MARK TURIN

Voices of vanishing worlds:
Endangered languages, orality, and cognition

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Voices of vanishing worlds: Endangered languages, orality, and cognition.   Up to half of the world's 6,500 languages spoken today may be extinct by the end of this century. Most of these endangered languages are oral speech forms, with little if any traditional written literature. If undocumented, these tongues—each representing a unique insight into human cognition and its most powerful defining feature, language—risk disappearing without trace. In this article, I discuss the unique spatial and temporal worlds occupied by communities whose languages are still principally oral. Drawing on examples from the Himalayas, I show how technology is effecting global linguistic diversity and the voices of these vanishing worlds.
Keywords: endangered languages; orality; human cognition; Himalayas.

Vozes em extinção: línguas ameaçadas, oralidade e cognição. Cerca de metade das 6500 línguas faladas hoje no mundo poderão estar extintas no final deste século. A maioria destas línguas ameaçadas são formas de discurso oral, com pouca ou mesmo nenhuma literatura tradicional escrita. Se não forem documentadas, estes idiomas – cada um deles representando uma perspetiva única da cognição humana e da sua característica definidora mais ponderosa, a linguagem – correm o risco de desaparecer sem deixar vestígios. Neste artigo discutem-se os mundos espaciais e temporais únicos ocupados por estas comunidades cujas línguas são ainda principalmente orais. Apoiando-me em exemplos da região dos Himalaias, procuro demonstrar o impacto que a tecnologia tem vindo a exercer sobre a diversidade linguística global e sobre as vozes destes mundos em extinção.
Palavras-chave: línguas ameaçadas; oralidade; cognição humana; Himalaias.

Mark Turin » mark.turin@yale.edu » Yale University and the University of Cambridge.

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THE CHALLENGE[1]

Linguistics is a growth industry, yet ever more languages are disappearing without trace. There are now more trained linguists working in the discipline than there are extant languages to document. Too many stars and not enough sky. Moreover, as privileged language professionals, linguists are in a position to pose ever more nuanced and complex questions of their data… but where are they sourcing that data? How many doctoral dissertations have been submitted based primarily (or even exclusively) on analyses of the verbal contortions and internal syntax of English, Spanish, and Chinese?

Some may ask whether linguists are professionally responsible for documenting the world's vanishing voices. Perhaps this is not their mandate? What is the role of ever more sophisticated theoretical excursions of the mind (often on language rather than languages) while "Rome burns"? Beyond that, do linguists even have an ethical or moral responsibility to support communities engaged in reviving their speech forms, and help—through sharing their knowledge, resources and networks—revitalisation and reclamation projects, even in cases when these are politically charged?

We know that linguists do not save languages, speech communities do; but in this highly articulated documentary and classificatory moment, how should the scholarly community act? Will linguistics go down in the history of science as the only discipline that presided over the demise of its own subject matter and did nothing? These are some of the questions that this paper addresses.

SAFETY IN NUMBERS: LINGUICIDE AND GLOTTOPHAGY

At issue is the quality and depth of the data to which we have access and on which we, as linguists, build our theoretical architecture. There are historically rich and comprehensive records for only a tiny proportion of the languages spoken in the world today. Even though some linguists are now engaged in documenting the diversity of human linguistic expressions with refocused urgency and dedication, almost half of the world's speech forms are critically endangered and will likely vanish without trace by the end of this century.

Some sobering statistics will help to contextualise the urgency of the task: the *Atlas of the World's Languages in Danger* released by UNESCO in early 2009 claims that more than 2,400 of the over 6,500 languages spoken around the globe today are in danger of disappearing. The UNESCO consulting team ranked these vanishing voices on a sliding scale from vulnerable to extinct (Moseley, 2012): noting that many such speech forms will cease to be used as communicative vernaculars by the next generation of speakers, and that many of these languages are entirely oral (or signed) and have no established written form, so are at risk of disappearing without trace.

Numbers help to underscore the imbalance across the world languages, and hint at the complex power relationships that encircle and promote them. According to conservative estimates, 97% of the world's people speak 4% of the world's languages. Conversely, 96% of the world's languages are spoken by 3% of the world's people. Over 1,500 languages—one quarter of the total number of living speech forms—have fewer than 1,000 speakers. We now know that at least 50% of the world's languages are losing speakers, some of them at a dramatic rate. Up to 90% of the world's speech forms may be replaced by dominant regional, national or international languages by 2100. Some activists refer to such languages—we may naturally jump to name and shame English, but there are plenty of others (Spanish, Nepali and perhaps even Portuguese)—as "predator languages", and describe the process as "linguicide".

