Colour terms in Tibeto-Burman languages

Mark Turin, Chung Benjamin

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Adres:
"Rocznik Orientalistyczny"
Faculty of Oriental Studies
University of Warsaw
00-927 Warsaw 64
e-mail: rorient@pan.pl

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Realizacja wydawnicza:
Dom Wydawniczy ELIPSA
ul. Inflancka 15/198, 00-189 Warszawa
tel. 22 635 03 01, 22 635 17 85
e-mail: elipsa@elipsa.pl, www.elipsa.pl

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MARK TURIN and BENJAMIN CHUNG

Colour Terms in Tibeto-Burman Languages

Abstract

In their handling of colour, Tibeto-Burman languages of the Himalayan region show multiple lexical similarities to one another as well as apparent influences from more dominant languages such as Hindi, Nepali, Tibetan, and Chinese. As an understudied family, Tibeto-Burman languages also serve as an important site to explore modern colour theory and conceptualisation. Outlier languages in the Tibeto-Burman family that do not appear to follow either traditional or revised versions of Brent Berlin & Paul Kay's theories are of particular significance. This survey provides a systematic review of the existing literature and a baseline of comparative colour terminology for these generally vulnerable and often endangered languages.

Keywords: Tibeto-Burman languages, colour terminology, Himalayan studies, loanwords, reduplication

In this article,[1] we describe, review and assess colour terminology in nineteen Tibeto-Burman languages spoken across the Greater Himalayan range. Through a systematic analysis of publically available synchronic linguistic data published in various grammars and articles, this contribution offers an overview of colour terminology in Tibeto-Burman

[1] We are particularly grateful to Sonam Chusang for help in translating and transliterating Tibetan words and concepts, and to the University of British Columbia and its many libraries, which when taken together, have provided both funding for this project and made accessible many of the resources that we have consulted. This article was written on the traditional, ancestral and unceded territory of the hən̓q̓əmin̓əm-speaking xʷməθkʷəy̓əm (Musqueam) people. In addition, we are thankful to the editors of the journal for their insights and guidance, and the two anonymous peer reviewers who gave freely of their knowledge and experience. The recommendations and suggestions that we received have made this article stronger. Needless to say, all remaining errors, misrepresentations and infelicities are our own.

languages, with a particular focus on languages spoken in Eastern Nepal. We begin with a brief account of colour theory and recent developments in this important and fast-changing field in order to lay a foundation for the data that follows. We then briefly describe the Tibeto-Burman language family and note some distinctive features that recur in our data. In the substantive section of our paper, we review and compare the available linguistic data, beginning our analysis with more typical, expected colour terminology and then extending to more complex and specialized inventories.[2] Given that relatively little research has been conducted on colour terminology in Tibeto-Burman languages, and even less of the available research has been incorporated into modern theory (including Berlin & Kay's colour theory), this study serves as baseline for further investigation. Moreover, this comparative compilation of publically-available linguistic data raises important theoretical issues in the fields of cognition, linguistic relativism and genetic relation in an under-described body of languages diverse in phonology, affixation, and lexicon. This is particularly relevant for the languages that appear to deviate from more conventional understandings of colour expression.

A Brief Introduction to Colour Theory

In 1969, Brent Berlin & Paul Kay's revolutionary study of colour perception and language forever changed how linguists and anthropologists understand the world's languages and the worldviews that they transmit. Berlin and Kay's argument proposed the existence of universals in human languages for the description of colours, and the authors argued that over time, a lexicon may develop to incorporate more colour terminology in a predictable, linear progression.[3] A summary of their initial findings is as follows:

1. All languages contain terms for white and black.
2. If a language contains three terms, then it contains a term for red.
3. If a language contains four terms, then it contains a term for either green or yellow (but not both).
4. If a language contains five terms, then it contains terms for both green and yellow.
5. If a language contains six terms, then it contains a term for blue.
6. If a language contains seven terms, then it contains a term for brown.
7. If a language contains eight or more terms, then it contains a term for purple, pink, orange, grey, or some combination of these.[4]

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[2] In such a typological and comparative endeavor, it is near impossible to standardize transcriptions across grammars, authors and different theoretical approaches. On consideration, we have chosen to represent the languages of the region in the original orthographies in which each researcher initially composed their publications. For the interested reader, we recommend further consultation with the respective grammar and other related sources.

[3] Paul Kay and Chad K. McDaniel, *The Linguistic Significance of the Meanings of Basic Color Terms,* "Language" (54) 3, (1978), p. 610.

[4] Ibidem, p. 613.

Later findings relating to the biological processes involved in colour perception as well as criticism of the original claims have helped to add nuance to, and further develop, the original theory, including revisions offered by Kay himself. Drawing on Berlin & Kay's foundational work, Kay & McDaniel's analysis suggests that colour universals result from the neurological aspect of colour reception, challenging positions held by linguistic relativists. Kay & McDaniel propose that, "each basic colour category can be regarded as a fuzzy set where the elements in each set are chosen from the set of all colour percepts,"[5] where, "there is a continuous and gradual decline from unity to zero in the membership values of successive [colours]."[6] In their analysis, Kay & McDaniel challenge the notion of discrete, "semantic [prime] features"[7] in colours, and support the legitimacy of "colours"[8] like blue-green. In their revised theory, black, white, red, yellow, green, and blue are repositioned as the major categories/foci that then combine and intersect to create more diverse, later stage colours as well as account for perceptive coolness and darkness.[9] Thus, their identification of fuzzy sets validates the inclusion of non-traditional colours in schematic analyses.

In an additional study, Kay & Maffi expand the theory further and negotiate its bearings in relation to the newer Emergence Hypothesis (EH), which claims that "not all languages necessarily possess a small set of words or word senses each of whose significatum is a colour concept and whose significata jointly partition the perceptual colour space."[10] They ultimately conclude that Partition (a predisposition to semantically divide a domain into lexemes) may not manifest in a uniformly typological manner for colour terms and that it remains a central distinction, as some languages do not exhibit partition whatsoever.[11] A re-ordering of colour partition principles (i.e. general Partition, as outlined above; Black & White distinction; Warm & Cool distinction; and Red distinction) derived from Berlin & Kay's original and revised theories then becomes necessary. Once incorporated, this theoretical modification can account for great linguistic diversity and the existence of non-partitioning lexicons.[12]

In more recent work, Lindsey & Brown explore the universality of colour names and terminology through the World Colour Survey (hereafter WCS) which had originally been developed as a database by Kay and emerged out of their landmark study.[13] Lindsey & Brown's analysis of colour clusters – making use of a similarity metric in order to more accurately observe patterning – reveals that cluster patterns do approximately

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5 Ibidem, p. 624.

6 Ibidem.

7 Ibidem, p. 611.

8 Ibidem.

9 Ibidem, p. 637.

10 Paul Kay and Luisa Maffi, *Color appearance and the emergence and evolution of basic color lexicons*, "American Anthropologist" (101) 4, (1999), p. 744.

11 Ibidem, p. 745.

12 Ibidem, pp. 746–749, 755.

13 Delwin T. Lindsey and Angela M. Brown, *Universality of Color Names*, "Proceedings of the National Academy of Sciences of the United States of America" (103) 44, (2006), p. 16608.

coincide with English colour boundaries across multiple languages.[14] On account of the "time-dependent"[15] nature of the survey, however, the authors were not able to determine with accuracy any evolutionary or developmental projections in terminology. A study by Thierry, Athanapoulos, Wiggett, Dering, Kuipers & Ungerleider of Greek and English speakers' colour perceptions supports the proposal that speakers may actually unconsciously discriminate colours in their lexical inventory.[16] Their use of vMMN, "an electrophysical index of perceptual deviancy detection,"[17] could well be evidence that, "language may fundamentally shape and affect automatic, low-level, unconscious perception of the experienced world."[18]

Despite this flurry of recent interest in colour terminology from researchers in a range of disciplines, some scholars continue to question the very basis of universal and categorical claims. Saunders outright refutes Berlin & Kay's original theory and suggests that, "colour is not a natural thing (made of reflectances, retinal pigments, opponent processes), but exists through noticings and reportings as an ensemble of social relations … [and] to obtain it needs socio-historical and cultural specificities."[19] Unconvinced following even a rejoinder from Kay himself, Saunders continues to challenge traditional theory, arguing that, "both empirical analysis and theory involve inherently philosophical and historiographic endeavors."[20] Such criticism is not altogether unfounded, as the original theory has been subjected to considerable alterations and ongoing refinements. In addition, inconsistencies still exist, such as the colour grey being a "wild card at various points in the sequence,"[21] a point conceded by Berlin & Kay.

In this article, we make generous reference to Berlin & Kay's theory. We believe that prior acknowledgment of the theory, its critiques and its amendments is crucial for the analysis of non-Western languages that remain largely under documented. Strangely, although the World Colour Survey classified 110 languages, not a single Tibeto-Burman language is represented in the dataset. This presents fertile space for further inquiry, and challenges – if only through absence – the global reach of Berlin and Kay's theory and its putative claims to universality.[22] It is widely agreed that in some understudied language families, Berlin & Kay's colour patterns appear to surface with regularity.

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[14] Ibidem, p. 16611.

[15] Ibidem, p. 16612.

[16] Guillaume Thierry et al., *Unconscious Effects of Language-Specific Terminology on Preattentive Color Perception*, "Proceedings of the National Academy of Sciences of the United States of America" (106) 11, (2009), p. 4568.

[17] Ibidem, pp. 4567–4568.

[18] Ibidem.

[19] Barbara Saunders, *Revisiting Basic Colour Terms*, "Journal of the Royal Anthropological Institute" (6) 1,(2000), p. 93.

[20] P. Kay, *In Defense of Color Categories in Thought and Language (Hardin and Maffi, eds.): A Response to BAC Saunders's Review*, "American Anthropologist" (102) 2, (2000), pp. 321–323.

[21] Kay and McDaniel, *Linguistic Significance of the Meanings of Basic Color Terms*, p. 640.

[22] *WCS Languages, ISO 639-3 Codes, Families, and Countries Where Recorded*, Viewed 16 July 2017, <www1.icsi.berkeley.edu>.

Despite some major outlier that contain only terms for black, white, and green, in their colour survey of the Pama-Nyungan language family spoken in Australia, Haynie & Bowern note that Berlin & Kay's overall theory does hold.[23] Principally, and given that lexicons do change, Haynie & Bowern investigate how ancestral node reconstruction allows subgrouping when applied through parameters of potential loss and gain of terms. It is noteworthy that the loss of colour terms is not theorized by Berlin & Kay as a typical, observable phenomenon.[24] Through a process of reconstruction, Haynie & Bowern offer a typologically-informed predication of which colours may have historically been lost and gained along direct linguistic nodes or subdivisions in the wider family. Haynie & Bowern's work illustrates how, through processes of both loss and gain, contemporary descendent languages may have diverged from Proto-Pama-Nyungan, which likely contained only black, white, and red.[25]

Discrepancies and differences in the field still exist. Researchers like Wierzbicka continue to assert that the concept of "colour universals"[26] is in reality "self-contradictory,"[27] a linguistic oxymoron. Since some languages do not even have a word for colour itself, no human universal for it can possibly be said to exist. Wierzbicka draws our attention to what we may call the ethnocentric linguistic bias in the Western study of colour: languages without some of the colours commonly found in Western languages (particularly English) are often presented as exhibiting "lexical gaps."[28] It is hard to disagree with Wierzbicka when she reasons that, "it is not a matter of lexical gaps; it is a matter of different ways of looking at the world."[29] Wierzbicka asserts that a "natural semantic metalanguage (NSM)" is necessary to "bridge between the conceptual world of the linguist and anthropologist and that of the indigenous consultant" and advances a more culturally-literate, locally-informed and Indigenous perspective to understand colour in non-Western context.[30] As will become apparent below, emic understandings and cultural groundedness are vital to make sense of colour terminology in the complex and diverse Tibeto-Burman family of languages.

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[23] Hannah J. Haynie and Claire Bowern, *Phylogenetic approach to the evolution of color term systems,* "Proceedings of the National Academy of Sciences of the United States of America" 113 (48), (2016), pp. 13668, 13670.

[24] B. Berlin and P. Kay, *Basic color terms: their universality and evolution*. University of California Press, Berkeley & Los Angeles 1969; Kay and Maffi, *Color Appearance and the Emergence and Evolution of Basic Color Lexicons*; Haynie and Bowern, *Phylogenetic approach to the evolution of color term systems*, p. 13667.

[25] Haynie and Bowern, *Phylogenetic Approach to the Evolution of Color Term Systems*, p. 13669.

[26] Anna Wierzbicka. *Why There Are No 'Colour Universals' in Language and Thought*, "The Journal of the Royal Anthropological Institute" (14) 2, (2008), p. 408.

[27] Ibidem.

[28] Ibidem.

[29] Ibidem, p. 417.

[30] Ibidem, pp. 408, 419.

The Tibeto-Burman Family

Tibeto-Burman languages are a subgroup within the somewhat contested Sino-Tibetan family, which broadly includes the massive array of Chinese languages. Taxonomic and genetic descriptions are rife with complexity and disagreement, with van Driem proposing "Trans-Himalayan"[31] to account for the linguistic geography of the region. Tibeto-Burman languages stretch from Kashmir to Vietnam, and as a result of massive areal range and huge internal diversity, genetic affiliations remain hotly contested.[32] With this disclaimer, we nevertheless continue to use Tibeto-Burman to describe this language grouping as it remains a commonly recognized category at the time of writing. The focus of this article is on the colour terminology of the Rāī-Kiranti ethnolinguistic subgrouping of Eastern Nepal, with further data from neighbouring Tibeto-Burman languages to the extent that such data is available. This article provides a particular emphasis on colour terminology in Thangmi (UNESCO: definitely endangered, 33,500 speakers, ISO 639-3: thf),[33] also known as 'Thami', using data drawn from the primary field work of one of the co-authors. Thangmi exhibits one of the smallest ranges of colour in the entire family as well as a grammatical alienability distinction with the colour 'red'. Each time that we introduce a new language in the course of this article, the vitality status, number of speakers, and ISO 639-3 code are also supplied. While census data in the Himalayan region are notoriously unreliable, and have been known to omit elements of the population on the fringes of the community or geographically distant and culturally distinct from major centres of political influence, we have chosen to include official census data if only to emphasize the important impact that speaker size can have with regard to language change and maintenance.[34] Additional languages highlighted from a variety of sources with idiosyncratic colour inventories in this typological study include Yakkha (critically endangered, 14,648 speakers, ISO 639-3: ybh)[35] that possesses a 'red/ non.red'sub-binary within its own system and Ladakhi (vulnerable, 105,000 speakers, ISO 639-3: cna;lbj;tkk)[36] that exhibits a complex and artistic colour schema.

