ type

From Khams: nJol / ^hjõ pje/, Adong / ^hjõ ^mbe/, Bodgrong / ^{-h}lũ ^mbe/

(e) WrT stem *rlung* + suffix $/k^{h}a/type^{8}$

From Khams: Lhagang /`"lõ kha/, Grongsum /`lõ kha/

(f) WrT stem $rlung + suffix /wo / type^9$

From Shar: Babzo /^hlo wo/

(g) $/s^{h}\epsilon / + WrT$ stem *rlung* type

From Shar: Mertsemdo /°s^h e lo:/

⁵ This feature is attested in the following types with a suffix.

⁶ DTLF (1899:954) gives the word *rlung ma* 'aer (air).' Roerich (1987:124) also gives the word rlung ma 'veter / wind'.

⁷ Roerich (1987:124) gives the word *rlung dmar* 'vikhr', uragan / whirl-wind, storm'.

⁸ Giraudeau & Goré (1956:301) gives a form *rlung kha* as well as *rlung* for 'wind'.

⁹ Jäschke (1881:537) gives the word *rlung po* 'breeze, wind'.

3. Type including a syllable with the first initial as /hl/

A few dialects of Khams have the phoneme $/^{h}l/$.

E.g. Rwata /^{-h}l̥õŋ ^ĥdzə/, mBalhag /^{^h}l̥õ/, Phuri /^{^h}l̥õ/

4. /wã ma/ type

At present, only one dialect of Khams has this type: Melung / wã ma/.

3.2 Analysis with a map

Figure 2 is designed to display the distribution of each morpheme for 'wind'. Same as 'rain', Figure 2 represents a morphological difference only, and phonetic forms are neglected.

The word 'wind' has a great divergence in its morphology, including the stem *rlung* stem, and with the present scale of Figure 2, it is difficult to find the minute differences. Figure 3 displays a difference of the word forms spoken in the Khams area (except for the dialects of Northern Route group).



THE WORDS FOR 'RAIN' AND 'WIND' IN TIBETIC LANGUAGES SPOKEN IN THE ETHNIC CORRIDOR

Legend: LH: Type 1 (*lhags pa*) L: Type 2 (*rlung*) H: Type 3 (/^h]/) W: Type 4 (/⁻wã ma/) Figure 2 Morphological contrast of the word form 'wind'.

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Figure 3 Distribution of 'wind' in Southern Khams according to the word forms.

Figure 3 remains complex in the southern area. This map shows important information, that is, the distribution of the 'WrT *rlung*+/kha/' type. This form is basically attested only in a part of Minyag group, which implies a limited distribution. Then, only in Giraudeau and Goré (1956:301) is the form *rlung kha* provided as a written form. This is a colloquial Tibetan dictionary, reflecting forms used in Eastern Tibet. Indeed, the authors mention several local names in its preface, including the
proper name of Minyag, Tongolo.¹⁰ They must have described the form *rlung kha* based on the form of Minyag Rabgang Tibetan varieties, because there are no other sources of this form.

For a detailed analysis of the word morphology, I pay attention to the case of South-eastern Khams, i.e. Yunnan Tibetan and the surrounding dialects (cf. Suzuki 2012f). Figure 4 is designed to display the morphological differences of 'wind'.

The difference between Figures 3 and 4 exists in a detailed display of 'WrT rlung+/mV/ type. Figure 4 divides it into two types, as in the list given in 3.1: WrT rlung+/ma/ and WrT rlung+/me/. As Figure 4 shows, these two types are completely divided and gather in different geographical position. It is interesting to note that they meet in Tacheng, Weixi. The difference corresponds well to that of subdialectal groups. The dialects using 'WrT *rlung*+/ma/' type belong to the Melung subgroup (of the Semskyi-nyila group), while those using 'WrT $rlung+/m\epsilon$ /' type belong to the East Yunling Mountain subgroup (of the Sems-kyi-nyila group). It is interesting that the former type is also used in the southern dialects of the Yunling West Mountain subgroup (of the sDerong-nJol group). The dialects of the Yunling West Mountain subgroup have four word forms for 'wind', of which the distribution of the 'WrT *rlung*+/pe/' type is also interesting, because it is the only form used in Gongshan, where there are many Tibetan immigrants from two sites in Deqin (gYanggril and Tshodrug), and their Tibetan dialect may be somewhat similar to those spoken in Degin. According to Figure 4, the word form for 'wind' in Gongshan dialects is the 'WrT rlung+/pe/' type, which is used in gYanggril and not in Tshodrug (using 'WrT *rlung*+/ma/' type). This situation implies that there may have been more immigrants from gYanggril than from Tshodrug.

¹⁰ This place is called Dongeluo at present, located in Xinduqiao Town.





Figure 4 Distribution of 'wind' in Yunnan and its surrounding Khams according to the word forms.

4. Conclusion

This chapter presents a geolinguistic analysis of the two words 'rain' and 'wind' in the Ethnic Corridor (Eastern Tibetan cultural area). No geolinguistic particularity is evident in the word 'rain' whereas the state of affairs for 'wind' is so complex that I analysed a case of Yunnan Tibetan area with its neighbouring in detail. In addition, I suggest some word correspondences of the present dialectal forms with those recorded in documents edited in the nineteenth century.

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Photo gallery 8

Yul ba village. La mdo, rGyal thang.



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Issues in lexical complexity in Eastern Tibetic languages: From a cat's eye

1. Introduction

There are various dialects of Tibetic¹ languages spoken in Eastern Tibetan cultural area, including Gansu, Sichuan and Yunnan in China. These share a great number of common word forms, and the overall lexical diversity is minor. However, if a word is peculiar from the standpoint of dialectology and geography, then it is well worth discussing it using geolinguistics.

The chapter discusses with the word form for 'cat'. This word was originally nonexistent in Tibetan and was borrowed from Sanskrit bidāla (cf. Laufer 1916), spelt as *byi la* in Written Tibetan (WrT). The cat is quite omnipresent in Tibetan-speaking regions, so every dialectal area uses to WrT word or a novel one. The linguistic situation in the Eastern Tibetan cultural area is so complicated that there are many word forms attested in various dialects.

The word 'cat' may have the key to illuminate the dialectal affiliation of the Tibetan language, recorded in a historical document called *Bing*-series *Xifanguan Yiyu* (Chinese-Tibetan Vocabulary), which I call *Tianquan Yiyu*, published in the sixteenth century by a governmental organisation of the Ming dynasty (Suzuki 2015g). This document has been studied by Nishida (1963) and amended by Ota (1986), but neither of these scholars include any detailed discussion on the dialectal affiliation inside of Khams because there is insufficient data to warrant an investigation. Because I have data from over 150 dialects in this region, it seems reasonable to begin investigating this question.

Firstly, I will display a map of word form of 'cat', with which we can obtain an overview of the geographical distribution for 'cat.' Second, I divide the linguistic area into two pieces (the Minyag-rGyalrong region and the Southern Khams region) and present more detailed maps. The main discussion concerns these detailed maps. All of

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¹ For the word 'Tibetic', see Tournadre (2014) and Tournadre and Suzuki (2022).

the data on the Tibetic languages and dialects presented here are mine. The maps included in the chapter are drawn with ArcGIS online.

2. Overview of the word forms for 'cat' in Eastern Tibetic languages

Figure 1 is a linguistic map of 'cat' in Eastern Tibetic languages and dialects.² This map shows an interpretation by the type of word forms, classified into nine types. There are three WrT correspondences (*byi la, a lu, and lu lu*), of which the form *byi la* is really the literary word. The other six forms are of a dialectal origin (cf. Suzuki 2009e:82). Even though the nine types exist in this area, each type is found in a specific, geographically limited, area, except for Point 7 (WrT *a lu*-type), which is quite omnipresent all over the map.

When *Xifanguan Yiyu* (a.k.a. *Tianquan Yiyu*) is discussed, the geographical distribution of Point 1 (/mõ zi?/-type) is paid the closest attention; for the word form for 'cat' in this document suggests a phonetic form like /muŋ tɛie/ (Suzuki 2013c). In Figure 1, we find that /mõ zi?/-type words are used in dialects located in a very limited area that corresponds to Minyag Rabgang (see also **3.1**). I do not mention other word forms here. It is already sufficient for the present discussion that we know the existence of a quite similar word form between *Tianquan Yiyu* and the modern Tibetan dialects, as well as the limited distribution of that word. What I must emphasise is that through broad study of Khams Tibetan, we can obtain evidence that the word in *Tianquan Yiyu* merely corresponds to the dialectal form of Minyag Rabgang. In other words, that form of 'cat' was already distributed there more than 500 years ago.

Should a map be drawn to demonstrate that a peculiar word is used in a limited area? This is the easiest way to give evidence that there no other dialects use it. From a geolinguistic viewpoint, the variation of the word forms indicated in Figure 1 is so complicated that we cannot understand its minute areal differences. Hence, regional maps are necessary.

² In this chapter, the notation of tones is omitted in all the examples except for citations.





Figure 1 Word form of 'cat' in Eastern Tibetic area.

3. Microscopic analysis illuminating areal features and dialectal variations

This section provides a microscopic discussion of two regions separately: the Minyag Rabgang and rGyalrong regions, and the Southern Khams regions.

³ Strictly speaking, the spelling a lu does not exist in WrT.

3.1. Minyag Rabgang and rGyalrong regions

Minyag Rabgang (Tib. *Mi-nyag Rab-sgang*), the traditional Tibetan name for the western area of Kangding (Tib. *Dar-mdo*) County, is known as one of the famous 'six plateaux'⁴ of Khams. as well as the place where the Minyag language (belonging to the Qiangic branch) is spoken. To the east of this region, we can find the southernmost area of the rGyalrong (Tib. *rGyal-rong*) region called Danba (Tib. *Rong-mi Brag-'go* or *Rong-brag*). There are at least four dialect groups: Minyag Rabgang (Khams), Rongbrag (Khams), Washul (Amdo), and rGyalrong surrounding (Amdo) groups.⁵

Figure 2 is an enlarged version of Figure 1 in the Minyag Rabgang and rGyalrong region.⁶ Each word form presents an areal distribution. The most interesting point is the frontier between Point 1 (Lhagang dialect,⁷ Khams) and Point 3 (Gongrima dialect, Amdo), located in the centre of Figure 2, where an isogloss can be drawn. This frontier, indeed, corresponds to that of the languages Khams and Amdo; however, pastoralists (Amdo-speakers) who have recently resided in the central place of Lhagang Village surely know that the /mõ zi?/-like word means 'cat', but they do not use it. The nomads who have recently settled in Lhagang Village must be distinguished from the other residents, who speak Khams Tibetan. This social background often causes linguists to confuse the linguistic situation in Lhagang; we must understand that multiple varieties are spoken in Lhagang Village and consider how this variation can be reflected on a map.

Another noteworthy topic is the relationship between Point 1 and Point 2. From a historical viewpoint, the distribution area of Point 2 was culturally close to that of Point 1 because both belong to the same region, Minyag Rabgang. These two types may be related to each other regarding etymology, although both of them are of an unclear origin. Similar forms are also attested in some surrounding non-Tibetic languages such as nDrapa (/mə ^htsul/⁸) and Lyuzu (/mu³³tsl⁵³/; from TBL 1992). It is still impossible to determine whether these forms are related to those in Minyag Rabgang dialects, but all of the languages are spoken in small geographical area.⁹

⁴ The six plateaux are: Zalmogang (*Zal-mo-sgang*), Tshawagang (*Tsha-ba-sgang*), sMarkhamgang (*sMar-khams-sgang*), sPomborgang (*sPo-'bor-sgang*), dMardzagang (*dMar-rdza-sgang*), and Minyag Rabgang. Cf. Karma rGyal-mtshan (2002:438).

⁵ See Tsering Samdrup and Suzuki (2017) and Tournadre and Suzuki (2022) for the classification of Amdo Tibetan.

⁶ Figure 2 excludes the data of dialects of the rGyalrong-surrounding group (Amdo).

⁷ The Lhagang dialect has multiple strata and there are at least two varieties of Khams spoken in Lhagang Village. Cf. Suzuki and Sonam Wangmo (2014, 2015a).

⁸ It is the form of the Ngwirdei dialect.

⁹ A more detailed discussion on Tibetan loanwords in nDrapa is provided in Suzuki (2010d).



1. /mõ zi?/-type 2. /wo ^rdzə/-type 3. WrT *lu lu*-type¹⁰ 4. WrT *a lu*-type 5. WrT *byi la*-type Figure 2 Word form of 'cat' in the Minyag Rabgang and rGyalrong regions.

Next we focus on the distribution of Point 4. In Rongbrag Tibetan (a.k.a. Twentyfour Villages' patois, cf. Suzuki 2011e), WrT *byi la* corresponds to /^ptsə lə/. This sound correspondence is extremely rare in the Tibetic languages, and inside of the region of Figure 1, Rongbrag Tibetan is the only dialectal group that features this sound correspondence. Likewise, at point 1, similar word forms are found in some

¹⁰ Including the phonetic forms as /li li/, /lə lə/, etc.

surrounding non-Tibetic languages, such as Minyag (/ts $\mathfrak{g} l\mathfrak{s}/^{11}$), sTau (/ts $\mathfrak{s} l\mathfrak{s}/, /ts\mathfrak{s} l\mathfrak{s}/^{12}$), and Geshitsa (/ts $\mathfrak{s} l\mathfrak{s}/^{13}$). This case is quite peculiar from a geographical viewpoint: WrT *byi la* form is merely attested in Rongbrag Tibetan, which does not directly contact languages as Minyag and sTau. Even if we refer to historical documents, we may not be able to see related history regarding language contact. Geshitsa, on the other hand, is spoken in the area near to where Rongbrag Tibetan is spoken, but no habitual contact of speakers from these two languages has been observed. Strictly speaking, the migration history of the speakers of Rongbrag Tibetan has neither been documented nor transmitted as oral narratives. Therefore, we have no way to explain this situation from a historical angle.

Additionally, the Sogpho dialect, a dialect of Rongbrag Tibetan, uses the /?a lu/ form in calling a cat directly. The speakers explain that /?a lu/ is not a reference term but an address term: when one wants to call to a cat, one will use /?a lu/. In this case, one *cannot* use /^ptsə lə/. This information may give us a key to produce a word form as attested in WrT *a lu* and to change an original word form into another. However, I am still unable to observe how the word has changed. From this viewpoint, the same case is also attested in nDrapa (Ngwirdei dialect): /mə ^htsu/ is a reference term whereas /lə lə/ is an address term.¹⁴ Probably this phenomenon may be more widespread in Tibetic languages, as well as non-Tibetic ones, in this area.

Point 4 seems to be isolated, but as shown in Figure 1, WrT *a lu*-type is the most widespread form in the Eastern Tibetic languages, distributed consecutively in the area of the Northern Route group of Khams as well as Amdo (rGyalrong surrounding region subgroup only). We can thus conclude that the only point in Figure 2, the Morim dialect, is a part of the border of the Northern Route and Minyag Rabgang groups.¹⁵

3.2. Southern Khams region

The Southern Khams region has not been geographically defined, but also used ad hoc to indicate the dialects spoken in the southern part of Khams in the linguistic field. In this chapter, the word Southern Khams region designates the area where the dialects of

¹¹ It is the form of the Phungposhis dialect.

¹² The former is the form of the Mazur dialect, and the latter is the form of the Wazi dialect.

¹³ It is the form of the Belri dialect.

¹⁴ However, this phenomenon is not attested in the nDrasmad group of nDrapa spoken in Yajiang County.

¹⁵ The Morim dialect belongs to the Minyag Rabgang group based on my preliminary research, but more detailed studies are needed. It is in fact spoken in an area surrounded by Amdo, sTau, and nDrapa, and it does not contact any varieties of Khams.

the Sems-kyi-nyila¹⁶ (Tib. *Sems-kyi nyi-zla*), sDerong-nJol (Tib. *sDe-rong 'Jol*), Chaphreng (Tib. *Phyag-phreng*), and sPomborgang (Tib. *sPo-'bor-sgang*) dialectal groups are spoken (a wider (but not the widest) definition of the term).¹⁷

Figure 3 is an enlarged version of Figure 1 specified on the Southern Khams region. It displays multiple isoglosses of the word 'cat', of which noteworthy frontiers are formed at followings areas:¹⁸

(1) Lamdo (Lamdo, Sems-kyi-nyila)–dKarcha (sTongnyi, nDappa)

(2) Phula (gTorwarong, Chaphreng)–gDongsum (Chaphreng, Chaphreng)

(3) sKodshod (sDerong, sDerong-nJol)–mBalhag (mBalhag, sDerong-nJol)

(4) mThachu (Melung, Sems-kyi-nyila)–mBacug (East Yunling Mountain, Sems-kyi-nyila)

(5) Tsharethong (West Yunling Mountain, sDerong-nJol)–Mortag (ditto)

Of these five frontiers, (5) is the most interesting case because its isogloss is drawn inside one of the subgroups, the West Yunling Mountain subgroup. The other isoglosses correspond to that of the dialectal group (=1) or the subgroup (=2, 3, 4).

