

Areal Analysis of Language Attitudes and Practices: A Case Study from Nepal

Kristine A. Hildebrandt, Southern Illinois University Edwardsville

Shunfu Hu, Southern Illinois University Edwardsville

Abstract:

This paper has two aims. One aim is to consider non-structural (language attitude and use) variables as valid in the field of dialect and linguistic geography in an inner Himalayan valley of Nepal, where four languages have traditionally co-existed asymmetrically and which demonstrate different degrees of vitality vs. endangerment. The other aim is an application of modified spatiality as it aligns with speaker attitudes and practices amidst recent and ongoing socio-economic and population changes. We demonstrate that variation in self-reported attitudes and practices across languages in this region can be explained as much with adjusted spatial factors as with traditional social factors (e.g. gender, age, formal education, occupation, etc.). As such, our study contributes to a discourse on the role and potential of spatiality in sociolinguistic analyses of smaller language communities.

1. Introduction¹

In a recent paper on sampling in dialectology research, Buchstaller and Alvanides lament that until recently, “The majority of sociolinguistic work [could] be described as spatially naïve, using geographical space merely as a canvas...on to which the results of linguistic analysis [could] be mapped.” (2013: 96). This need for inclusion, and testing of different types of spatial factors alongside social ones is increasingly being addressed in regions like the United States and Great Britain. (cf. Trudgill 1974; Auer and Schmidt eds. 2010; Lameli et al eds. 2010; Buchstaller et al 2013; Cheshire et al 1989, 1993; Labov et al 2006; Kretzschmar 1996; Kretzschmar et al 2014; Britain 2010 and also the rise of “geohumanities” Dear et al 2011).

This study follows the lead from others conducted outside of so-called ‘large language communities’ (Stanford 2009) and argues that what is good for large language areas is even better, and more revealing, when modified and applied to under-documented, small-population areas, particularly those with societal multilingualism overlaid with asymmetrical language practices, and differing or changing language ideology and socio-political landscapes. It is in these areas that we may be able to identify additional factors that play a role in explaining different patternings and prospects.

Studies that consider the intersections of language variation in endangered and minority languages are still few in number. Yet, there are examples that simultaneously support and challenge (or refine) classical models and predictions. For instance, Stanford’s study of Sui (China) (2009) demonstrates that clan affiliation is a useful predictor of lexical variation. Likewise, phonological variation (Clarke 2009) may be more productively observed across different territorial groups in Innu (Canada), highlighting the role of “covert hierarchy” as a social factor.

Beyond cases like these on *structural* (lexical, phonological) variation, even fewer quantitative studies have been investigated language *attitudes and practices* in linguistically diverse but vulnerable areas. This gap is unfortunate because it is often these attitudes and reports of language practices that can shed light on shifting ideologies as precursors to changes in viability in areas where languages compete amongst each other and amongst prestige (or national) varieties (cf. Giles et al 1977; Coupland et al 2006 on attitudes regarding practice of Welsh and English).

This study considers the results of speaker-reported language attitudes and daily practices across four language communities of the Manang District of Nepal (Map 1). In this politically defined region, these four (Tibeto-Burman) languages have simultaneously co-existed and competed for footing amongst each other, and nowadays increasingly with Nepali (Indo-European), the official language, and a regional lingua-franca, of Nepal. In this account, we consider the systematic investigation of attitudes and practices to be an important first step into better assessing the types and possible causes for structural variation (including contact-induced language change). Also, because two of these four languages are categorized as critically endangered (cf. Hildebrandt et al 2015), speaker-reported attitudes can shed light on the mechanisms behind endangerment and possible paths to preservation. It is to be expected that in

¹ This work is supported by NSF BCS-DEL 1149639 “Documenting the Languages of Manang.” We remain grateful to members of the Gurung, Gyalsumdo, Manange and Nar-Phu communities for their help in gathering these data. We are grateful to Dubi Nanda Dhakal and Ritar Lhakpa Lama for assistance with interviews. We are also grateful for Matthew Vallejo, Andrea Fyffe and Chris Witruk for assistance with response coding. We also thank Brajesh Karna and Saita Gurung for assistance with atlas development. All errors are the responsibility of the authors.

a multilingual region like Manang, where languages demonstrate different degrees of viability, that there will be variation in terms of how residents view the usage and function/value of their mother tongues. Our study hypothesizes that this variation in reported use and function/value is not random, correlating with both social and adjusted spatial factors.

The Manang District is a particularly good candidate for a case study of adjusted spatiality because it has undergone rapid environmental, economic and infrastructure development and changes over the past ten years, including the ongoing construction of its first motorable road and the population shifts associated with this (cf. Laurance 2014 for commentary on road-building impacts). In tandem with this, some Manang communities have also witnessed population movements associated with both the rise of boarding schools in remotely located Kathmandu, and also a migrant worker phenomenon that takes young adults to Gulf States like Saudi Arabia, Bahrain and United Arab Emirates for long-term employment (Hildebrandt et al 2015). Therefore, our study includes modified notions of spatiality alongside traditional social variables.

Specifically, in a first attempt to understand how space interacts with practices and attitudes, we consider three different and locally constructed notions of “space.” One of these is a modified version of Euclidean-type linear distance in recognizing temporal foot or motorbike travel distances between groups of communities. A second type considers distance and access to the newly emerging motor road. The third type applies a popular psychological divide that is already articulated by residents of Manang into residents from “upper” vs. “lower” regions. This third type roughly aligns with languages (two language groups primarily occupy “upper” Manang, while two other groups primarily occupy “lower” Manang), but there is also increased mixture of language groups into both regions, potentially blurring truly linguistic divisions.

We demonstrate that for a range of attitude and use responses gathered from 87 speakers representing the four Manang languages, certain social factors (age, formal education, mother tongue) explain response patterns, but other response patterns are more significantly accounted for either purely by these adjusted spatial factors, or else by a combination of spatial and social factors.

In the following sections, we discuss further the geographical factors used in dialect sampling, as well as the consideration of non-structural, attitudinal factors. We then describe the methods used in this study, including the motivation for these adjusted categories of “space.” We conclude with a discussion of the limitations this study, along with its potentials for shedding additional light on mechanisms behind language vulnerability in Manang, along with other dimensions of structural and attitudinal variation and change in multilingual environments.

2. Sociolinguistic Dialect Sampling

Spatiality in Dialect Sampling

In comparison to the many publications and reports on social factors behind variation, those considering spatiality have lagged (cf. Buchstaller et al 2013; Labov 1982; Britain 2009 for commentary on this gap). Well-known examples that do incorporate spatiality (with Euclidean, linear distance measures) include the Survey of English Dialects (Orton et al 1962-1971) and the Atlas of North American English (Labov et al 2006).

These approaches may be contrasted with what Britain terms “socially rich spatiality” (2009: 142), which takes into account practices and networks alongside (static) geo-physical location (cf. also Massey 1985). Examples include The Atlas of North American English (TELSUR) (Labov et al 2006), which sampled three types of areas: Central Cities, Zones of Influence and Urbanized Areas. These areas were differentiated based on features including

newspaper circulation ranges along with population density measurements and geographic area. The inclusion of newspaper circulation allows for a capturing of not just physical belonging, but also ideological alignment with a particular zone despite location of residence. Another case may be found with Gooskens (2005), which employs work commute time as a predictor of structural distance. Another study that considers the flow or movement between places is the Survey of British Dialect Grammar (Cheshire et al 1989, 1993), which identifies “functional regions,” areas are defined by variables of coherence: socio-economic profiles, commuting times, age, in- and out-migration patterns, employment and economic opportunities. Similarly, Buchstaller et al (2013) adapt this second approach to study variation in grammaticality acceptance ratings for various lexical and syntactic forms in British English.

Studies in large language areas can make use of up-to-date census data, and the modification and operationalization of adjusted geographic factors can fairly easily be done via information on economic and literacy practices. But what about small language communities? Stanford (2009) has convincingly argued that while such communities may differ in scale, they also can offer valuable perspectives on language variation and change. Another example of the re-casting of social factors may be found with gender, as in K’iche’ (Guatemala, Romero 2009), where males are shown to avoid use of stigmatized phonological forms to a greater extent than females. This stands contrast to findings from American English (Labov 2001). At the same time, the most relevant sociolinguistic factors in small communities may differ in type or pattern, and this also includes an understanding and application of space. For example, Stanford’s study of Sui (China) shows that clan connections, along with local spatial connections (measured by an adjusted distance measure: “paddy adjusted distance”) best account for phonological variation across communities.

Extralinguistic variables

According to Garrett (2010), an attitude is an affective abstraction, a psychological construct, a manifestation of a an individual’s particular disposition. Attitudes are social objects, and therefore subject to sociolinguistic investigation. Prior studies have demonstrated that attitudes play a role in both reception and reproduction of language practices (cf. Jorgensen and Quist 2001 on Danish attitudes to in-migrant languages; Bourhis et al 2007 for attitudes about Welsh, Jeon 2013 for attitudes about Korean dialects, Fought 2002 for California English, Mann 2000 for attitudes about Anglo-Nigerian Pidgin, Draper 2010 for Lao attitudes in Thailand). As such, they are socially learned, and therefore reflective of larger community orientations and predilections.

Of course there is an inherent risk in attitude investigations. Depending on the methods of data collection, speakers can lie or feel compelled to agree with a question regardless of its content (an “acquiescence bias” in Garrett 2010: 45), or else feel influenced to give a pleasing or socially appropriate answer (a “social desirability bias” in Garrett 2010: 44). This can be minimized the collection situation is handled with sensitivity.

One of the most common approaches to understanding attitudes is via acceptability ratings, for example judgments about the “grammaticality” of certain structures or lexical choices (Buchstaller and Corrigan 2011; Buchstaller and Alvanides 2013; Hudson 2000; Labov 1975; Auer et al 2005). This approach is most relevant in language situations where there is a strong prescriptivist tradition or where standardized variants are at issue.