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[31] George van Driem, *Tibeto-Burman Subgroups and Historical Grammar*, "Himalayan Linguistics" (10) 1, (2011), p. 32.

[32] David Bradley, *Tibeto-Burman Languages and Classification*, "Pacific Linguistics", Canberra 1997, p. 1; Scott DeLancey, *Sino-Tibetan Languages*, in: *The World's Major Languages*, Oxford University Press, Oxford 1987, p. 693; Tej R. Kansakar, *The Tibeto-Burman Languages of Nepal: A General Survey*, Kirtipur 1993, pp. 165–166; G. Thurgood and R.J. LaPolla (eds.), *The Sino-Tibetan Languages* (Vol. 3), "Psychology Press", (2003), p. 7.

[33] *UNESCO Atlas of the World's Languages in danger*, Viewed 24 July 2017, <http://www.unesco.org/languages-atlas/index.php>.

[34] Mark Turin, *Time for a True Population Census: the Case of the Miscounted Thangmi*, "Nagarik (Citizen)", 2 (4), Kathmandu (2000), pp. 14–19.

[35] *UNESCO Atlas of the World's Languages in danger.*

[36] Ibidem.

Adjectives and (Re)duplication in Tibeto-Burman Languages

Salient to the present discussion, many Tibeto-Burman languages share two noteworthy characteristics: adjectival classes and the occurrence of (re)duplication. First, in Tibeto-Burman languages, adjectives are usually derived from verbs, clear examples of which exist in Thulung Rai (definitely endangered, 14,034 speakers, ISO 639-3: tdh),[37] Yakkha, and Jero (vulnerable, 2,000 speakers, ISO 639-3: jee),[38] each which will be covered in some detail below.[39] The derivational nature of adjectives in the family reflects the general lexicon of Tibeto-Burman languages, which are known for a rich inventory of complex and descriptive verbs and verb paradigms. Second, reduplication, which Abbi describes as, "[the] repetition of all or part of a lexical item carrying a semantic modification"[40] does not necessarily entail that a part of a word is in fact *reduplicated*, but rather reproduced or simply duplicated in some manner. Abbi describes this process as a "common phenomenon"[41] within this language family, demonstrating a *sprachbundian* effect shared between neighbouring Indo-Aryan languages (and some Dravidian languages) spoken in the region. For this reason, reduplication is not a characteristic exclusive within the Tibeto-Burman family, but rather an areal feature throughout South Asia. For more information on reduplication, we direct the reader to classic studies by Emeneau (1956) and Masica (1976).[42]

In Tibeto-Burman languages, these two features can appear in concert with one another, resulting in reduplicating onomatopoeic verbs that are particularly attested in the Bodic subgroup that includes the Rāī-Kiranti languages.[43] For example, in Magar (definitely endangered, 489,383 speakers, ISO 639-3: mgp, mrd),[44] *khasak-khusak ka* means 'whisper'[45] while *phawk phawk jat* means 'pat something'.[46] In Magar, onomatopoeic verbs are a complex class that may combine with nouns as well as full lexical verbs, and can function as adverbial components.[47] In South Asia, reduplicated constructions commonly

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[37] Ibidem.

[38] Ibidem.

[39] Aimeé Lahaoussois, "Aspects of the Grammar of Thulung Rai: an Endangered Himalayan Language" (PhD diss., University of California Berkeley, 2002), p. 196; Diana Schackow, *A Grammar of Yakkha*, Berlin 2015, p. 80; Jean R. Opgenort, *A Grammar of Wambule: Grammar, Lexicon, Texts, and Cultural Survey of a Kiranti Tribe of Eastern Nepal*. Brill, Leiden 2004, p. 115.

[40] Anvita Abbi, *Reduplication in Tibeto Burman Languages of South Asia*, "Southeast Asian Studies" (28) 2, Kyoto (1990), p. 171.

[41] Ibidem, p. 171.

[42] We thank one of our anonymous reviewers for emphasising the importance of earlier publications that highlight reduplication throughout South Asia.

[43] Karen Grunow-Harsta, *A Descriptive Grammar of Two Magar Dialects of Nepal: Tanahua and Syangja Magar,* The University of Wisconsin-Milwaukee 2008, p. 150.

[44] *UNESCO Atlas of the World's Languages in Danger.*

[45] Ibidem, p. 151.

[46] Ibidem.

[47] Ibidem, p. 152.

appear in adverbs as well as in expressives which exhibit the senses.[48] Abbi suggests that two forms of reduplication – morphological and lexical – should be considered to be areal features of the region.[49] Although reduplication is manifested in a range of lexical items, not all Tibeto-Burman languages reduplicate as predictably or productively. In Thado, for example, colour and taste modifiers never reduplicate, whereas colour terms in our data set are often reduplicated.[50] As is to be expected in a language family of such size, areal reach and internal complexity, it is difficult to discern specific characteristics that may be said to be shared by or common to all Tibeto-Burman languages.

Loans in Tibeto-Burman Languages

Many Tibeto-Burman languages, and certainly those spoken in Nepal, borrow from socially and politically dominant languages such as Nepali. In at least two cases outlined below, the colour term for 'yellow' has been taken from the Nepali word for turmeric (*besār*), denoting the rich colour of the processed spice, *Curcuma longa*.[51] Similarly, Gyarong (Ethnologue: vigorous, 83,000 speakers, ISO 639-3: jya),[52] a Tibeto-Burman language spoken in Sichuan, China, exhibits colour loans from the more dominant languages of the region, Sichuanese Mandarin and Tibetan.[53] This dynamic of lexical borrowing and ultimately language shift are crucial for understanding the rate of endangerment among Indigenous languages across the globe, not just those within the Tibeto-Burman family. For this reason, and throughout this study, we highlight these loan words when we have been able to identify them and are confident about their provenance.

Grzega explores why languages borrow words and identifies a number of causes that may contribute to our understanding of borrowed of colour terms in Tibeto-Burman languages. Explanations for borrowing that are relevant to our research include, among others: "feeling of insufficiently differentiated conceptual fields";[54] "rise of a specific conceptual field";[55] "political or cultural dominion of one people by another";[56] "mere

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[48] Abbi, *Reduplication in Tibeto Burman Languages*, p. 172.

[49] Ibidem, p. 171.

[50] Ibidem, p. 177.

[51] Gerard J. Tolsma, *A Grammar of Kulung, Languages of the Great Himalayan Region*, Brill, Leiden 2006, p. 40; Schackow, *A Grammar of Yakkha*, p. 162.

[52] David M. Eberhard, Gary F. Simons, and Charles D. Fennig (eds.). 2015. *Ethnologue: Languages of the World*. Twenty-second edition. Dallas, Texas: SIL International.

[53] Yasuhiko Nagano, *A Preliminary Note to the Gyarong Color Terms*, Osaka (2008), p. 101.

[54] Uriel Weinreich, *Languages in Contact: Findings and Problems* (1), The Hague (1953), p. 59; as cited by J. Grzega, *Borrowing as a Word-Finding Process in Cognitive Historical Onomasiology*, "Onomasiology Online" (4) (2003), p. 23.

[55] Joachim Grzega, *Some Aspects of Modern Diachronic Onomasiology*, (2002), p. 1030; as cited by Grzega, *Borrowing as a Word-Finding Process*, p. 23.

[56] Gerd Fritz, *Change of Meaning and Change of Vocabulary*, "Sociolinguistics: An International Handbook of the Science of Language and Society" (11), (1988), p. 1622; as cited by Grzega, *Borrowing as a Word-Finding Process*, p. 23.

oversight or temporary lack of remembering the indigenous name";[57] and "low frequency of indigenous words and instability of words within a region."[58] At this juncture, it is essential to acknowledge that the presence of loan words and borrowings in a language do not make these additions any less legitimate as items in the lexicon. Rather, the inclusion of lexemes (whether they be calques or loans) in these languages are the end result of complex, historical and often intersecting factors.

In the context of the Tibeto-Burman languages spoken in Nepal, the most salient motive for borrowing from the above list is arguably "political or cultural dominion of one people by another."[59] UNESCO considers most of the languages that we cover in this airtlce to be endangered or vulnerable, a compelling indication of the huge socio-political forces that threaten Indigenous languages and cultures in the region. It is entirely credible to propose that such rapid transformations – through rampant urbanisation, a strengthening media sector, social and political upheavals and compulsory primary education – could also further catalyze, "[a] feeling of insufficiently differentiated conceptual fields"[60] or the, "[subsequent] rise of a specific conceptual field"[61] that may have been previously absent in these languages, thus stimulating innovation and changes in the lexicon.

When it comes to Indigenous terms and lexicon, the causes behind borrowing must be carefully scrutinized. As Grzega notes, "what is a low frequency rate of a word? Does it mean that the concept is rarely talked of? Does this then include that infrequent concepts have a tendency to be named with a loanword?"[62] Wierzbicka draws our attention to the prevalent if dangerous tendency of evaluating and comparing Indigenous names and words to the lexicon of world languages (especially English), all of which can lead to skewed and highly partial analysis.[63] When discussing loans, it is therefore important to bear in mind Wierzbicka's wise counsel: we must challenge ourselves to distinguish between instances when there is an actual "lexical gap"[64] and situations which can be explained as an alternative viewpoint or worldview that cannot be easily lexicalized or rationalized in another language. It is also necessary to recognize the presence of – and differences in – metaphoric and literal meaning that may arise in these terms in their respective languages. Complex uses cannot be easily determined by outside researchers

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[57] Weinreich, *Languages in Contact*, p. 60; U.G. Baranow, "Studien zum deutsch-portugiesischen Sprachkontakt in Brasilien" (Master's diss., Ludwig Maximilian-Universität, München 1973), p. 138; G. Tesch, *Linguale Interferenz: Theoret., Terminolog. u. Method. Grundfragen zu ihrer Erforschung*, Tübingen 1978, p. 209, 214; as cited by Grzega, *Borrowing as a Word-Finding Process*, p. 24.

[58] Weinreich, *Languages in Contact*, p. 57; M. Scheler, *Der Englische Wortschatz: Grundlagen der Anglistik und Americianistik*, Berlin 1977, p. 88; as cited by Grzega, *Borrowing as a Word-Finding Process*, p. 24.

[59] Fritz, Change of Meaning and Change of Vocabulary, p. 1622; as cited by Grzega, *Borrowing as a Word-Finding Process*, p. 23.

[60] Weinreich, *Languages in Contact,* p. 59; as cited by Grzega, *Borrowing as a Word-Finding Process*, p. 24.

[61] Grzega, *Aspects of Modern Diachronic Onomasiology*, p. 1030; as cited by Grzega, *Borrowing as a Word-Finding Process*, p. 23.

[62] Grzega, *Borrowing as a Word-Finding Process*, p. 24.

[63] Wierzbicka, *Why There Are No 'Colour Universals*, p. 417.

[64] Ibidem, p. 408.

and require further semantic and pragmatic analysis. In addition, we acknowledge that historical sound changes within the Tibeto-Burman family make it difficult to accurately identify and describe all cognates at this time. To that end, in this article, we take no position on the cause or reasons for specific borrowings, and restrict ourselves to indicating cognates and loans that are of particular note or interest in the present discussion.

Basic Tibeto-Burman Colour Terminology in Perspective

Across the Tibeto-Burman family, we have found no indication of an average number of colour terms that a language might exhibit. Languages like Gyarong boast approximately eleven distinct colour terms, while others such as Thangmi have only three.

For example, Kham (definitely endangered, 30,000, ISO 639-3: kgj, kip)[65] attests only 4 colour terms and thus would be considered a Stage III language within Berlin & Kay's initial theory.[66]

Table 1. Kham Colours[67]

Kham	English
'molo	black
palo or *'pəlã:*	white
'gyahm-nya	red
'pĩ:-nya	green

It is of note there are various dialects of Kham, and the terms provided derive from the Takale dialect, which is the most prestigious dialect for the Western Parbate subgroup.[68] Watters argues that there are visible relationships with other proximous languages including Chepang and Thakali (which will be discussed in this paper); although he concedes that his position is speculative.[69]

In Kham, 'white' and 'black' do not end with <-*nya*>, a morpheme present in other adjectives including 'red' and 'green'. This distinction is of interest as 'black' and 'white' represent the basis for human colour perception. Nevertheless, Kham can be positioned as a typical language in the Berlin & Kay scale, lexicalizing four colours including 'green' but not any form of 'yellow'.

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[65] *UNESCO Atlas of the World's Languages in danger.*

[66] D.E. Watters, *A Grammar of Kham*, Cambridge 2002, pp. 452–453.

[67] Ibidem.

[68] Ibidem, pp. 12, 432.

[69] Ibidem, p. 432: Watters lists a variety of sources from which he has gathered Kham lexicon over the years in this section of his grammar, but does not specify an exact reference for each lexeme in the subsequent text. Please refer to the original grammar for these sources.

By contrast, Kulung (vulnerable, 18,686 speakers, ISO 639-3: kle),[70] an Eastern Rāī language, possesses five distinct Indigenous colours and one loan: *besarwa* 'yellow', derived from the Nepali word for 'turmeric' *besār*.[71] Interestingly, 'yellow' is distinct from 'light yellow', which is encompassed within the Kulung term for 'white': *omlo:pa*. Moreover, reduplication is observed for most terms other than 'yellow' and 'light yellow'. In Kulung, these adjectives are adjectival in nature and are not derived from verbs, setting them apart from other Tibeto-Burman relatives.

Table 2. Kulung Colours[72]

Kulung	English
omlo:pa	white, light yellow
gugurpa	black
halala:pa (possibly Nep.)	red, pink
gigippa	green, blue, purple
besarwa (Nep.)	yellow
momoppa	brown

1 *am-pʰaji* *gugur-yo* *cʰuː-a* *kʰat-a.*
your^{s}-rucksack black-INT be-PT go-PT
Your^{s} rucksack has become pitch-black.[73]

In the above example, the Kulung word for 'black' *gurgurpa* is shown with an intensifier suffix <-*yo*> instead of *–pa*, which would be typical for unmodified colours and other adjectives.[74] In this case, 'black' is not simply 'black' but 'very black' or 'pitch-black'.[75] It is not clear how *besarwa* might intensify as it lacks the *–pa* suffix typical of colours. It is also noteworthy that *besarwa* is not a native word in the Kulung language, but a loan from Nepali in which it is not a colour *per se* but rather the name of a spice.