While predation may or may not be a helpful metaphor to think with, given that it evokes so many imaginings drawn from the natural and animal worlds (survival of the fittest, for example), the point of the phrase will be clear: certain languages are simply so socially dynamic, economically effective, politically well positioned, and downright successful that they eat up other speech forms. Linguists, enjoying the chance to coin a neologism, have taken to calling this "glottophagy" (attributed to the Frenchman Louis-Jean Calvet in 1974). We may have to concede that the nicer that people are with one another (socially, economically and physically), the nastier that their languages are with each other.

Yet language death is no new force, born exclusively of globalisation and its recent geopolitical pressures. Half a century ago, in the 1960s, Ukranian-Canadian linguist Jaroslav Bohdan Rudnyckyj gave birth to the term "linguicide" while exploring the fate of his native Ukranian under Russian linguistic and political pressure. In so doing, Rudnyckyj knowingly invoked genocide and ethnocide, but then as a subcategory relating to language. This lexical extension was adopted and has stuck: in his well-received *Genocide: Conceptual and Historical Dimensions*, George J. Andreopoulos (1994, p. 77) offers his readers a working definition of linguicide as "forbidding the use of or other intentional destruction of the language of another people—a specific dimension of ethnocide". Unlike glottophagy, which implies an action motivated more by size, hunger, and natural destiny (i.e. "I ate you because you were there and in my way"), linguicide makes us think of aggressive destruction. There is nothing predetermined or animal about it, it is strictly human. How better to violate a people than by killing off their language (cf. Kurdish from the 1920s onwards, according to Hassanpour, 2000)?

All of this underscores that most of the world's linguistic diversity is under the stewardship of a tiny number of people, often marginalised within their own nations who have access to pitifully eroded resources to sustain their speech forms and ways of life. These speakers—on the fringes of states that have shown little interest in their welfare and culture, oftentimes even actively supressing them—are the custodians of a large part of our shared human heritage and their threatened languages hold insights into the diversity of our cognitive capacity as a species. Consider the amount of interest and traction that Dan Everett (2005, 2008) has generated with his data on the Pirahã language: a speech form with (allegedly) no numbers, no colours, and no recursion. These realisations have sent linguists into spasms of self-reflection, all thanks to the documentation of one endangered, oral language. One of thousands of endangered, oral languages.

The death of a language is not simply about words, syntax, and grammar, nor will it affect only small, "traditional" and largely oral cultures. Languages convey unique forms of cultural knowledge. Speech forms encode oral traditions. When elders die and livelihoods are disrupted, it is such creative expressions that become threatened. A well-intentioned and important national education programme in one of the world's major languages, such as Mandarin Chinese or French, may have the unintended side effect of undermining local traditions and weakening regional languages. And for many communities around the world, the transmission of oral literature and performative traditions from generation to generation still lies at the heart of cultural practice. As languages die, established systems of learning and knowledge exchange can

break down. Globalisation and rapid socio-economic change exert particularly complex pressures on smaller communities, often eroding expressive diversity and transforming culture through assimilation to more dominant ways of life.

While one would think that by now the scholarly community would take these painful realities to be self-evident, senior colleagues show us that the reality is otherwise. "A review of leading publications", Nicholas Evans and Stephen Levinson (2009, p. 430) write, "suggests that cognitive scientists are not aware of the real range of linguistic diversity". It is to that challenge that I address this paper.

ACTION AND RE-ACTION

This woe and misery will not be news to readers of this esteemed journal, but the scale of the response from linguists may be. Facilitated by an infusion of funding from philanthropic sources, descriptive linguists have been galvanized to document the world's languages with a renewed sense of urgency. Field linguists (and perhaps most importantly their students: transmission of academic lineages are after all as fragile as oral traditions) are now responding to this threat, effectively and decisively. Even Google is getting involved, through a partnership with the Alliance for Linguistic Diversity encapsulated in a visually rich website: <http://www.endangeredlanguages.com>.

Over the last decade, projects at the School of Oriental and African Studies (SOAS) in London, at the Max Planck Institute in the Netherlands, and at the National Science Foundation in the United States have been established to support the documentation of endangered languages, train a new generation of field linguists, and work collaboratively with speech communities who are actively involved in preserving and revitalising their threatened tongues. Even linguists of a more theoretical bent, such as Noam Chomsky, have become vocal backers of language documentation projects, realising that the wealth of linguistic forms on which their theories rely are at risk of disappearing unrecorded. And the importance of the task has also captured the imagination of a public beyond the academy, with regular media coverage along the lines of "one language lost every two weeks" or "last speaker of x dies". This public interest is encouraging, as it reflects a wider concern with the attrition of all forms of diversity, natural and cultural, and points to a civic engagement that some scholars are leveraging to good effect.