¹⁶ Pronounced in the same way as *Shangri-La*.

¹⁷ This area almost corresponds to the area where the Tibetan dialects which possess three existential verb stems are spoken (cf. Suzuki 2016e).

¹⁸ Each dialect name is followed by the subgroup and group names in parentheses.

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1. /na me/-type 2. WrT *byi la*-type 3. WrT *a lu*-type¹⁹ 4. /?u li/-type 5. WrT *lu lu*-type²⁰ Figure 3 Word form of 'cat' in the Southern Khams region.

(1) and (2) are the same isogloss formed by Point 3 (WrT *a lu*-type) and Point 4 (/?u li/-type). The dialects concerning the isogloss (1) (Lamdo and dKarcha) share multiple characteristics of the sound correspondence with each other, but lexically, they

¹⁹ Including the phonetic forms as /?a ljə/, /?a luı/, etc.

²⁰ Including the phonetic forms as /li la/, /lə lə/, /lu lu/, etc.

share a limited number of dialectal words in spite of a close relationship between these two communities. The situation in isogloss (2) is quite similar to that for (1), but the genetic relation between the dialects (Phula and gDongsum) is closer than that of (1). However, several characteristic sound correspondences and peculiar lexical forms differ between the subdialect groups (gTorwarong and Chaphreng), although they belong to the Chaphreng dialect group. We note from another viewpoint that the forms of WrT *a lu*-type and /?u li/-type possess a similar sound in the second syllable (*lu* and $/li/^{21}$), which may mean a close relation to each other regarding its etymology.

(3) is an isogloss formed by Point 5 (WrT *lu lu*-type) and Point 3 (WrT *a lu*-type). The isogloss (3), same as (2), corresponds to the subdialect boundary (sDerong and mBalhag) of the sDerong-nJol group. At present, the mBalhag dialect is the only dialect that uses WrT a *lu*-type for 'cat'. This implies that the speakers of mBalhag have a lot of contact with those who speak the dialects belonging to the Sems-kyi-nyila group. However, I do not think that the word 'cat' was recently borrowed from a dialect belonging to the Sems-kyi-nyila group because the form corresponding to WrT a lutype for 'cat' is always used in traditional fairy tales about cats.²² (4) is an isogloss formed by Point 2 (WrT byi la-type) and Point 3 (WrT a lu-type). The isogloss (4), same as (2) and (3), corresponds to the subdialect boundary (Melung and East Yunling Mountain) of the Sems-kyi-nyila group. These two subgroups have many peculiar differences regarding their sound correspondences and their dialectal lexical form. Suzuki (2008c) and Suzuki and Tshering mTshomo (2009) suppose that the idiosyncrasy attested in the Melung subgroup is caused by the influence of the surrounding languages, especially Naxi.²³ In other words, the dialects of the Melung subgroup have experienced many *exotic* changes. Thus, I wonder how they can maintain the word form of 'cat' as attested in WrT when the WrT form for 'cat' is not used at all in the other subgroups of the Sems-kyi-nyila group. Returning to Figure 1,

²¹ The second syllable is often written as *li* or *le* as described in DTLF (1899:682, 1081) and Giraudeau and Goré (1956:55). In fact, the form of 'cat' attested in the dialects of the Sems-kyi-nyila group is pronounced as /?a ljə/ or /?a ljui/, which can correspond better to WrT *a le* than *a lu* regarding the regular sound correspondence. In this case, we can say more persuasively that WrT *a li*-type is similar to /?u li/-type on its second syllable.

²² According to local tradition, the ancestors of Tibetans speaking the mBalhag dialect came from today's Batang County about 1000 years ago. They live in Bala Hamlet in isolation from people in other neighbouring villages (Suzuki 2013b). Many families have immigrated from Bala Village to rGyalthang Town, but it has only recently come to pass that some of them have come to rGyalthang area to live there.

²³ Strictly speaking, Naxi here should be the Naic languages, for Naxi and Malimasa are concerned here.

we identify the WrT *byi la*-type as a minority in the present region, being attested in only two peripheral areas, Rongbrag and Melung. Is WrT *byi la*-type really a remnant of the ancient word form included in the WrT vocabulary, or is it a newly developed form? Has WrT had multiple word forms of 'cat' for a long time? This may be an important question for the Tibetan dialectology, for which the present analysis cannot give an answer.

Finally, we examine isogloss (5) in more detail. Forms like $/\eta_a$ me/ could be of an external origin, but this is still unclear; Giraudeau and Goré (1956:55) provide niamé 'cat' as a form used in Yunnan, and they claim that it is an onomatopoeia. While this may be true, it is also possible that the word has another origin. As far as I know, Tibetans speaking the dialects of the West Yunling Mountain subgroup use sounds like $/\eta_a$ me/ neither as an onomatopoeia nor as a term of address to a cat (cf. 3.1). Unfortunately, there are no detailed discussions of etymology in Giraudeau and Goré (1956:55). Due to the lack of local historical documents or oral historical records, we cannot identify why this isogloss is located in the central area of the West Yunling Mountain subgroup. The position of this isogloss seems to correspond to the boundary of two administrative villages: Yunling and Yanmen. Strictly speaking, the isogloss is drawn between Tsharethong and Yongren hamlets, inside of Yunling Village. According to oral history, the Tibetan speakers in Yongren were immigrants from gYangkam Hamlet, affiliated to Yanmen; however, I have not yet obtained oral histories on the relationship between Yunling and Yanmen.²⁴ However, multiple isoglosses can be drawn there; for example, the word form of 'go' ($/^{n}$ do/ or $/^{n}$ go/²⁵) and 'drunk' ($/^{h}z_{\theta}/$ or /ra: ro/ 26), and the sound correspondence (tendency) of WrT 'ts-type' (Suzuki and rTa-mgrin Chos-mtsho 2012). A similar distribution type is also attested for the word 'piglet' (Suzuki 2012f). On the other hand, several important differences in sound correspondence are attested in a more southern area inside of that subgroup. In fact, the issue in the dialect classification of the West Yunling Mountain subgroup is certainly complicated, in contrast to the case in the rGyalthang subgroup (Suzuki 2013e), which seems to be a model for Tibetan dialectology. This question should probably be addressed with further examples having detailed maps. This may lead to the partitioning of the West Yunling Mountain subgroup into several pieces.

 $^{^{24}}$ Another noteworthy feature is that the /na me/ form is also used in the Bodgrong dialect (Gongshan, Nujiang). A certain historical relation is to be considered between Gongshan and lower Deqin.

²⁵ This difference is whether the word form corresponds regularly to WrT 'gro or irregularly.

²⁶ This difference is whether the word form corresponds to WrT *bzi* or *rag ro*, a dialectal word but spelt as it is according to Giraudeau and Goré (1956:160).

4. Conclusion

An overview of the distribution of word forms can lead us to a comprehensive understanding of the geographical distribution of a certain form. Displaying this geographical distribution is the objective of Figure 1, displayed also in Suzuki (2015g). Through the discussion of the two linguistic maps included in this chapter, I show that:

- (1) the distribution of different word forms for 'cat' corresponds to dialectal groupings, albeit with some exceptions attested in Yunnan;
- (2) some dialectal forms are shared with those in other surrounding languages (see 3.1); and
- (3) several dialectal forms are related to each other from a geographical point of view (see **3.2**).

The difficulty encountered in the course of the present discussion is a lack of local historical documents that we can use on Tibetans' migration patterns. The geolinguistics certainly needs historical information to interpret linguistic phenomena displayed in a map. The collection of local narratives may contribute to a geolinguistic interpretation.²⁷ It can also contribute to descriptive linguistic study, as well as to preserving oral heritage, transmitted from generation to generation.

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²⁷ Studies such as Schwieger (2002) may be useful for dialectology.

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Photo gallery 9

The sun rising from a mountain slope. At lHa sgang, Dar mdo.



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A geolinguistic description of terms for 'sun' in Tibetic languages of the eastern Tibetosphere

1. Introduction

This chapter provides a detailed description of the geolinguistic analysis of the word forms for 'sun' in the Tibetic languages spoken in the eastern Tibetosphere, which Shirai et al. (2016) did not describe in detail due to their focus on the whole of the Tibeto-Burman linguistic area. The geographical scope of the eastern Tibetosphere in this essay principally includes Khams and Amdo in the traditional Tibetan geography, which basically corresponds to China'a Qinghai, Gansu, Sichuan, and Yunnan provinces as well as a part of Chamdo District of Tibet Autonomous Region (TAR). One dialect from Myanmar is also included, however, several data points from Khyungpo (North-eastern part of TAR) and Yulshul (Southern part of Qinghai) as well as Minyagrong (see Dawa Drolma & Suzuki 2016 for a detail) were omitted because of practical reasons.

The data used to create the linguistics maps at the end of this paper only includes first-hand materials collected by the author from 2003 to 2015. Because of this, as well as because of time constraints on the part of the author, the data points are not equally distributed within this area, and the points on the map only reflect the current research situation. The present map contains 228 points.

The linguistic maps reflect so-called 'regiolects', i.e. dialects with regional differences. Sociolects, which certainly exist in the given area,¹ are not dealt with in this essay.

2. Classification of word forms

This section provides a classification of word forms of 'sun' based on the phonetic differences. There are three large categories: the *nyi ma* type,² the *gnam lha* type, and

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¹ Lhagang Tibetan, for example. Cf. Suzuki & Sonam Wangmo (2015c).

² Each form of Written Tibetan (henceforth WrT) is given in italics, transliterated based on the system of de Nebesky-Wojkowitz (1956).

the /na x tsa/ type. The first type includes numerous types of phonetic realisations. The classification proposed in the chapter is as follows:³

A. *nyi ma* type A-1: disyllabic form as $/\eta V mV/$ [ni ma], [nə ma], [ni m3], [nə me], [nə ma], [nə mo], [nə mɔ], [nə mõ], [ni mã], etc. A-2: disyllabic form with /n/ initial [nə ma] A-3: disyllabic form as $/\eta V WV/$ [nə w3], [nə wã], [nə wã], [nī wã], [ni w3] A-4: monosyllabic form with /n/ initial $[\eta \tilde{a}:], [\eta \tilde{3}:], [\eta \tilde{a}:], [\eta a:], [\eta ye]$ A-5: monosyllabic form with /n/ initial [na:], [nja:] B. gnam lha type [^{fi}nã la] C. /na ^xtsa/ type [na ^xtsa]

Depending on the purpose for drawing a linguistic map, the subclassification (A-1 to A-5) above can be simplified and three major groups (A, B, C) are principally concerned, as reflected in Shirai et al. (2016). This chapter does not apply this simplification.

3. Geographical distribution and interpretation

The lexical forms representing the 'sun' can be classified into: A) the *nyi ma* type, B) the *gnam lha* type, and C) the /na ^xtsa/ type. Type A is is far more frequent than the other two types. It is a common form found in the Tibetic languages and is therefore observed throughout the eastern Tibetosphere, as can seen in Figure 1.⁴ Type B (*gnam*)

³ A suprasegmental description is uniformly omitted.

⁴ The linguistic maps here were designed with ArcGIS online.

lha; lit. heaven-deity⁵) and type C are in the minority, and are merely attested to in an extremely small area of the southernmost and easternmont part respectively of the eastern Tibetosphere.

Type A includes various phonetic realisations, most of which, however, follow the phonological change of each dialect. The disyllabic form $/\eta V mV/$ (A-1) is the form which directly corresponds to WrT *nyi ma*, and its present distribution is the largest throughout the area. The distribution of monosyllabic forms (A-4 and A-5) is limited in the easternmont and southeastern areas. These areas are located on the border between the Tibetosphere and Sinosphere. Another disyllabic form /nV wV/ (A-3), which is analysed as a transitional form from A-1 to A-4, is attested to in the area close to the distribution field of A-4.⁶ However, this geographical position of dialects (i.e. the border zone between the Tibetosphere and Sinosphere) with a monosyllabic form of 'sun', and the monosyllabification is not necessarily directly related to each other. For example, the dialects of Rongbrag and Minyag Rabgang do not have a monosyllabic form in spite of their proximity to the Sinosphere. Another noteworthy feature of type A is the existence of the /n/-initial form (A-2 and A-5). The reason why this form is related to type A (an etymon of WrT *nvi ma*) is because a regular sound correspondence of WrT ny with /n/ is attested in several dialects, such as Sangdam (Suzuki 2012b) and Bragkhoglung (Suzuki 2012g).⁷

⁵ This word formation, including an expression of deity, may imply a background of sun worship. However, no other evidence has been attested to which suggests that the dialectal area (southernmost rGyalthang) has ever had such a religious practice.

⁶ Regarding the fusion of dissyllabic words in Thewo Tibetan, see Rig-'dzin dBang-mo (2013).

⁷ This phonological correspondence taken into consideration, type C, containing /n/ at a wordinitial position, is not regarded as a form derived from WrT *nyi*, because the dialect (gSerpo) does not display this sound correspondence as a phonological rule.

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Figure 2 Distribution of word forms in the southeastern Khams region.

Figure 2 is an enlarged version of the southern part of Figure 1, in which the distribution of types A-3 and A-4 are analysed. Looking at the border between A-1 and

A-3, A-4 which can be seen in the northeastern area of Figure 2, it seems that there is an 'isogloss' formed by these two areas. However, there actually exists another language called Darmdo Minyag between the Muli-nDappa and Minyag Rabgang dialectal groups (Dawa Drolma & Suzuki 2016). In the southern area of Figure 2, the geographical distribution of the forms for 'sun' are complicated and distinctions are attested to within dialectal groups such as Sems-kyi-nyila and sDerong-nJol. In this area, the difference of the word form can be regarded as a sound change which independently occurred. Regarding the case of the Sems-kyi-nyila group, it may be because of influence from the neighbouring dialects of Muli-nDappa which have lead to their use of the A-3 and A-4 forms. As for the dialects spoken alongside the Lancang River, three word form A-1, A-3, and A-4 are used. In both the Northern and Southen tips of this area the form A-1 is used, hence the A-3 and A-4 forms regarding certain word forms are also reported (Suzuki 2019b).

Figure 3 is an enlarged version of the north-eastern part of Figure 1. The dialects displayed in Figure 3 consist of various genetically different language groups (Suzuki 2009a, 2015a). Within this region, we can note that the Sharkhog and Khodpokhog varieties include A-1, A-3, and A-4 types. The former language's form for 'sun' can be analysed as a transitional form from A-1 to A-3, for there are no monosyllabified forms (A-4 type) attested there. The latter language, on the other hand, mainly has A-4 type, which is a form created by the a coalescence of two syllables. The monosyllable forms (A-4 and A-5) are also attested in Cone Tibetan and in one dialect from Diebu County which belongs to the Thewo-stod group. These two areas are connected to each other with a mountain path, hence this phenomenon may be analysed as an areal feature brought about by frequent language contact.

Old Tibetan has another orthographic form for 'sun' *gnyi ma*, which, however, does not have any attested cognates in the eastern Tibetosphere. In addition, Literary Tibetan has huge amounts of expressions meaning 'sun' such as *kun gsal* (lit. all-shining) and '*jig rten dbang po* (lit. world-lord), but none of them are used as dialectal forms for referring to the sun. See appendix for a list of literary word forms.



A GEOLINGUISTIC DESCRIPTION OF TERMS FOR 'SUN' IN TIBETIC LANGUAGES

Legend O

- [ni ma], [nə ma], [nə ma], [nə mo], etc.
- **[**na:], [nja:]
- [ŋə wã], [ŋĩ wã], [ŋi wõ]
 - [n̥ã:], [n̥ɔ̃:], [n̥ã:], [n̥a:]
 - [na ^xtsa]
 - Figure 3 Distribution of word forms in the easternmost Amdo region.