In Kulung, as in other Tibeto-Burman languages, including Thangmi, colours can be nominalised to describe people and things as, "the one who is …"[76]

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[70] *UNESCO Atlas of the World's Languages in Danger.*
[71] Tolsma, *Grammar of Kulung*, pp. 1, 40.
[72] Ibidem, p. 40.
[73] Ibidem.
[74] Ibidem, p. 41.
[75] Ibidem.
[76] Ibidem, p. 102.

2 *omlo:pa-kə*
white-SUB
the white one[77]

In the above example, the subordinating suffix <-*kə*> attaches to *omlo:pa* to describe someone or something that is 'white'. In principle, *omlo:pa-kə* could also mean 'the light yellow one'.

Thulung Rai (definitely endangered, 14,034 speakers, ISO 639-3: tdh)[78] shares some features with Kulung, including some recognizable cognates. Thulung Rai does exhibit some discrete colours that are not attested in Kulung, and the Thulung colour inventory is derived from verbs.[79]

Table 3. Thulung Rai Colours[80]

Thulung Rai	English
lalam	red (possibly from Nepali *lāl* 'red')
gigim	green
kekem	black (possibly from Nepali *kālo* 'black')
ʔoʔom	yellow
bubum	white
nunum	blue, 'green-blue' (possibly from Nepali *nilo* 'blue')

Interestingly, *nunum* is described as both 'blue' and 'green-blue' by Lahaussois.[81] As noted above, this discrepancy may be down to different perceptions of colour boundaries and does not necessarily imply that there is no term for 'blue' in the language, but rather that some 'greens' may be incorporated into the category 'blue'. Other languages in the Tibeto-Burman family, such as Gyarong, exhibit similar tendencies with the colours 'blue' and 'green', most likely indicative of the natural simultaneous perception of 'blue' and 'green'.[82]

Limbu (definitely endangered, 300,000 speakers, ISO 639-3: lif)[83] possesses a smaller range of colours than Kulung and Thulung Rai, with a distinction made between the

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77 Ibidem.

78 *UNESCO Atlas of the World's Languages in Danger.*

79 Tolsma, *Grammar of Kulung,* p. 40; Lahaoussois, "Aspects of the Grammar of Thulung Rai," pp. 196, 375.

80 Lahaoussois, "Aspects of the Grammar of Thulung Rai," pp. 196, 375.

81 Ibidem.

82 L.M. Hurvich and Dorothea Jameson (trans.), *Outlines of a Theory of the Light Sense,* Cambridge, MA 1964; as cited in Kay and McDaniel, *Linguistic Significance of the Meanings of Basic Color Terms*, p. 620.

83 *UNESCO Atlas of the World's Languages in Danger.*

colour itself and the quality of that colour, with affixes determining such variation.[84] Grammars of Limbu prepared by Weidert & Subha and van Driem show pronounced phonological and semantic differences.[85]

Van Driem categorizes only four colours as cardinal colours: *mak* 'black', *bhɔ* 'white', *hɛt* 'red', and *hik* 'green', and emphasizes the uniqueness of this colour set as a result of their freeness and ability to change depending on their affixes.[86] For example, *ɔmdaŋba* 'yellow' is only grammatical with a certain affix <*-taŋba*> and has a limited range of colour that it represents.[87] For these reasons, van Driem does not consider 'yellow' to be a main colour in Limbu, although it is certainly present.

3	*a-him-min*	*kubhɔra coˑk.*	*kɛ-him-min*	*kuhɛtla-kuhɛtla*	*coˑk.*
	my-house-ABS	white be.	your^{s}-house-ABS	red-red	be

My house is white. Your house is all red.[88]

In their grammar, Weidert & Subha reference a different root for 'green' *sɔre* and offer *hiˑk* as 'yellow'.[89] In addition, 'to be blue' is documented as either *phiˑŋ-lɔʔma* or *kubhiˑŋla*, where these terms do not appear in van Driem's work.[90] Aside from these differences, Weidert & Subha's terms for 'black', 'white', and 'red' are equivalent to those provided by van Driem.

The following tables provides examples from both grammars to demonstrate affixation.

Table 4. Limbu Colour Affixation[91]

Affix	Meaning	Examples
-lɔʔma/ -yaˑpma **lɔʔmaʔ* (van Driem 1987:23)	to be – *to appear	*hɛˑt-lɔʔma* 'to be red' (251) *hiˑk-lɔʔma* 'to be yellow' (252)
-kɛlɔʔba	pure adjectival form	*phiˑŋ-lɔʔma* 'blue' (Weidert & Subha 1985:323)
-taŋba	*'that which is, he who is'*	*hiktaŋba* 'green one' (van Driem 1987:424)

[84] A. Weidert and B. Subha, *Concise Limbu Grammar and Dictionary: Concise Limbu Grammar, Nominal Paradigms and Verbal Paradigms, Concise Limbu-English Dictionary, English-Limbu Vocabulary*, 1985, p. 52.

[85] Weidert and Subha, *Concise Limbu Grammar and Dictionary*, p. 52; George van Driem, *A Grammar of Limbu*, Walter de Gruyter, Berlin 1987, pp. 23–24.

[86] Van Driem, *Grammar of Limbu*, pp. 23, 25.

[87] Ibidem, p. 25.

[88] Ibidem, p. 24.

[89] Weidert and Subha, *Concise Limbu Grammar and Dictionary*, pp. 385, 409.

[90] Ibidem, p. 374.

[91] Weidert and Subha, *Concise Limbu Grammar and Dictionary*, pp. 52, 251–252, 286, 323, 336; van Driem, *Grammar of Limbu*, pp. 23, 424.

Affix	Meaning	Examples
-yɔʔyɔʔba	-ish	*sɔreˑʔyɔʔyɔʔba* ‘greenish’ (Weidert & Subha 1985:336) *mak-yɔʔyɔʔba* ‘blackish’ (Weidert & Subha 1985:286)

There are at least four recognizable dialects of Limbu, with variable pronunciation between them.[92] These differences appear mostly as predictable sound changes within affixes and may contribute to some of the variations attested in these two grammars.

In Limbu as in Kulung, colour can be used to describe something or someone. Applying the suffix <*-taŋba*>, colours can either behave like adjectives or nominalise fully to become nouns. In the following example, it is apparent that such terms can be used metaphorically, in this case describing a European person as ‘white eyed’.

4 *mikphuʔla* *meˑn* *laʔba,* *ku-mik* *phɔ-daŋma.*
European NOT perhaps, her-eye white-vālā/f
Maybe she’s not European (a white-eye), but she sure is white-eyed! (i.e. she sure does look like one).[93]

While adjectives in Sunwar (vulnerable, 26,611 speakers, ISO 639-3: suz)[94] are mostly verbal nouns, colour terms do not belong to this class. Other adjectives that do not derive from verbs include loanwords from Nepali.[95]

Table 5. Sunwar Colour Terms[96]

Sunwar	English
gīk	light green, light blue
nilo (from Nepali)	dark blue
buʃ	white
kher	black
lal (from Nepali)	red

[92] Weidert and Subha, *Concise Limbu Grammar and Dictionary*, pp. 4–7; van Driem, Introduction to *Grammar of Limbu*, by van Driem, p. xxii.

[93] Van Driem, *Grammar of Limbu*, p. 24.

[94] *UNESCO Atlas of the World’s Languages in Danger.*

[95] D. Borchers, *A Grammar of Sunwar: Descriptive Grammar, Paradigms, Texts and Glossary*, Brill, Leiden 2008, p. 93.

[96] Ibidem.

Overall, Sunwar presents a challenge to the traditional Berlin & Kay model as there are approximately five colour terms attested in the language, including two terms for ‘blue’. Additionally, Sunwar boasts two additional adjectives that pertain to colour: ‘colourful’ *jirjir* and ‘brilliant’ *ojela.*[97]

5	*ā*	*ke*	*buʃ*	*buʃ*	*cā*	*tam.te.me*	*buʃ*	*ʃe*
	she/he	POSS	white	white	hair	see.PT-3p.3p/s[vi]	white	flesh

tam.te.me.
see.PT-3p.3p/s[vi]

They saw her white hair and her white skin.
(Excerpt from *A foreigner in Bhujī* by Śobhā Mulicā Sunuvār)[98]

In Sunwar, one term for ‘blue’ is a clear loan from Nepali *nilo* and covers ‘dark blue’, while the other term, *gīk*, is a native term that encompasses a spectrum representing ‘light green’ to ‘light blue’.[99] According to the Berlin and Kay model, only Stage V languages possess a word for ‘blue’, along with colour terms for ‘green’ and ‘yellow’. In Sunwar, ‘blue’ is incorporated into the term for ‘green’, and there is no discrete lexical distinction between the two colours nor is there an apparent and specific term for ‘yellow’. Additionally, since Borchers specifies a distinction between ‘dark’ and ‘light’ variants, this introduces the question of which of the Sunwar colour terms is closer to ‘true blue’ or rather, as Kay & McDaniel would have it, which has the highest membership to ‘blue’.[100] Another visible cognate is *lal* for ‘red’, similar to terms in Kulung, *halala:pa*,[101] and Thulung Rai, *lalam*.[102] In Nepali and Hindi, *lāl* is one of the terms for ‘red’, and for this reason, it is highly likely that *lal* is a direct loan from a neighbouring Indo-Aryan language.

Spoken in southeastern Nepal, Dhimal (severely endangered, 20,000 speakers, ISO 639-3: dhi)[103] is divided into two dialects.[104] Like many of their linguistic cognates and cousins, adjectives in Dhimal are modified from verbs with the addition of a morpheme: <*–ka*>.[105] Generally, the morpheme <*–ka*> does not appear with borrowed adjectives with the verbal forms of these colours typically ending with the morpheme: <*-li*>.[106]

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[97] Ibidem.
[98] Ibidem, pp. 261, 265.
[99] Ibidem, p. 93.
[100] Ibidem, p. 624.
[101] Tolsma, *Grammar of Kulung*, p. 40.
[102] Lahaussois, “Aspects of the Grammar of Thulung Rai,” p. 196.
[103] *UNESCO Atlas of the World’s Languages in Danger.*
[104] J.T. King, *A Grammar of Dhimal, Languages of the Greater Himalayan Region*, Brill, Leiden 2009, pp. 1–2.
[105] Ibidem, p. 52.
[106] Ibidem, pp. 511, 533, 536, 605.

Table 6. Native Dhimal Adjectives[107]

Dhimal	English
da:ka	black
yauka	yellow
i:ka	red
je:ka	white

The four basic colours shown in the above table situate Dhimal as a Stage III language and tend to represent spectrums for Dhimal speakers. As King details, "'black' covers the range from black and dark brown, to dark purple and blue, and the term *i:ka* 'red' ranges from red to reddish brown."[108] *Je:ka* can also mean 'Caucasian'.[109]

6 *da:-ka* *mundha*
black-NOM stump
blackened stump[110]

These base colours also appear in a variety of other terms, particularly in terminology relating to local fauna.

Table 7. Animal Terms in Dhimal[111]

Dhimal	English
da:ka kawa	large-billed crow, *Corvus macrorhynchos*
da:ka koʔsa	black monitor lizard
i:ka koʔsa	red monitor lizard
i:ka nhõya	rhesus monkey, *Macaca mulatta*
i:ka nhamui	small red ant
yauka koʔsa	yellow monitor lizard

In addition, other Dhimal terms incorporate these colours, including terminology used to describe traditional dress and references to skin tone.

[107] Ibidem, p. 54.
[108] Ibidem.
[109] Ibidem, p. 536.
[110] Ibidem, p. 52.
[111] Ibidem, pp. 511, 533, 536, 605.

Table 8. Miscellaneous Colour-derived Terms in Dhimal[112]

Dhimal	English
da:ka beraŋ	nickname for a dark-skinned woman
da:boʔna	black *boʔna* (traditional wrap skirt) with two red stripes around the waist
da:kiculhoʔka	black as night, pitch black
je:pa	fair, light-coloured
je:pa jeŋka	fair-skinned

'Orange' *i:tatarpa* and 'pink' *i:lalhaipa* are also attested in the language, both of which are derived from the basic *i:ka* 'red'.[113] Interestingly, these colours use the morpheme <-*pa*> instead of <-*ka*>, a process more typically observed for adverbials.[114]

Adjectives in Dhimal can undergo reduplicative processes to express different aspects and intensities, such the diminutive, which is produced using the morpheme: <-*co:*>.[115] In particular, King suggests that the morpheme <-*co:*> is a cognate with the Limbu 'be small' *cuk-maʔ*.[116] When applied to colour terms, the addition of <-*co:*> changes a description from 'red' *i:ka* to 'reddish' *i:co:co:ka*.[117] Another term that can reduplicate is *yauka*, which intensifies 'yellow' to a 'deep golden yellow', *yauyauka*.[118]

While the closely related Jero and Wambule languages (vulnerable, 4,471 speakers, ISO 639-3: wme)[119] share the most similarities in colour range with each other, there are some striking differences in their respective lexicons.[120] Both languages have white, black and red, and additionally yellow and green, which would theoretically place them at stage VI along Berlin and Kay's categorical scale, although Wambule possesses more terms than Jero even if not all of them are native to the Wambule language.

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[112] Ibidem, pp. 511, 536.
[113] Ibidem, p. 54.
[114] Ibidem.
[115] Ibidem.
[116] Ibidem.
[117] Ibidem.
[118] Ibidem, p. 605.
[119] *UNESCO Atlas of the World's Languages in Danger.*
[120] Jean R. Opgenort, *A Grammar of Jero: With a Historical Comparative Study of the Kiranti Languages*, *Languages of the Greater Himalayan Region*, Brill, Leiden 2005, p. 5.

Table 9. Jero and Wambule Colours[121]

Jero	Wambule	Colour
bupcip ~ *bubjɛŋmo* ~ *bubu* (Āmboṭe dialect)	*bubu, bu* (n) ~ *bubjwam* (adj)	white
khucɛm (Mohanṭāre dialect) ~ *khucɛp* (Āmboṭe dialect) ~ *khucɛŋmo* (Āmboṭe dialect)	*khuce, khuḛ* (n) ~ *khuc(c)yam, khuccyaŋmo* (adj)	black
laka ~ *lacip* (Āmboṭe dialect)	*laka, lak* (n) ~ *lakajwam, lakajim* (adj)	red
pʌhẽlo (Āmboṭe dialect) (from Nepali for 'yellow' *pahẽlo*) ~ *waʔɔmjimo* (Mohanṭāre dialect) ~ *waʔɔmjɔkto* (Mohanṭāre dialect)	*waʔwam* (n) ~ *waʔwamjwam, waʔwamjim* (adj) ~ *wamcam* 'to be yellow' (v)	yellow
hʌriyo (Āmboṭe dialect) from Nepali for 'green'; *pʌlʌi* 'becoming green' (specifically with plants) (Mohanṭāre dialect); *pʌlʌi dumcam* 'become green' (Mohanṭāre dialect)	*hʌriyo* (Nep.); *sisi*	green

The distribution of colour terms in Jero is uneven. For some colours like 'red' and 'white', intensity can be increased through reduplication, i.e. *laka-laka* 'very red' and *bubuyaya* 'very or purely white' (Āmboṭe dialect).[122] Opgenort does not volunteer the same approach to explain the intensification of 'black', although it is theoretically possible. It is important to note that only the Āmboṭe dialect of Jero seems to exhibit this feature.