Many linguists have responded by entering into increasingly collaborative partnerships with speech communities, producing "documents" that have both local relevance and academic integrity. Moreover, the growth in access to digital recording technology has meant that contemporary research initiatives

on endangered languages are not only born digital, but often birthed straight into an archive. And herein lies an unexpected paradox: on the one hand, the juggernaut of global connectivity and cross-border marketization is accelerating the flattening of socio-linguistic diversity, eroding fragile speech forms ever faster; on the other, these same systems are providing greater access to travel and communication technologies to ever more communities. Neo-liberal models of development and commodified cultural tourism are only the most recent processes to be implicated: historically speaking, colonialism, imperial adventurism, ideological nationalist movements and the democratisation of writing and literacy have all left their mark—a trail of transformation and sometimes destruction—on small scale communities and their oral speech forms.

The digital divide has taken shape unevenly, with class (and caste) becoming increasingly important factors, irrespective of geographical location. Some individuals in what is still depressingly referred to as the "developing world" now use very experimental digital technology at the same rate and with the same level of sophistication as those in the traditionally "advanced West", leapfrogging waves of dead-end tools that have made their way into the recycling bin of technology. Concomitantly, there are schools, towns and communities in Europe and the United States without access to reliable broadband.

At the same time, however, historical collections of recordings made by ethnographers and linguists in the past are ever more endangered, becoming orphaned when their collectors die or fragmented into their component parts based on the medium of documentation when they are finally archived. As ever more content is born digitally—cheaply and speedily—we run the risk of generating data cemeteries for those who will come after us, unless we adhere to open standards and forge agreements about compatibility and future-proofing. Today's hard discs are the shoeboxes of tomorrow, with the important caveat that real shoeboxes can still be explored a hundred years later, while there are ever fewer university computing labs that can unlock data stored on an old 8-inch or 5.1/4-inch floppy disc dating all the way back to the 1980s.

Drawing on fieldwork in Nepal with a community speaking an endangered Tibeto-Burman language, and reflecting on the documentary turn in field linguistics, in this paper I illustrate how linguists and anthropologists are collecting, protecting and connecting their data, and how technology is increasingly influencing their relationship to their work. My contribution has two parts. To begin, I address the macro-politics and competing ethno-social agendas of contemporary documentation projects in linguistics and anthropology. I then turn to the micro-politics of a particular field research project and my involvement in the production of linguistic and ethnographic materials. Since digital

documents are the primary products of contemporary research initiatives in field linguistics, documentary processes naturally warrant closer attention. Through these various engagements, I address a theme of recurring concern, namely that "files are authoritative by virtue of their compilation" (Feldman, 2008, p. 35) and consider what this means for documents that are not only born digital, but increasingly even born archival.

DATA PRACTICES IN FIELD LINGUISTICS

The recently rejuvenated sub-discipline of descriptive field linguistics is addicted to data and documents. Scholars generate them, funders demand them, and members of some speech communities fetishize and deploy them for transparently political ends. The outputs of research projects that aim to describe hitherto poorly known and often endangered languages are increasingly measured by the volume and output of the documents that they produce. Quality is not everything, quantity also counts, as demonstrated by a strong focus on data curation and future-proofing strategies in online language archives, such as the DoBeS archive in Nijmegen and the Endangered Languages Archive maintained at the School of Oriental and African Studies in London.[2]

That linguistic documentation projects should be so explicitly absorbed with the production and distribution of data is worthy of study in itself, but of particular interest to us here is the degree to which these contemporary language collectors pause to reflect on the political implications of their work, and the extent to which they are being asked to consider the community consequences of their documentation. I would argue that field linguists have considerable experience of dealing with the cognitive tension between analogue, tangible documents (printed word lists and grammatical sketches) versus those whose genesis and distribution strategy is largely digital and intangible (database records, digital entries into online archives, or logged audio-video content), even if much of this discussion is not aired in polite company (and is elided during promotion and tenure reviews).