4. Conclusion

The word form of 'sun' in the eastern Tibetic languages mainly corresponds to WrT *nyi ma*, and its geographical distribution is the largest among the three attested lexical items. The lexical variation of morphemes is therefore not rich; the other two forms are: WrT *gnam lha* and /na xtsa/, both of which are used in isolation or in a limited geographical area.

Appendix: List of Tibetan literary words for 'sun'

ku-mud-dgra, khyab-byed, khri-can, mkha'-'gro, mkha'-nor, mkha'-lam-pa, 'gro-ba'i sgron-me, rgyas-byed, rgyu-ba'i brtul-zhugs, sgrol-byed, nges-sreg, bcu-gnyis bdagpo, char-'bebs, chu-yi chos-rkun, mchog-'dod, mchod-ldan, mchod-'od, 'jig-rten mig, 'joms-byed, nyin-byed, nyin-mo'i 'dren-pa, nyin-mo'i nor, nyin-mo'i dbang-phyug, nyin-mo'i dbyig, nyin-mo'i 'byung-gnas, nyin-mor byed, gtum-po'i 'od, rta ljang-can, rta-bdun dbang-po, rta bdun-pa, bsten-bya, 'thung-byed, dus-kyi bdag-po, dus-kyi byed-pa, dus-byed, dus-la dga', gdung-byed, 'dam-skyes-mtshan, bdud-las-rgyal, bdun-gyis bdun-pa, nad-med, nam-mkha'i tog, nam-mkha'i thig-le, nam-mkha'i mig, nor-gyi mdzod, rnam-sgyur 'gro-lus, rnam-bcad, rnam-gnas, rnam-par snang-byed, rnam-gsal byed, sna-tshogs 'od, sna-tshogs shing-rta, snang-ba'i bdag-po, snang-ba'i mu-khvud, snang-ba'i mdzod, snang-byed, padma'i grogs, pad-ma'i gnyen, padma'i grogs, pad-ma'i rtsa-lag, padma'i lag, phyogs-kyi mu-khyud, phyogs-bdag, phyogs snang-byed, 'phrog-byed, bla-med 'od-'byin, dbyig-gi khu-ba, mi-sbyin skyes-pa, miggzugs, mun-'joms, mun-pa'i dgra, mun-sel, me-zlum, tsha-ldan, tsha-zer-can, tshangpa'i rta, 'dzin-byed, gza'-bshes, 'od-kyi rgyun, 'od-kyi sgra-can, 'od-kyi norcan, 'od-'gyed, 'od-'gro, 'od-'gro rgyas-byed, 'od-can, 'od stong- can, 'odstong 'phro-ba, 'od-bdag, 'od-ldan, 'od-'dren, 'od-nor-can, 'od phung-po, 'od phrengcan, 'od-byed, 'od-'byin, 'od-gtsang, 'od-gzugs, rig-byed 'byung, las-sna tshogs, lusskyob, long-ba'i kha lo-ba, lo'i shing-rta, shing-rta mtho, bshes-gnyen, srid-pa'i sgronme, srid-pa'i mig, and so on.

Additional remarks on 'sun' in Yangthang Tibetan: gnam lha and nangs lha

Shirai et al. (2016) and Suzuki (2016a) discuss the word form for 'sun' in Tibeto-Burman and Tibetic languages, respectively. They report that some dialects of Khams Tibetan in Yunnan use a form /^hnõ la/, which might correspond to WrT *gnam lha* 'skydeity'. However, in fieldwork conducted in September 2017, I have found another possibility for a WrT cognate, *nangs lha*, in Choswateng Tibetan, surrounded by dialects using *gnam lha* for 'sun'. All of the dialects that do not use a form derived from *nyi ma* are spoken in Yangthang [Xiaozhongdian] Township, Shangri-La [Xianggelila] Municipality, bDechen [Diqing] Prefecture.

A phonetic form $/ {}^{\text{fn}}$ nõ |a| is attested in the dialects of Yangthang, Shingkhogteng and Jisha. This phonetic form has a preaspiration in the word-initial position, which can correspond to the WrT preradical letter *g* in *gnam*. The preaspiration is always pronounced in this word. The tonal feature is rising, not high-level, even though a high tone is expected based on the WrT form. The existence of preaspiration is considered to be more crucial than whether the tonal realisation is as high.

However, a difference is found in the Choswateng dialect. Suzuki (2016a) indicates that the Choswateng dialect uses another form derived from WrT *nyi ma* 'sun': /'ni ma/ (see also Suzuki 2014d:91). Surprisingly, when I interviewed a speaker of that dialect, she provided the form /'nɔ̃ la/ in addition to /'ni ma/. It has a rising tone, similar to /'^ĥnɔ̃ la/ in other dialects; however, it lacks preaspiration. Therefore, this form cannot be considered to be derived from WrT *gnam lha*. The native speaker also claimed that it was not related to *gnam lha* because the form /^{-ĥ}nɔ̃ la/ also exists in the same dialect, which mean 'sky' or 'sky-deity' and thus directly corresponds to *gnam lha*. The form /'nɔ̃ la/ can be interpreted as 'one which makes the sky clear', and it is suggested that this word is a compound of WrT *nangs* 'morning' and *lha* 'deity'; however, the second syllable is not interpreted to refer to any particular deities in the compound.

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Figure 1 Revised map on the word form for 'sun' within the rGyalthang-Yangthang area.

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A geolinguistic description of terms for 'rice' in Tibetic languages of the eastern Tibetosphere

1. Introduction

This chapter provides a detailed description of the geolinguistic analysis of the word forms for 'rice' in the Tibetic languages spoken in the eastern Tibetosphere, which Suzuki et al. (2016a) did not describe in detail due to their focus on the whole of the Tibeto-Burman linguistic area. The geographical scope of the eastern Tibetosphere follows the definition of Suzuki (2016a).

The data used to create the linguistics maps at the end of this paper only includes first-hand materials collected by the author from 2003 to 2015. Because of this, as well as because of time constraints on the part of the author, the data points are not equally distributed within this area, and the points on the map only reflect the current research situation. The present map contains 225 points.

The linguistic maps reflect so-called 'regiolects', i.e., dialects with regional differences. Sociolects, which certainly exist in the given area, are not dealt with in this chapter.

2. Classification of semantic categories and word forms

This section provides a classification of word forms of 'rice' based on its semantic differentiation and the phonetic variation. Regarding the semantic differentiation, there are two types:

(A) one semantic category for 'rice'; this type possesses only one single stem as in English.

(B) two semantic categories for 'rice'; this type distinguishes 'rice grain (hulled, polished, and cooked)' from 'rice plant' or 'general species' name for rice' by differing stems.

The stem attested in most dialects of the A-type, and one stem in the B-type correspond to Written Tibetan (WrT) 'bras, including numerous types of phonetic

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realisations. However, the variation of phonetic realisations is not crucial for classification here, and it just distinguishes a regular sound correspondence with WrT from a regular one. The classification proposed in the chapter is as follows:¹

Type A

A-1: showing a regular sound correspondence of WrT 'bras

 $[^{n}d\epsilon:], [^{m}di:], [^{n}ji:], [^{n}dz\epsilon:], [^{m}b\epsilon:], [^{m}b\epsilon:], [^{m}br\epsilon:], etc.$

A-2: showing an irregular sound correspondence of 'bras

[ⁿdu hu], [ⁿgu:], [ŋgi:], etc.

A-3: correspondence of WrT drus ma 'polished grain'

[te ma], [te: ma]

Type B

B-1: 'bras 'general name for rice' and drus ma 'rice grain' with a regular sound correspondence

 $[^{n}dze:]+[^{h}tu: ma], [^{n}dze:]+[ti: ma], [^{n}dze:]+[tə ŋa], [^{m}b\epsilon:]+[tə -me], etc.$

B-2: 'bras 'general name for rice' and drus ma 'rice grain' with an irregular sound correspondence

[^hge:]+[^htə: ma]

Phonetic variation is generally not a criterion to classify word forms, as seen in Shirai et al. (2015). However, an irregular sound correspondence should be noted, because it might show a spreading process of the irregular form. Evidence that shows irregular phonetic correspondences, which we can obtain only through a systematic analysis of sound correspondences of a given variety with WrT, are not discussed here for the sake of simplicity.² A partial discussion of the irregular phonetic form of WrT *'bras* 'rice' was provided in Suzuki (2012c).

3. Geographical distribution and interpretation

I present three linguistic maps. Figure 1 displays an overall distribution of the word forms for 'rice', reflecting semantic differences as well as phonetic realisations, that is, the map distinguishes the classifications given in Section 2 from each other. Figure 2 is an enlarged version of the southeastern Khams area. Figure 3 reflects the phonetic

¹ A suprasegmental description is uniformly omitted.

² For details regarding the irregularity of this sound correspondence in several dialects of Yunnan, see Suzuki (2009f, 2010b, c, 2011d, i, 2014c, d, 2015c, 2016a, b).

variation of the word form corresponding to WrT *'bras*. Figure 3 is not directly for geolinguistic discussions but for a reference of phonetic forms. The linguistic maps here were designed with ArcGIS online.

Figure 1 displays that the varieties using the Type A are distributed in the majority of the eastern Tibetosphere³ with an evident exception from Yunnan, where those using the Type B concentrate. The area of the Type B belongs to a rice cultivation culture, and Tibetans there also plant rice. Therefore, the distribution of the Type B is highly related to this cultural background, where a classification of 'rice plant' and 'rice grain' must have been needed. However, as mentioned in Suzuki et al. (2016), the rice does not grow in many parts of the Tibetosphere because the climate condition is inappropriate for rice-growing, but the varieties share the same root of this word. This implies that the rice is not a basic word but a cultural one which can be related to the religious purpose. We can also note that the WrT form *'bras* corresponds to Proto-Tibeto-Burman (PTB) **b-ras* 'RICE / FRUIT / BEAR FRUIT / ROUND OBJECT' (STEDT⁴), and it is principally Tibetic languages that employ this PTB etymon for 'rice' among the Tibeto-Burman languages.

³ Following the previous geolinguistic works regarding the Tibetic languages spoken in the eastern Tibetosphere, the distribution of lexical forms can appear in two extreme ways: either occupied by one majority (as in Shirai et al. 2015 and Suzuki 2016a for 'sun') or scattered in variegated forms (as in Suzuki 2012f for 'piglet', and Suzuki 2014c for 'cat'). The case of 'rice' evidently belongs to the former.

⁴ <u>http://stedt.berkeley.edu/~stedt-cgi/rootcanal.pl/etymon/2071</u>, accessed on 20th January 2016.

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Esri, GEBCO, DeLorme, NaturalVue | Esri, © OpenStreetMap contributors, HERE, Garmin, FAO, NOAA, USGS Figure 1 Overall distribution of word forms.

Figure 2 is an enlarged version of the area where the word form for 'rice' is complicated in the eastern Tibetosphere. The minor groups of the classification above, which are A-2, A-3, B-1, and B-2, appear mainly in the rGyalthang dialect group spoken on the rGyalthang-Yangthang plain and the adjacent area of the Jinshajiang River. Some varieties spoken along the Lancangjiang River and the Nujiang River also have either Types A3 or B1.



Figure 2 Distribution of word forms in the southeastern Khams region.⁵

⁵ Unfortunately, the map automatically generated by ArcGIS does not reflect the factual borderline dividing Yunnan Province from Sichuan Province. The actual line should be further

Firstly, it is certain that the B-type appears in varieties spoken in a rice cultivation culture, including Wujing, Tuoding, and Xiaruo townships as well as Tacheng Town (belonging to the Jinshajiang drainage system), Yongchun and Pantiange townships (belonging to the Lancangjiang drainage system), and Bingzhongluo and Bangdang townships (alongside Nujinag). Note that the dialectal relationship among the varieties is not so close to every other because these varieties include the Sems-kyi-nyila and sDerong-nJol groups.

to the north; on the map, Dongwang Township belongs to Sichuan, which should be within Yunnan.





Figure 3 D Distribution of the main initial (with a glide) sound corresponding to WrT 'bras.⁶

Secondly, we should also pay attention to the distribution of Type A-3, with a single stem corresponding to WrT *drus ma*, which only appears in three varieties in a

⁶ The legend does not reflect the preinitial feature (prenasalisation in most cases); 'd' includes both a plosive /d/ and an affricate /dz/; '#' means lack of the form corresponding to WrT '*bras* (i.e., Type A-3).

mountainous area which does not belong to a rice cultivation culture. Considering the geographical condition and genetic position of dialects, these varieties probably once had Type B system and lost the form corresponding to WrT *'bras* with a replacement of WrT *drus ma*. Following this, it is also noted that the Type B is distributed in two different dialect groups as mentioned above. However, the lexical varieties for 'rice' imply that they might have had a mutual relationship. Suzuki (2014h) mentions that the Bodgrong dialect (spoken along the Nujiang) is spoken by immigrants from some villages along the Lancangjiang, among which two villages, gYanggril and Tshodrug, are nominated as candidates based on the local tradition. The case of 'rice' suggests that speakers of the Bodgrong dialect might be related to those of Tshodrug, for the dialects with Type A-3 are spoken in the close area to it. Now the Tshodrug dialect does not maintain Type B and employs Type A; however, it is possible that the elder generation of the speakers of the Tshodrug dialect used Type B.

Finally, we look at Types A-2 and B-2, both of which are characterised by an irregular sound correspondence of WrT *'bras*. These types have a/g/as the main initial, which is considered as an irregular form. Referring to Figure 3, we see that the /g/initial form are not perfectly equivalent to Type A-2. Some varieties with Type A-1 also have a /g/-initial form, such as Shingkhogteng and Daan, in which the forms corresponding to WrT 'labial obstruent with a glide r' normally correspond to velar obstruents. The velar sound /g/ attested in the form for 'rice' has a close relation to /J/and $\frac{dz}{as}$ discussed in Suzuki (2015c, 2016d). Based on each phonetic form, $\frac{g}{must}$ be related with $/J_{\rm I}$, not with /dz/. Taking the process of sound development discussed in Suzuki (2016d) into consideration, /I/ is the most conservative sound and /dz/ is the innovative. The rGyalthang dialect, an example of Type A-2, normally has a /dz/ initial for a WrT 'br initial as seen in /ⁿdzo?/ for WrT 'brug 'dragon', while the form for 'rice' is /ⁿgu:/, which can be considered as an exception. Then, how did the rGyalthang dialect obtain this velar initial attested in 'rice'? Figure 3 with a diachronic change given in Suzuki (2016d) suggests that the form for 'rice' with a /g/ initial might have spread from south to north in the rGyalthang-Yangthang plain. This route of expansion may be related to that of Naxi from the 15th to 18th centuries. According to Suzuki (2016f), the sound change regarding the WrT *r*-glide should have been influenced by Naxi after its intense contact began in the 15th century, thus the expansion of the word form for 'rice' might be related to Naxi's rule for the rGyalthang area at that period.⁷ In this case, 'rice' is not likely to be used for a kind of staple food but for a religious purpose, as rice cultivation is not practised on the rGyalthang-Yangthang plain. This

⁷ See Wang (1995) for a detail.

explanation can also be applied for the case of Type B-2 attested along the Jinshajiang. The region once functioned as an 'entrance' from the Naxi cultural area to the Tibetosphere and has a religious site. Naxis and Tibetans still live together in this region.⁸

4. Conclusion

The word form of 'rice' in the Tibetic languages in the eastern Tibetosphere mainly corresponds to WrT 'bras, and its geographical distribution is nearly pervasive. Most regions do not belong to the rice cultivation area; however, varieties have the same stem for rice. It is probably because the rice is used for religious rituals, whether they are of Bon or Buddhism. The 'rice' seems to be a kind of staple food, but in the case of Tibet, it can be for a religious purpose.

In the Tibetosphere in Yunnan, however, a complicated system is attested. Several dialects spoken under the rice cultivation culture distinguish 'rice grain' from 'rice plant' by using different stems. The irregular sound correspondence of WrT 'bras is also seen in Yunnan, which might be spread from the Naxi area to the north. The case of the Bodgrong dialect, spoken along the Nujiang, can be related to the varieties with the B-type spoken along the Jinshajiang. Because Type B is attested in the limited range among the Tibetic languages, it is difficult to suppose that varieties with Type B developed independently in several places. The migration history of the Bodgrong Tibetans also indicates the origin where the varieties using Type B are spoken.