Wambule does have terms for 'intense black': *khuce-khuḛ* 'very black' and *khucce-khuḛ* 'extremely black'.[123] 'Very red' also exists, with the final *a* optionally omitted from *laka-laka*, as in *laka-lak*,[124] and another term for 'white' is also documented. Although Opgenort does not describe an additional term for 'very white' in Wambule in the manner that he does for Jero, he does note that there are specific terms for mixed colours in Wambule.

Table 10. Additional Wambule Colour Terms[125]

Term	Wambule
Any colour mixed with white	*blwaŋce*
Any mixed colour	*blwabjwam*

[121] Opgenort, *A Grammar of Wambule*, pp. 227–228, 613, 658, 762, 797, 830, 857, 860; Opgenort, *A Grammar of Jero*, pp. 116, 283, 294, 307, 320–321.

[122] Opgenort, *A Grammar of Jero*, pp. 207, 320.

[123] Opgenort, *A Grammar of Wambule*, p. 762.

[124] Ibidem, p. 830.

[125] Ibidem, p. 857.

In addition, Wambule possesses words for ‘purple’ *waʔwal* (noun) and the Nepali loan *nilo* for ‘blue’ (adj.) that Jero does not, theoretically placing Wambule higher than Jero in the Berlin & Kay hierarchy. The existence of *blwaŋce* and *blwabjwam* in Wambule raises further questions of how colour terms that describe colour mixture might be incorporated into the existing theory.

Interesting parallels exist between the implementation of colour terminology in the lexicons of Thangmi and Yakkha. Despite the constrained range of lexical items to express colour in Thangmi, the colour terms that do exist have a relatively wide range of uses. In Yakkha, by contrast, while a wide array of colour terms are attested, all other colour terms are secondary to the categories of ‘black’, ‘white’ and ‘red’, which correlate to Thangmi’s limited inventory.

Table 11. Yakkha Colours[126]

Yakkha	English
phamna	red
phimna	green, blue, (yellow)
phuna	white
makhurna	black
phalik-phalikna	reddish/pink/violet (various light and dark shades)
phiʔlik-phiʔliŋna	greenish, blueish (sky blue, petrol, light green)
phiriryaŋna	yellow (specifically food)
besareʔna (loan from Nepali, as in Kulung)	yellow
phutiŋgirik	bright white
phutlek-phutlekna	light grey, light yellow, light pink, beige

Yakkha possesses at least 11 terms for colours, many of which represent fuzzy sets as understood by Kay & McDaniel in their extension of Berlin & Kay’s original theory. Nevertheless, there are major distinctions between ‘black’ and ‘white’, *makhurna* and *phuna*, and ‘red’ and ‘non.red’, *phamna* and *phimna.*[127]

7 *paŋ=be* *phu=ha=huŋ* *makhur=ha* *caleppa,*
house=LOC white=NMLZ.NC=COM black=NMLZ.NC bread,
macchi *khicalek=nuŋ* *cuwa* *py-a.*
pickles, rice_dish=COM beer give-PST[1.P]
At home, they gave us white and black bread, pickles, *khichadi* and beer.[128]

[126] Schackow, *A Grammar of Yakkha,* p. 163.
[127] Ibidem, p. 162.
[128] Ibidem, p. 155.

8	*sumphak*	*loʔa=na*	*phim=na*
	leaf	like=NMLZ.SG	non-red=NMLZ.SG
	as green as a leaf[129]		

In example 8 above, the difference between ‘non.red’ and ‘red’ is highlighted. Although the word for ‘green’ does not even appear in the sentence, the use of *phimna* ‘non.red’ to characterize a leaf as typically ‘not red’ allows the sentence to be understandable to Yakkha speakers as ‘green’.

Another example of the same feature is provided below in example 10:

9	*massi*	*loʔa=na*	*phim=na*
	ink	like=NMLZ.SG	non-red=NMLZ.SG
	as blue as ink[130]		

With *massi* (a loan from Nepali) in place of *sumphak* ‘leaf’, the sentence becomes about the colour ‘blue’ while still utilizing the ‘non.red’ identifier of *phimna.*

In Yakkha, several additional lexemes modify colours, such as *om(na)* ‘bright, light’, *kuyum(na)* ‘dark’ and *chyaŋchyaŋ(na)* ‘transparent’.[131]

10	*wa=ci*	*ŋ-ga-ya=hoŋ=go*	*om*	*keks-a-khy-a.*	
	chicken=NSG	3PL-speak-PST=SEQ=TOP	bright	become-pst-V2.go-pst[3sg]	
	As the cocks crowed, it had already dawned.[132]				

In example 10 above, *om* ‘bright’ is used metaphorically to convey the sense of ‘dawn’, an extension of meaning that is also attested in Thangmi.

In Yakkha, it is phonologically noteworthy that all colour terms have an initial bilabial plosive {[b], [p], [m]} and similarly interesting that *besareʔna* (a loan from Nepali *besār* meaning ‘turmeric’) is also attested, perhaps an indication of the importance of trade with Nepali speakers from whom turmeric would have been acquired.

In contrast to Yakkha’s large and impressive inventory, the Thangmi language has adjectives to express only three, distinct colours: ‘black’, ‘white’ and ‘red’ (all Thangmi data provided by co-author Turin). While older speakers insist that there were once terms for a greater range of colours on the spectrum, there is no persuasive evidence of this. According to Berlin & Kay’s aforementioned proposed categories of colour terminology, as presented in their *Basic Colour Terms*, Thangmi would be an example of a typical Stage II language, with Indigenous lexical items for ‘black’, ‘white’ and ‘red’ only. All other colour terms are borrowed from Nepali. Alongside terms for these three primary colours, Thangmi has native adjectives meaning ‘dark’ and ‘light’, but these cannot

[129] Ibidem, p. 162.
[130] Ibidem.
[131] Ibidem, p. 163.
[132] Ibidem, p. 544.

be used to modify the intensity of a colour. Thangmi colour terms and the associated adjectives expressing lightness and darkness from the Dolakhā dialect are presented in Table 12 below.

Table 12. Thangmi Colour Adjectives[133]

Thangmi	English
ḍiŋ-ḍiŋ	red
kiji	black
ubo	white
athaŋ	light (as in brightness)
ukhiŋ	dark

In Thangmi, alongside the standard meaning of *ubo* 'white', as illustrated by example 11, *ubo* 'white' can precede *mi* 'person' to render *ubo mi* (white person) 'foreigner, white-skinned person' similar to the example previously provided for Limbu, as in examples 12 to 15 below.

11 *găi-go* *miŋ* *ubo* *hok-Ø-du,* *tara* *aye*
I-GEN cloth white be-sAS-NPT *but* much
bu-si-ta-ŋa-le *kiji* *thah-Ø-an.*
cover-REF-IPP-1s-PCL black be-sAS-3S/PT
My clothes are white, but because I have worn them for so long, they have become black.[134]

12 *ubo* *mi-ko* *camăica-pali-ye* *oste-ko* *huca-kăi*
white person-GEN woman-p-ERG self-GEN child-PM
cyocyo *ma-pi* *isiy-eŋ-du.*
breast NEG-give say-pAS-NPT
They say that white women don't give their children the breast.[135]

13 *ubo* *mi-ko* *pepelek* *aye* *hok-Ø-du.*
white person-GEN money much be-sAS-NPT
White people have a lot of money.[136]

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[133] M. Turin, *A Grammar of the Thangmi Language (2 vols): With an Ethnolinguistic Introduction to the Speakers and Their Culture*, *Languages of the Greater Himalayan Region*, Brill, Leiden 2011, p. 314.

[134] Ibidem, p. 315.

[135] Ibidem.

[136] Ibidem.

14 *to* *isyaŋ* *ubo* *mi-pali* *demca* *ra-to-le*
that period white person-p load bring-TPP-PCL
ray-eŋ-an.
come.from.level-pAS-3S/PT
That same day some foreigners [lit. white people] came carrying their own packs.[137]

15 *'bore* *yo-sa-kăi* *ra-ŋa-n'* *to* *ubo*
marriage look.at-INF-PM come.from.level-1s-PT that white
mi-ye *ŋa-Ø-ŋa-n.*
person-ERG say-sAS-1s-PT
'I have come to see the wedding', the white man said to me.[138]

The adjective *ubo* 'white' can also be combined with the noun *bajareŋ* 'local tobacco', giving *ubo bajareŋ* 'cigarette' (lit. 'white tobacco', as distinct from home-grown tobacco), as in example 16.

16 *to* *mi-ye* *di-gore* *ucyaca* *menca-yiŋ* *ubo* *bajareŋ*
that person-ERG one-CLF small bag-ABL white tobacco
kăiy-Ø-u-no, *gă-ye* *yo-le* *nah-u-n-uŋ.*
take.out-sAS-3P-3→/PT I-ERG look.at-PCL put-3P-1s→-1s→/PT
That person took some white tobacco out of a small pouch, and I was watching.[139]

The Thangmi adjective *ubo* can also mean 'clean', in which case it is often contrasted with *kiji* 'black', the latter then meaning 'dirty', as in example 17 below. In a South Asian linguistic context, combining the meanings of 'white' and 'clean' on the one hand, and 'black' and 'dirty' on the other, is by no means unusual. In Hindi, for example, *safed* 'white' is etymologically related to *sāf* 'clean, fair, bright'.[140]

17 *di* *uni* *jhari* *yuw-Ø-an,* *to* *phow-Ø-an,*
one day *rain* come.from.above-sAS-3S/PT that be.wet-sAS-3S/PT
pho-Ø-ta-le *to-ko* *kiji* *maŋ* *ubo* *thah-Ø-an.*
be.wet-sAS-IPP-PCL that-GEN black body white be-sAS-3S/PT
One day it rained and he was totally drenched, and being so drenched, his dirty body became clean.[141]

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[137] Ibidem.
[138] Ibidem.
[139] Ibidem, p. 316.
[140] Ibidem.
[141] Ibidem.

Alongside the standard use of *kiji* to mean ‘black’, as in examples 18 and 19, *kiji* ‘black’ can precede *mi* ‘person’ to render *kiji mi* (black person) ‘southerner, plainsman, Indian’, as in example 20.

18 *to-ko* *mus* *găi-go* *uniŋ* *kiji* *hok-Ø-du.*
that-GEN hair I-GEN like black be-sAS-NPT
His hair is black like mine.[142]

19 *to* *kiji* *semni-ko* *bore* *kityaŋ* *thah-Ø-an.*
that black Tamang-GEN marriage three.days.ago be-sAS-3S/PT
That black-faced Tamang got married three days ago.

20 *ni-ko* *kucu-pali-ye* *kiji* *mi* *niy-eŋ-to-le* *aṭṭhe*
we-GEN dog-p-ERG black person see-pAS-TPP-PCL very
aghyoy-eŋ-du.
bark-pAS-NPT
When our dogs see dark people, they bark a lot.[143]

The adjective *kiji* ‘black’ can also be used as a proper noun. Slightly dark-skinned Thangmi children are often called *kiji* ‘Blackie’, either in their official papers, if they have any, or as a village nickname. One of the narrative texts recorded concerned a person named ‘Blackie’, as illustrated by example 21. Unlike Nepali, in which black hounds and dark male children may be called *kāle* ‘Blackie (MASC)’, while dark female dogs and girls are referred to as *kālī* ‘Blackie (FEM)’, there is no gender differentiation for ‘Blackie’ in Thangmi, and boys as well as girls may be named *kiji*. Thangmi individuals may carry the nickname *kiji* ‘Blackie’ with them into adulthood.

21 *di-ka* *kiji* *name* *tha-Ø-du* *camăica*
one-HNC blackie *name* be-sAS-NPT woman
hok-Ø-thyo.
be-sAS3sCOND
There once lived a woman by the name of Blackie.[144]

Just as *ubo* ‘white’ is used to mean ‘clean’, so too *kiji* ‘black’ can mean ‘dirty’ or ‘dark’, as in examples 22 and 23.

22 *naŋ-ko* *khen* *aṭṭhe* *kiji* *thah-Ø-an.*
you-GEN face very black be-sAS-3S/PT
Your face has become very dirty [black].[145]

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[142] Ibidem.
[143] Ibidem.
[144] Ibidem, p. 317.
[145] Ibidem.

23 *nany-e* *thapu* *thi-to-le* *lak* *kiji* *thah-Ø-an.*
you-ERG fireplace touch-TPP-PCL hand black be-sAS-3S/PT
You touched the fireplace and your hand has become dirty [black].[146]

The final use of *kiji* 'black' is as an intensifier for *chokchok* 'darkness' in the phrase *kiji chokchok* (black darkness), best translated as 'complete darkness', and illustrated by example 24.

24 *di* *uni* *ṭhoṇi-ye* *kiji* *chokchok-te* *luma*
one day old.woman-ERG black darkness-LOC partially.husked.rice
kăi-sa *ci-loŋ-Ø-u-no.*
remove-INF CAUS-do-sAS-3P-3→/PT
One day the old woman made her remove all the partially-husked rice in complete darkness.[147]

In the Dolakhā dialect of Thangmi, the adjective *ḍiŋ-ḍiŋ* 'red' is used both to describe things that are permanently red, such as a cockerel's comb (examples 25 and 26) and more temporary reds, such as flushed cheeks (example 27).