But what about attitudes in communities with primarily (or exclusively) oral traditions, or where minority languages are surrounded geographically or conceptually by dominant ones? To be sure, acceptability judgments can be used successfully to examine emergent structural

variation in multilingual situations (for example, Meyerhoff's report on emergent syntactic variation in Creole languages (2008)). Our report focuses on reports of different scenarios of practice, and attitudes regarding current and future prospects. In this case, scale-rating and written language content examination are less revealing (or are methodologically impractical) in comparison to a direct approach involving oral interviews that ask questions about a variety of scenarios of practices and predictions. These methods can reveal shifting socio-political and economic backdrops and their role in language marginalization. They can also aid in an assessment of ethnolinguistic vitality (e.g. Giles et al 1977 for Welsh).

The Nepal Context

In contrast to the many general descriptions Nepalese languages, there are comparatively fewer surveys on structural variation or multilingual practices and attitudes in larger regional settings (but cf. Larsen and Williams 2001; Lee 2005; Turin 2012; Japola et al 2003; Webster 1992; Eppele 2003 for practices in Mustang, Gorkha, Jhapa/Morang, eastern Nepal and the Kiranti diaspora in Kathmandu). Closer to the region covered in this study, Glover and Landon (1984) is a comprehensive lexico-comparison of several Gurung varieties (excluding the variety reported on here).

Many of these accounts focus on lexical and textual similarity and intelligibility. The fewer attitude and practice surveys include Webster (1992), with interview questions on proficiency and bilingualism, Larsen and Williams (2001) with questions on language use, literacy attitudes and language vitality predictions, and most notably, Lee (2005), who interviewed over 600 Bayung Rai speakers to survey dialect compatibility, vitality predictions and attitudes about bilingualism towards recommendations on education programs. Likewise, Kansakar et al (2001) includes attitudes and practice surveys for the highly endangered Baram language of Gorkha, in order to better estimate causes behind its slow death and which remaining speakers are most proficient. As elaborated on in the following sections, the interview instrument for our study in Manang is modeled on and includes all of the above categories, but this report focuses on attitude and usage responses in the context of the significant geographic and demographic changes taking place in the Manang District.

3. Sampling Language Attitudes and Practices in Manang, Nepal

The context for this study

With over one hundred languages from four major families (and at least one isolate), and a similarly high number of caste-clan and ethnic groupings, Nepal is a country of undisputed ethno-linguistic diversity (CBS 2012; Kansakar 2006; Gurung 1998). It is also a country of increasingly rapid social, cultural, political and economic change with ensuing geographic movement and language displacement (Angdembe 2013; Rai 2013; Tumbahang 2012).

Nowhere in Nepal is this rapid change more evident than in the Manang District. Geographically, Manang is known as the Inner Himalayan Valley, as it is virtually surrounded by the Nepal Annapurna mountain range (Gurung 1998). Although it has a low population density in relation to its overall geographic area (with 1,448 households reported in the 2012 Nepal Central Bureau of Statistics census), the Manang District is also multi-lingual and multi-ethnic, with four local languages. Three of these languages are from the Tamangic sub-grouping of Tibeto-Burman (Nyeshangte, Gurung, Nar-Phu) and one is a Tibetan variety (Gyalsumdo)².

² Manange has the Ethnologue ISO-639 entry *nmm* and a Glottolog code *mana1288*; Gurung has the Ethnologue ISO-639 entry *gvr* and a Glottolog code *west2414*; Nar-Phu has the Ethnologue ISO-639 entry *npa* *narp1239*; Gyalsumdo does not have an Ethnologue entry and its Glottolog code is *gyal1235*.

In the early 2000's, a motor road project was commissioned by the Nepal government with funding assistance from other countries in order to connect the Manang District headquarters (Chame Village Development Committee (VDC)) with the main road networks of the country. District politicians and activists have likewise raised additional money to extend the road through upper Manang. This initiative benefits rural communities by connecting them to business and other opportunities available to more centrally Nepalese marketplaces, but it also has adverse consequences as local residents (particularly younger ones) may emigrate away from their areas of traditional language practice for education and job opportunities. This introduces new scenarios and potentials for language contact and language endangerment to the Manang languages and further motivates this study.

Methods and Definitions

The original plan behind this survey was to establish a ratio of interviews across the four languages based on individual village household counts. This represents a “quota sample” because the entire sample ideally has the same proportion of individuals as the larger population (Patton 2005). However, it quickly became apparent that household census counts from 2000 were unreliable, and many houses in various villages were abandoned or else sub-let to recent migrants from other parts of Nepal (e.g. Lhomi and Thakali-speaking families and people from neighboring Gorkha district). Therefore the modified sampling approach was a combination of “snowball” (where interviewees help refer additional people) and “sample of convenience” (interviews of any lifelong Manang resident who is available). These sampling approaches come with their own drawbacks (Biernacki and Waldorf 1981), but they allowed for interviews with residents from a wide range of backgrounds from every Manang village, representing all four languages.

The survey instrument (interview questionnaire) was modeled on similar surveys conducted in Nepal described in section 3 and on (Kansakar et al 2011) and it contains five sections: General and personal information; Family background and language practices; Current family situation and language practices; Work and education language practices; Subjective contemporary (opinions on language/variety locations and mutual intelligibility and opinions on future language prospects in official and cultural domains), and a question on opinions about the number of languages spoken in Manang. All interviews were conducted in person, in Nepali language, in the presence of the co-authors and always with a local and well-known and trusted community liaison, and all interviews were audio-recorded. A preliminary report on general patterns (without taking spatiality into account) may be found in Hildebrandt et al (2015).

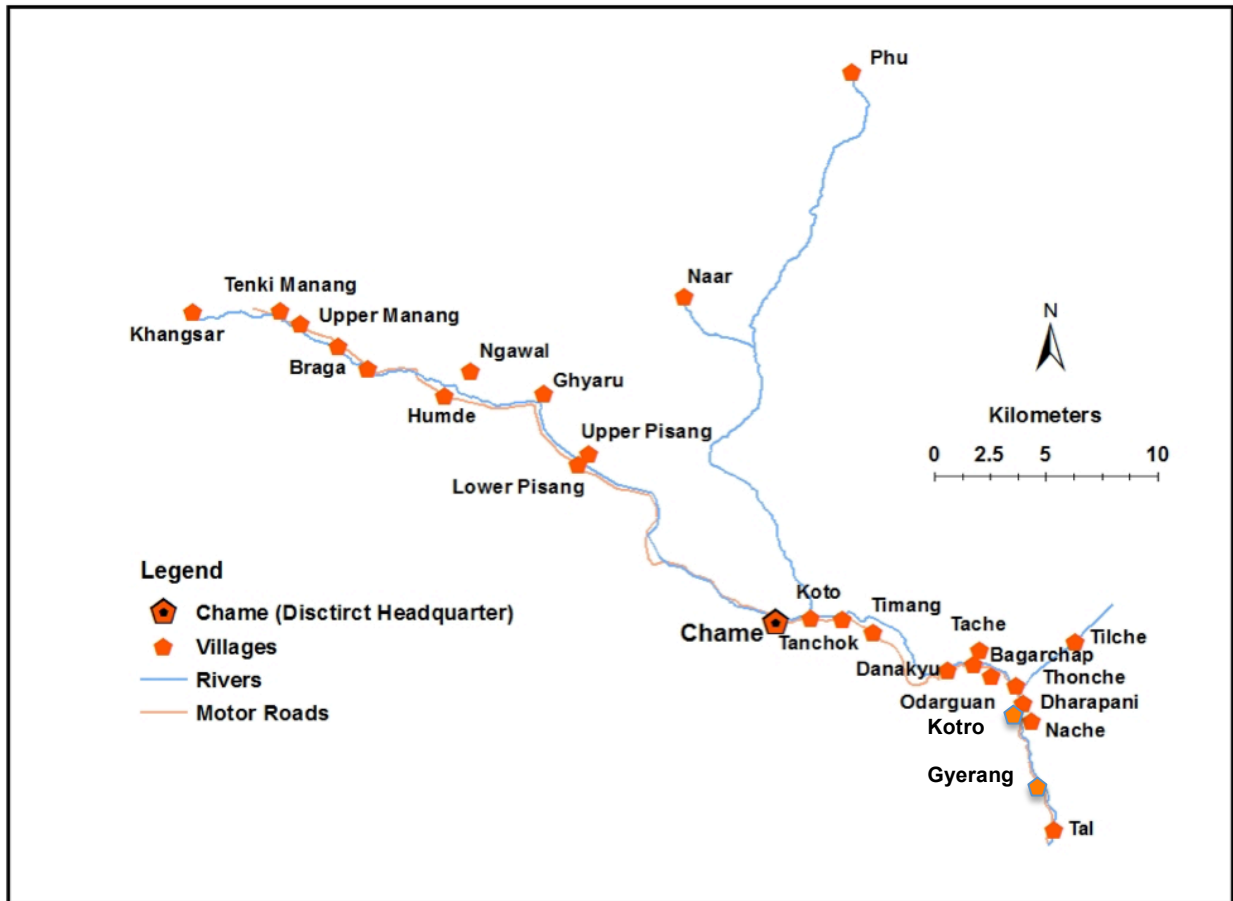
In a general sense, aside from preliminary demographic information, the questionnaire is divided into two major categories: use or practices of local and national languages, and attitudes about local languages vis-à-vis national and international languages like Nepali, Hindi and English. For this study, practices include self-reported usage of languages in different private (domestic) and public (work, school, social interaction) environments. Attitudes include feelings about the usefulness of a language in different contexts, opinions about future practices, and advice or ideas about increasing local language context of use.³

³ The questionnaire also includes a series of questions about opinions regarding mutual intelligibility and speaking proficiency of the Manang languages. These responses are the focus of a separate analysis. The full interview script and selected data may be accessed at <https://mananglanguages.isg.siue.edu/index.php/sociolinguistic-interviews/>

A total of 87 interviews were conducted across the four language groups, with the distribution by VDC and by language outlined in Table 1. Map 1 shows the geo-spatial distribution of these twenty five VDC's.