Megill and Schantz (1999, p. 21) rather provocatively suggested that "document becomes a verb for the archivist". Six years later, in his *Corporate Memory: Records and Information Management in the Knowledge Age*, Megill fine-tuned his earlier position with an entire chapter on "The Document as Verb", proposing that while the International Organization for Standardization (ISO) defines a document as an object, "in the Knowledge Age, a document is

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2   Some of this section and the arguments that it contains were first developed in Turin (2011).

more often a verb than a noun" (Megill, 2005, p. 33). I would extend Megill's proposition further and suggest that in my work, and also for other ethnographers, field linguists and museum curators, document has always been both a verb and a noun. While an explicit focus on the agency and subjectivity of the fieldwork endeavour may be a more recent concern, field linguistics has been motivated by the calling of primary documentation since it began. Researchers have collected data on the diversity of human linguistic expressions, with the field linguist positioned as both documenter of a specific language and subsequently producing documents (as nouns and objects) that are quantifiable products. Present-day linguists are being asked for ever more information on the pragmatics and ethics of their collection methods at the point of archival accession and deposit, and students are being trained to document (verb) their documents (noun) by providing data about their data (meta-data).

In this context, Dobrin and Berson (2011, p. 205) write eloquently of the "crisis of documentation" affecting field linguistics. The nod to anthropology's great moment of introspection, popularly framed as "the crisis of representation", is unambiguous. Language documentation, they argue, is an increasingly social activity (Dobrin and Berson, 2011, p. 197), with documentary linguists going to great lengths to "establish more equitable power relations with speakers through use of participatory, community-based research protocols" (Dobrin and Berson, 2011, p. 207). This engagement is surely to be celebrated, but it has not been an equally comfortable transition for all, creating some cognitive dissonance in the discipline and among its practitioners. The recognition of speakers of endangered languages "as persons, as opposed to mere sources of data" (Dobrin and Berson, 2011, p. 189) combined with the dawning realisation that fieldworkers often inadvertently document an idiolect (a variety of a language unique to an individual) or at best a sociolect (spoken by only one socio-economic segment of the community), rather than anything that can be called a language as a whole, has generated a raft of new questions that linguists need to address. For scholars habituated to certain work practices and theoretical positions, a degree of discomfort can emerge from holding such potentially conflicting ideas simultaneously.

Research projects in field linguistics are increasingly being framed and marketed as cooperative, community-based, participatory collaborations for social good—at least to funders and in public declarations—a kind of social movement "that has brought academic linguists out of their offices and libraries and into a shared space" (Dobrin and Berson, 2011, p. 187). In the minds of many contemporary linguists working on endangered languages, the creation of linguistic documents as well as the exercise of documentation itself has explicit activist components. While nations may continue to discriminate

against minority languages and their speakers through punitive legislation and enforced structural invisibility, some linguists have taken on the roles of advocate, supporter and—in all senses—documenter of speech communities. Dobrin and Berson (2011, p. 203) note that the "thematicization of collaboration" that has emerged as a central methodological issue in documentary linguistics knows no precedent in the discipline.

Linguistics, then, has made the transition from documentation as salvage or rescue work—which set out to reclaim from the debris of modernity the last vestiges of indigenous linguistic purity—to viewing documentation as a participatory and even community-led process, through which differently prioritized and variously weighted documents are produced for diverse groups of stakeholders: a simple acknowledgement of multivalence. To be clear, linguists have not become political activists or community mobilisers overnight, but have rather started to acknowledge that the same data can be retooled and retasked in different packages that can satisfy both their need for career advancement and publication, and the requirements of funding agencies and speech communities whose languages they have had the privilege of researching. Rather than shying away from potential confrontations, or viewing this reconfigured research landscape as a systemic challenge to their knowledge system, some more entrepreneurial linguists have embraced the new idiom of collaboration with speakers of minority languages as an exciting opportunity for innovative research.

But as anthropologists have discovered through many decades of fraught and contested engagements, at the heart of this new linguistics lies a growing awareness that the "power imbalance in the documentary encounter … is at odds with the motivations for conducting the research in the first place" (Dobrin and Berson, 2011, p. 189). Two dilemmas lie at the heart of these new linguistic partnerships.

First, the act of creating and disseminating traditional linguistic objects and documents—such as grammars, texts, dictionaries, and corpora (real world examples of natural spoken language)—may unwittingly reproduce the very same "suspect power hierarchy that linguistics-in-recognition-of-indigenous-rights" so proudly set out to dismantle (Dobrin and Berson, 2011, p. 202). Second, and even more troubling for the heuristically minded language fieldworker, is that communities—like their languages—are rarely as bounded as first hoped. Even though linguists have introduced into their descriptive and scholarly lexicon a range of terminologies to add nuance to the continuum of articulations that lie along the accent-dialect-language spectrum, few have been equally reflexive about the porosity and fluidity of ethnic and political boundaries. Linguistic monographs are still built on meaty chapters devoted to

complex verbal morphology and clause structure, with discussions of the cultural history of a speech community usually relegated to a slim section entitled "The People". What happens when these speakers turn out to have as many political positions as they have dialects and voices, with various groups laying claim to different agendas and aspirations? And then what if the subjects (no longer objects) of study—still commonly referred to by linguists as "informants" or the altogether more World Bankish term "consultants"—willingly participate and collude in their own objectification and "documentization" for their own ethno-political ends?