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⁸ See Wu (2009) for a detail. However, the varieties that were influenced by Naxi the most belong to the Melung subgroup of the Sems-kyi-nyila group, and this fact appears in the Melung's systematic phonetic development, See also Suzuki (2013f).

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Photo gallery 10

The Brag sgam nang mountain and village. At Yuwa, Thewo.



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A geolinguistic description of terms for 'milk' in Tibetic languages of the eastern Tibetosphere

1. Introduction

This chapter provides a detailed description of the geolinguistic analysis of the word forms for 'rice' in the Tibetic languages spoken in the eastern Tibetosphere, which Ebihara et al. (2016) did not describe in detail due to their focus on the whole of the Tibeto-Burman linguistic area. The geographical scope of the eastern Tibetosphere follows the definition of Suzuki (2016a).

The data used to create the linguistics maps at the end of this chapter only includes first-hand materials collected by the author from 2003 to 2015. Because of this, as well as because of time constraints on the part of the author, the data points are not equally distributed within this area, and the points on the map only reflect the current research situation. The present map contains 223 points.

The linguistic maps reflect so-called 'regiolects', i.e. dialects with regional differences. Sociolects, which certainly exist in the given area, are not dealt with in this chapter.

2. Classification of semantic categories and word forms

This section provides a classification of word forms of 'milk' based on Written Tibetan (WrT) forms and their various phonetic realisations. There are three principal types:

(A) WrT 'o ma-type.(B) WrT nu ma-type.(C) WrT zho-type.

Type A is attested more widely than Type B. In addition, Type A and Type B can be classified into different subcategories based on its phonetic realisations. Type C is rarely found, however, the word form *zho* can be connected with the /l/-form of 'milk'

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attested in rGyalrongic languages, for instance, in an aspect of historical linguistics (see Section 2; Ebihara et al. 2016). Examples are as follows:¹

mã], etc.

Type A

A1: disyllabic form: /CV mV/
[ĥo ma], [ʁo ma], [ɣo ma], [ʰɣo: mɜ], [wo ma], [ĥu
A2: disyllabic form: $/hV w\tilde{v}/$
[ĥo wã], [ĥo wã], [ĥo wã:], etc.
A3: monosyllabic form: $/w\tilde{v}/$
[wã:].
A4: disyllabic form: /?V mV/, /?V wV/
[?o mã], [?o wã], etc.
A5: monosyllabic form: $/2\tilde{v}/$
[?ã:], [?õ:]
A+: WrT 'o ma + WrT chu 'water'
[ĥo ma tsʰu], [wã: tsʰu], [wo tsʰu]
Туре В
B1: disyllabic form: /nV mV/
[nu ma], [nu m3], [nu ⁶ ma], etc.
B2: monosyllabic form: /nV/
[no:], [nu:].
B+: monosyllabic form $/nV/ + WrT$ chu 'water'
[na te ^h u], [ne: $cc^{h}u$], [ne: $tc^{h}u$].
Type C
[so], [co], [su].

Type M (miscellaneous; neither classification nor discussion provided)

[sa], [ŋ Θ : ts^hu], [ha po].

Note that the difference within the A-type and B-type belongs to the phonological process of coalescence, and similar examples should be considered if we treat it in the aspect of phonological development. The chronological order should be: A1 > A2 > A3; A4 > A5; B1 > B2. The compound type is mentioned as "A+" and "B+2". The second element of a compound is generally a morpheme 'water' (WrT *chu*).

¹ A suprasegmental description is uniformly omitted.

3. Geographical distribution and interpretation

I present two linguistic maps (see the end of the chapter). Figure 1 displays an overall distribution of the word forms for 'milk', reflecting the classification provided in Section 1. Figure 2 is an enlarged version of the southeastern Khams area, respectively. The linguistic maps here were designed with ArcGIS online.

First of all, the minority of examples is to be explained: Type C (WrT *zho*). It is only attested in Rongbrag Khams, spoken in Danba (Rongbrag) County, the easternmost area of Khams around the centre of Figure 1. The word form of WrT *zho* originally denotes 'yogurt', not 'milk'. However, the same usage is also found in Chocha-ngachakha (Tsamang), spoken in eastern Bhutan (Tournadre and Karma Rigzin 2015). Furthermore, the WrT *zho* might be related to Proto-Tibeto-Burman (PTB) initial *ly-, as there are some parallel examples between WrT *zh* and PTB *ly-: WrT *bzhi* and PTB *b(ə)-lyi, and WrT *zhing* and PTB *lying.² This means that WrT *zho* is possibly related to the L-type of 'milk' (Ebihara et al. 2016), attested in many rGyalrongic languages. Rongbrag Khams and rGyalrongic languages are just neighbour with each other, however, this vicinity of distribution should be considered as an accident because of the phonetic realisation corresponding to WrT *zh* might have completed in an earlier stage of the Tibetic languages called Proto-Tibetic (Tournadre and Suzuki 2022).

Secondly, the overal distribution of Type A and Type B is discussed. It is obvious that Type A is dominant in the eastern Tibetosphere, whereas Type B is geographically marginal, which is distributed at the both directions of north and south of this region (see Figure 1). This distribution reminds us of an ABA-distribution, which means that the marginal type (Type B here) is more archaic than the other. If we take the whole Tibetic languages in this region as a language derived from one single root, this hypothesis is comprehensive. Contrary to the general understanding that the dialects spoken in Sichuan-Gansu border are related to those in Khams, several results of Tibetan dialectology such as Suzuki (2016c) do not positively support the hypothesis, hence the ABA-like distribution attested in Figure 1 may not represent a historical development following the theory of the geolinguistics.

² This sound law has been dubbed 'Benedict's law' by Hill (2011:445). See also Hill (2013) for a relative chronology of Tibetan sound laws including Benedict's law.



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Figure 2 Distribution of word forms in the southeastern Khams region.

Thirdly, the order of sound change (A1 > A2 > A3; A4 > A5; B1 > B2) and its distribution are discussed. This case is mainly applicable to the south-eastern Khams area (see Figure 2). The first type is the order A1 > A2 > A3. The A1 form is a straightforward sound correspondence with the WrT form 'o ma, and the A3 form is a coalescent form of these two syllables. Looking at the distribution of the A3 form, we see that the easternmost part of the south-eastern Khams (Muli, Daocheng, Xiangcheng, Xianggelila) and a part of Deqin County (from Shengping to Yanmen) dominantly have this type, and a small number of places have the A1 and A2 forms in these areas. This distribution implies that the same process of sound change occurred in these two areas differently; the order A3 > A1 is unimaginable even if we consider that there is an ABA distribution in Yunnan. The second type, A4 > A5, is found in Zhuoni County, Gansu. Based on the present data, it is difficult to explain how this change occurred, however, this type is regarded as a regional feature attested in Zhuoni. The third type, B1 > B2, is also attested in Yunnan, however, the distribution is scattered. Interestingly, the B1 form (a dissyllabic form) is found in the places close to the A1 form (a dissyllabic form), whereas the B2 form (a monosyllabic form) is found in the places close to the A3 form (a monosyllabic form). This situation suggests that the phonetic realisation is related in a given region even though the word stems are different.

Finally, the compound forms (A+ and B+) are discussed. They accidentally use the same morpheme as a part of compound: WrT *chu* 'water'. In many Asian languages, 'milk' is related to 'breast', and it implies 'liquid produced from the breast'; hence, the use of the morpheme 'water' for 'milk' is reasonable to make a compound. Another possibility in the Tibetic languages is a borrowing from a Chinese expression *nai-zhi* 'milk/breast-juice'. As for the geographical distribution of the compound forms, they are attested in Yunnan, however, scattered. The forms attested in Gongshan County (B+) may be related to that attested in one place alongside Lancangjiang, because there is a migration relationship between these two areas (Suzuki 2014h). It is still complicated to give a geolinguistic explanation regarding the forms attested in Xianggelila Municipality (A+), for the distribution is scattered.

4. Conclusion

The word form of 'milk' in the eastern Tibetic languages mainly corresponds to WrT 'o ma and nu ma, and their geographical distribution covers most parts of the eastern Tibetosphere. The lexical variation of morphemes is therefore not rich; there are a few

other forms: WrT *zho* (the original meaning is 'yogurt'), [sa], [$\eta \Theta$: $t_{\Sigma}^{h}u$], and [fa po]. They are used in isolation or in a limited geographical area.

Photo gallery 11

rLung rta fluttering in a strong wind. At 'Jol la kha, bDe chen.



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A geolinguistic description of terms for 'wind' in Tibetic languages of the eastern Tibetosphere

1. Introduction

This chapter provides a detailed description of the geolinguistic analysis of the word forms for 'wind' in the Tibetic languages spoken in the eastern Tibetosphere, which Iwasa et al. (this volume) did not describe in detail due to their focus on the entirety of the Tibeto-Burman linguistic area. The geographical scope of the eastern Tibetosphere follows the definition given in Suzuki (2016a).

The data used to create the linguistics maps given in this chapter only include firsthand materials collected by the author from 2003 to 2016. For this reason, as well as due to time constraints on the part of the author, the data points are not equally distributed across this area, and the points on the map only reflect the current state of research. The present map contains 235 points.

These linguistic maps reflect so-called regiolects, or i.e. dialects with regional differences. Sociolects, which certainly exist in the given area, are not dealt with in this chapter.

2. Classification of word forms

This section provides a classification of word forms of 'wind' based on forms in Written Tibetan (WrT) and their various phonetic realisations. There are three principal types:

(A) WrT *rlung*-type.
(B) WrT *lhags pa*-type.
(C) /s^ha rə/-type.

Type A is attested much more widely than Types B and C. In addition, Type A can be classified into different subcategories based on its phonetic realisations and the

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formation of compounds. Two sound correspondences /l/ and /j/ appear with a WrT radical letter *l*; however, this difference does not appear in the classification provided here (see Suzuki 2009a, 2016c). Examples are as follows:¹

Type A

A1a: monosyllabic form corresponding WrT *rlung*

 $[{}^{h}l\tilde{2}], [{}^{h}lo\eta], [{}^{k}lo\eta], [{}^{h}l\tilde{u}], [{}^{w}lo\eta], [l\tilde{0}], [{}^{h}l\eta^{v}], [{}^{h}j\tilde{2}], [{}^{h}j\tilde{0}], etc.$

- A1b: monosyllabic form including a voiceless lateral initial /l/ [lj] etc.
- A2a: disyllabic form (compound) corresponding to WrT *rlung dmar* [^ĥlõ mε:], [^wlõ mε:], [jõ mə^γ:], etc.
- A2b: disyllabic form (compound) corresponding to WrT *rlung ma* [^{fi}lo mɐ], [^wlo ma], etc.
- A2c: disyllabic form (compound) related to WrT *rlung dmar* [^ĥlɔ̃ peʔ], [^ĥlɔ̃ ^mbeʔ], [^ĥlɔ̃: beʔ], [^ĥjɔ̃ pje], [^ĥjɔ̃ mjeʔ], etc.
- A3: disyllabic form corresponding to WrT *rlung kha* [^ĥlõ k^ha], [^sloŋ k^ha], etc.
- A4: other types

[^ĥlo wo], [^ĥl̥oŋ ^ĥdzə]

Type B: a form corresponding to WrT *lhags pa*

[h3 kə], [ha hə], [ha fa], [ha fa], [ha fa], etc.

Type C: a form related to WrT bser bu

 $[s^{h}a r \vartheta], [s^{h}\varepsilon l \theta], etc.$

Note that the difference in the initials (/l/ or /j/) depends on the whole system of the sound correspondence between spoken varieties and WrT. The chronological order should be /l/ > /j/ (see Suzuki 2021a), but this is not reflected in the classification above. The voiceless counterpart of the initial /l/ (A1b, a part of A4) may have appeared through another rule of sound change. WrT *rlung dmar* generally denotes 'stormy wind'. It would be a complex task to distinguish a form corresponding to WrT *rlung dmar* from one corresponding to WrT *rlung ma*.² For example, the dGudzong dialect (Rongbrag Khams) uses /filtu ma?/, which is close to WrT *rlung dmar* because WrT *a* in an open syllable in this dialect generally corresponds to /o/.

¹ A suprasegmental description is uniformly omitted.

² This form is used in such languages and dialects as Dzongkha and Kongpo outside the eastern Tibetosphere (personal communication with Nicolas Tournadre, 2016).

Type B always appears in a form root+suffix pa. This shows the difference between Type A and Type B, i.e. Type A can form a word by using the root itself.³

The semantic difference between *rlung* and *lhags pa* in the literary language is concerned with two aspects: the semantic field and the degree of strength of the wind itself: *rlung* also means 'air' and 'breath', as well as 'air element (one of the four cosmic elements)', and *rlung* is stronger than *lhags pa* 'breeze'. However, it seems that only a few oral varieties still maintain this distinction of meaning through different lexical forms.

3. Geographical distribution and interpretation

I present two linguistic maps. Figure 1 presents the overall distribution of the word forms for 'wind', reflecting the classification provided in Section 1, while Figure 2 is an enlarged version of the south-eastern Khams area. The linguistic maps here were designed using ArcGIS online.

As Figure 1 shows, Type A (using a word that includes the WrT *rlung* form) is widespread across the eastern Tibetosphere. Types B and C are both distributed in the north-eastern area of this region, and they are used in varieties linguistically divided in an 'Eastern Section' (Tournadre 2014, Tournadre & Suzuki forthcoming), and speakers of these varieties are said to be descendants of immigrants from somewhere in Central Tibet in the period of Tibetan Empire (Yang 2009:94–95; Sum-bha Don-grub Tshering 2011:37–38). According to the data from modern varieties spoken in Central Tibet (Iwasa et al. this volume), the use of Type B is attested even in Lhasa. However, Type B is registered in WrT, and it is not regarded as a dialectal word, so its form being shared is not a strong evidence to connect the varieties spoken in Central Tibet with those in the Eastern Section. In addition, several varieties in the Eastern Section also use Type A. Their distribution is scattered; hence, Type A might not have been acquired from the influence of surrounding languages (mainly Amdo). In Literary Tibetan, in fact, both the A form (*rlung*) and the B form (*lhags pa*) are used, denoting 'wind' and 'breeze' respectively. Even at present, coexistence of either the 'A and B' type or the 'B and C' type is attested in a few varieties. However, this difference is not reflected on the map.

³ There are several dialects from Rongbrag which employ a form corresponding to WrT *lhags pa* for 'frost', not 'wind'. This use was already attested in the eighteenth century, as it is recorded in *Muping Yiyu*, one of the nine texts known as Ding-series *Xifan Yiyu* (Suzuki 2007b).