VDC	Gurung	Gyalsumdo	Nyeshangte	Nar-Phu
Tal	3	2		
Gyerang	2			
Kotro~Karte	2	1		2
Dharapani	3	3		
Thonche	1	1		
Tilche	3			
Nache	2			
Tache	3			
Otargaun	3	4		
Bagarchap~Danakyu				
Temang~Thanchok	9			
Chame~Koto	2	6		2
Pisang			3	
Humde			3	
Braga			3	1
Manang~Tenki			6	
Khangsar			4	
Ngawal			2	
Ghyaru			2	
Nar				7
Phu				3

Table 1. Village distribution of interview survey sample



Map 1. The VDCs of Manang District, Nepal⁴

The interview instrument has a total of 61 questions overall. As a way to begin to explore language attitudes and practices at a manageable scope, this study focuses on responses to a subset of nine questions, summarized in Table 2. While some of these questions are more open-ended in nature, the response types were grouped into the following response types, in order to enable regression analysis comparison of responses organized continuously (i.e. “agree” to “disagree”, “primarily mother tongue” to “not mother tongue”, “helpful” to “not helpful”).

⁴ Map 1 was made with *Arc GIS* software; all other maps were created with the Google Maps map-making tool, and may be found and reproduced on our atlas site, linked to our project home page: <https://mananglanguages.isg.siue.edu/>. It should be noted that there is no standardized way to orthographically represent the village names. Upper and Lower Pisang are treated as a single village in this study.

Questions	Response Groups
1. How important is your language for your cultural and religious practices?	Agree/important Neutral Disagree/not important
2. Should Nepal have one language (Nepali) for formal use?	Agree/yes, Neutral Disagree/no
3. What language(s) do you use in your daily life?	Primarily mother tongue Mixture of mother tongue and Nepali Primarily Nepali
4. What language(s) do you use with your spouse?	Mother tongue only Mixture of mother tongue and Nepali Nepali only
5. What language(s) do you use with your children?	Mother tongue only Mixture of mother tongue and Nepali Nepali only
6. What language(s) do you use at work?	Mother tongue only Mixture of mother tongue and Nepali Nepali only Other non-local language
7. How many languages do you think are spoken in Manang?	A single language (with dialects) Two languages Many languages No idea
8. Will your mother tongue continue to be used by children in future generations?	Yes Yes, if children remain local Yes, but only to a limited extent No No opinion
9. Do you think the inclusion/addition of your mother tongue to local school curriculum would be helpful or hurtful to children?	Help Help, but only under certain conditions Hurt No opinion

Table 2. Interview questions⁵

For question nine, the response type “Help, but only under certain conditions” included elaborations such as “The mother tongue language should be optional,” “Materials such as textbooks need to be developed first,” and “Teachers must receive proper training.”

The responses were analyzed according to classical social variables, elaborated here: Mother tongue (Gurung, Gyalsumdo, Manange, Nar-Phu); gender (male, female); age (18-40 years, 41-60 years, 61 years and older); degree of formal education (none, up to 9th class, School

⁵ For open questions two through four, only those respondents who have a child, who are married, or who report employment are included in each response analysis.

Leaving Certificate or Higher); occupation (unemployed, inward-centered, outward-centered, a mixture of inward-centered).⁶

The groupings for formal education are based on a general observation in Nepal that people receive some, but not full, formal education. The groupings for occupation are based on a common phenomenon of people in Manang holding multiple different types of jobs, some of which are more locally oriented, and some of which either require travel, or else require interaction with Nepalese residents who are not from Manang. Inward-centered jobs include agriculture and businesses like lodging, while out-ward centered jobs include District administration and/or politics, teaching, and long-distance business.

Linear distance in a location like Manang is not a realistic unit of measurement. Even considering the construction of the motor road, which would presume to introduce linear distances for vehicular travel, significant straight-line travel is virtually non-existent for anyone born and raised in this part of Nepal, and travel distances amongst locals are practically never computed in terms of miles or kilometers, but rather in terms of time, effort (i.e. “it’s steep” vs. “it’s flat”), and a “local~non-local” distinction (i.e., locals walk faster or have access to horses, while non-locals (even non-local Nepalese) are slower, don’t know where they are going, need guides, and may have resources to hire four-wheel-drive jeeps). In addition, in everyday interaction, people necessarily conceive of and linguistically represent geographic distance is not strictly spatial, but also woven in with other factors such as access to nationally sponsored facilities (government offices, schools, marketplaces) and gradient variation in ethnic identities within greater Manang. Examples of these in everyday conversation (recorded as part of the larger Manang Languages documentation project objectives) may be found in these discourse extracts.

(1) The Impact Of The Road (Gurung)⁷

tsame	səmmə	sədərmukam	səmmə	gaɟi	khə-pə	
Chame	until	headquarter	until	jeep	come-NMLZR	
pi-rə	kjã	lə-ipo	tsədo-ro	mono	tʃã-pə	tə-i
say-PART	road	do-PROG	here-LOC	Manang	good-NMLZR	become-PRF
ja	tə-i					
go	become-PRF					

⁶ It should be noted that up to a 9th class education provides a general education experience, while the School Leaving Certificate and beyond provides additional, specialized, professional training (e.g. commerce, education, health care). It should also be noted that inward-centered jobs include those where the nature of the work and co-worker interaction is almost entirely restricted to local villages and residents. This would include local agriculture, domestic work, local services to other Manang residents; outward-centered work involves considerable extra-Manang travel, or involves significant interaction with those not from Manang. This would include government work, teaching, hotel and tourism work, etc. A mixture applies in cases where someone identifies more than one occupation, where the different work orients to different areas or co-worker types.

⁷ Audio files and full transcripts of all discourses included in this manuscript may be found at these URL's: <https://audio-video.shanti.virginia.edu/collection/gyalsumdo-project> (Gyalsumdo); <https://audio-video.shanti.virginia.edu/collection/western-gurung> (Gurung); <http://elar.soas.ac.uk/deposit/0103> (Nar-Phu).

“People have constructed the road to link this area up to Chame, the (district) headquarters. Manang will be better because of this.” (Dhar_M1_69-71)

(2) Access To Facilities In Chame (Gyalsumdo)

apa-di	hjaŋtiraŋ	pəru	dʒhuŋ	hɔraŋ	hjuɭ	mənaŋ
father-TOP	very	rich	become	3.PL	village	Manang

dzilla	dhakraŋ	tʃi	hinə	dhakraŋ	hɔla	sjak
district	all	one	EVID	all	there-LOC	only

qho	gho	jo-pa	qhak	du	sədərmukam
go	oblige	become-NMLZR	like.this	EVID	headquarters

tsokta	dʒhuŋparaŋ	ghjalsumdo	nekeko	hio-ne
similar	because.become	Gyalsumdo	saying	there-ABL

dʒhuŋ-pa	ta	du
become-NMLZR	become	EVID

“(Since) the father was very rich, our village, all of Manang district, whoever is there, has to go there (to Chame). (This place, Chame) is a headquarters, you know.” (Chame_GyM6_108-110)

(3) A recognition of “Upper” vs. “Lower” Manang (Nar)

tor	kho	phi-pa	a-fii-ne	mâr	njo	phi-pi
up	come	say-NMLZR	NEG-stay-ADV	down	go	say-NMLZR

mfi-ce su	a-re
person-PL	who NEG-COP

‘Many (people) tell us to come up (to upper Manang), not to settle; nobody says “you settle (lit. go down/to lower Manang).”’ (Koto13_NF1_139-140)⁸

Given these circumstances, we have reconceived of spatiality for this study and adopted four different measurements according to modified geographic distances. These modifications include linkages to social networking or economic access factors, and are elaborated in these numbered points.

1. **Place 1.** Village clusters: These are clusters of villages that are within an hour’s walking time (point-to-point) from each other, and therefore are clustered together for easier networking and regular contact. Map 2 illustrates these groupings, and the villages may be identified on Map 1.

Group 1 Timang, Thancok, Koto, and Chame villages

Group 2 Nache, Kotro, Dharapani, Thilce, and Thonche villages;

Group 3 Tache, Danakyu, and Bagarchap villages

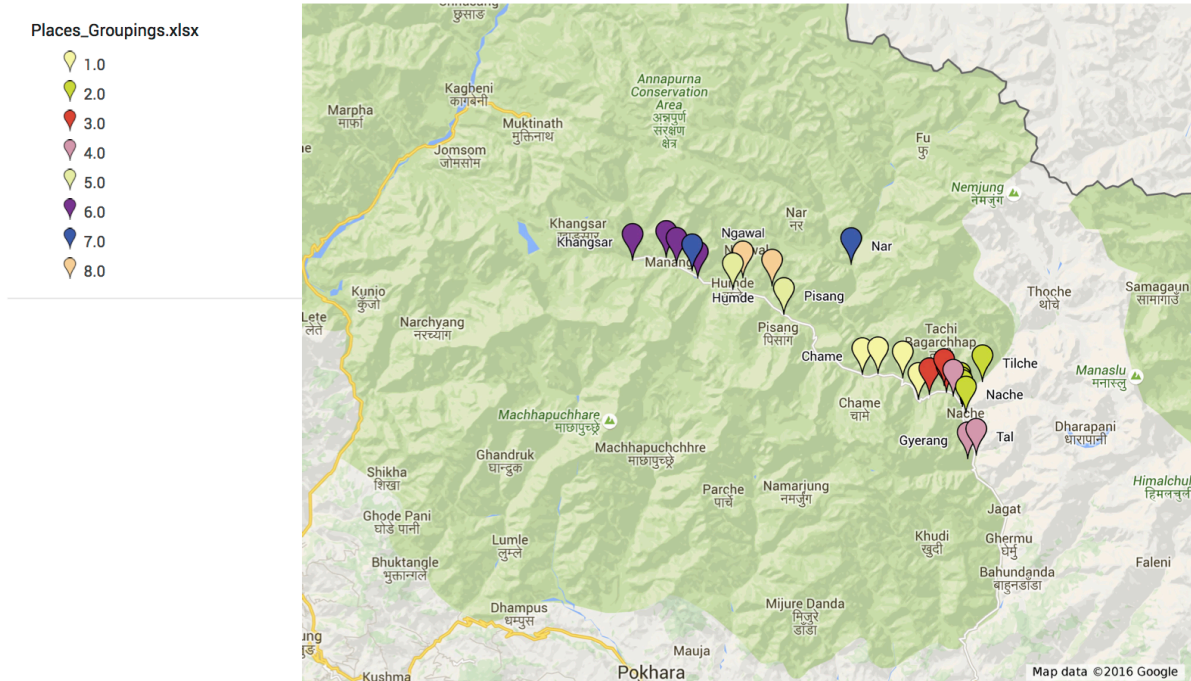
Group 4 Tal, Otargaun, and Gyerang villages