25 *nem* *thil-sa* *beryaŋ,* *hyawasa-ŋaŋ* *ubo* *nasak,*
house paint-INF *that.time* upper.part-inside white earth
nhawasa-ŋaŋ *ḍiŋ-ḍiŋ* *nasak-e* *thil-eŋ-du.*
lower.part-inside red earth-INS paint-pAS-NPT
When it's time to paint a house, they paint the upper with white earth and the lower with red.[148]

26 *gare-ko* *jire* *ḍiŋ-ḍiŋ* *tha-Ø-du.*
rooster-GEN crest red be-sAS-NPT
The crest of the cockerel is red.[Cockerels' crests are red] [A cockerel's crest is red].[149]

27 *marci* *cya-Ø-ta-le* *cile* *ḍiŋ-ḍiŋ* *tha-Ø-du.*
hot.chilli eat-sAS-IPP-PCL tongue red be-sAS-NPT
If you eat chillies your tongue will go red.[150]

The adjective *ḍiŋ-ḍiŋ* 'red' can also be used idiomatically to convey the sense of 'red-hot', as in example 28.

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[146] Ibidem.
[147] Ibidem.
[148] Ibidem, p. 318.
[149] Ibidem.
[150] Ibidem.

28 *dorok-cara-Ø-ta-le* *uma-ye* *nah-Ø-u-du*
run-PSGcome.from.level-sAS-IPP-PCL wife-ERG put-sAS-3P-NPT
ḍiŋ-ḍiŋ *baṇi-te* *biy-Ø-an.*
red *pot*-LOC enter-sAS-3S/PT
He came back [home] running and dove into the red-hot pot his wife had put ready.[151]

In the Sindhupālcok dialect of Thangmi, however, a distinction is made between *keret* 'red (permanent)' and *jyiŋ-jyiŋ* 'red (temporary)'. In the village of Cokaṭī, the adjective *keret* 'red' is used for clothes, coloured pens and blood, and *jyiŋ-jyiŋ* 'red' used to describe the sunset, someone's face when hot, and irritated or inflamed eyes.

The only other adjective used in Thangmi to convey a sense of colour or hue is *ariŋalya* 'yellow-orange-red', derived from the Nepali noun *ariŋgāl* 'hornet' on account of the insect's golden colouring. Although not widely used, Thangmi speakers assert that *ariŋalya* 'yellow-orange-red' is a native Thangmi colour word and not a loan. An example of its use is given in 29.

29 *saŋa* *peṇey-eŋ-du* *sum* *oli* *măina-ye,* *saŋa* *ariŋalya*
millet sow-pAS-NPT three four *month*-ERG millet *red.yellow*
tha-Ø-ta-le *min-Ø-du.*
be-sAS-IPP-PCL cook-sAS-NPT
Three or four months after it has been sown, the millet turns a golden-yellow colour and is then ripe.[152]

Similar formulations exist in the more distantly related Magar language. In the Tanahu dialect, *or-cyo* 'a yellow-orange hue' represents a spectrum of warm colours while *dɦokrot-cʌ* is used in the Syangja speaking Magar community for the same range of pigmentation.[153] In Magar, discrepancies of colouration exist between speakers, with something orange plausibly considered *gya-cyo~cʌ* 'red' and something 'yellow' deemed to be *phi-cyo~cʌ* 'green'.[154] In Magar, *dɦokrot-cʌ* and *or-cyo* are actually verbs that mean blossoming with a character that is intrinsically 'charming' and 'fresh'.[155]

30 *ort-cyo* *suntala* *jyap-mʌ*[156] *le.*
yellow-ATT orange tasty-NOM IMPF
The yellow orange is tasty. (Tanahu dialect)[157]

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[151] Ibidem.

[152] Ibidem., p. 319.

[153] Grunow-Harsta, *Descriptive Grammar of Two Magar Dialects*, p. 275.

[154] Ibidem., p. 276.

[155] Ibidem., p. 274.

[156] Ibidem., p. 255: Grunow-Harsta's grammar also features [>*jyapme*] in relation to [*jyap-mʌ*] and thus appears to be an alternative realisation.

[157] Ibidem.

31 *gya-cʌ* *suntala* *jyap-mʌ* *le.*
red-ATT orange tasty-NOM IMPF
The red orange is tasty. (Syangja dialect)[158]

In addition to *or-cyo/dɦokrot-cʌ* 'yellow-orange hue', *gya-cyo~cʌ* 'red', and *phi-cyo~cʌ* 'green', Magar contains *bo-cyo~cʌ* 'white' and *cik-cyo~cʌ* 'black'. Additionally, *nilo* 'blue' and *khailo* 'brown' are attested in Magar, but these are both direct loans from Nepali.[159]

Continuing with Thangmi, the adjectives *athaŋ* 'light' and *ukhiŋ* 'dark' can combine with postpositions to mean 'in the daylight' or 'in daytime' and 'in the dark' or 'at night', much like in Yakkha, as in examples 32 and 33 below. Younger Thangmi speakers also use *athaŋ* 'light' as a noun to mean 'light bulb', as shown in example 34.[160]

32 *athaŋ-te* *caway-eŋ-ta-le,* *begale* *dese* *mi-ye*
light-LOC walk-pAS-IPP-PCL *other* *village* person-ERG
niy-eŋ-du *ŋa-to-le,* *ṭaye* *caway-eŋ-du.*
see-pAS-NPT say-TPP-PCL night walk-pAS-NPT
Fearing that if they walked in the daytime they would be seen by people from other villages, they walked at night.[161]

33 *ukhiŋ-ŋaŋ,* *ubo* *mi-pali* *kiji* *icinis-eŋ-du.*
dark-inside white person-p black appear-pAS-NPT
In the dark, [even] white people seem to be black.[162]

34 *athaŋ* *sat-wa-du-be,* *dewa* *yo-sa* *mi*
light kill-1pg23-NPT-TOP *god* look.at-INF person
kyel-Ø-ta-le *ni-kăi* *ci-let-i-n.*
come-sAS-IPP-PCL we-PM CAUS-appear-1pPS-PT
But even though we extinguished the light, a worshipper coming to the temple saw us and dragged us out.[163]

Both *athaŋ* 'light' and *ukhiŋ* 'dark' are derived from Indigenous Thangmi verb forms, *athaŋsa* 'to become light' and *ukhiŋsa* 'to become dark' respectively, examples of which are given in 35 and 36 below.

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158 Ibidem.
159 Ibidem.
160 Turin, *Grammar of the Thangmi Language,* p. 319.
161 Ibidem.
162 Ibidem.
163 Ibidem.

35 *athaŋ-Ø-an* *ŋa-to-le* *priŋ* *let-Ø-an,*
become.light-sAS-3S/PT say-TPP-PCL outside appear-sAS-3S/PT
ukhiŋ *nih-Ø-u-no* *'hara* *thah-Ø-an?'*
dark see-sAS-3P-3g3/PT what be-sAS-3S/PT
ŋa-to-le *duŋ-ŋaŋ* *biy-Ø-an.*
say-TPP-PCL within-inside enter-sAS-3S/PT
Thinking that it was light, he went outside only to see that it was still dark, 'what happened?' he thought to himself, as he went back inside.

36 *ṭaye* *tha-Ø-ta-le* *ukhiŋ-Ø-an,* *ni* *ariy-i-n.*
night be-sAS-IPP-PCL become.dark-sAS-3S/PT we be.afraid-1pPS-PT
Night fell and it became really dark, and we were frightened.[164]

By way of contrast, the geographically proximous Dolakha Newar (definitely endangered, 10,000 speakers, ISO 639-3: new)[165] exhibits a larger inventory of colours.

Table 13. Adjectival Verbs in Dolakha Newar[166]

Post-Nominalisation	Stem	Gloss
wõga-u	*wõgar-*	green
mwāsa-u	*mwāsar-*	yellow
twāya-u	*twāyar-*	white
hẽga-u	*hẽgar-*	red
phuta-a	*phutar-*	brown
siya-u	*sier-*	grey
hāka-u	*hākar-*	black

In Dolakha Newar, colours exist as "adjectival verbs"[167] while simple adjectives exist as a separate set of words. It is important to note that these words may not correspond with the Newar language as spoken in Kathmandu, as the dialects of the city and Dolakha are quite distinct and mostly mutually unintelligible.[168]

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[164] Ibidem, p. 320.

[165] Carol Genetti, *A Grammar of Dolakha Newar*, Berlin De Gruyter 2007, p. 557; *UNESCO Atlas of the World's Languages in danger.*

[166] Genetti, *Grammar of Dolakha Newar*, p. 195.

[167] Ibidem.

[168] Ibidem, p. 24.

38 *āle* *hẽga-u* *wāsti* *ināgu* *phi-en* *liŋā-i*
then red-NR1 clothes like.this put.on-PART walk-INF
ma-ji-uju.
NEG-appropriate-3PA
It was not appropriate to put on red clothes and go out like this.[169]

39 *simā* *wõga-en* *yer-a.*
tree green-PART come-3sPST
The tree became green (i.e. 'leafed out').[170]

Tibetan (vigorous; 1,172,940 speakers; ISO 639-3: bod),[171] one of the most recognizable languages of the Tibeto-Burman family, is a collection of dialects and speech varieties that form a linguistic area encompassing Pakistan (Baltistan), Sichuan and Qinghai regions of China, Sikkim in India, Bhutan, and northern Nepal.[172] Within this dialectal variation exist other Tibetan forms including a literary form as well as slang and "secret languages."[173] The data presented here represent Standard Tibetan and are drawn from Tournadre and Dorje's manual and grammar. This data corresponds to what is generally referred to as the Lhasa dialect and is the variety most commonly spoken in the Tibetan diaspora.[174]

Table 14. Abridged Colours in Tibetan[175]

Tibetan	English
kārpo	white
na̲kpo	black
mārpo	red
sērpo	yellow
ca̲ngku	green
ngō̲npo	blue/ green (grass, crops)
gya muk	brown

40 *motra na̲kpo yö'-ngän the̲ tso̲ngpön cī re̲'*

[169] Ibidem, p. 197.
[170] Ibidem, p. 201.
[171] *UNESCO Atlas of the World's Languages in Danger.*
[172] Nicolas Tournadre and S. Dorje, *Manual of Standard Tibetan: Language and Civilization: Introduction to Standad Tibetan (Spoken and Written) Followed by an Appendix on Classical Literary Tibetan*, N.Y. 2003, p. 25.
[173] Ibidem, p. 26.
[174] Ibidem, p. 25.
[175] Ibidem, pp. 91,127, 497.

> The person who has the black car is the mayor of the district (or alternatively: the owner of the black car is the mayor of the district).[176]

Syntactically, Tibetan is similar to Nepali in that attributive adjectival phrases are ambiguous with predicative adjectival phrases unless a demonstrative is used.[177] For example, *nyūku na̲kpo re̲'* could either signify 'The pen is black', or '(This) is a black pen', but with the use of a demonstrative, the sentence is clarified: *nyūku ti̲ na̲kpo re̲'* 'This pen is black' or *ti̲ nyūku na̲kpo re̲'* 'This is a black pen'.[178] Lexical similarities are well attested with other Tibeto-Burman languages such as Yolmo, whose colour scheme (which reportedly only consists of four terms), is cognate with 'black', 'white', 'red', and 'blue/green' in Tibetan.

Most Tibetan colours end with <*–po*>, a nominaliser, with the exception of *ca̲ngku* 'green', even though grammatically speaking, *ca̲ngku* still functions like other colour terms. Similar to Ladakhi, a close linguistic relative, the term *ngönpo* covers both 'blue' and 'green', although the distinction not entirely clear. In Tibetan, while *ngönpo* is used to describe both the 'blue' sky and 'green' plants on earth, generally speaking, *ngönpo* is glossed as 'blue', especially in the context of Tibetan Buddhism where it is an important colour in sacred art and material culture.

In Tibetan, colour terms such as 'purple' defy easy classification. While *marmuk* equates more or less to 'maroon' and is used to identify the colour of monks' robes, *mumen* might more accurately equate to English 'purple', and literally is the colour of clotted blood.

Colour mixing is quite productive in Tibetan. To create a dark variety of a colour, a speaker can combine the colour morpheme of focus without the suffix (i.e. *sër-* 'yellow') with *nāk* 'black'. While we might therefore extrapolate that to acquire a lighter variety of a colour, a colour morpheme would combine with *kārpo* 'white', this is not in fact the case, and the term for 'grey' is used instead. In Tibetan, colour combining can also produce additional colours, such as 'orange', which would be *mar ser* 'red–yellow'. In sum, Tibetan exhibits a wide palate of colour terms, and the rich Tibetan literary traditions and religious art of Tibetan Buddhism are suffused with these terms.

Thakali (vulnerable; 6,441 speakers; ISO 639-3: ths)[179] is a Tamangic language with dialects spoken in the Kāli-Gaṇḍaki valley of Lower Mustang district, Nepal.[180] Nevertheless, its historic descriptions regarding its genetic affiliations are complicated and have been contested.[181]

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[176] Ibidem, p. 250.

[177] Ibidem, p. 95.

[178] Ibidem.

[179] *UNESCO Atlas of the World's Languages in Danger.*

[180] Stefan Georg, *Marphatan Thakali,* München 1996, pp. 4, 11; M. Turin, *Too Many Stars and Not Enough Sky: Language and Ethnicity Among the Thakali of Nepal*, "Contributions to Nepalese Studies" (24) 2, (1997), pp. 192–194.

[181] Turin, *Too Many Stars*, p. 192.

Table 15. Thakali Adjectives with English Translations (note: originally in German, our translation)[182]

Thakali	English
tar²	white
mlaṅ²	black
ur²	yellow
ol¹	red
pin²	green/blue

Like many of its linguistic relatives, Thakali adjectives are a distinct class and exhibit behaviours that are more verbal than nominal.[183] In Thakali, colour terms must function either in a predicative or attributive manner, as they never appear as lone words or independent descriptors.[184]

Thakali has four distinct tones, which also account for breathiness and clarity, as well as intonation. They are denoted by superscript numbers in Stefan Georg's description of Marphatan Thakali.[185]

41 *cu²* *miná¹-e* *sipjá¹* *ol¹* *mu¹.*
PDEM Vogel-GEN Flügel rot COP
DEU: Die Flügel dieses Vogels sind rot.
ENG:* The birds' wings are red.[186]

* Our translation from German to English.

42 *nakju¹* *tar²* *nu⁴ –si* *mu¹.*
Hund weiß schlafen-CV COP
DEU: Der weiße Hund schläft.
ENG:* The white dog sleeps.[187]

* Our translation from German to English.

43 *teptáṭ³* *suṅ¹* *mlaṅ²* *la¹ –si* *p'arki¹ –si* *je⁴ –ci.*
Devadatta Mund schwarz machen-CV zurückgehen-CV gehen-PRAET
DEU: Devadatta zog ein saures Gesicht und ging fort.
ENG:* Devadatta drew a sour face and carried on.[188]

* Our translation from German to English.