A GEOLINGUISTIC DESCRIPTION OF TERMS FOR 'WIND' IN TIBETIC LANGUAGES

Figure 2 Distribution of word forms in the south-eastern Khams region.Type A is divided into seven subgroups in total, based on word formation patterns (A1, A2, A3, A4) and phonetic realisations (A1a, A1b; A2a, A2b, A2c). Of the seven

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A2c

A4

60km

subcategories, A1a and A1b only consist of a word stem. The formation of A1b is

irregular and is only attested in the southern Khams area. The varieties using A1b are spoken on the borders between dialect groups, such as Sems-kyi-Nyila, Chaphreng, sPomborgang and sDerong-nJol. A2a, A2b and A2c are similar to each other in terms of the second morpheme of the word, however, it is not certain whether A2c is genetically closer to A2a or A2b. The A2 form is originally related to two WrT forms, i.e. rlung dmar 'strong wind, hurricane' and rlung ma 'wind'. This means that A2 has two origins; however, because of the existence A2c, they are dealt with together. In Section 2, I mention that A2c is closer to A2a, but this is merely an assumption. Because A2a and A2b show a WrT correspondence for each, it is probably correct to claim that a common form distributed across two or more places that are geographically distant from each other, e.g. several varieties of Rongbrag Khams and various varieties spoken in Yunnan for A2a, is not due to any shared innovation but rather is because of a coincidence. More interestingly, one should note the distribution of A2a, A2b, and A2c in Yunnan. That of A2a is surrounded by A2b and A2c (see Figure 2). If this is considered as an example of the ABA-distribution, A2a is more recent form than A2b and A2c. However, paying attention to the distribution of A2c, we find that it is concentrated in the area to the north-west of A2a and A2b, which means that we can treat it separately. Only one A2c form attested along the Jinshajiang River (mBukha dialect; Sems-kyi-nyila Khams) implies that this form originates from sDerong-nJol Khams, spoken in the northwest, to the region through where a main traffic road passes. If we accept this observation, the relationship between A2a and A2b will be a key question. Looking at the distribution along the Lancangjiang River, we observe that A2a and A2b resemble an ABA-distribution. Because A2a is situated in the centre, it might be a more recent form than the surrounding A2b forms. If these word forms are not originally different and are related to each other, the geographical distribution will mean the form *rlung ma* has changed into *rlung dmar* because of confusion of the sound structure (see Suzuki 2011h). Younger people might have forgotten the original form and have made an analogy regarding the second syllable, beginning to confuse one form with the other. The dialects spoken along the Jinshajiang River are a quite different case. The dialects using A2a belong to the East Yunling Mountain subgroup, whereas those using A2b, belong to the Melung subgroup. The latter group is likely to have A2b originally based on its phonetic realisation, which suggests lack of the final r in WrT. The former group is more sensitive to the pronunciation corresponding to the WrT final r, which is maintained as a consonantal feature or omitted with influence on the preceding vowel. This case can be analysed as the coexistence of two different word forms. A3 is mainly found in the Minyag Rabgang area, regardless of the languages there. Some varieties of Minyag Rabgang Khams use A3, and some surrounding varieties of Amdo also use it. The expansion of A3 could have begun from Minyag Rabgang Khams, which is regarded as a sedentary, more archaic variety in the local historical context (Sonam Wangmo 2013, Suzuki and Sonam Wangmo 2015a). A4, including two exceptional forms [^ĥlo wo] and [^hloŋ ^ĥdzə], is attested in the Babzo dialect (dPalskyid Tibetan) and the Rwata dialect (Chaphreng Khams), respectively. The origin of these word forms is still unclear.

Type B is mainly attested in the Sharkhog and Khodpokhog area. There are many phonetic varieties of this word that relate to these languages; however, they are certainly connected with WrT *lhags pa* 'wind', which is widely used in Central Tibet.

Type C is mainly attested in Thewo and Cone counties. This word form seems to correspond to WrT *bser bu* 'breeze';⁴ however, the sound correspondence expected from this spelling is not an aspirated initial, but a preaspirated one. Hence, the origin of this word form remains unclear. For this reason, this form is characterised as a word of local vernaculars. Varieties using Type C also use Type B to denote 'strong wind'. The distribution of Type B and Type C nearly connect with each other.

In the report of Iwasa et al. (2017), we see that another one form is found in the Tibetic languages: WrT '*ur*. However, this form is not generally used in the eastern Tibetosphere.

4. Conclusion

The word for 'wind' in the eastern Tibetic languages corresponds to WrT *rlung* everywhere in the eastern Tibetosphere; other than this monosyllabic word, several compound patterns are also employed. In addition, the case of the Tibetic languages in Yunnan provides a good example for a geolinguistic discussion of an analysis of the development of word forms. WrT *lhags pa* as well as /s^ha rə/, possibly corresponding to WrT *bser bu*, are also found, although less often. It is also found that several dialects have two (or more) words denoting 'wind' in common with WrT.

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⁴ This suggestion was based on a personal communication with Tsering Samdrup (2016).

Photo gallery 12

rGyal mo rNgul chu (Jinchuanhe). At Rong mi brag 'go, rGyal mo Tsha ba rong.



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Notes on the word form for 'iron' with a voiced initial in Tibetic languages of the eastern Tibetosphere

1. Introduction

This chapter provides a detailed discussion of the word form 'iron' in the Tibetic languages with a voiced initial, which corresponds to *lcags* in Written Tibetan (WrT). It examines the case of Tibetic languages spoken in the eastern Tibetosphere, which Kurabe et al. (2017) do not describe in detail due to their focus on the whole of the Tibeto-Burman linguistic area. The geographical scope of the eastern Tibetosphere follows the definition of Suzuki (2016a).

The data used to create the linguistics maps at the end of this chapter include only first-hand materials collected by the author from 2003 to 2016. Because of this, as well as because of time constraints on the part of the author, the data points are not equally distributed within this area, and the points given on the map only reflect the current state of research. The present map contains 235 points.

The linguistic maps reflect the so-called 'regiolects', i.e. dialects with regional differences. Sociolects, which certainly exist in the given area, are not dealt with in this chapter.

2. Word forms of 'iron' in Tibetic languages

In most Tibetic languages, the word form for 'iron' corresponds to WrT *lcags*, with many phonetic realisations, such as [^htɛɑ?], [^htɛɑ?], [^htɛɑ?], [[§]tɛəq], [^htɛə χ], and so on.¹ WrT distinguishes *khro* 'pig iron' from *lcags*, and I did not obtain any data which shows a form corresponding to *khro* employed as 'iron'. Hence, it is not necessary to classify word forms by etyma. However, there are some dialects which employ a phonetic form of a voiced initial. These are the following:

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¹ A suprasegmental description is uniformly omitted except for citations.

Rongthag: /^{fi}dza:/ sDedgudgon: /^{fi}dza:/

These dialects are distributed in Thewo County, Gannan Prefecture, Gansu Province, and they are categorised under Thewo-smad Tibetan. We should note that similar cases are found in another previous work: Yang (1995) provides a word form for 'iron' in five dialects from Gannan Prefecture, among which Liping-Jiuyanzhai and Xinchengzi-Yebei have a voiced initial, as /dza⁵³/ and /dza⁵³/ respectively.



NOTES ON THE WORD FORM FOR 'IRON' WITH A VOICED INITIAL IN TIBETIC LANGUAGES

In this chapter, I classify the word forms for 'iron' into two large groups, as seen in Figure 1: Type C is a straightforward sound correspondence with *lcags*, and Type J is an irregular form. In addition, there is one dialect that employs a form corresponding to *lcags* with a suffix, as in /ctca: rə/ (Type C+). Furthermore, only the lCanggrong dialect spoken in sMarkhams uses the root /^{fi}za/, which seems to be related to the first syllable of WrT *zha nye* 'lead', classified here as Type Z. A semantic change might have occurred, or this may be a mere misunderstanding that occurred in fieldwork. It is less interesting to provide a map without much information on lexical differences, however, and we should note that not all word forms display lexical variation in the Tibetic languages.

3. Potential explanation

A voiced initial is certainly an exceptional sound if it corresponds to an *lc* initial in WrT. How then can we understand the existence of examples with a voiced initial for the word 'iron'? Does it have another WrT etymon? I propose the possibility of an exceptional phonetic correspondence of WrT *c* with a preradical of the general word of WrT for 'iron' *lcags* because there are two more words with this type of exception attested in the same or other dialects surrounding Thewo-smad. These are WrT *lce* 'tongue' and WrT *bcu (tham pa)* 'ten'. The exceptional sound correspondences are the following:

Word forms for 'tongue' gZari: /^ĥdza/ Braggamnang: /^ĥdza:/ mBrirdzi: /^ĥdza:/ Khaba: /^ĥtɛa:/ sDedgudgon: /^ĥtɛa/

Word forms for 'ten' gZari: /^ĥdza: ^mba/ Braggamnang: /^ĥdza: ^mba/ mBrirdzi: /^ĥdzut t^ha: ^mba/ Khaba: /^ĥtɛut t^ha: ^mba/ Note that these sound correspondences are also exceptions. They merely mean that there are other examples that show a change of voicing of a WrT initial c with a preradical letter. The word form for 'tongue' with a voiced initial is thought to correspond to WrT *ljags*, an honorific word for 'tongue'; however, seeing the examples provided in this chapter, we can consider another possibility, that is, the rhyme of gZari and Khaba does not suggest a relation to WrT *-ags*.²

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 $^{^2}$ Sangs-rgyas Tshe-ring (2020) suggests that the preinitial b in WrT triggered voicing of the initial in Thewo-stod. This can overlap with the phenomenon discussed in this chapter; however, the example of 'iron' cannot be explained with this rule.

Suprasegmentals in Tibetic languages of the eastern Tibetosphere: From a geolinguistic perspective

1. Introduction

The Tibetic languages consist of varieties principally derived from Old Tibetan (Tournadre 2014), which are generally known as Tibetan dialects (see Figure 1¹ for the distribution). Previous works have described this language complex as occurring in varieties with a suprasegmental contrast called 'tone' and ones without it, and this feature has been regarded as a crucial characteristic for the classification of dialects (see Nishi 1986, Zhang 1993, Qu 1996). However, it is still disputed how so-called 'tone' functions in the phonological system of each language. Additionally, prosodic features other than the 'tone' have recently received attention, e.g. stress (Caplow 2016a, b) and prosodic pattern (Suzuki 2013c). Therefore, as far as the Tibetic languages are concerned, we need to specify 'suprasegmentals', not tones and/or accents.

Most of the phonetic features of tone are related to various laryngeal features (Suzuki 2011f, 2015b). They have the following principal aspects:

- pitch (level and contour) tones
- phonation (various phonation types; a.k.a. *register*²)

Note that final glottal stop (or checked syllable) and vowel lengths are not parts of suprasegmentals but uniformly analysed as segmental features in Tibetic languages. Some works, such as that of Huang et al. (1994), consider these features as suprasegmentals ('tones'); even if this analysis is phonologically accepted, any varieties under the Tibetic languages are to be described within a uniformed methodology of analysis. Otherwise, any comparative approaches within them will become difficult.

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¹ All the maps in this chapter are designed with ArcGIS online.

² The term 'register' in the chapter is only reserved for a system with phonation differences.

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Legend: SE=South-eastern; NE=North-eastern; E=Eastern; C=Central; S=Southern; W=Western; SW=South-western; NW=North-western.

Figure 1 Distribution of Tibetic languages (based on Tournadre and Suzuki 2022).

The present greater classification of Tibetic languages (Tournadre 2014; Tournadre and Suzuki 2022) and its typological features with respect to suprasegmentals are listed below:

Section	Traditional/alternative names	Distinctive suprasegmental features
North-eastern	Amdo	n/a
Eastern	Shar	register; pitch; n/a
South-eastern	Khams/Hor	pitch; register
Central	dBus/gTsang/sTod mNgaris	pitch
Southern	Dzongkha/Lhoke	pitch
South-western	Sherpa/gLo/Dolpo/Kyirong	pitch
Western	Spiti/Khunu/Garzha	pitch
North-western	Ladaks/Balti	n/a

 Table 1
 Section classification of Tibetic languages and their suprasegmental features.

Other than the features mentioned above, Caplow (2016ab) introduces the concept of 'stress' in languages of North-eastern and North-western sections, and it might have been existent even in Old Tibetan. Suzuki (2013c) applies different prosodic patterns (iamb [XX] and trochee [XX]) for a pitch realisation in languages in South-eastern Section.

Thanks to the existence of the Tibetan script, we can trace suprasegmentals through processes of tonogenesis. The emergence of pitch differences has been discussed with reference to Lhasa Tibetan (Kitamura 1977; Hari 1979; Kitamura and Nagano 1990; Sun 1997; Jiang 2002; Huang 2007d). However, the problem is that

scholars tend to use the model of Lhasa Tibetan for any other tonal varieties. Sun's (2003a) analysis on suprasegmentals in several Tibetic languages is, unlike other works, outstanding in its application of frameworks to describe its topic; however, in it, all phenomena are linked with different pitch heights, and it is generally taken as a syllabic tone system. Against this refined model of tonogenesis, the origin of registers cannot be well explained. In Tibetic languages that feature a distinction in register, these differences principally depend on initial consonants, not vowels. Additionally, there are various factors other than forms of Written Tibetan (WrT) that can change registers (Suzuki 2015b). This implies that languages that feature a register distinction developed the register more recently was the case for Lhasa Tibetan.

In terms of the prosodic feature, Caplow (2016a) discusses the existence of stress in the period of Old Tibetan because it functions in languages all over the Tibetosphere, such as Balti (North-western), Lhasa (Central), and Amdo (North-eastern). The case of Yunnan must be considered from the perspective of language contact and language substratum, as the given characteristics merely appear in Tibetic varieties spoken in Yunnan and its surrounding areas. Unfortunately, this prosodic feature is not evidently marked in WrT.

This chapter is merely a preliminary overview for various suprasegmentals in Tibetic languages from the eastern Tibetosphere, limited to two sections: Eastern and South-eastern. The data used in the creation of the maps is described by the present author.

Before detailed descriptions, a typological overview of suprasegmentals in Tibetic languages in the eastern Tibetosphere is displayed on Figure 2. Note that the dialects of the South-eastern Section and the Eastern Section do not form a geographic continuum. There are dialects of North-eastern Section (i.e. Amdo; see Figure 1) as well as rGyalrongic and Qiangic languages between the two sections.

As noted above, dialects of Amdo are likely to possess a suprasegmental distinction by stress. Nevertheless, we need more extensive investigations of various varieties. The present author is not yet certain how stress works in the phonological system in a single variety of Amdo: it may be a distinctive, or rather a prosodic, feature.





Figure 2 Overview of suprasegmentals in Tibetic languages (Eastern and South-eastern sections).

2. South-eastern Section (Khams)

There are principally three types: (A) pitch; (B) pitch+phonation; and (C) pitch+prosody. As Figure 2 displays, Type A is the mainstream type attested in the South-eastern Section, except for a language with Types B and C. The number of distinctive tones varies from two to five depending on the dialect, and the majority show a four-tone type. In addition, a word tone system is usually applied except for some extreme examples (see Figure 2; Suzuki 2011a). Type B is attested in the northern area of this section, i.e. Yulshul and Khyungpo dialect groups (Suzuki 2010a), as well as Myanmar (Suzuki 2012b). Type C is principally attested in Yunnan and its adjacent areas. Figure 2 further distinguishes the details of prosodic and phonation features from each other; however, as far as Figure 2 suggests, the distribution of these features is currently not evident.

Below I display the distribution of the three types as Figure 3, by enlarging the south-eastern area of the section:



Figure 3 Distribution of suprasegmental types in South-eastern Section.

Figure 3 clearly demonstrates that Type C is distributed through dialects spoken along the two rivers: Jinshajiang and Lancangjiang, from the north-western area of Yunnan up to the Tibet-Sichuan-Yunnan border area. Most dialects of Type C belong to either the sDerong-nJol group or the Southern Route group of Khams Tibetan, except for the dialects spoken along Nujiang (the Bodgrong subgroup; see Suzuki 2017c).

Most dialects of Type C are characterised by the existence of an iambic prosody. Its phonetic realisations principally appear as a weakening of the first syllable in disyllabic words, especially in the emergence of the schwa vowel and even deaspiration of aspirated initials (Suzuki 2012a, 2013c).

The iambic feature has been discussed from the perspective of substratum languages (Suzuki 2013c) in which the iambic prosody exists, such as Trung; however, as Figure 3 shows, the varieties spoken in the closest region to the Trung-speaking area, i.e. Bodgrong Tibetan, do not possess this feature. Moreover, this feature is shared by two groups with several subgroups. It is thus a question whether it is a genetic nature or an acquired feature. To discuss details of prosodic features, more data are necessary.

3. Eastern Section

The Eastern Section includes many varieties, some of which are not fully mutually intelligible. Powell and Suzuki (2017) measure their linguistic distance using the method of dialectometry. There are many types of suprasegmentals attested in this section as well, although Figure 2 displays a wide distribution of the category RG (register contrast). The principal feature is a register distinction; however, descriptions in various previous works display the complex situation described as follows:

(A) non-phonological suprasegmentals attested, with a register characterised by breathy voice

- (B) register distinction characterised by breathiness
- (C) register distinction characterised by creakiness
- (D) pitch distinction
- (E) non-phonological suprasegmentals attested, marginally characterised by stress

Type A is found in mBrugchu (Suzuki 2015a); Type B, in dPalskyid (Suzuki 2007a, 2008b) and Thewo-smad; Type C, in Sharkhog (Suzuki 2005b, 2008b, 2009h), Khodpokhog (Suzuki 2009h, 2013a), and Thewo-stod; Type D, Cone (Qu 1962, rNam-rgyal Tshe-brten 2008, Suzuki 2012g, Zou 2021, Zou and Suzuki 2022) and Baima (Nishida and Sun 1990); and Type D, in Zhongu (Sun 2003b).