Group 5 Pisang and Humde villages

⁸ Abbreviations: 3 third person; ABL ablative; ADV adverbial; COP copula; EVID evidential; LOC locative; NEG negative; NMLZR nominalizer; PART participial; PL plural; PRF perfective; PROG progressive; TOP topicalizer

Group 6 Manang, Braga, Tenki, and Khangsar villages
 Group 7 Nar and Phu villages
 Group 8 Ngawal and Ghyaru villages

Group 1



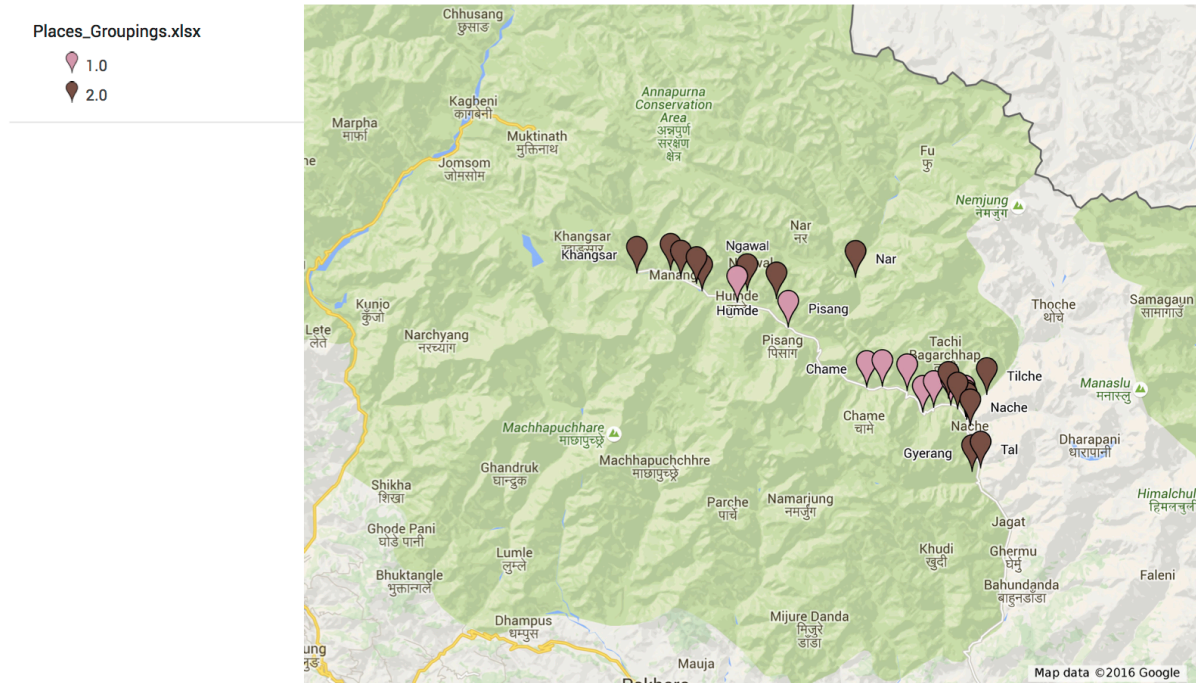
Map 2. Place 1 Village Groupings

2. **Place 2.** Road proximity: These are villages that sit almost directly on the motor road vs. those that do not; this category is therefore a combination of time/effort of journey as well as type of access. Villages in category 1 are within a 1-hour travel time to the motor road, where effort (elevation and risk due to footpath incline) is not so great; this is also a resource access point, as well as a point in which access to non-local languages increases. Village in category 2 are further away, along footpaths that present more risk and effort.

Map 3 illustrates this grouping

Group 1 (on the road) Tal, Kotro, Dharapani, Bagarchap, Danakyu, Thancok, Timang, Thonche, Koto, Chame, Pisang, Braga, Humde, and Manang villages
 Group 2 (off the road) Thilce, Gyerang, Tache, Nache, Otargaun, Nar, Phu, Ghyaru, Ngawal, Khangsar, and Tenki villages

Group 3



MAP 4. Place 3 Village Groupings

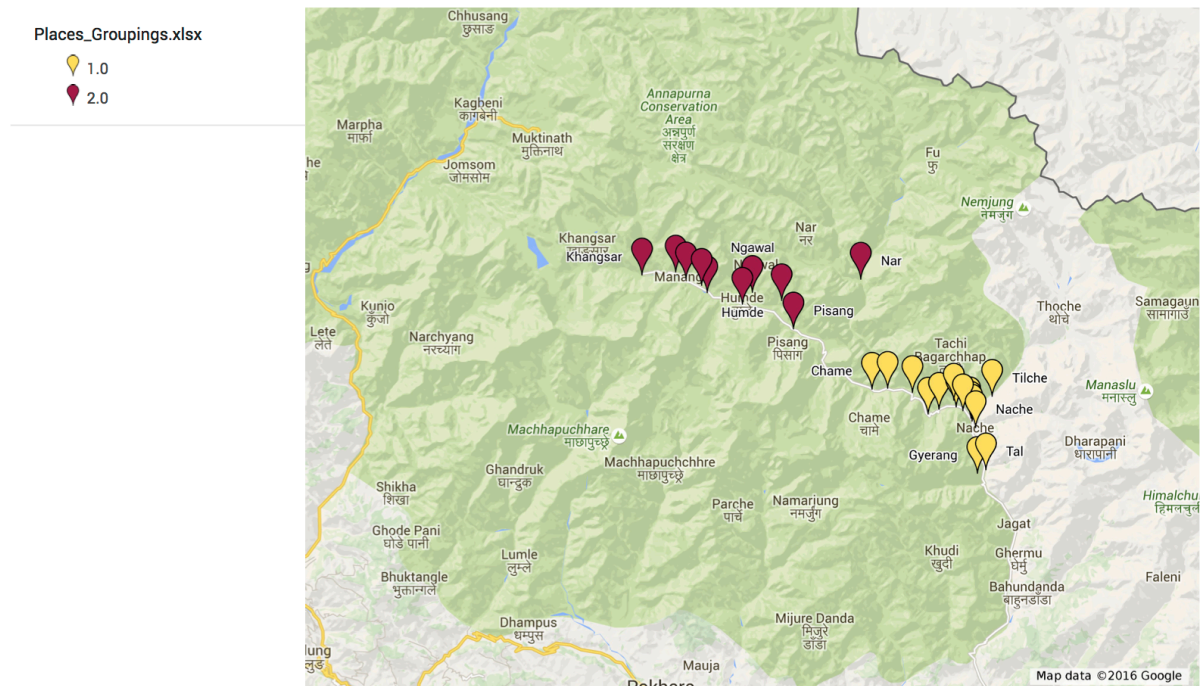
Place 4. Upper vs. Lower Manang: There is a conceptual distinction between those languages and communities in “upper Manang” vs. “lower Manang.” This has been described as a cultural and linguistic division by Thomas et al 2006. The evidence is lexicalized in everyday cultural-spatial deictic encoding in Nepali: *maathi Manang* “upper Manang” vs. *tala Manang* “lower Manang.” Pisang village is a boundary line between these two spheres. Map 5 illustrates this grouping.⁹

Group 1 Upper Manang (Pisang village upward/northwestern-ward)

Group 2 Lower Manang (Chame village downward/southeastern-ward)

⁹ We should note that Place 4 clusters largely, but not entirely with language groups. In upper Manang, there are no Gurung or Gyalsumdo households, and in lower Manang, there are primarily Gurung and Gyalsumdo households, but there are also some Nar-Phu households. We should also note that Place 2 also clusters largely, but not entirely, with language groups, but in ways different from P4. Located far from the road are only one Gyalsumdo household and many Nar-Phu households. Rbrul cross-tabulation indicated this skewing for one model: Open Question 7 (Do you think the inclusion/addition of your mother tongue to local school curriculum would be helpful or hurtful to children?). In this case, the factor “mother tongue” was removed from the data-set and the model was re-run.

Group 4



MAP 5. Place 4 Village Groupings

Using the step-up/step-down procedure in Rbrul (version 2.3/October 4, 2015 Johnson 2009), the response to the questions in Table 2 were analyzed in terms of fixed effects. Fixed effects include the social and adjusted spatial factors. Each respondent was sampled exactly once, so random effects are not included. The following section summarizes the social and spatial factors that significantly correlate with response types to the nine interview questions.

Findings

The results of the step-up/step-down procedure show that three of the nine responses are not accounted for by either social or adjusted spatial factors, or else response frequencies are skewed by population differences. This includes Question 1 (How important is your language for your cultural and religious practices?), Question 7 (Will your mother tongue continue to be used by children in future generations?), and Question 5 (What language(s) do you use with your children?).¹⁰ For Question 1, factor type Place 1 explains with weak significance variation in response types. Respondents born and raised in village clusters where mother tongues have been established for a long period of time, where cultural facilities (gompas, monasteries, etc.), and where celebrations regularly take place, identify a (slightly) stronger link between their languages and cultural practices. However, these dissenting opinions came from villages for which we had fewer interviews, and so there is a risk of a skewed portrait.

¹⁰ For Question 5, both the factors Place 2 (proximity to road) and Place 3 (proximity to Chame village) significantly predicted the response type to the question ($p < .05$), where parents who are off-road report more mother tongue use with their children. But, cross-tabulation showed a skewed sample distribution (i.e., there were no parents from near Chame village who were also located off-road). When these factors were removed from the data-set, no others emerged as significant.

For Question 7, there was a great range of variation across respondents all over Manang District, ranging from certainty of the survival of mother tongues, to conditional certainty, to great skepticism. For the remaining seven responses, different factors (both social and spatial) significantly predict different types of responses.

We now turn to the remaining six questions that are significantly accounted for by particular factors. We summarize the findings, and in the following section we elaborate on our interpretations of these patterns.