[182] S. Georg, *Marphatan Thakali*, p. 100.
[183] Ibidem.
[184] Ibidem, p. 101.
[185] Ibidem, pp. 62, 65.
[186] Ibidem, p. 101.
[187] Ibidem.
[188] Ibidem, p. 17.

44 *ṅa[1] kon[2] ol[1] –pa kon[2] –la a[3] man[4] mu[1]*
DEU: Ich trage nicht gerne rote Kleider.
ENG:* I do not like wearing red clothes.[189]

* Our translation from German to English.

Examples 41 to 44 are attested while 45 below is ungrammatical and not acceptable to native speakers. The putative sentence below could be imagined as an answer to the question, "which dog sleeps? [welcher Hund schläft?]," and while example 45 would be perfectly acceptable in German,[190] it highlights syntactic limitations within Thakali. In other Himalayan languages, such as like Kulung (see example 2 above) and Thangmi, colour can be nominalised in this manner.

45 **tar[2]* *nu[4] –si* *mu[1].*
weiß schalfen-CV COP
Der Weiße schläft.
DEU: Der Weiße schläft.
ENG:* The white (one) sleeps.[191]

* Our translation from German to English.

Lepcha (definitely endangered, 30,000 speakers, ISO 639-3: lep)[192] is spoken in India (Sikkim and West Bengal), Nepal, and Bhutan.[193]In common with other Tibeto-Burman languages, many of its adjectives are derived from verbs. In Lepcha, the prefix <*ʔá-*> is often attached to the suffix <*–m*> which modify verbs and render them adjectival.[194] However, not all Lepcha colour terms make use of these affixes.

Table 16. Lepcha Colour Adjectives[195]

Lepcha	English
ʔáhyur	red
ʔánók	black
ʔádúm	white
fungfing	blue
ʔáfong	green

[189] Ibidem, p. 101.
[190] Ibidem.
[191] Ibidem.
[192] *UNESCO Atlas of the World's Languages in Danger.*
[193] Heleen Plaisier, *A Grammar of Lepcha, Languages of the Greater Himalayan Region* (Vol. 5), Brill, Leiden 2006, p. 1.
[194] Ibidem, p. 92.
[195] Ibidem, pp. 92, 229, 243.

In addition, while Lepcha attests a term for 'light or bright' ʔákyâng,[196] there is curiously no term for 'yellow' in the lexicon. As the Lepcha language possesses 'blue', theoretically Lepcha would be considered to be at Stage V on the Berlin & Kay scale. However, the absence of 'yellow' violates this hypothetical progression.

46 *tíngmú-sang* *ʔánók* *gum.*
plainsfolk-PL.H black be.AST
Plainsfolk are black, or alternatively, people from the plains are black.[197]

Yolmo (Ethnologue: vigorous, 10,200 speakers, ISO 639-3: scp)[198] is a central Bodish language comprised of three dialects spoken in central and eastern Nepal.[199] Like other Tibeto-Burman languages, it does not perfectly fit the model proposed by Berlin and Kay. The data presented here derive from the Lamjung dialect, which has at minimum an 85% lexical similarity with related dialects.[200]

Table 17. Yolmo Colour Terms[201]

Yolmo	English
màrmu	red
nàkpu	black
kárpu	white
ŋómbu	green/blue

Theoretically, Yolmo would fall somewhere between Stage III and V in the Berlin & Kay model, as there is a discrepancy between 'blue' and 'green' in the word, ŋómbu.

47 *ŋómbu* *míi*
blue eye
blue eyes[202] (Consultant's initials: KL; File code: 120304-02)

48 *ŋómbu* *yìmba*
green COP.EGO
it is green[203] (Consultant's initials: AL; File code: 120209-02 01:07)

[196] Ibidem, p. 92.
[197] Ibidem, p. 57.
[198] *Ethnologue: Languages of the World.*
[199] Lauren Gawne, *A Sketch Grammar of Lamjung Yolmo*, *Asia-Pacific Linguistics*, National University of Australia, Canberra 2016, pp. 7–10.
[200] Ibidem, p. 9.
[201] Ibidem, pp. 47, 62, 78, 91, 136.
[202] Ibidem, p. 47.
[203] Ibidem, p. 91.

As evidenced in examples 47 and 48, Yolmo 'blue' and 'green' are covered by the same lexeme. In addition, there is no documented term for 'yellow' in Yolmo. As previously noted, 'blue' and 'green' hues can be perceived simultaneously, which may account for the interchangeability of this term.[204] Nonetheless, the absence of distinct 'blue' and 'green' complicates the language's placement on the Berlin and Kay progression that dictates that for 'blue' to appear in a lexicon, 'green' and 'yellow' must both be present prior. Thus, Yolmo is again another language that helps form this loose trend of Tibeto-Burman languages that have a 'blue' and 'green' discrepancy. Furthermore, Yolmo shares cognates for 'black' and 'white' with its sister languages, as seen in examples 49 and 50 below.

49	*mì*	*nàkpu=la*	*pèmpiza*	*tɕí=ki*	*tɕà*	*kyòŋ-ti*	*tér-sin*
	person	black=DAT	woman	one=ERG	tea	carry-PERF	give-PST

To the black man a woman carried and gave tea.[205]
(Consultant's initials: AL; File code: 101006-01)

50	*sá=la*	*bàltiŋ*	*kárpu*	*tɕéemi*	*tɕíi*	*dù*
	ground=LOC	bucket	white	small	one	COP.PE

A small white bucket is on the ground.[206]
(Consultant's initials: AL; File code: 101010-01 11:15)

Outliers in the Tibeto-Burman Family

While the above section addresses Tibeto-Burman languages that are (for the most part) relatively regular in how they express colour, the following section is devoted to outliers in the Tibeto-Burman family with regard to the expression of colour terminology. These languages address colour in ways that are quite unlike their linguistic relatives and exhibit striking conceptual and lexical differences to their counterparts. In these languages, the approach to colour is more complex, and perhaps unsurprisingly, these languages also profoundly challenge Berlin & Kay's theory of universal colour progression.

Gyarong

Gyarong, also known as rGyal rong in Written Tibetan, has a total of eleven colour elements.[207] As a consequence of its geographical location in Sichuan, China, Gyarong exhibits multiple loans from both Chinese and Tibetan. However, similar to other Tibeto-

[204] Hurvich and Jameson, *Theory of the Light Sense,* 1964; as cited in Kay and McDaniel, *Linguistic Significance of the Meanings of Basic Color Terms*, p. 620.

[205] Gawne, *Sketch Grammar of Lamjung Yolmo*, p. 125.

[206] Ibidem, p. 78.

[207] Nagano, *Gyarong Color Terms*, pp. 99, 101.

Burman languages surveyed in this article, many Gyarong colours function as verbs. Jacques also highlights that Gyarong colours (as well as other descriptive concepts) are ideophonic and thus relate to physical and cognitive perception.[208] While a classic example of auditory ideophones would be onomatopoeia, visual cues and triggers also constitute this sub-field of sensory semantics. Another unusual and grammatically interesting feature of Gyarong is that its speakers can combine colours from languages that have provided loans (namely Chinese and Tibetan) to create entirely new lexemes in their own language, Gyarong.

Colours in Gyarong can be thought to represent a spectrum in which each increment has set boundaries. There is evidence that these gradients correlate with the place of articulation of consonants, with lighter colours correlating more with alveolars and retroflexes while darker colours are associated more with velars and uvular fricatives.[209] Gyarong appears to be a Stage II language with the exception of 'grey'. Nagano, a Japanese scholar of Gyarong, also references the Berlin & Kay proposal that 'grey' may function as an outlier with unpredictable focus.[210]

'Grey', which is either *kə pki* or *kə phyi* in Gyarong, falls between the spectrum of *kə pram* 'white' and *kə nak* 'black',[211] with *kə-* functioning as a prefix that appears only before certain colours. While *kə pram, ke nak*, and *kə phyi* may all have roots in Proto-Tibeto-Burman, *kə pki* has no known extant cognates.[212] These Gyarong terms behave as verbs, which cannot be said of all Gyarong colour terms, and – through the Munsell colour system code for colours (hereafter MC) – they are represented as N9–N6 and N1.5.[213] Additionally, in the Japhug variant of Gyarong, *suŋ* and *zuŋ* both mean 'white', and both terms can be used to describe an old person's hair colour.[214] Continuing along this light-coloured spectrum, *ʂuŋ* and *ɣuŋ* from the same Japhug variant of Gyarong can both mean 'clear', in the sense of the sky being 'clear'. The first term, *ʂuŋ*, has a more metaphoric meaning and can also describe an action, while *ɣuŋ* is a more literal term, which would be used to describe 'the colour of dead skin'.[215]

In common with all Gyarong colours, 'red' covers a gradient. The most accurate term is *kə wu rne*, which includes 10RP, 4R (which is simply 'red'), 7R and 6RP in MC.[216]

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[208] We would like to thank one of our anonymous reviewers for directing us to this additional dialect of Gyarong to include in this study: G. Jacques, *Ideophones in Japhung (Rgyalrong)*, "Anthropological Linguistics," 55 (3) 2013, p. 263.

[209] Jacques, *Ideophones*, p. 267.

[210] Nagano, *Gyarong Color Terms*, p. 106; as cited in Kay and McDaniel, *Linguistic Significance of the Meanings of Basic Color Terms*, p. 620.

[211] Nagano, *Gyarong Color Terms*, p. 100.

[212] Ibidem, pp. 101–102.

[213] Ibidem, p. 100.

[214] Jacques, *Ideophones*, p. 267.

[215] Ibidem, p. 267.

[216] Nagano, *Gyarong Colour Terms*, p. 100.

It appears that *kə wu rne* is a pure Gyarong word with clear Proto-Tibeto-Burman origins, and that like 'black', 'white', and 'grey', it acts like a verb.[217]

By contrast, the Gyarong term *li ṭhi* represents a more 'orangey red', identified as 10R, 4YR, 8YR, and 2Y in MC,[218] although this word is a loan from Written Tibetan, *li khri*, which means a 'minium, red lead'.[219] Jacques observes that in the Japhug variety of Gyarong, *χaŋ* also means 'slightly orange' like 'the sky at daybreak'.[220]

Although Berlin & Kay's theory stipulates that the linear progression of colour terms leads directly to 'red' after the 'white' and 'black', it does not specify how many 'reds' can exist in any given language; and as we know, multiple varieties of colours appear in other Tibeto-Burman languages as well (i.e. Thangmi with multiple 'reds'). Gyarong is interesting in that it possesses two terms for the same gradient, a peculiarity that conforms to the extension of the theory with fuzzy sets. In Gyarong, 'red' itself is encompassed by *kə wu rne*, and would likely be classified as a theoretical 'red'.[221] Given that *li ṭhi* is a loan, we may assume that its addition to the lexicon of Gyarong is secondary. For this reason, the existence of two terms for the same gradient raises the question of what the borrowed term *li ṭhi* encompasses that the native term *kə wu rne* does not.

At this point, at least according to a canonical reading of Berlin & Kay's theory, either 'yellow' or 'green', but not both, may appear in a lexicon to qualify as a Stage III language. Both 'yellow' and 'green' are attested in Gyarong, with a larger spectrum for 'green' than for 'yellow', although both terms are loaned from neighbouring languages. In Gyarong, 'yellow' is *sii po*, directly borrowed from Written Tibetan *ser po*[222] and manifests as 5Y and 8Y in the Munsell code format (MC). The first 'green' interval is *ǰaṅ ku*, which is represented by 3GY, 8GY, 3G, 9G, and 5BG in MC,[223] and which stretches into 'visual yellow' and 'blue' territories.[224] The term *ǰaṅ ku* also derives from Written Tibetan, originally *ljiang khu*, which is in turn derived from the term for "(pine) sprout."[225]

'Green' and 'blue' fade together in Gyarong, and the next section of this analysis focuses on 'blue' and its variants. The first term for 'blue' is arguably the most fascinating colour term in the Gyarong language – *laṅ kar*[226] – and represented by 10BG, 5B, and 10B in MC, which the PCCS lists as "blue green, greenish blue [and] blue" respectively.[227] Aside from its position in the 'green-blue' range, the etymology of *laṅ kar* is unusual. The first syllable is derived from Chinese *lan*, meaning 'indigo' while its second syllable

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[217] Ibidem, p. 101.
[218] Ibidem, p. 100.
[219] Ibidem, p. 101.
[220] Jacques, *Ideophones*, p. 267.
[221] Kay and McDaniel, *Linguistic Significance of the Meanings of Basic Color Terms*, p. 622.
[222] Nagano, *Gyarong Color Terms*, p. 101.
[223] Ibidem, p. 100.
[224] Ibidem.
[225] Ibidem, p. 101.
[226] Ibidem.
[227] Ibidem.

derives from Written Tibetan *dkar* 'white'.[228] Somehow, two terms from different languages synthesized into a new term in the lexicon of a third language. Nagano notes that, "this particular 'blue' is expressed as 'whitish indigo'."[229] How such a process occurred, and with what motivation, lie beyond our current analysis and firmly in the realm of conjecture. To add further complication, another term exists for 'whitish indigo', *ṅon kya*.[230] Its etymology is purely Tibetan, combining the word *sngon po* 'blue' and *skya* 'gray, faint'.[231] No data is available to indicate which of the terms is used in which contexts, and whether they exist in free variation or rather in some form of complementary distribution.

An additional Gyarong word for 'blue' is *ṅon po*, derived directly from Tibetan, with an MC correspondence of 3PB.[232] When compared to *ṅon kya, ṅon po* may exhibit the highest degree of membership to 'blue' as it is less varied on perceivable and quantifiable colour, although it may be that speakers of Gyarong view and categorize colour in a manner that does not necessitate the presence of a 'true blue' per se.

The terms *ser muk* 'brownish gold' and *laṅ* 'indigo' are also attested in the Gyarong lexicon.[233] While *laṅ* is a loan from Chinese as noted above, *ser muk* also may indicate a cultural perspective in colour perception. While the PCCS description for *ser muk* is technically 'charcoal' with an MC of 7.5YR 5/8, it is described as 'brownish gold' by Nagano.[234] The origins of this synthesized colour term come once again from Written Tibetan, with the element *ser* deriving from *gser* 'gold' and *muk* from *smug* 'dark bay, cherry-brown, brownish'.[235]

Chepang

The Chepang language spoken in Nepal (vulnerable, 36,807 speakers, ISO 639-3: byh, cdm)[236] expresses colour very differently to other Tibeto-Burman languages in the region. While colours do exist in Chepang, they are usually implicitly connected to what they describe, or they reflect the method by which the described object obtained its colouration. For example, *dut* is used to describe only 'white fluids' while its counterpart *phir* is used only for 'things, especially white clothing'.[237] Interestingly, *dut* is a Nepali borrowing.[238]

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[228] Ibidem.