Within the types above, Nagano (1980) analyses Sharkhog as Type D; Yang (1995) describes several dialects from this section, and he analyses all of them as Type D; Lin (2002) analyses Tshongri (a dialect of Thewo-stod in my classification) as Type D; dKon-mchog rGya-mtsho (1987) analyses Byambab (a dialect of Thewo-smad in

my classification) as Type D; Sun (2003c) analyses Chosrje (a dialect of dPalskyid in my classification) as Type A; Rig-'dzin dBang-mo (2013) analyses three dialects from Diebu County (sTengga, dBangtsang, and Rongthag) as Type D. Nagano (1980) and Lin (2002) propose a 'partially tonal system', indicating that tonal contrasts are only attested in the case of partial initials. Because of the variegated nature this dsiplays, we should be careful when try to conduct comparative analyses of the languages in the Eastern Section with a collection of previous works lacking a common descriptive framework.

The differentiations mentioned above might originate in different approaches to description. However, we have not had any clear and generalised methodology for the treatment of register introduced so far; Zhu's (2010) view and analysis regarding the phonation is useful for the Tibetic languages (see Suzuki 2015b) even though he just mentions the cases of Sinitic languages.

Figure 4 presents a distribution of the types mentioned above, based on my descriptions. Interestingly, Figure 4 shows an ABA-distribution regarding Types B and C. If this is a real ABA-distribution, one should consider the dialects of Type B as the cultural or political centre. However, neither evidence nor historical records consider Type B as a language spoken in the centre; rather, there is another view that the Eastern Section consists of multiple languages of different origins (Suzuki 2015d, Tournadre and Suzuki 2022). One study also connects the languages of this section with Amdo (in the North-eastern Section) such as Yang (2009), which, in fact, reflects the traditional view that all the languages spoken in Amdo form a single language. A recent dialectometric analysis (Powell and Suzuki 2017) confirm a non-continuity between Amdo and the languages spoken in Eastern Section, and even a nature of language complex within Eastern Section.

The use of register, whether its principal feature is creakiness or breathiness, appears as a form of language continuum, and the other features are found in the periphery of the region of Eastern Section. Even though the phonological suprasegmental phenomena display an ABA-distribution, this result does not indicate that each feature is related to each other because no one has evidence that the varieties of Eastern Section have a mutual, genetically intimate relationship.



Figure 4 Distribution of suprasegmental types in Eastern Section.

4. Conclusion

Suprasegmental features are not simple in the Tibetic languages of the eastern Tibetosphere. These languages can provide us with crucial data for both historical and typological descriptions. The suprasegmentals attested in Tibetic languages cannot be simply controlled with the definition of 'tone' and/or 'accent' alone. Introducing

phonation mechanisms to the suprasegmental system, following Zhu's (2010) analysis of the Sinitic languages, is a potential key to understand a full image of suprasegmentals in Tibetic languages.

In most varieties mentioned in this chapter, suprasegmental features form a part of the phonology. A change in the paradigm (phonology) itself probably differs from the lexical counterpart. We say that each word has its own history, but each register, for example, has a quite clear common origin related to WrT forms, but we cannot say that each register has its own history. We might need different approaches to evaluate and interpret the data displayed in Figure 4. On the other hand, the fact that a clear distribution of the iambic feature is attested in several subgroups of Khams Tibetan (Figure 3) suggests that the prosodic feature is not part of phonology but a phonetic variety or something like a fashion.

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Photo gallery 13

The entrance bridge to dKar cha Village. At dKar cha, 'Dab pa.



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Tibetan *pigs* revisited: multiple *piglets* with a *sow* in Yunnan Tibetan and beyond

1. Introduction

This chapter deals with a geolinguistic analysis of two words for 'pig', that is, 'sow' and 'piglet' in Yunnan Tibetan and neighbouring areas in Sichuan. It focuses on the various forms of 'piglet'.

1.1. Yunnan Tibetan and its neighbourhood

All of the Tibetan dialects spoken in Yunnan and its surrounding area are within the category of Khams Tibetan. There are three main dialectal groups spoken in this area, and the detailed information on the classification is to be found below:¹

Table 1Dialectal classification of Yunnan Tibetan + its neighbourhood.			
Group	Subgroup	Code	
Sems-kyi-nyila	rGyalthang	A1	
(Group code: A)	East Yunling Mountain	A2	
	Melung	A3	
	dNgo	A4	
	Lamdo	A5	
sDerong-nJol	mBalhag	B6	
(Group code: B)	West Yunling Mountain	B7	
	sPomtserag	B8	
	gYagrwa	B9	
	sDerong	B10	
Chaphreng	Chaphreng	C11	
(Group code: C)	Rwata	C12	
	gTorwarong	C13	

For more detailed information on the classification of Tibetic languages, see Suzuki (2009a) and Tournadre and Suzuki (2022). My previous works on the geolinguistics on Yunnan Tibetan are Suzuki (2009b, 2012e, 2014i), in which I have not added the data on neighbouring Sichuan Tibetan dialects.

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¹ The code number in Table 1 is valid for this chapter only. The number is attached to each dialect (group) name for an easier comprehension of the dialectal relation.

1.2. Method

In this chapter, I draw and display linguistic maps using ArcGIS online. 54 points in Yunnan + 14 points in Sichuan (68 points in total) are plotted. The linguistic maps provided here are merely for the preliminary analysis of a forthcoming study on the geolinguistics of the Tibetan cultural area.²

Figure 1 is a model map³ designed to display a dialectal classification⁴ (based on the level of the dialect groups, not of the subgroups) and the distribution of the dialects treated in the chapter.

1.3. Target terms for 'pig' to be discussed

I have already published a linguistic article on the Tibetan for 'pig': Suzuki (2007g). At that time, I was dealing with a large stretch of the Eastern Tibetan cultural area called the Ethnic Corridor of West Sichuan, and I presented a view of the lexical analysis of 'pig'⁵ using low-quality linguistic maps designed with LaTeX.

This chapter focuses on a lexical feature in a part of south-eastern Tibetan cultural area within Yunnan. The Yunnan Tibetan cultural area includes pig-keeping culture. Words on pigs are among basic words in this area. This chapter also explores the geographical distribution of each specific word form for 'piglet' with a linguistic map.

Basic forms and categories of domestic pigs in Written Tibetan (hereinafter WrT) are:

phag 'pig' pho phag 'boar' mo phag, phag mo 'sow' phag phrug 'piglet'

Of these, I treat the examples of 'sow' and 'piglet', together with a short consideration of 'pig'. The data here were collected by me and are consistently described with a pandialectal phonetic description system (= composed of the phonetic symbols defined in one and only one system⁶), as in Tournadre and Suzuki (2022). This

² See Endo et al. (2021) for the recent research results.

³ For technical reasons, the local names presented in the map are written in Chinese.

⁴ There is a dialect with an unidentified affiliation on Figure 1. The analysis given in Suzuki (2018) reveals that it belongs to the dNgo group (A4).

⁵ For more etymological information, see Suzuki (2009e:80–81).

⁶ At present, the system includes the IPA symbols with several symbols extended by Zhu (2010) as well as unauthorised but indispensable symbols. Related discussions are found in *Minzu Yuwen* 2012.5. In this chapter, the tonal description, as a word tone, uses the following symbols: -: high-level, ': rising, `: falling, ^: rising-falling, and :: low-level.

method of description can guarantee the identical quality of the phonetic analysis, which is the very basis of dialectology.



Figure 1 Distribution of Yunnan Tibetan + its neighbourhood with a classification.⁷

⁷ Suzuki (2018a) specified the classification of the 'unidentified' dialect here as the dNgo group (A4).

2. Pig: one of the simplest maps in Tibetan

All the dialects plotted in Figure 1 use a form corresponding to WrT *phag* as the general term for 'pig': see Suzuki (2007g). The word 'pig' in Tibetan in a geoliguistic context can function as a phonological viewpoint, such as the sound correspondence of the initial *ph* or the rhyme *ag*. However, since the topic of phonetics is out of focus in this chapter, no maps of the word for 'pig' are presented.

3. Sow

3.1. List of lexical forms

1. WrT (mo phag or phag mo) type

/^mwə p^ha?/ (mTshongu, A1), /^mu p^ha?/ (nJol, B7; Tsharethong, B7)

2. /p^ha? ma/ type⁸

/'p^ha? wã/ (rGyalthang, A1), /~p^hã wã/ (rGyalbde, A1), /'p^ha: ma/ (Gyennyemphel, A1; Choswateng, A1; gYagrwa, B9), /~p^ha?/ (Byagzhol, A2), /′p^ha: ma/ (Semzong, A2), /~p^ha: mã/ (Shingphongthong, A2), /~p^ha: ma ms/ (mBacug, A2), /~p^ha? ma/ (Melung, A3), /`p^ha: me/ (mThachu, A3), /~p^ha: mA/ (Zhollam, A3), /`p^ha ma/ (Daan, A3), /′p^ha? ma/ (Phuri, A4; Lothong, B7), /~p^ha: ma/ (lCagspel, B7; Sakar, B7), /^ p^ha? ma/ (sBrulyul, B7), /`p^ha? ma, ¯p^ha? '?a ma/⁹ (sGogrong, B8), /`p^ha: ?mã/ (sDerong, B10), /~pha: ma/ (gDongsum, C11), /`p^ha: mo/ (mPhagri, C12)¹⁰

3. /mo wa/ type

/^mo wa?/ (mBalhag, B6), /'mo wa/ (Sagong, C11), /'mo wa/ (Phrengme, C11), /'mo ĥa/ (Phula, C13)

4. /ji ma/ type

/'ju: mo/ (Lamdo, A5), /'jĩ ma/ (Ragwo, C11), /'p^ha? ji ma/ (Chaphreng, C11), /'p^ha? ja mo/ (Rwata, C12)

5. /je t^ho?/ type

/'je t^ho?/ (sNyingthong, B7)

6. /p^ha? ju ku/ type

/` $p^{h}a$? ^ju ku/ (nJol, B7)

⁸ Cf. Giraudeau and Goré (1956:295): *phag ma* 'sow with her piglets,' in distinction from *phag mo / mo phag* 'sow'. See also Suzuki (2021b) and Tshering Yangdron and Suzuki (2021).
⁹ The form / pha? '?a ma/ literally means 'pig-mother'.

¹⁰ The form / p^our ra ma/ interarily means pig-mother.

¹⁰ The /o/ ending is found in gDongsum and mPhagri, in which WrT -a# can correspond to /ɔ/ or /o/.

3.2 Analysis with a map

Figure 2 depicts the origin of the word form for sow (WrT mo phag or phag mo).



Figure 2 'Sow' according to the word forms.

The /p^ha? ma/ type is found across the widest area, regardless of the dialectal classification. The /mo wa/ and /ji ma/ types form a small distribution area across the north-eastern part of the map, where the Tibetans speak dialects belonging to the subgroups of Phuri (A4), Lamdo (A5), mBalhag (B6), Chaphreng (C11), Rwata (C12) and gTorwarong (C13).

Forms corresponding to WrT are found separately, scattered. It is possible that my collaborators did not give me a local word. Confirmation is needed. The most frequent type, $/p^ha^2$ ma/, may be related to the written form **phag ma*, of which the second syllable means 'mother', see footnote 9. The word form /je $t^{h}o^{2}$ / type is from a local word that does not exist in WrT. Its distribution is limited to Guzha Village and its neighbourhood. / $p^{h}a^{2}$ ^juu ku/, an etymologically enigmatic form, is only found in the nJol dialect (B7).

There are two dialects, in which the word form and the dialectal affiliation do not clearly correspond to each other.

(1) the mBalhag dialect (B6) has a similar form to the gTorwarong subgroup (C13), some of the Chaphreng subgroup (C11) and the Phuri dialect (A4).

(2) the mPhagri dialect (C13) has a similar form to that of the majority including that of sDerong subgroup (B10). These dialects are spoken on the border area of two or more dialectal (sub-)groups, so this type of difference may be common.

Note that the most frequent *sow* $^{\prime}/p^{h}a$? ma/[?] gives birth to many kinds of *piglets*, with which I deal in the next section.

4. Piglet

4.1. List of lexical forms

WrT (*phag phrug*) type
 /⁻p^ha? dui?/ (gYagrwa, B9)
 ./p^ha? t^ha?/ type
 /^ha? t^ha?/ (Tsiu, C12)
 ./p^ha? ka/ type

 /⁻p^ha? ka/ (Byagzhol, A2)
 ./p^ha? li/ type

/'p^ha?lu/(nJol, B7), /'p^ha: li/(sNyingthong, B7), /¬p^ha? 'l<code>u</mark>:/(Zhollam, A3), /^p^ha: l<code>u</code>/(mThachu, A3)</code>

5. /p^hje/ type
TIBETAN PIGS REVISITED: MULTIPLE PIGLETS WITH A SOW IN YUNNAN TIBETAN AND BEYOND

/'p^hje/ (rGyalthang, A1; Gyennyemphel, A1; Choswateng, A1; Alangu, A1; mTshongu, A1; Nyishe, A2; Shingphongthong, A2; Daan, A3), /'p^hje:/ (rGyalbde, A1)

6. /p^he ji?/ type

/'p^he ji?/ (Phula, C13)

7. $/\mathbf{p}^{\mathbf{h}}\mathbf{j}\mathbf{e} \mathbf{k}\mathbf{a}/\mathbf{t}\mathbf{y}\mathbf{p}\mathbf{e}^{11}$

/^p^hje ka/ (Semzong, A2), /'p^hje ka/ (mBacug, A2; Lamdo, A5), /'p^hje: ka/ (Phuri,

A4)

8. /p^hje lje/ type

/'p^hje: lje/ (Sakar, B7), /'p^ha? lje, 'p^he lje/ (sBrulyul, B7), /'p^hje li/ (Lothong, B7)

9. /p^hu lʉ/ type

/'p^hu lʉ/ (mBalhag, B6)

10. /p^hu k^ha/ type

/'p^hu k^ha/ (Chaphreng, C11; gDongsum, C11; Rwata, C12), /'p^hu ka/ (Sagong, C11), /'p^hu ^hkə/ (Nyersul, C11)

11. /pu:/ type

/'pu:/ (sDerong, B10), /'pə hu/ (Zulung, B10), /'po hu/ (mPhagri, C12)

12. /pa la/ type

/'pa la/ (lCagspel, B7), /'pa la/ (Tsharethaong, B6)

13. /pe dx:/ type

/'pe dy:/ (sGogrong, B8)

4.2 Analysis with a map

Figure 3 presents the origin of the word form of 'piglet' (WrT *phag phrug*). The legend is the following:

general classification by colour					
/p ^h a?/-series in red		/p ^h je/-series in blue			
/p ^h V/-series in yellow		/pV/-series in gre	en		
link by shape of icon					
big circle : /ka - k ^h a/ in the second syllable					
small circle : /IV/ in the second syllable					
red pin:	/p ^h a? t ^h a?/ type	blue pin:	/p ^h je/ type		
red big circle:	/p ^h ɑ? ka/ type	blue big circle:	/p ^h je ka/ type		
red small circle:	/p ^h a? li/ type	blue small circle:	/p ^h je li/ type		
red square:	WrT type	blue square:	/p ^h je ji/ type		
		green pin:	/pu:/ type		
yellow big circle:	/p ^h ui k ^h a/ type				
yellow small circle:	/p ^h u lʉ/ type	green small circle:	/pa la/ type		
		green square:	/pe ds:/ type		

¹¹ /ka/ in the second syllable is related to a dialectal form of 'small'.





Figure 3 'Piglet' according to the word forms.

The form corresponding to WrT is only found in the gYagrwa dialect (B9). The lack of a dialectal characteristic form may indicate that the given area does not feature a pig-keeping culture.¹²

The form including $/p^{h}je/$ (indicated in blue) is used everywhere within Yunnan, especially around rGyalthang, where the rGyalthang subgroup (A1) and the East Yunling Mountain subgroup (A2) meet.

The dialects spoken along the Lancangjiang (upper Mekong) River have feature various forms of 'piglet', in spite of the their affiliation with West Yunling Mountain subgroup (B7). Most word forms, however, are characterised with /li, la/ in the second syllable. It is noteworthy that the type used in the Melung subgroup (A3) is similar to that used in a central part of the West Yunling Mountain subgroup (B7). This is a lexical characteristic of the Melung subgroup (A3), with the exception of the Daan dialect, which is not similar to the Sems-kyi-nyila group (A) but to the West Yunling Mountain subgroup (B7). In addition, two dialects (Byagzhol and Semzong) of the East Yunling Mountain subgroup (A2) use another similar form to that used in the northern part of the West Yunling Mountain (B7).