For Question 2 (Should Nepal have one language (Nepali) for formal use?), Mother-Tongue is the best predictor of response types ($p < .001$). Mother-tongue speakers of Manange and Nar-Phu are most inclined to answer affirmatively to this question (they support Nepali as the single language of official business), while speakers of Gurung and Gyalsumdo have more mixed responses or disagree more proportionally to their sample size. They are more inclined to feel that their languages should have some place in official contexts like banks or District administration. This is illustrated in Figure 1.

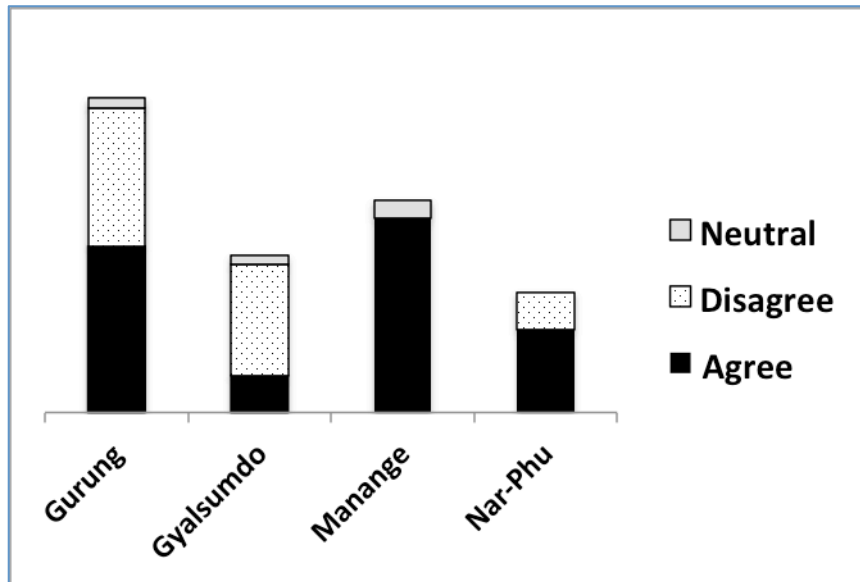


Figure 1. Question 2 Mother Tongue; $N = 87$, Grand mean = 1.759, Deviance = 57.874, $r^2 = 0.251$, $p < .001$

For Question 3 (What language(s) do you use in your daily life?), two factors (degree of education, $p < .01$) and Place 3 ($p < .05$) emerge as significant in the step-up/step-down procedure, with education being a more powerful predictor. Unsurprisingly, those respondents with no or less formal education report daily use of primarily their mother tongues, while those with higher levels of education report more mixed language use. Also, those who are located closer to Chame report more Nepali language use vis-à-vis their mother tongues than do those located further away from Chame, suggesting that the Nepali-centric District headquarters has an impact on day-to-day language choices for those who live within its range of influence. This is illustrated in Figure 2 and visualized in Map 6.

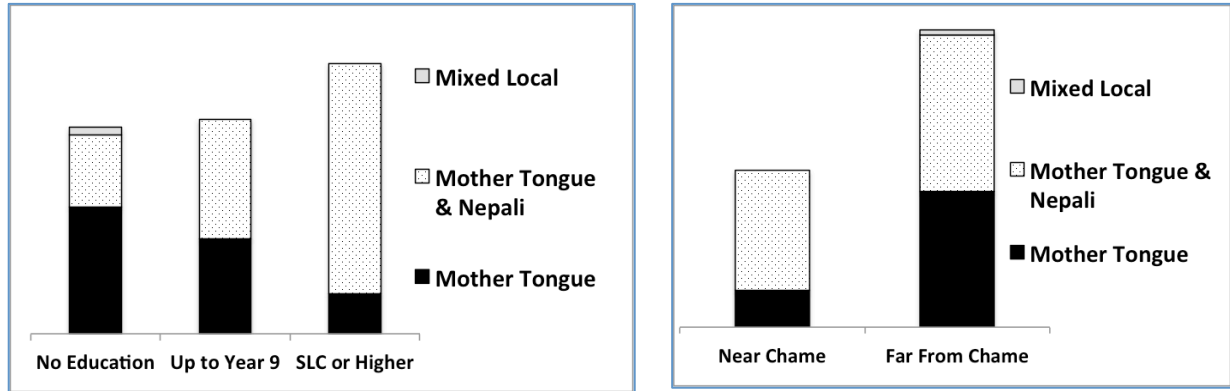
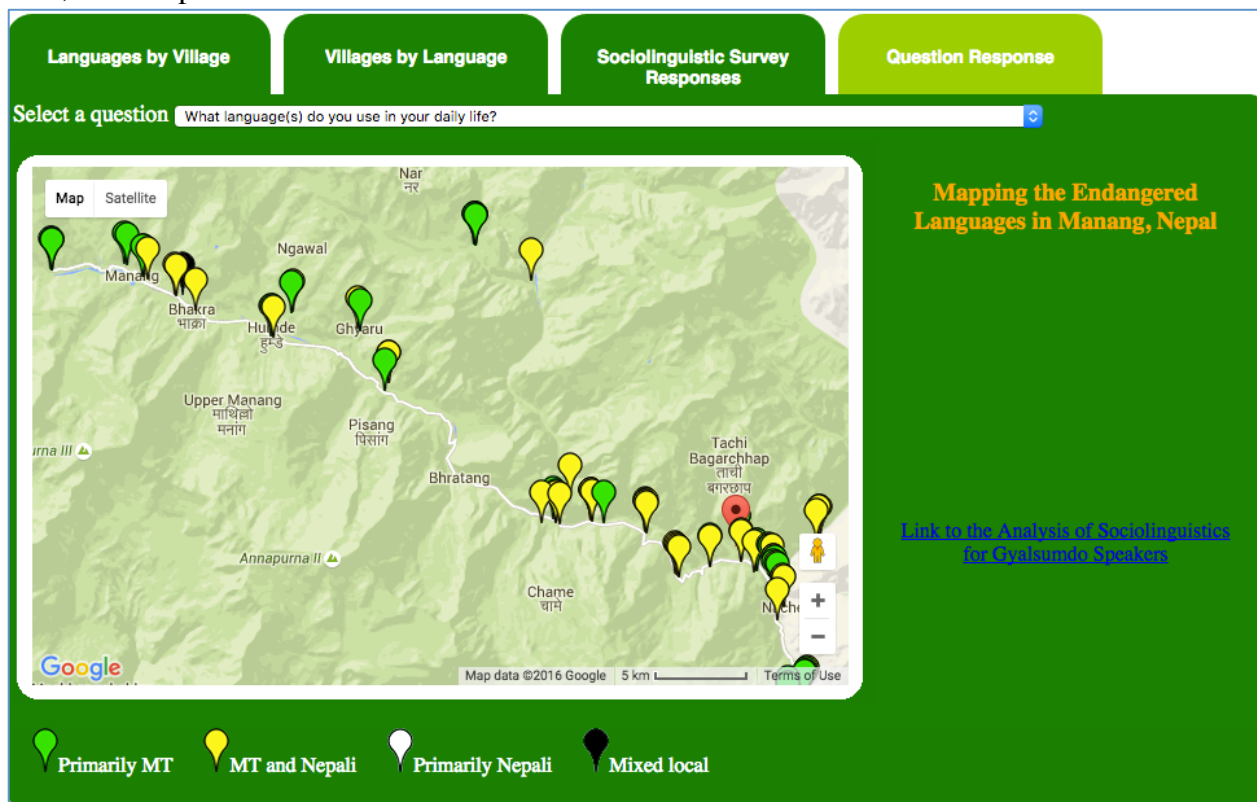


Figure 2. Question 3, Education; N = 87, Grand mean = 2.23, Deviance = 63.379, $r^2 = 0.217$, $p < .001$; Place 3 $p < .05$



MAP 6. Spatial Representation of Language Use at Daily Life

For Question 4 (What language(s) do you use with your spouse?), we included only those respondents who reported they were married. In this case, age was a weakly significant predictor at $p < .05$. The oldest respondents report using only their mother tongues with their spouses, while a more mixed usage scenario emerges with younger age groups. This is illustrated in Figure 3.

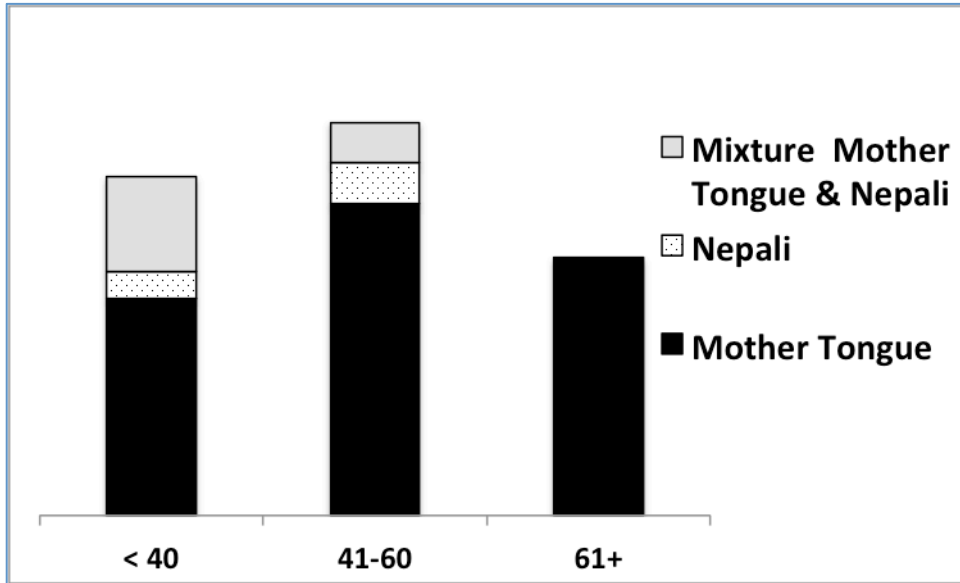


Figure 3. Question 4 Age; N = 73, Grand mean = 1.274, Deviance = 20.75, $r^2 = 0.148$, $p < .05$

For Question 6 (What language(s) do you use at work?), we included only those respondents who reported being employed. Here, Place 2 (proximity to the motor road), and *not* occupation type, emerged as significant in explaining variation in response types ($p < .001$). Those workers who live near the motor road report more Nepali-only, mixed language, or other non-local (e.g. Hindi, English) use at work, while those who live further away report more mother tongue-only, or more mixed language use at work in comparison to Nepali or non-local languages. This is not surprising, as the road provides employment opportunities, but many construction workers come from elsewhere in Nepal or else are part of international donor agencies. This is illustrated in Figure 4 and visualized in Map 7.