[229] Ibidem.

[230] Ibidem.

[231] Ibidem.

[232] Ibidem.

[233] Ibidem, pp. 100–101.

[234] Ibidem, p. 100.

[235] Ibidem, p. 101.

[236] UNESCO Atlas of the World's Languages in danger.

[237] Ross Ch. Caughley, *Dictionary of Chepang: A Tibeto-Burman Language of Nepal*, *Pacific Linguistics*, National University of Australia, 2000, p. 486.

[238] We thank one of our anonymous reviewers for advising us for the origin of this term.

The elements *gal-* or *gaw-* are most commonly used to describe things that are 'black'. However, they take different forms depending on the nature of what is described.

Table 18. 'Black' in Chepang[239]

English	Chepang
clouds	*gal.tiŋ.ki.taŋ.kə*
pot	*gal.taŋ.kwar*
very	*cik.cak, tik.tak, hak.ca.də*
coating of skin	*norʔ*
with anger	*khen gal-*

In Chepang, a distinction is made between that which is 'black' and that which is 'blackened'. In only one instance, *gal* is attested, while in the other examples, contrasting morphemes are used.

Table 19. 'Blackened' in Chepang[240]

English	Chepang
bruised	*hno-*
corn tassels	*gal.koy.rəʔ, gal.gən.də.rəŋ*
grain, mat, etc.	*puŋ-*
tubers	*ŋəlʔ-*

It is worth noting that the majority of the terms to describe things that are 'blackened' relate to agriculture and forest products, such as tubers, grain and corn. In addition to these descriptors, Chepang attests a distinct word for 'blackish', which manifests as either <*jhik-*> or <*ŋələʔ-*>[241] and the term for 'black' relating to 'grime, from burning oil' is *nalh*, best translated with the English noun 'blackness'.

Like 'black', the colour 'white' has many variations in Chepang with most having some biological significance:

[239] Ibidem, p. 319.
[240] Ibidem.
[241] Ibidem.

Table 20. 'White' in Chepang[242]

English	Chepang
coating on newborn baby	*tuk.rəyʔ*
cumulus cloud	*romʔ.mus*
earth used for whitewashing	*kə.mi.ro* (Nep.?)
fluid	*dut* (Nep.?)
thing	*phir*

The Chepang verb 'to be white' has its own paradigm with the stems *pham-* or *bham-* and three possible shapes or positions: coiled, stretched out, or well-shaped.[243] In addition, while reduplication is apparent in this paradigm, it is only attested in one form:

Table 21. 'To be White' in Chepang[244]

English	Chepang
something that is coiled up	*bham.kwayʔ.kwayʔ*
something that is spread out	*bham.blaŋ*
something that is well-shaped	*bham.jheŋ.teŋ*

One final term relates to 'whiteness' in Chepang: *norʔ.kliʔ.* This word can best be translated as 'whitish faecal discharge', once again highlighting the biological aspect to Chepang colour terminology.[245]

For 'red', Chepang has a rather small repository of terms, most of which relate to the sun or to fire. The main stem is *du-*[246] and reduplication resurfaces in the term for 'sky, sunset'.

[242] Ibidem, p. 486. We thank one of our anonymous reviewers for advising us of the possible Nepali origin of these terms for 'white'.

[243] Ibidem.

[244] Ibidem

[245] Ibidem.

[246] Ibidem., p. 426.

Table 22. 'Red' in Chepang[247]

English	Chepang
flames	*dili bili*
sky, sunset	*du.he.re.re*
appearing (via the sun)	*du.taŋ.kwar*
sap	*wəyʔ*
sky or clouds	*du.syo.paŋ*

The one variation for 'reddening' in Chepang also relates to the sun, in which the stem manifests unmodified as *kwal.hal.ya*.[248]

Table 23. 'Reddening' in Chepang[249]

English	Chepang
reddening (of the sun)	*he.ray.lə*

In Chepang, the colour term for 'green' exhibits one stem with no alternation: <*pli-*>.[250] Unsurprisingly, and continuing in the biological vein, most words that derive from <*pli-*> relate to water or foliage, as these domains are where the colour is most likely to occur in the natural world.

Table 24. 'Green' in Chepang[251]

English	Chepang
deep	*pliwi*
deep, dark	*pli.ma.rit*
deep (water)	*kwiŋ, wis*
deep (relating to growth)	*pliti.nik*
timber etc.	*syoyʔ*
tree	*jiŋʔ-*
very	*pli.jhəyŋ, pli.layŋ*
very (relating to trees)	*jhuyŋʔ*

[247] Ibidem.
[248] Ibidem.
[249] Ibidem.
[250] Ibidem.
[251] Ibidem, p. 374.

In Chepang, the concept of 'yellow' has three distinct stems: the colour itself, something that has acquired the colour, and the process in which something acquires the colour. All but two forms relate in some manner to tree leaves.

Table 25. 'Yellow' in Chepang[252]

English	Chepang
'(become – leaves)'	*ʔəmhə(ʔ)-*
leaves	*ʔepeʔ-, ʔemheʔ-*
very	*yar.ba.li*

Table 26. 'Yellowed' in Chepang[253]

English	Chepang
'(become – clothes)'	*klip-*
yam leaves	*ʔemheʔ*

Table 27. 'Yellowing' in Chepang[254]

English	Chepang
leaves with dryness	*buh.rayʔ*

In Chepang, the colour 'blue' is the same as the colour 'green': <*pli-*>.[255] Without additional information, this co-occurrence violates the most traditional and narrow reading of Berlin & Kay's theory of colour, as Chepang exhibits discrete words for 'grey' and 'purplish' (which are addressed below). However, as Kay & McDaniel's revised theory proposes, the emphasis on loose categories or 'fuzzy sets' enables the connection between 'blue' and 'green' to be viable in Chepang and not contradict the broad strokes of the theory. In addition, Hering's understanding of the simultaneity of 'blue' and 'green' perception may also indicate a deeper connection between these colours in this language.

Although 'brown' does exist as a colour in Chepang, it is determined as either 'light' or 'dark' in nature, and never as a neutral variant.

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252 Ibidem, p. 490.

253 Ibidem.

254 Ibidem.

255 Ibidem, pp. 320, 374.

Table 28. 'Brown' in Chepang[256]

English	Chepang
(light) brown	*ŋal?-*
(dark) brown	*phut-*

The last colours that we survey for Chepang are 'purple' and 'grey', as neither 'pink' nor 'orange' exist in the language. Even the status of 'purple' is questionable, as although there is a word to describe something 'purplish,' there is no discrete word for 'purple' itself. As for 'grey', variations of the word are attested much like the other colours, with specific lexicon devoted to the process of 'greying'.[257]

Table 29. 'Purple' in Chepang[258]

English	Chepang
'purplish'	*ŋal?-*

Interestingly, the word for 'purplish' also means 'light brown', although the exact nature of this semantic relationship is unknown.

The main stem for the colour 'grey' is <*brus-*>, and most references relate to hair.[259]

Table 30. 'Grey' in Chepang[260]

English	Chepang
hair	*brok-*
and white (of clouds)	*phut hoyo.bhoyo?*
dusty	*phut-*
or white streaked hair	*myang.brok*

Ladakhi

Despite deep historic and cultural influences from Tibet itself, the Ladakhi language is quite distinct with five dialects that vary in phonology, grammar, and lexicon. The majority of Ladakhi speakers live in Jammu and Kashmir.[261]

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[256] Ibidem, p. 422.
[257] Ibidem, pp. 422, 374.
[258] Ibidem, p. 422.
[259] Ibidem, p. 374.
[260] Ibidem.
[261] Sanyukta Koshal, *Ladakhi grammar*, Delhi 1979, p. 3.

Dollfus offers an exemplary and fascinatingly intricate portrait of the complex relationship Ladakhis have with their colour system and asserts, "For Ladakhis, a colour does not exist per se, but only when associated with the animate or inanimate object this colour describes. A colour exists within a context, not on a chart."[262] Dollfus suggests that such a perspective may be a result of the historic religiosity of the region and of Ladakhis in particular in regard to Tibetan Buddhism, which uses colour thematically and metaphorically in tantric practices and to structure its worldview.[263]

Dollfus also demonstrates that the concept of 'colour' itself is highly variable in Ladakhi, with six lexemes in existence to cover the very idea of 'colour'.[264]

Table 31. Colour in Ladakhi[265]

Ladakhi	English	Examples
mdog/ dog	colour; complexion; appearance; look	
tshon	dye; pigment; paint	*tschon chen* 'a colour that never fades'; *msthon bkra/ tshon khra* 'coloured/colour' (i.e. movies or photographs)
tshos	dye	*tshos 'tshos cas/ tshos gtang cas* 'to dye'; *tschos (sogs) dog* 'a (fully) ripe colour' in reference to fruit;* today this term is often replaced with *rang*
rang (Hin.)	colour; paint; dye; pigment (particularly artificial substances)	could pertain to hair dye or dye in dried fruit
kha	Compounded to create other colour terms (i.e. *glo kha* 'lung colour')	*mchin kha* 'liver colour'; *g.yu kha* 'turquoise colour'; In Tibetan, it can also include the qualities of lustre and sheen; *kha dog* 'colour, attitude, or viewpoint/ perspective'; at one point, it may have only been used for the colour of some wet surfaces**

* Pascale Dollfus, *Using Colours in Ladakh*, p. 277.

** Y. Nagano, *An Analysis of Tibetan Colour Terminology*, "Tibeto-Burman Studies" (1), Tokyo 1979.

Additionally, *dogor kha* can combine with a seemingly endless number of nouns to create a unique colour term (i.e. *ro dog* 'corpse colour'),[266] and with additional morphemes

[262] Pascale Dollfus, *Perceiving, Naming, and Using Colours in Ladakh*, "The Tibet Journal" (40) 2, (2015), p. 262.

[263] Ibidem, p. 274.

[264] Ibidem, p. 263.

[265] Dollfus, *Using Colours in Ladakh*, p. 263.

[266] Ibidem, p. 265.

that may alter colours further. It is interesting to note that Ladakhis tend to privilege 'glossiness' over 'shade' as a result of cultural opinions of beauty and fortune.[267] While *mdangs can* 'having brightness' equates to possessing beauty and 'shining', someone who is described as *mdangs med* 'without brightness' would be considered buffoonish and dull.[268] Such terms of brightness are also used to describe horses.

Table 32. Shades in Ladahki[269]

Ladahki	English
sprin pa	cloud
du ba	smoke
rdul	dust
khug sna	mist
nyi ma	sun
grib pa	shadow
snag ba	lustre
mun pa	darkness

Table 33. Shapes and Additional Descriptors in Ladakhi[270]

Ladakhi	English
ring	long
thung	short
mtho	high
dma'	low
lham	square
zlum	round
phya le ba	level (even)
phya le ba ma yin pa	not level (uneven)

[267] Ibidem., pp. 271–273.
[268] Ibidem., p. 273.
[269] Ibidem, p. 263.
[270] Ibidem.

Table 34. Additional Colour Modifiers in Ladakhi[271]

Ladakhi	English
skya/skya bo	pale, light, faint (i.e. *ser skya* 'pale yellow'; *sgno skya* 'a light blue')
nag/nag po	a dark colour (i.e. *sngo nag* 'blue black/ dark black'; *ser nag* 'a dark yellow')
rkyang/skyang	homogeneity/totality (i.e. *sngon po sngo rkyang* 'completely and totally blue')
khra/ khra bo	technically a combination of black and white (see below)

Within this collection of Ladakhi colour modifiers, some are of particular interest. For example, although black and white are polarized, Dollfus attests that they are not "achromatic".[272] In practice, this means that *nag skya* is ungrammatical and does not signify "a very intense black" while in fact *dkar skya* is considered 'off-white'.[273] Additionally, *khra/khra bo* has a complex and subtle meaning. Although its base form is a combination of the terms for 'black' and 'white', when used in combination with other colours, *khra/ khra bo* denotes different properties pertaining to the colour that it modifies, i.e. *dmar khra* 'red-spotted' and *dkar khra* 'piebald but predominantly white'.[274]

Despite the variety of modifiers and colours attested in Ladakhi, Dollfus suggests that Ladakhi speakers always insist their language has only four colours: *dkar po* 'white', *ser po* 'yellow', *dmar po* 'red; also expressing saturation', and *sngon po* 'blue'.[275]

51	*pu-mo-gun-ni*	*ṭho-e*	*ə-če-yi*	*rdo$_{ŋ}$-kər-po*	*duk*
	Noun-Pl.-Gen.	P.P.-Gen.	Noun-Gen.	N.-Qul.Adj-Dir.	be Pr.V.to
	girls	among	elder sister	face-white	

The face of the elder sister among the girls is white.[276]

52	*pu-mo-rom-*	*po-kər-po-*	*r$_{ŋ}$i-mo*	*-gun ...*
	N.-Qul.Adj.	-Qul.Adj.-	Qul.Adj.	-Pl.Suf.Dir …
	girl	fat	white	tall

The tall fat white girls …[277]

In Ladakhi, these four colours are considered pure and unmixed. In addition, two other colour terms are attested and are generally unspecified: *nag po* 'dirty, black' and

[271] Ibidem, p. 265.
[272] Ibidem.
[273] Ibidem.
[274] Ibidem.
[275] Ibidem, pp. 264–265.
[276] Koshal, *Ladakhi Grammar*, p. 88.
[277] Ibidem, p. 145.

smug po (which is attested as 'the colour of clotted blood'). The Ladakhi term *smug po* encompasses a range of colours and tints that include 'dark maroon, dark brown, dark bay or any dark grey colour, reddish brown, cherry-brown, maroon, brown, purple, purplish, etc.' and although it is never used to describe a bold colour, it is used to express deepness.[278] In Ladakhi, *smug thig*, a counterpart to *smug po*, is considered the colour of bruises (*thig* translates as to 'drop').[279] The prefix *smug* also appears in Gyarong, meaning 'dark', which may highlight a relationship to more conservative or archaic varieties of Tibetan.[280]

53	*ləl-ki-lə*	*ək-bər-rgyəl-po-e*			*rtsiks-khən*	*yin-nok.*
	Noun-Dir.	Noun	Noun	Gen.	V̆.-St.-Deri-Suf.	V. to be-PRES
	Red Fort	Proper	Name	King	built	

Red Fort is built by King Akbar.[281]

The term *ləl* appears in example 53 above, but *dmar po* is attested as 'red' in Ladakhi. It is highly likely that *ləl* is a borrowing from Hindi or Nepali, both of which languages have the word *lāl* for 'red'.