The so-called /pV/-series (indicated by a green pin and a green square) are found to the north along the Jinshajiang River in Figure 3, especially in the sPomtserag subgroup (B8) and the sDerong subgroup (B10). The non-aspirated form may be the result of having followed a curious rule of deaspiration in the first syllable of disyllabic words (see Suzuki 2011b). The /pa la/ type (indicated in a green circle), found in a small area along Lancangjiang, is etymologically enigmatic.

5. Conclusion

This chapter presents a trial geolinguistic analysis of the words 'sow' and 'piglet' in the Yunnan Tibetan area and neighbouring areas. The method of geolinguistics is a developing field in the sense of the Tibetan dialectology as well as the digitalised technology. The chapter could lead the way to further analysis adopting the methods of geolinguistics, which should be developed with additional data and discussion.

¹² I have never been to Yangla Village, so I have no cultural background for it.

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Photo gallery 14

Sunbathing pigs in a village. At Myig zur, rGyal thang.



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How Tibetans classify pigs in Tibetic languages in the eastern Tibetosphere: Revisiting the pig issue through geolinguistics

1. Introduction

Most words regarding the category of domestic pigs in Literary Tibetan (henceforth LT) are derived from the root *phag*, e.g. *pho phag* 'boar' (literally 'male'+'pig'), *mo phag* 'sow' (literally 'female'+'pig'), and *phag phrug* 'piglet' (literally 'pig'+'child').¹ However, in spoken varieties of Tibetic languages and dialects (see Tournadre 2014 for the definition of 'Tibetic'), we find various lexical forms and even differences in the categorisation. We notice the existence of languages, for example, which distinguish 'male piglet' from 'female piglet', and which distinguish 'sow with her piglets' or 'sow without them'. These languages are generally found in the eastern Tibetosphere, where many minor non-Tibetic (Tibeto-Burman, as well as Sinitic, Mongolic, and Turkic) languages are spoken (Roche and Suzuki 2017, 2018).

According to Yang et al. (2011:6), Tibetan pigs originated in the Tibetan highlands from a genetic viewpoint. This means that Tibetans have not been strangers to pigdomestication and breeding since prehistoric times. However, from the viewpoint of linguistics, the pig has not played a crucial role in Tibetans' lives, unlike cattle, where rich lexical forms are used to distinguish different types from each other (cf. 'Brug-momtsho 2002; Sung and lHa-byams-rgyal 2005; Shao 2018; Ebihara 2019). Additionally, Sagart et al. (2019) placed the origin of Sino-Tibetan as north-eastern China and Sagart (2019) reconstructed two word forms of 'pig'. This means that the word forms attested in Tibetic languages are also related to the Sino-Tibetan *Urheimat*.

The pig-breeding habit in the Tibetosphere generally exists in rural, agricultural areas; it is rarely practised in city areas such as Lhasa or pastoral areas. In the eastern Tibetosphere, we frequently encounter pigs in agricultural areas, and we also find various ways of breeding them; for example, raising them in the basement or ground

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¹ The LT *phag* includes several species other than domestic pigs. Its semantic category is similar to *Sus*.

floor of a house, letting them roam grasslands or even a forest, and 'pig pastoralism', i.e. letting them graze under human surveillance. Pigs are raised for food, i.e. pork. Recently, there have been Tibetans who raise pigs for commercial purposes. Their business model is to sell pork with local branding. The pig also functions as one of the zodiac signs: the year of the pig.

Suzuki (2007g) discussed the word forms in Tibetic languages of the eastern Tibetosphere based on limited data. This chapter revisits his analysis with more data (286 dialects in total) and more useful software to produce geolinguistic maps: ArcGIS online. For phonetic notation, I follow the method defined by Suzuki (2005a, 2016g) and Zhu (2010) for segmental description. Suprasegmentals are, however, omitted unless necessary.

2. Variations of 'pig'

The word form of 'pig' in Tibetic languages in the eastern Tibetosphere is mostly stable, and a form corresponding with the LT *phag* is widely employed. There are several other forms reported in small areas, and they are classified into two categories: one is a form containing a word derived from the LT *phag*, and the other is not. Figure 1 displays the distribution of the word forms for 'pig'.

Figure 1 demonstrates the following:

- the geolinguistic variation on the word form for 'pig' is simple;

- most word forms are derived from *phag*, 'pig', i.e. types A and A+G. Type +G, *phag rgan*, literally denotes 'old pig'; and

- there is an exception: Type B /?a gu/ (Serpo dialect; Khromjekhog²).

Other than the features mentioned above, we find /lu lu/ (Hua and Klu-'bum-rgyal 1993) as a form in the Sogwo dialect,³ however, this is not reflected in the map as there is no countercheck.⁴ Outside of the eastern Tibetosphere in principle, we find a pig 'with a tail': *phag pa*.⁵ The form *phag lu* is also attested in some dialects of Amdo Tibetan.

² See Suzuki (2009a) for the linguistic classification.

³ It is not always appropriate to designate a variety of Amdo by using a toponym (Tsering Samdrup and Suzuki 2017). Here, I follow the original description.

⁴ I have some data on the Sogwo dialect in which 'pig' corresponds to the LT *phag*.

⁵ Tibetan dictionaries, such as Jäschke (1881:339) and Zhang ed. (1985:1699–1700), describe *phag* as a name of the year and a morpheme denoting 'pig' in compounds, and *phag pa* as the animal 'pig'. If we follow the definition of this description, the use of the LT *phag* as 'pig' does

HOW TIBETANS CLASSIFY PIGS IN TIBETIC LANGUAGES IN THE EASTERN TIBETOSPHERE



not correspond to the literary meaning. However, my classification is not based on the meaning of LT, but the sound correspondence with LT.

A geolinguistic analysis of Figure 1 tells us that the exceptions (A+G, B) appear alone in specific varieties. I am still unsure how the exceptions were generated; however, a new form might be needed in order to distinguish an animal from a year (cf. dialects using *phag pa* 'pig' in Central Tibet and *phag lu* 'pig' in some places in Amdo). Type A+G, *phag rgan*, is used as a humilific form by pastoralists (Amdo Tibetan),⁶ although this function is perhaps different from Type A+G and its distribution is connected with Amdo. The geographical distribution of Type B cannot be solved using a geolinguistic approach.

3. Variations of 'boar'

The following description is divided into two parts: lexical variation and geographical variation.

Lexical variation

We find the following word forms⁷ for 'boar' in Tibetic languages in the eastern Tibetosphere:

- P+R type (=corresponding to LT *pho phag*): there are several phonetic realisation types.
- P+WA type: a form like /p^ho wa/; the first syllable is related to LT *pho* 'male'.
- R type (LT *phag* only).
- R+J type: LT *phag* followed by a syllable /ja?/.
- R+P type (=corresponding to LT *phag pho*).
- R+S type (=corresponding to LT *phag gseb*).
- R+L type: LT *phag* followed by a syllable /la/.
- R+T type: LT *phag* followed by a syllable /t^hu?/.
- S type: LT gseb followed by a suffix /wa/.
- GL type: a form like /^hgu lu/.
- R+PA type (=corresponding to LT *phag pha*).
- R+ZH type: LT *phag* followed by a syllable /za/.
- LC type: a form like /li ^htcu/.
- PE+T type: a form like /p^he tut/.
- BR type: a form like /^{fb}bə-/.

⁶ See Tsering Samdrup and Suzuki (2019) for humilifics in Amdo Tibetan (Mabzhi Amdo).

⁷ In the following listed types, 'R' denotes 'root', designating the LT *phag*.

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- BR+L type: a form like /^{fi}bə- lə/.
- J+TS type: a form like /ja tsə/.
- JR type: a form like /ja rə/.
- P+G type: a form like /po yo/.
- PA+R type (=corresponding to LT *pha phag*).
- PE+C type: a form like $/p^{h}e t \epsilon^{h} \tilde{o}/.$
- PE+R type: forms /p^he/ followed by LT *phag*.
- PJE+P type: forms /p^hje/ followed by LT *pho*.
- PJE+T type: a form like /p^hje tx/.
- R+B type: a form like $/p^{h}a?^{h}ba/$.
- R+D type: LT *phag* followed by a syllable /d5/.
- R+G type: LT *phag* followed by a syllable /gə/.
- R+R+C type: LT *phag* followed by /rə ^htci/; the first syllable might be a class term.⁸
- R+TR type: LT *phag* followed by a syllable /t^ho?/.
- R+TS type: LT *phag* followed by a syllable /ts^hə/.
- R+W type: LT *phag* followed by a syllable /wo/.
- S+R type (=corresponding to LT *gseb phag*).
- TS type: a form like /htsa htsu?/.
- TS+R type: a form like $/ts^{h}$ ə/ followed by LT *phag*.
- TS+J type: a form like $/ts^{h} a$ ja/.

Based on the morphological criterion, I classified the various types listed above into the following groups:

- A: LT-R group, including: Types P+R, R, R+P, R+PA, PA+R, PJE+P
- B: LT-S group, including: Types S, R+S, S+R
- C: R+affix group, including: Types R+J, R+L, R+T, R+ZH, PA+R, PE+R, PE+T, PJE+T, PE+C, R+B, R+D, R+G, R+R+C, R+TR, R+W
- D: TS group, including: Types R+TS, TS, TS+R, TS+J
- E: others

Each of the types and groups above is referred to in Figures 2 and 3, respectively.

⁸ The term 'class term' denotes, for example, the LT *bya* 'bird' used as a part of the words for birds such as *bya de bo* 'rooster' and *bya khrung* 'crane'. It functions to indicate a category (here 'bird') despite the words *de bo* and *khrung* possessing their meaning as specific species of birds ('rooster' and 'crane', respectively). See Tournadre and Suzuki (2022) for details.

Geographical variation

Figure 2 displays a distribution of the types mentioned above, only based on my descriptions.



Figure 2 Distribution of word forms for 'boar' (following types of word form).

Some general observations of Figure 2 are as follows:

- the form corresponding to LT (P+R=*pho phag*; black dot) is broadly attested regardless of the geography;
- high lexical variation is found in the easternmost and southernmost areas;
- some dialects just use *phag*, a simple form (R);
- the main difference is in the inclusion of the morpheme *phag*;
- in the easternmost area, there are forms including a /s/-initial (probably derived from *gseb* 'stallion; uncastrated' or *sos* 'breed'); and
- there are forms with a /l/-initial, of an unclear origin, in both the easternmost and southernmost areas.

A geolinguistic analysis of Figure 2 tells us that lexical variation is prominent in the southernmost and easternmost areas where pig-breeding is practised extensively. I will focus on several word forms that are indicated by the black symbols. There are two literary forms, *pho phag* (P+R) and *phag pho* (R+P), of which the former appears more widely. Another form corresponding to *phag pha* 'pig-father' (R+PA) is potentially analysed due to the morphological analogy parallel to *phag ma* 'sow'; see Suzuki (2021) for details.

To summarise the word forms, I classified them into five groups (A to E), as shown on Figure 3. Figure 3 still shows the peculiarity of the word forms in the easternmost and southernmost areas, where Tibetans indeed raise pigs. One can notice that Groups C and E are both distributed over a wide region of the Tibetosphere of Yunnan. As Group E is a collection of various minor word forms, Group C is significant as an areal lexical feature. It can be interpreted that Group C is a new form and has expanded from the rGyalthang area. It has been considered as the centre of this region (see Suzuki 2018e; Wang 1995); hence, this interpretation is valid from the geolinguistic viewpoint. Group E, although a collection of various word forms, is principally located in the outer area of Group C; hence, it could reflect archaic forms.

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Figure 3 Distribution of word forms for 'boar' (classified).

4. Variations of 'sow'

The following description is divided into two parts: lexical variation and geographical variation.

Lexical variation

We find the following word forms for 'sow' in Tibetic languages in the eastern Tibetosphere:

- R+MA type (=corresponding to LT *phag ma*): there are several types of phonetic realisation.
- M+R type (=corresponding to LT *mo phag*): there are several types of phonetic realisation.
- R+M type (=corresponding to LT *phag mo*): there are several types of phonetic realisation.
- J+M type: forms such as /ji ma/.
- R+MA/M+WA type: there is a subclassification on 'sow': R+MA type for 'sow with piglets' and M+WA type for 'sow without piglets'.
- M+WA type: forms such as /mo wa/.
- P+J+M type: forms analysed as LT *phag* followed by /ji ma/. The first *phag* might function as a class term which categorises 'pig'.
- R+P+M type: forms analysed as LT *phag* followed by LT *phag mo*. The first *phag* might function as a class term which categorises 'pig'.
- J+TR type: a form like /je t^ho?/.
- JA+M type: a form like /ja mo/.
- MA+R type (=corresponding to LT *ma phag*).
- R type (LT *phag* only).
- R+G type: a form like LT *phag* followed by /ga/.
- R+J+K type: forms corresponding to LT *phag* followed by /juu ku/. The first *phag* might function as a class term that categorises 'pig'.
- R+MA+M type: forms corresponding to LT *phag* + *ma* + *mo*. The second syllable *ma* might be a part of the word *phag ma*, and the third, *mo*, a feminine suffix.
- R+MA+MA type: forms corresponding to LT *phag* + *ma* + *ma*. The first *ma* might be a part of the word *phag ma*, and the second, a feminine suffix.

Based on the morphological criterion, I classified the various types listed above into the following groups:

- A: LT-R group, including: Types R+MA, M+R, MA+R, R+M, R
- B: LT-R' group, including: Types R+P+M, R+G, R+MA+M, R+MA+MA
- C: J group, including: Types J+M, P+J+M, JA+M, P+J+K
- D: others

Each of the types and groups above are referred to in Figures 4 and 5, respectively.

Geographical variation

Figure 4 displays a distribution of the types mentioned above, based solely on my descriptions.



Figure 4 Distribution of word forms for 'sow' (following types of word form).

Some general observations on Figure 3 are as follows:

- forms corresponding to LT (R+MA=phag ma; M+R=mo phag; R+M=phag mo) are broadly attested regardless of the geography;
- high lexical variation is found in the easternmost and southernmost areas, similar to 'boar';
- most word forms are derived from *phag* 'pig'; and
- the main difference is in the inclusion of the morpheme *phag*.

A geolinguistic analysis of Figure 4 tells us, like Figure 2, that lexical variation is prominent in the southernmost and easternmost areas where pig-breeding is practised extensively. I will focus on several word forms that are indicated by the black symbols. There are three literary forms, *phag ma* (R+MA), *mo phag* (M+R), and *phag mo* (R+M); the first appears most often, while the second appears most widely. The forms including a 'J' syllable (J+M, J+TR, JA+M; of unclear origin) are probably related to each other and are mainly found in the southernmost area. In some restricted areas, a semantic subclassification has occurred: 'sow without piglets' and 'sow with piglets'. In this case, *phag ma* 'pig-mother' is used for the latter (Tshering Yangdron and Suzuki 2021).

To summarise the word forms, I classified them into five groups (A to D), as shown on Figure 5. The peculiarity of the word forms in the southernmost area is still visible on Figure 5. Additionally, the distribution of Groups C and D displays geographical continuity. As Group D is a collection of various minor word forms, Group C is significant as an areal lexical feature. It can be interpreted that Group C has an archaic form in this area based on the same historical and social backgrounds mentioned in the interpretation of Figure 3.

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Figure 5 Distribution of word forms for 'sow' (classified).

5. Variations of 'piglet'

The following description is divided into two parts: lexical variation and geographical variation.