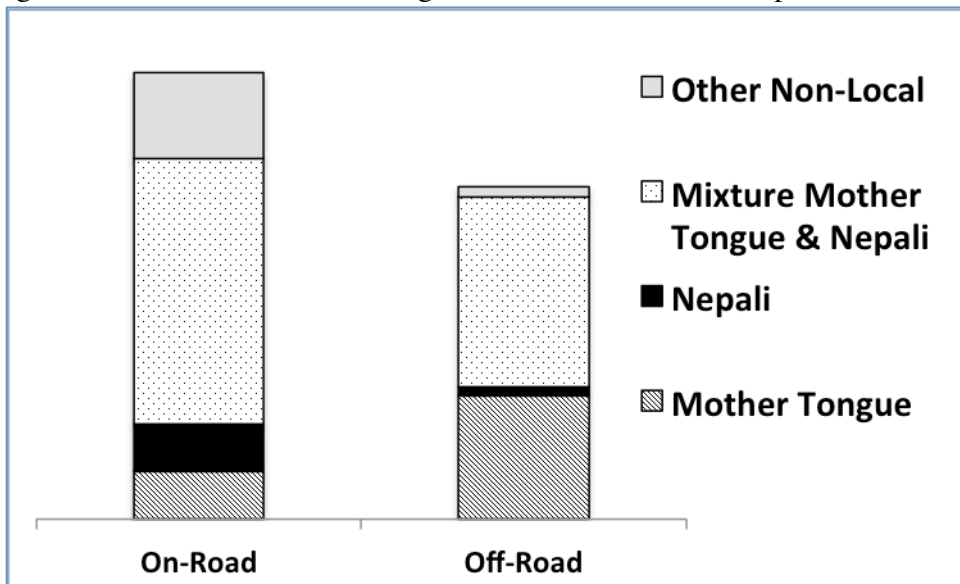


Figure 4. Question 5 Place 2; N = 82, Grand mean = 2.098, Deviance = 54.249, $r^2 = 0.14$, $p < .001$.



Map 7. Spatial Representation of Language Use at Work

For Question 7 (How many languages are spoken in Manang?), two adjusted spatial factors emerged as significant: Place 3 (proximity to Chame) and Place 4 (upper vs. lower Manang). Those respondents located closer to Chame (and in lower Manang) are likely to have a split in ideas about numbers of languages, while those further from Chame are more likely to identify many languages as spoken in the District. This could be due to the comparatively greater ethnic and linguistic diversity that makes up Chame (as a District administrative and business hub); people do not have a firm idea about linguistic diversity in the Chame vicinity. In upper Manang, the presence traditionally of only Manange and Nar-Phu (to the exclusion of other languages), influences a “two languages” response type. Taking the larger area into account and considering both of these factors together, the pattern reflects a more “far from Chame” pattern of “many languages.” In our observations, and as reported in Hildebrandt et al. 2015, residents from upper Manang (those whose mother tongue is Mananges and Nar-Phu) are more likely to be fluent in languages spoken in lower Manang (and therefore recognize these distinctions more precisely) than are residents of lower Manang (primarily Gurung and Gyalsumdo speakers, who less regularly travel to upper Manang). And even within lower Manang itself, Gyalsumdos more frequently report proficiency in and use of Gurung with other Gurungs, while Gurungs do not report proficiency in Gyalsumdo in the same way. This is illustrated in Figure 5 and visualized in Map 8.

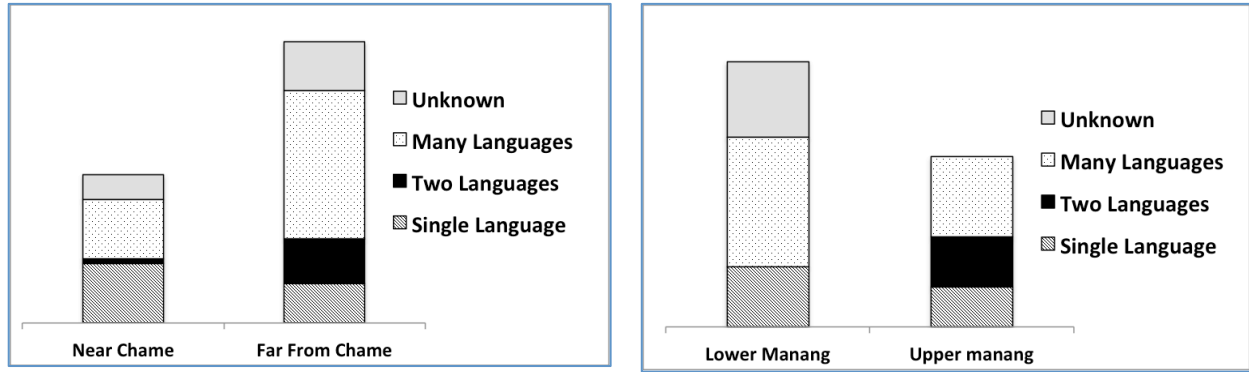
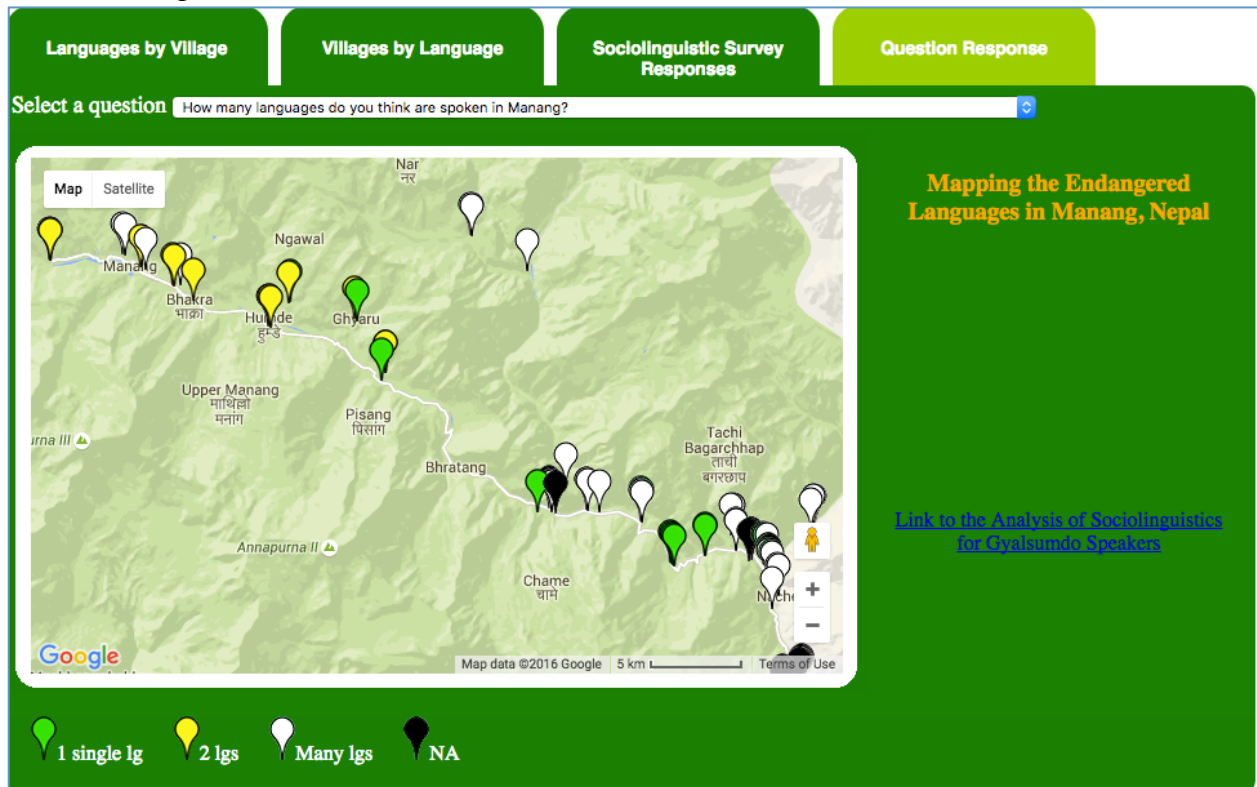


Figure 5. Question 7, Place 3; N = 87, Grand mean = 2.598, Deviance = 55.626, $r^2 = 0.356$, $p < .001$; Place 4 $p < .01$



Map 8. Spatial Representation of Perception of Number of Languages in Manang

For the final question with significant response patterns, Question 9 (Do you think the inclusion/addition of your mother tongue to local school curriculum would be helpful or hurtful to children?), adjusted spatial factor Place 4 (upper vs. lower Manang) emerges as significant. This question was intended as a follow-up to Question 8 (Will your mother tongue continue to be used by children in future generations?), to solicit advice or ideas about how local languages could be introduced into primary and secondary schooling contexts. Respondents from lower Manang (where Gurung and Gyalsumdo are spoken) are more fixed in their idea that introduction of local languages would be helpful for continued use by children. Residents of upper Manang (where Manange and Nar-Phu are primarily spoken) have a slightly more skeptical or mixed opinion about this. Although the motor road now stretches all the way to Manang village, upper Manang in many ways remains more remote from access to modern conveniences and resources than does lower Manang.

The road is structurally unstable and occasionally non-passable in upper Manang, there has been more recent outward migration by young adults, and some villages are still quite a distance away from the motor road. Our observations while conducting fieldwork have been that due to these road infrastructure and access divisions and due to differences in population stability, primary and secondary schools in lower Manang are equipped with better facilities, have more students, and have a higher ratio of locally originating teachers than are schools in upper Manang. It could be this difference in functionality that motivates these differences in opinions. These patterns are illustrated in Figure 6 and visualized in Map 9.