Additionally, in his grammar, Koshal notes that 'green' in Ladakhi is *ljə$_{ŋ}$-khu*, which is cognate with Tibetan *cangku* and Gyarong *ǰaṅ ku*.[282] Dollfus specifies that *ljang ku* (her transliteration) is mostly used for description in religious contexts and for artificial greens.[283] However, the nominaliser <–*pa*> can also appear as a suffix on *ljang*, meaning "small green plant or blade of grass," whereas the pan-Tibetan nominaliser <-*po*> cannot, all the more intriguing given that *ljang ku* is never used to describe natural greenness.[284]

Koshal observes that abstract adjective-like nouns such as colours can undergo suffixation with <-*čhə*> to slightly change their meanings and solidify themselves as nouns.[285] For example, *kər-po* 'white' and *nək-po* (as transcribed by Koshal) become 'whiteness' *kər-čhə* and *nək-čhə* 'blackness', respectively. Nevertheless, the distinction between adjectives and nouns in Ladakhi is not clear, and abstract noun suffixation may be viable with both noun and adjective roots.[286]

In addition, the suffix <-*čo*> can make adjectives (which includes nouns as these classes are blurred) into verbs.[287]

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[278] Dollfus, *Using Colours in Ladakh*, p. 264.
[279] Ibidem.
[280] Nagano, *Gyarong Color Terms*, p. 101.
[281] Koshal, *Ladakhi Grammar*, p. 189.
[282] Nagano, *Gyarong Color Terms*, p. 100; Tournadre and Dorje, *Manual of Standard Tibetan*, p. 127.
[283] Dollfus, *Using Colours in Ladakh*, p. 270.
[284] Ibidem.
[285] Koshal, *Ladakhi Grammar*, p. 56.
[286] Ibidem.
[287] Ibidem., p. 181.

54 *nək-po-čo-*
black do
(to) Blacken (i.e. to make black)[288]

Colour terminology is further expanded into natural and biological worlds, finding connection with both Ladakh's surrounding flora, fauna (including livestock), the earth, and Lakadhis' health and wellness.

Table 35. Colour in Plant Names[289]

Ladakhi	English
sro lo dmar po	red sholo (red flowering succulent) *Rhodiola himalensis*
sro lo ser po	yellow sholo (pale yellow flowering succulent) *Rhodiola imbricata*
bong nga nag po	black aconite *Aconitum violaceum*
bing nga dkar po	white aconite *Aconitum heterophyllum*

Table 36. Colour in Animal Names[290]

Ladakhi	English
smug stag	lit. purple-brown tiger (i.e. clouded leopard) *Neofelis nebulosi*
thang dkar rgod po	lit. white breasted [and] wild (i.e. Egyptian vulture) *Neophron percnopterus*
khrung khrung ske nag	black-necked crane *Grus nigricollis*
bya khra bo	lit. piebald bird (i.e. magpie)

Table 37. Colour Terminology Pertaining to Livestock[291]

Ladakhi	English
be lu	a white goat with two dark stripes on its head
rag pa	a goat with yellow hair around its eyes
ngang pa	a goat with fawn hair on its head and on its backbone
mgo nag	a goat with a black head
mgo smug	a goat with a brown head
ser mgo	a goat with a yellow head

[288] Ibidem.
[289] Dollfus, *Using Colours in Ladakh*, pp. 264, 273.
[290] Ibidem, p. 264.
[291] Ibidem, pp. 267–268.

Table 37. (cont.)

Ladakhi	English
she lo	a goat with a spotted head "like a meadow full of blossom"
khra bo	'piebald'
kham pha	'brown or beige'
rog po	black (yak hair or raven plumage)
nag po	black (sheep wool)
sngon po	grey for a horse/ "a watered-down version of true black"*

* Dollfus, *Using Colours in Ladakh*, p. 271.

Table 38. Colour in Minerals[292]

Ladakhi	English
lcags rdo dmar po	red ironstone (red hematite)
brag ri smug po	basalt

Table 39. Artistic Paints & Pigments in Ladakhi (Plants & Minerals)[293]

Ladakhi	English
mtschal rgod	cinnabar (derived from wild vermillion)
rgya mtshal/ li khri	'red lead'; an artificial variety of orange-red from vermillion (imported from China and India)
dong ros/ btso ma	'orange-yellow realgar' from arsenic sulphides
ba bla	a yellow variant from arsenic sulphides
ka rag	white from calcium
skag	Lac dye from the fluid left on twigs by small reddish insects *Laccifer laca* and which creates an equally reddish colour
rams (counterpart to *skag*)	indigo *Indigofera tinctoria*

We may note that in Gyarong, *li khri* is used identically and corresponds to the same colour in Ladakhi.[294] Such cognate connections are not surprising given historic relationships and the widespread diffusion of Tibetan culture in Ladakh and across the surrounding regions.

[292] Ibidem, p. 264.
[293] Ibidem, pp. 265–266.
[294] Nagano, *Gyarong Color Terms*, p. 101.

Table 40. Festivals with Colour Terminology in Ladakhi[295]

Ladakhi	English
sngo lha	'Green Gods Festival' that occurs in early summer

Table 41. Colour in Diseases[296]

Ladakhi	English
mig ser	lit. yellow eyes (jaundice)
mdze dmar	red leprosy

Table 42. Bodily Terms Combined with Colour Terms[297]

Ladakhi	English
ser po sngon po chas cas	'to go yellow and blue'/ to look ill
rgyu dkar	φ white gut
rgyu nag	φ black gut
ya ma dkar po	φ white sinuses
ya ma nap po	φ black sinuses
rtsa dkar po	'white channels'/ nerves and tendons
rtsa dmar po	'red channels'/ veins and arteries
khu bar dkar po/ khams dkar po	'white fluid or element'/ sperm
khu bar dmar po/ khams dmar po	'red fluid or element'/ menstrual blood

φ – *indicates a culturally-relevant medical distinction.*

55 *lčə$_{ŋ}$-mə* *s$_{ŋ}$on-po* *duk.*
N.-Sing-Dir Qul.Adj V. to be-PRES
tree green
The tree is green (on the basis of seeing it).[298]

We may note that in this context, *s$_{ŋ}$on-po* 'green' is cognate with Gyarong *sngon po* 'blue' and with Tibetan *ngõnpo* 'blue/green'.[299] In the Tibetan context, *ngõnpo* is used for vegetation, which coincides with its usage in Ladakhi where it can also encompass more

[295] Dollfus, *Using Colours in Ladakh*, p. 271.
[296] Ibidem, p. 264.
[297] Ibidem, pp. 273–274, 277.
[298] Koshal, *Ladakhi Grammar*, p. 186.
[299] Nagano, *Gyarong Color Terms*, p. 101; Tournadre and Dorje, *Manual of Standard Tibetan*, p. 497.

colours than just ‘green’ and ‘blue’ including reds, purples, and greys.[300] In Gyarong, the meaning ‘blue’ is seemingly more prevalent.

56	*kho$_{\eta}$-$_{\eta}$i*	*ṣtə*	*nək-po*	*yot.*
	III.P.-Sg.-Gen	N.Dir	Qul.Adj.	V. to be-PRES
	his	horse	black	

His horse is black (based on direct knowledge).[301]

Traditional Ladakhi art practices and Buddhist customs offer rich domains of culturally-specific colour usage and resonance. While the semiotics of these colours remains a point of historical debate among artists and theologians, Dollfus argues that colour is rooted in Tibetan astrology with a supporting literature that dates back to the 15th century.[302]

Given such a deep tradition, Ladakhi artists have created their own jargon and expanded the dimensions in which colour can be perceived, particularly in painting. By mixing and grinding dyes and pigments, Dollfus suggests that Ladakhi painters have created additional levels of colour specification that are unique to their craft. These colours can be subdivided further into base colours and finishing colours that are painted on after an initial coat.[303]

In the case of what in English would be referred to as ‘blue’ and ‘green’, a base coat, *mthing* corresponds to English ‘azurite blue’, while *spang* or *mdo spang* corresponds to English ‘malachite green’. Additional varieties of these colours exist in Ladakhi, all gradient of shades which are determined by how finely the minerals are ground:

Azurite gradient: [lightest] *sngo si >> sngo sang >>mthing shul >> mthing ‘bru* [darkest]
Malachite gradient: [lightest] *spang si >> spang skya >> spang >> spang smug* [darkest][304]

Interestingly, while Ladakhi *‘bru* means ‘grain’, it is used to represent the darkest shade of azurite blue in such constructions.[305]

As outlined above and painstakingly documented by Dollfus, all of these colours also have a spiritual significance and may be read as a meta-social analysis of gender and class dynamics. From the 18th-19th century onward, Ladakhi cultural texts reference eight main colours: seven that represent male/man (*mthing, ljang* ‘green’, *mtschal, li, skag, ba bla,* and *rams*) and one that represents female/woman (*dkar* or *ka rag*). From these, other colours – sons or *bu* – are produced.[306] The combination of the eight prime colours creates such ‘sons’, including *dmar skya* ‘pale red’ and *mi sha* ‘human flesh’,

[300] Dollfus, *Using Colours in Ladakh*, pp. 270–271.
[301] Koshal, *Ladakhi Grammar*, p. 186.
[302] Dollfus, *Using Colours in Ladakh*, p. 265.
[303] Ibidem, p. 266.
[304] Ibidem, p. 265.
[305] David Jackson and Janice Jackson, *Tibetan Thangka Painting: Methods and Materials*, Boulder, CO (USA) 1984, 91 et seq.; as cited in Dollfus, *Using Colours in Ladakh*, p. 265.
[306] Dollfus, *Using Colours in Ladakh*, p. 266.

offspring specifically of *mtshal gyi bu* 'vermillion' as well as *mchin kha* 'liver colour', *glo kha* 'lung colour', *ljang ser* 'yellow green', and *rams se* 'indigo'. Two additional sisters '*sring mo*' are worth mentioning, *ja kha* 'tea colour' and *dud kha* 'smoke'.

Colour terminology in Ladakhi is deeply cultural and cannot be fully understood without an understanding of the socio-religious context in which the community live. As a case in point, Buddhist monks are referred to as *ser po*, or 'the yellow ones' because of their attire, in contrast to common folk who are referred to as *skya* or 'grey ones', even though their ropes are conventionally more 'red' than 'yellow'. In Ladakhi, Buddhist monks are also referred to as *ngur smrig 'dzin pa/ nur smrig 'chang ba*, which translates as 'reddish-yellow/ saffron robe wearers' despite not making use of the Ladakhi term for 'yellow' or 'saffron', *kur kum*, in the description.[307] Dollfus suggests that the use of the colour term *ser po* comes from the symbolic significance of the colour 'yellow', which is synonymous with gold, merit, wisdom, and yak butter – the favorite and most useful butter – thus emphasizing the status of monks.[308] Yet, 'yellow' is also used to refer to outsiders and can indicate a negative attribute: *mig ser po* 'yellow eyes' and *mgo po* 'yellow head' can refer to Westerners of any hair or eye colour, while *ser sna* 'yellow nose' can convey the sense of jealous or greedy.[309]

Despite the extraordinary detail of systematic adjectival description attested in the Ladakhi language, Dollfus suggests that Ladakhi society is not as overtly based around colour as one might expect from such terminological effervescence.[310] Ladakhi expressions that use colour terms are curiously limited; and in everyday usage, colour is not a primary descriptor, and remains firmly secondary to size or shape. Having noted this, colour is nonetheless prevalent in Ladakhi literature and is frequently deployed in metaphoric constructions, reiterating the culturally salient role of colour in Ladakhi language and society.[311]

Conclusion

The complexity and diversity of the Tibeto-Burman language family offers us a pathway to better understand the anthropological, linguistic, and cognitive commonalities between related cultures and peoples. Colour is one such pathway, showing both unexpected linkages and pronounced differences across and between Himalayan languages. In the scope of our survey, linguistic patterns arise that appear to violate aspects of Berlin & Kay's initial and modified colour paradigms. These results are significant as they contribute a new perspective to a process often thought to be universal. These commonalities also provide further insight to the characteristics of an understudied language family and

[307] Ibidem, p. 268.
[308] Ibidem.
[309] Ibidem, p. 269.
[310] Ibidem, p. 276.
[311] Ibidem, p. 277.

help to define the conceptual and socio-linguistic boundaries and internal relations of Tibeto-Burman languages.

Across the Tibeto-Burman language family, the 'green-blue' discrepancy manifests in multiple languages (such as Kulung, Thulung Rai, Sunwar, Yakkha, Tibetan, and Yolmo) and articulates with more recent work on the perception of colour. Nominalisation, especially using the pan-Tibetan nominaliser <*-po*>, is common throughout the family, and is widely although not universally attested in Limbu, Kulung, Tibetan, Ladakhi and Thangmi through various different suffixes. Additionally, there is heavy borrowing in colour terminology in the Tibeto-Burman language family, and loans from Indo-Aryan (Hindi and Nepali) and more dominant Tibeto-Burman languages are widely attested in the data we have presented here.

Outliers in the Tibeto-Burman family – in terms of colour terminology at least – offer intriguing insights into the diversity of colour encoding in not only lexicon and grammar, but in how understandings of colour are connected to philosophy, religion, and culture. Through such readings, we learn that colour cannot be simply understood through morphological analysis or by lexical comparison. Ladakhi in particular proves challenging as its colour range is rich, conceptual and rooted in specific cultural aspects and forms, and because individual colours attested in Ladakhi do not appear to coalesce into clear categories as theorized by scholars in the field.

Ultimately, this survey serves as a basis for further inquiry into the rich area of colour terminology in Himalayan languages, and it is our hope that future researchers will use this contribution as a consolidated, typological reference to colour in the Himalayan region. Furthermore, we hope to have brought timely attention to the internal diversity and variety that exists within these languages, as many of these speech forms are endangered with dwindling speaker population. To that end, any work that profiles and makes visible less commonly-known and often poorly documented languages can be interpreted as form of language revitalisation, however modest.[312] In conclusion, we hope to have made a modest contribution to an established and ongoing theoretical discussion, to have helped challenge the universal application of an exciting theory by introducing data from an important and under-represented language family. Only through careful description, rigorous documentation and comparative analysis can we take out understanding of human cognition and perception to a more nuanced place.

[312] M. Turin, *Language Endangerment and Linguistic Rights in the Himalayas: A Case Study from Nepal*, "Mountain Research and Development" (25) 1, (2005), p. 4–9.