Lexical variation

We find the following word forms for 'piglet' in Tibetic languages in the eastern Tibetosphere:

- R+PR type (=corresponding to LT *phag phrug*): there are several types of phonetic realisation.
- PJE type: forms with a glide such as /p^hje/.
- R+L type: a form like LT phag followed by /la, li, lə, lui/.
- PU type (=mostly corresponding to LT *phag gu*): including monosyllabic and disyllabic forms.
- PJE+G type: a form like $/p^hje/$ followed by LT diminutive gu or 'u.
- P+K type: a form like /p^hu k^ha/.
- P+W+TS type: a form like $/p^ha$? wo tsə/.
- PJE+J type: a form like /p^hje ji:/.
- R+GU type: a form like LT *phag* followed by /yu/.
- PE type: forms without a glide such as /p^he/.
- PE+J type: a form like /p^he ja/.
- R+G type: a form like LT *phag* followed by /ga/.
- AG type: a form like /?a gu/.
- PE+PR type: a form like /p^he/ followed by LT *phrug*.
- PJE+L type: a form like /p^hje/ followed by /li, lə/.
- R+KR type: a form like LT *phag* followed by $/t^{h}a^{2}/.$
- PJE+PR type: a form like /p^hje/ followed by LT *phrug*.
- R+CC type: a form like LT *phag* followed by /tc^hə/.
- SH+R type: a form like /cə/ followed by LT *phag*.
- AM type: a form like /?a mu/.
- ANG type: a form like /?a ŋuu/.
- E+PR type: a form like /?e/ followed by LT *phrug*.
- GD type: a form like /go di/ (for 'male piglet').
- PW type: a form like /p^how yu/.
- R+CK type: a form like LT *phag* followed by /tcə ^ĥgə/.
- R+GE type: a form like /p^hi gɛ/.
- R+J type: a form like LT phag followed by /ji:/.
- R+MM type: a form like LT *phag* followed by /me me/ 'small'.
- R+RU type: a form like LT *phag* followed by /ru?/.
- R+TI type: a form like LT *phag* followed by /hti?/.
- R+TR type: a form like LT *phag* followed by / t^hi?/.

- R+TSK type: a form like LT *phag* followed by /tsə ke/ 'small'.
- R+W type: a form like LT *phag* followed by /wo/.

Based on the morphological criterion, I classified the various types listed above into the following groups:

- A: LT group, including: Type R+PR only
- B: LT-diminutive group, including: Types PJE, R+L, PU, PJE+G, R+GU, R+G, PE, PE+PR, PJE+L, PJE+J, PJE+G, PJE+PR
- C: PR group, including: Types R+PR, PE+PR, PJE+PR, E+PR, R+RU
- D: R+adjective group: Types R+MM, R+TSK, R+CK
- E: others

Each of the types and groups above are referred to in Figures 6 and 7, respectively.

Geographical variation

Figure 6 displays a distribution of the types mentioned above, only based on my descriptions.

Some general observations on Figure 6 are as follows:

- E the form corresponding to LT (R+PR=*phag phrug*; black dot) is broadly attested regardless of the geography; and
- high lexical variation is found in the easternmost and southernmost areas, similar to 'boar' and 'sow'; common forms are used in both of these areas.

A geolinguistic analysis of Figure 6 tells us that the use of the literary form is attested in the areas where Tibetans are less interested in pig-breeding; conversely, in the pig-breeding areas, particular words for 'piglet' are found. I will focus on several word forms that are indicated by the black symbols. Two greater types can be found, K-type (R+G, R+GU, P+K, PU, PJE+J, PE, etc.) and L-type (R+L, PJE+L); the former is derived from + 'u, and the latter from + le, both of which are LT diminutive markers. In some north-eastern areas, a semantic subclassification of gender has occurred for 'male piglet' and 'female piglet', which is not reflected on the current map.

HOW TIBETANS CLASSIFY PIGS IN TIBETIC LANGUAGES IN THE EASTERN TIBETOSPHERE



Figure 6 Distribution of word forms for 'piglet' (following types of word form).

To summarise the word forms, I classified them into five groups (A to D), as shown on Figure 7.

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Figure 7 shows that the peculiarity of the word forms is distributed along the borderline of the eastern Tibetosphere like a chain. Interestingly, the distribution pattern differs between the easternmost and southernmost areas. The majority of dialects in the easternmost area use Group E (a collection of various minor forms), whereas those in the southernmost area use Group B. Since the morphology of Group

B is also attested in LT, its scattered distribution (easternmost, eastern, and southernmost) potentially originates from a LT word formation.

6. Conclusion

We can find a rich lexical set of 'pigs' in the easternmost and southernmost areas, where pig-breeding is widely practised. It has been considered that Tibetans' lexicon on pigs is monotonous, corresponding to the literary words. However, the situation in the eastern Tibetosphere implies that enriching the vocabulary depends on the necessity of classifying something. This relationship is simply predicted due to the potential need for lexical differences; no substantial evidence has been provided, but this is still the prevailing view. Although biologically Tibetan pigs originated in the Tibet Plateau, without their extensive breeding the variation of word forms for 'pig' would not have grown.

The lexical variation appears not only in derivation but also in the utilisation of other stems than *phag*, such as *gseb*, /li/, /ja/, and /ji/. Additionally, we also find the usage of the syllable corresponding to the LT *phag* as a class term.

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Photo gallery 15

Cute piglets warming themselves by the fire. At Bingzhongluo, Nujiang.



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Tibetic terms for 'sow' and 'boar' in re-interpretation and analogy: From 'female pig' to 'pig-mother' and then to 'pigfather'

1. Introduction

Nominal derivation of markers denoting gender difference ('male' and 'female') in animal terms has so far received attention in the dialectology and geolinguistics of Sinitic languages (Cao 2008:76, Yagi 2019). A similar topic concerning the morphological process of animal terms is also found in Tibetic languages, displaying great variation. In Literary Tibetan (LT), we find two patterns: the use of different roots and a general term plus a derived form, as in Table 1. LT forms are transcribed with the method of de Nebesky-Wojkowitz (1956).

Table 1 Ellerary Tibetan animar terms.				
animal	general term	male	female	
yak	zog / nor / phyugs	g.yag	'bri	
horse	rta	rta pho	rgod ma	
chicken	bya	bya pho	bya mo	
pig	phag	pho phag	mo phag	

Table 1 Literary Tibetan animal terms.

As Table 1 shows, the terms for 'yak' and 'horse' use different roots for 'male' and 'female', whereas the terms for 'chicken' and 'pig' use derivational morphology. Furthermore, the latter type exhibits a different affixation pattern depending on the animal. Both 'chicken' and 'pig' use the same gender-determining morphemes *pho* 'male' and *mo* 'female'; however, the terms for 'chicken' use them as a suffix, those for 'pig' as a prefix. There are variations in LT; for example, *phag ma* 'sow', a suffixed type, is also attested. Cf. Beyer (1992:123-126).

Suzuki (2019d), expanding the discussions in Suzuki (2007a, 2012f), further discusses word forms for the three 'pig' terms 'boar', 'sow', and 'piglet' in Tibetic languages spoken in the eastern Tibetosphere, and displays linguistic maps of these words with a classification of the word forms. Based on Suzuki's (2019d) data, this

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chapter aims to discuss a possibility of analogy in word formation for 'boar' and 'sow' in Tibetic languages, especially those spoken in the Tibetosphere in Yunnan.

This chapter aims to provide a more detailed explanation of specific word forms for 'sow' (female adult pig) and 'boar' (male adult pig), based on the data in Suzuki (2019d). Before discussing cases in Tibetic languages in the eastern Tibetosphere, I explain the basic Literary Tibetan lexemes. As Table 1 shows, the general term for 'pig' is *phag*; in a dictionary, *phag* designates 'pig' as a symbol such as the year, which is in contrast with *phag pa*, reserved for 'pig' as a living animal. The term for 'boar' consists of two morphemes, *pho phag* and *phag pho*, in which *pho* means 'male'. The term for 'sow' also consists of two morphemes; however, it has more combinations than 'boar': *mo phag, phag mo*, and *phag ma*. The morphemes *mo* and *ma* both designate 'female' as a part of terms for animate objects. Note that these morphemes also function as nominal suffixes and nominalisers together with *po, pa, bo*, and *ba*, for example, *gru mo* 'elbow', *nyi ma* 'sun', *sdong po* 'trunk', *smug pa* 'fog', *chu bo* 'river', and *ser ba* 'hail'.

The data in this chapter are based on Suzuki (2019d). First, I provide an overview of the word forms for 'sow' in Section 2, followed by those for 'boar' in Section 3. Each overview summarises general observations and analyses key forms. Section 4 discusses a potential origin of the word forms in question.

2. Geographical variation of 'sow'

Suzuki (2019d:46–48) describes the lexical variation for 'sow' in Tibetic languages in the eastern Tibetosphere, summarised as 16 lexical forms classified into four groups. Of these, this article focuses on the types with a MA-affix, namely: R+MA, MA+R, R+MA+M, and R+MA+MA. Here R denotes a root, and MA and M denote affixes. Figure 1, using the same dataset as Suzuki (2019d), illustrates the four types and their distribution.





Type R+MA is mainly attested in varieties of three areas:

-Sharkhog, dPalskyid, and Thewo (Eastern Section; Tournadre 2014).

-Central Khams, but their distribution is scattered.

-Southern Khams (Sems-kyi-nyila and sDerong-nJol groups).

Of these three, the last area also has varieties using other types, MA+R, R+MA+M, and R+MA+MA.

Type R+MA is analysed as a derived form consisting of *phag*, the general term for 'pig', and *ma*, a female-determining suffix. As mentioned in Section 1, *ma* is attested in LT with the same function. Type MA+R, *ma phag*, takes the reverse order of *phag ma*; however, it is not attested in LT. LT *ma* functions as a suffix in principle, and therefore its use as a prefix does not derive from LT.

Note that a semantic subclassification has occurred in some restricted areas in Yunnan, that is, 'sow without piglets' and 'sow with piglets', as mentioned in Tshering Yangdron and Suzuki (2021). In such varieties, Type R+MA (*phag ma*) is used for 'pig-mother', denoting 'sow with piglets' (see Appendix). In this case, we can consider another morphological interpretation of Type R+MA; the suffix *ma* designates 'mother' rather than 'female'. The word for 'mother' is generally *a ma*; other forms such as *ma* and *ma rgan* are also attested in limited varieties. In sum, the morpheme *ma*, identical to the female-determining suffix, is used for 'mother'.

Referring to the interpretation of the morpheme ma as 'mother', we analyse Type MA+R, ma phag, as a form consisting of the morpheme ma 'mother' and the root phag for 'pig'. This interpretation can be applied to the rest forms to be discussed, Types R+MA+M and R+MA+MA. Type R+MA+M contains oral forms corresponding to LT phag + ma + mo (Suzuki 2019d), and this is analysed as a 'pig' + 'mother' + female-determining suffix. The morphological analysis of Type R+MA+MA is similar, that is, it is a form consisting of LT phag + ma + ma: 'pig' + female-determining suffix + 'mother'.

I summarise the present analysis as follows:

1 basis: forms corresponding to LT phag ma, 'pig' + female-determining suffix;

2 re-interpretation: forms corresponding to LT *phag ma* with an interpretation of the morpheme *ma* as 'mother', which is not attested in LT;

3 development: forms based on the re-interpretation, adding another morpheme to emphasise 'female'.

We note that a semantic subclassification of 'sow' as 'sow without piglets' and 'sow with piglets' functions as a background triggering Stage 2.

3. Geographical variation of 'boar'

Suzuki (2019d:42–46) describes the lexical variation for 'boar' in Tibetic languages in the eastern Tibetosphere, summarised as 35 lexical forms classified into six groups. Of these, this chapter focuses on the types with a PA-affix, namely: R+PA and PA+R. Figure 2, using the same dataset as Suzuki (2019d), illustrates the two types and their distribution.





Types R+PA and PA+R are only attested in the southernmost area of Khams, in varieties belonging to the Sems-kyi-nyila group.

Type R+PA (*phag pha*) is analysed as a derived form consisting of *phag*, the general term for 'pig', and *pha*, the morpheme for 'father'. Therefore, Type PA+R (*pha phag*) shows an order of morphemes the reverse of that in Type R+PA. Though we find both morphemes in LT, we do not find these combinations in LT. The literary translation is 'pig-father' or 'father-pig'.

4. Discussions

Comparing the word form for 'sow' with that for 'boar', we can, to some extent, trace semantic changes and processes from 'sow' to 'pig-mother'. However, it is not easy to interpret the development of the word form for 'boar'. To examine a potential interpretation for the case of 'boar', I create a synthetic map from Figures 1 and 2. Figure 3 displays the relationship between 'sow' and 'boar', indicating three types in the Legend as follows:

F = the word form for 'sow' including *ma* and that for 'boar' not including *pha*;

FM = the word form for 'sow' including *ma* and that for 'boar' including *pha*;

N/A = the word form for 'sow' not including *ma* and that for 'boar' not including *pha*.



As discussed in Section 2, the interpretation of the form *phag ma* as 'pig-mother' is based on a re-interpretation of the LT suffix *ma*. This suffix only has a femaledetermining function. From the LT perspective, it is erroneously analysed as the same morpheme 'mother', but from the geo-linguistic perspective, this phenomenon is a creative re-interpretation. Based on this process of semantic change, the form *phag pha* or *pha phag* for 'boar' can be understood as formed by analogy from 'sow' as 'pigmother'. These two forms are recorded in DTLF (1899:621), noted as 'non-castrated pig', which probably reflects the use in the varieties of Eastern Tibet; refer to Suzuki (2019c) for the dialectal feature of DTLF (1899).

Lexical change due to re-interpretation and analogy requires motivation and condition (Iwata 2017, 2020). In the present case, I assume that the new interpretation of *phag ma* as 'pig-mother' originates from the necessity to distinguish 'sow without piglets' from 'sow with piglets' in some varieties. This distinction is also recorded by Giraudeau and Goré (1956:295), the description of which reflects the use in varieties of Eastern Tibet.¹ It is highly probable that the necessity to distinguish the identity as 'mother' from that as 'female' triggered the semantic re-interpretation of a female suffix as a morpheme denoting 'mother', yielding the interpretation of the form *phag ma* as 'pig-mother' as a result.

The distribution of the three types indicated in Figure 3 suggests that the form *phag pha* or *pha phag* is related to *phag ma* as 'pig-mother'. The varieties using *phag pha* or *pha phag* for 'boar' also use *phag ma* for 'sow'. Hence, the formation of the forms containing the morpheme *pha* 'father' has resulted from analogy: parallelism to the word formation of its female counterpart *phag ma* 'pig-mother'. The LT morpheme *pha* does not function as a male-determining suffix, but only denotes 'father'. Thus, the interpretation of *phag pha* is limited to 'pig-father'.

Note that the given analogy is a morphological process at the morphemic level. It differs from anthropomorphic animal terms. In Tibetic languages, there are expressions such as *a rgya spre'u* 'Brother Monkey' or simply 'monkey' and *a khu dom* 'Uncle Bear' or simply 'bear' (See Tournadre and Suzuki 2022 for more examples). Compared with these examples, the form *pha phag* 'boar' is a single word, not a term of address like 'Father Pig'.

In sum, the two word forms *phag ma* and *phag pha* or *pha phag* are morphologically in parallel; however, their formation process did not occur in parallel but consecutively. The re-interpretation first occurred in the form *phag ma* for 'sow',

¹ In this chapter, I do not discuss why the distinction was needed in the given varieties.

and then the analogy was applied to 'boar', the male counterpart, producing a parallel form to the re-interpreted form of *phag ma* 'pig-mother'.

These semantic changes and morphological processes are only attested in the Tibetosphere in Yunnan. Varieties using the form *phag ma* are also distributed in Gansu and Sichuan; however, as far as the present data are concerned, there are no varieties using *phag pha* or *pha phag* for 'boar'. Since the form *phag ma* exists as a LT word for 'sow', it is possible that it is used in the same sense as LT in oral varieties.

5. Conclusion

This chapter analysed the specific word forms for 'sow' and 'boar' that consist of the root *phag* 'pig' and morphemes representing 'mother' (*ma*) and 'father' (*pha*). Of these, the form *phag ma* exists in LT, originally analysed as *phag* 'pig' and *ma*, a female-determining suffix. However, in many varieties in Yunnan, the form *phag ma* is re-interpreted as *phag* 'pig' and *ma* 'mother' following the necessity to distinguish 'sow without piglets' from 'sow with piglets'. However, some dialects in these varieties further developed through analogy a parallel form to *phag ma* for the male counterpart 'boar': *phag pha* or *pha phag*, consisting of *phag* 'pig' and *pha* 'father'. The present examples exhibit semantic changes and morphological innovations seen from the geolinguistic perspective of Tibetic languages.

Appendix

Pig-mother (sow) and her child (piglet) at nDawpa County (Kandze Prefecture, Sichuan).



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Photo gallery 16

A rainbow seen from the Shug gsum nunnery. At sPom rtse ra, bDe chen.



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