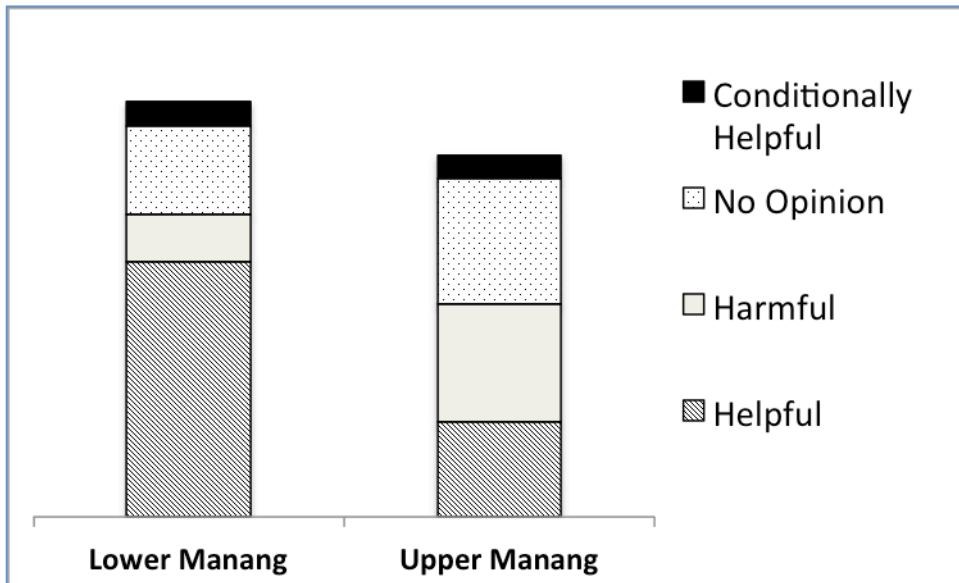
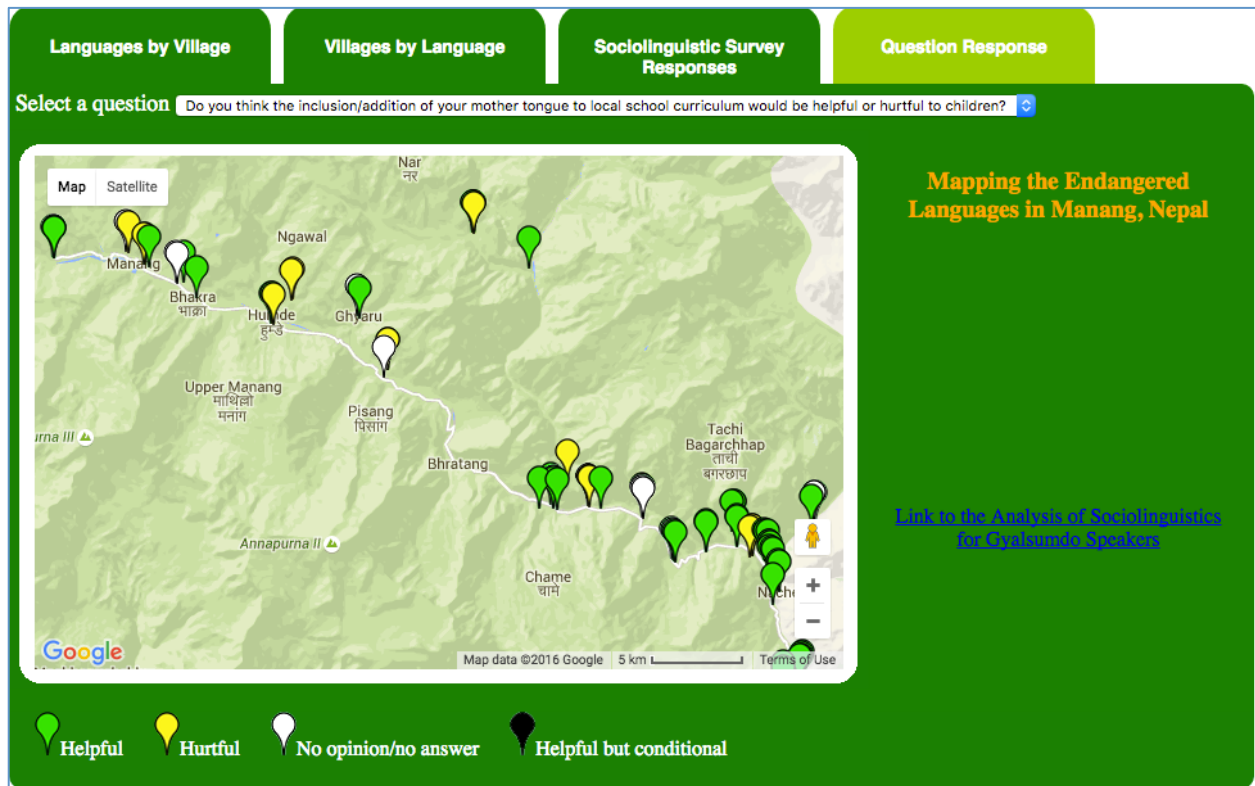


Figure 6. Question 9 Place 4; N = 87, Grand mean = 1.667, Deviance = 89.919, $r^2 = 0.157$, $p < .001$.



Map 9. Spatial Representation of Attitudes About Local Languages in Schools

Discussion

Our study has shown that some attitude and usage questions have response patterns accounted for by social factors. Attitudes about official languages correlate with mother tongue type; reported language use in daily life correlates with degree of formal education; reported language use with one's spouse correlates with age. In the context of Manang, these correlations are not surprising, as age and the impact of formal education have been reported to be significant predictors of other (structural) types of variation (cf. Cheshire et al. eds. 1989, Henry 1995, Hinskens 1996, Stölten and Engstrand 2002). This study shows that particular attitudes and practices may also be appreciated along these factors even in smaller, multilingual communities.

Our study has also shown that other response patterns are accounted for equally as much or better by adjusted spatiality. Although the emergent road (Place 2) does not frequently align with reported practices, it does interestingly account for how people report their language practices at work. We suspect that as time passes and as the road becomes a more reliable, stable presence, other reported practices and attitudes will show similar correlations with this factor. In other words, non-local languages that are clustered along the road, where new businesses have sprung up, will become seen as increasingly important (and practiced) in more and more Manang communities.

The road as a phenomenon in Manang is about one generation old. Those respondents who are now raising their own very young children were themselves children when road construction began (about 15 years). This means that as these age groups have matured, they have witnessed a great deal of change in terms of socio-economic activities, community settlement (or exodus) patterns, and actual physical changes to their local landscapes. We predict that these changes will continue, and proximity to the road and its opportunities will correlate with shifting practices and opinions about language.

Currently, the location and status of the District headquarters, Chame (Place 3), emerges as a frequently correlating location with response types (language use in daily life and perceptions of language diversity in Manang). The “upper” and “lower” spheric division within Manang also factors in, aligning with both perceptions about language diversity in Manang, and with attitudes about the place of local languages in local schools. Again, it is expected that with time, the motor road may bring further development and resources to upper Manang VDC’s, and perhaps with that, shifting attitudes about domains of practice. However, the threat of population loss due to larger regional and international economic pressures that are putting these two languages at increasing risk may act as a counter-balance.

In a more general sense, though, this study also demonstrates that principles of dialect geography, modified to fit smaller and multilingual language communities in landscapes of different spatial scales, may offer an illuminating account of particular types of variation, and can open up avenues for future research in an area undergoing significant and rapid change. The study also shows that language attitudes and practices can be successfully surveyed in small language communities. In the case of Manang, the relevance of spatial alongside social factors reveal a great deal about how the viewpoints of individual language communities and overlap and intertwine (and at times, remain distinct) within a larger multilingual region.

This study focused on just a small sub-set of responses to a larger interview script. Other questions in our survey queried mutual intelligibility across the four Manang languages, perceived degree of fluency, and perceived boundaries of languages throughout Manang. It is expected that responses to these questions would also correlate with both social and adjusted spatial factors. This study also conducted a smaller set of interviews on diaspora speakers of these four languages who relocated to Kathmandu (or abroad) many years ago, and analyses of these data is still underway. A comparison across these groups would also likely reveal interesting patterns (overlaps and divergences) regarding practices and attitudes.

4. Conclusions

This paper had two goals: to demonstrate (in the spirit of Stanford 2009) that with some modification, the methods and topics of sociolinguistic inquiry that are used in large language communities can also be used to reveal patterns of practices and attitudes as they are manifested in small, and under-documented language communities. It also had the goal of applying adapted (non-linear) spatial factors to show that physical and social location of respondents matters as much as social factors in accounting for certain practices and attitudes.

We end with this question for further consideration: Is space the same as language in Manang, an area in which four closely related languages have co-existed in their own communities for many generations? The findings in our study suggest that there is more to it than this simplistic alignment; otherwise the factor of mother tongue would always emerge as significant for all response types. Rather, several notions of space co-exist with different types of social factors in highlighting the different ways in which residents think about and use their languages in their lives. As such, the speakers of the four Manang languages are as complex in their social-cultural orientations and valuations (at least as they are overlaid with language) as we would expect to find in any other part of the world.

The research on language practices and attitudes in this region by no means completed yet. The results of this study will hopefully direct and inform companion structural research in Manang languages, where variation in attitudes and practices serve as a comparative basis for investigations of structural variation. The prospect is already there, as Hildebrandt (2004, 2012) has demonstrated that phonetic correlates to tone vary greatly across different Manange and

Gurung communities, using somewhat broader sociolinguistic demarcations as “urban vs. rural”. Such combined investigations would provide, as Buchstaller and Alvanides (2013: 109) term it, “a socio-demographically informed snapshot of socio-geographical patterns of language variation.” Furthermore, they would throw into sharper relief the constantly evolving landscape in which these languages are practiced and vary, along with the mechanisms behind their shifting and uncertain fates.

References

- Angdembe, T.M. 2013. Saving endangered languages via unnatural selection and utility theory. *Contributions to Nepalese Studies* 39: 35-68.
- Auer, Peter and J. Schmidt (eds.) 2009. *Language and Space: An International Handbook of Linguistic Variation*. Berlin: Mouton de Gruyter.
- Auer, Peter, Frans Hinskens, and Paul Kerswill. 2005. *Dialect Change: Convergence and Divergence in European Languages*. Cambridge University Press.
- Biernacki, P. and D. Waldorf. 1981. Snowball sampling: Problems and techniques of chain referral sampling. *Sociological Methods and Research*. 10.2: 141-163.
- Bourhis, Richard Y., Shaha el-Geledi, and Itesh Sachdev. 2007. Language, ethnicity and intergroup relations. In Ann Weatherall, Bernadette M. Watson, and Cindy Gallois (eds.) *Language, Discourse and Social Psychology*. London: Palgrave, 15-50.
- Britain, David. 2010. Conceptualisations of geographic space in linguistics. In A. Lemali, R. Kehrein and S. Rabanus (eds.). *The Handbook of Language Mapping*. Berlin: Mouton de Gruyter, 69-97.
- Britain, David. 2009. Language and space: The variationist approach. In P. Auer and J. Schmidt (eds.) *Language and Space: An International Handbook of Linguistic Variation*. Berlin: Mouton de Gruyter, 142-162.
- Buchstaller, Isabelle and Seraphim Alvanides. 2013. Employing geographical principles for sampling in state of the art dialectological projects. *Journal of Linguistic Geography* 1: 96-114.
- Buchstaller, Isabelle and Karen P. Corrigan. 2011. How to make intuitions succeed: Testing methods for analysing syntactic microvariation. In W. Maguire and A. McMahon (eds.) *Analysing Variation in English: What We Know, What We Don't, And Why It Matters*. Cambridge University Press, 30-48.
- Central Bureau of Statistics. 2012. *National Population and Housing Census 2011*. Government of Nepal National Planning Commission Secretariat.
- Cheshire, Jenny, Viv Edwards, and Pamela Whittle. 1993. Non-standard English and dialect levelling. In J. Milroy and L. Milroy (eds.) *The Grammar of English Dialects in the British Isles*. London: Longman, 53-96.
- Cheshire, Jenny, Viv Edwards, Henrik Münstermann, and Bert Weltens (eds). 1989. *Dialect and education*. Clevedon/Philadelphia: Multilingual Matters.
- Clarke, S. 2009. Sociolinguistic stratification in new dialect formation in a Canadian aboriginal community: Not so different after all? In J. Stanford and D.R. Preston (eds.) *Variation in Indigenous Minority Languages*, 109-128. Philadelphia/Amsterdam: John Benjamins.
- Coupland, Nikolas, Hywel Bishop, Betsy Evans, and Peter Garrett. 2006. Imagining Wales and the Welsh language. *Journal of Language and Social Psychology*. 25.4: 351-376.
- Dear, M., J. Ketchum, S. Luria and D. Richardson (eds.). 2011. *Geohumanities: Art, History,*

- Text at the Edge of Place*, 226-240. London: Routledge.
- Draper, John Charles. 2010. Inferring ethnolinguistic vitality in a community of northeast Thailand. *Journal of Multilingual and Multicultural Development*. 31.2: 135-147.
- Eppele, J. 2003. Kathmandu Valley Survey: Bahing, Thulung and Wambule Rai. Ms.
- Fought, Carmen. 2002. California students' perceptions of, you know, regions and dialects? In D. Long and D.R. Preston (eds.) *Handbook of Perceptual Dialectology*, Vol. 2. Amsterdam: John Benjamins, 113-134.
- Garrett, Peter. 2010. *Attitudes to Language*. Cambridge University Press.
- Giles, H., Taylor, D. and Bourhis, R. 1977. Dimensions of Welsh identity. *European Journal of Social Psychology* 7: 29-39.
- Glover, W.W. and J.K. Landon. 1980. Gurung dialects. In R.L. Trail et al (eds.) *Papers in South-East Asian Linguistics No. 7 (Series A-No. 53)*. Canberra: Pacific Linguistics.
- Gooskens, Charlotte. (2005). Traveling time as a predictor of linguistic distance. *Dialectologia et Geolinguistica* 13:38-62.
- Gurung, H. 1998. *Nepal: Social Demography and Expressions*. Kathmandu: New ERA.
- Henry, Alison. 1995. *Belfast English and Standard English: Dialect Variation and Parameter Settings*. Oxford University Press.
- Hildebrandt, Kristine A., Dubi Nanda Dhakal, Oliver Bond, Matthew Vallejo, and Andrea Fyffe. A sociolinguistic survey of the languages of Manang, Nepal: Co-existence and endangerment. *NFDIN Journal* 14.6: 104-122. 2015.
- Hinskens, Frans. 1996. *Dialect Levelling in Limburg: Structural and Sociolinguistic Aspects*. Tübingen: Max Niemeyer Verlag (ebook reprint by deGruyter in 2014).
- Hudson, Richard. 2000. *I amn't. *Language* 76: 297-323.
- Japola, M-S, L. Marcuson, M. Marcuson. 2003. *Mustang Survey: A Sociolinguistic Study of the Tibetan-Related Language Varieties Spoken in Upper Mustang and Bahragaun Areas*. Ms.
- Jeon, Lisa. 2013. *Drawing boundaries and revealing language attitudes: Mapping perceptions of dialects in Korea*. University of North Texas Masters Thesis.
- Johnson, Daniel E. 2009. Getting off the GoldVarb standard: Rbrul for mixed-effects variable rule analysis. *Language and Linguistics Compass* 3, 359-83.
- Jorgensen, J.N. and P. Quist. 2001. Native speakers' judgments of second language Danish. *Language Awareness* 10.1: 1-56.
- Kansakar, T.R. 2006. Research on the typology of Nepal's languages. *Nepalese Linguistics* 22: 106-128.
- Kansakar, T.R., Y.P. Yadava, K.P Chalise, B. Prasain, D.N. Dhakal and K. Paudel. 2011. A sociolinguistic study of the Baram language. *Himalayan Linguistics* 10.1: 187-226.
- Kretzschmar, William A. 1996. Quantitative areal analysis of dialect features. *Language Variation and Change* 8: 13-39.
- Kretzschmar, William, Ilkka Juuso, and C. Thomas Bailey. 2014. Computer simulation of dialect feature diffusion. *Journal of Linguistic Geography* 2: 41-57.
- Labov, William. 2001. *Principles of Linguistic Change: Social Factors*. London, New York: Blackwell.
- Labov, William. 1982. Building on empirical foundations. In W. Lehmann and Y. Maikhiel (eds.), *Perspectives on Historical Linguistics*. Amsterdam and Philadelphia: John Benjamins, 17-92.
- Labov, William. 1975. *What is a linguistic fact?* Peter de Ridder Press.

- Labov, William, Sharon Ash and Charles Boberg. 1996. *Atlas of North American English: Phonology and Phonetics*. Berlin: Mouton de Gruyter.
- Larsen, Holly J. and Rebecca G. Williams. 2001. *The Dhimal: A sociolinguistic survey*. Unpublished Ms.
- Laurance, William F. 2014. Roads benefit people but can have massive environmental costs. *National Geographic* (online). Posted October 19 2014
[<http://voices.nationalgeographic.com/2014/10/19/roads-benefit-people-but-can-have-massive-environmental-costs/>]
- Lee, Maureen B. 2005. *Bayung Rai: A sociolinguistic survey*. Centre for Nepal and Asian Studies Ms.
- Lemali, Alfred, Roland Kehrein and Stefan Rabanus (eds.). 2010. *The Handbook of Language Mapping*. Berlin: Mouton de Gruyter
- Mann, Charles C. 2000. Reviewing ethnolinguistic vitality: The case of Anglo-Nigerian Pidgin. *Journal of Sociolinguistics*. 4.3: 458-474.
- Massey, Doreen. 1985. New directions in space. In D. Gregory and J. Urry (eds.), *Spatial Relations and Spatial Structures*. London: Macmillan, 9-19.
- Meyerhoff, Miriam. 2008. Empirical problems of domain-based notions of “simple”. p. 327-355 in M. Meyerhoff and N. Nagy *Social Lives in Language: Sociolinguistics and Multilingual Speech Communities*. Benjamins.
- Orton, Harold, et. al. 1962-1971. *Survey of English Dialects B: The Basic Material*, Vol. 4. Leeds: E.J. Arnold.
- Patton, M.Q. 2005. Qualitative research. *Encyclopedia of Statistics in Behavioral Science*. Wiley Online Library.
- Rai, I.P. 2013. Issues of language planning in Nepal: Linguistic diversity, conflicts and peace building. *Contributions to Nepalese Studies* 40.2: 217-238.
- Romero, S. 2009. Phonological markedness, regional identity, and sex in Mayan: The fricativization of intervocalic /l/ in K’iche’. In J. Stanford and D.R. Preston (eds.) *Variation in Indigenous Minority Languages*, 281-298. Philadelphia/Amsterdam: John Benjamins.
- Stanford, James N. 2009. One size fits all? Dialectometry in a small clan-based indigenous society. *Language Variation and Change* 24: 247-278.
- Stölten, K. and O. Engstrand. 2002. Effects of sex and age in the Arjeplog dialect: A listening test and measurements of preaspiration and VOT. *TMH-QPSR* 44: 29-32.
- Thomas, Bryn, Henry Stedman, Jamie McGuiness. 2006. *Trekking in the Annapurna Region*. Surrey, U.K.: Trailblazer Publications.
- Trudgill, Peter. 1974. Linguistic change and diffusion: description and explanation in sociolinguistic dialect geography. *Language in Society* 3: 215-246.
- Tumbahang, G.B. 2012. Linguistic pluralism in Nepal. *Contributions to Nepalese Studies* 39: 77-104.
- Turin, Mark. 2012. *A Grammar of Thangmi with an Ethnolinguistic Introduction to the Speakers and their Culture*. Brill’s Tibetan Studies Library, Languages of the Greater Himalayan Region. Leiden: Brill.
- Webster, J. 1992. *Tibeto-Burman Dialects of North Gorkha District, Nepal*. Ms.