Linguists are noticing that collaboration works both ways—they are being "collaborated with" as well as "collaborating with"—and recognising that the documents of their research, as well as the documenters themselves, are being harnessed by speech communities in creative and often unexpected ways. As a case in point, I turn to a discussion of my own work on Thangmi, an unwritten Tibeto-Burman language spoken by around 30,000 people in northern-central Nepal and in the Darjeeling district of the state of West Bengal in India.

THANGMI: ACTIVISTS IN SEARCH OF A LINGUIST

After almost a decade of research on the Thangmi language, I finally produced a desirable document in 2006: a grammar of two dialects of the language, incorporating a number of shamanic oral texts, some ethnography, and a trilingual lexicon. The manuscript—while much anticipated by some in the Thangmi community (perhaps because it was so long overdue)—was not equally well received by all of the speakers with whom I had worked. The 1990s and early years of the 21st century were a period of massive political and social upheaval for Nepal, with a violent civil war and a level of instability that the country had not seen in its recent history. Through this period of unrest, which coincided with my research, many members of the Thangmi community—one of Nepal's most traditionally marginalized and economically impoverished peoples—were beginning to assert themselves and proclaim their ethnic pride. They claimed autochthony in a traditional homeland and the existence of a unique language, with activists positioning the group as deserving attention from the national administration. While some Thangmi were still interested in the more abstract idea—and then the product—of a descriptive grammar of their language, others were beginning to ask what it was for, who owned it, why it was in English, and how it was going to help them.

As a partial and anticipatory response to these substantive questions, two years before my dissertation was completed, I had already compiled a *Nepali-Thangmi-English Dictionary* together with my long-time Thangmi research

assistant (Turin and Thami, 2004). Published in Kathmandu with a printing subvention from the British Embassy in Nepal to make it more affordable, I had somewhat naively thought that this trilingual lexical booklet would forestall some of the criticism. In fact, the production of our dictionary simply provided a timely spark to an outpouring of local lexicography that accompanied a critique of my endeavour. Our perfunctory word list served to catalyse two further dictionaries in response, both compiled solely by native speakers without foreign intervention or funding, and both also larger, heavier, and more complete as documentary products. Rather like an archetypal fairly tale, the dictionaries just kept on getting bigger in line with the dream of a comprehensive, "complete" Thangmi dictionary. Our humble undertaking had been just an early appetizer. The gold standard and ultimate documents for comparison were large, heavy, monolingual Nepali dictionaries; and local untrained lexicographers were working toward such a monograph by indigenizing Nepali words and including every possible verbal conjugation in their lists to bolster the number of pages and thus engorge the lexicon. After centuries of orthographical invisibility, dictionaries—as political documents—were becoming a new unit of value, conceived of and then compiled and deployed in competitive displays of local lexicography to garner the favour and attention of a newly inclusive state that was taking stock of its linguistic minorities and beginning to offer them tangible benefits calibrated to their perceived level of indigeneity.

In comparing the contents of the two documents that I had produced, a question had surfaced among my Thangmi interlocutors: how could the massive differential between the size of my dissertation (900 pages) and the size of the tiny collaborative dictionary (116 pages) be explained? What was in the English (foreign) book that was not in the Nepali (local) one? What was I leaving out? Was the community being short-changed? For some Thangmi speakers, my dissertation had achieved a positive symbolic status (large heavy book) but had no practical role (impenetrable linguistic annotation and in English), while the shorter collaborative dictionary had a noted practical effect (accessible and affordable) but was lacking in symbolic impact (on account of being locally published and so small). Thangmi language activists wanted both practical impact and symbolic capital for their documents—and who could blame them—and regarded my endeavour as a useful proof of concept that could be improved upon and developed further. As Riles (2006, p. 14) has noted, documents can change "social and material form" as they move from one setting (a dissertation to be evaluated within a university) to another (a resource for a community of practice). The journey of my monograph, I would argue, was even more fundamental, changing not only in form but also in meaning: from

distilling a decade of research, to effectively distancing a community from their speech form, in its embodiment as an objectified and impenetrable document *about* rather than *in* their language. When creating my linguistic documents, I had not anticipated how they would be received, circulated, instrumentalised, and taken apart (Riles, 2006, p. 18)—how could I?—even though I had worked collaboratively and consulted community members at each step along the way.

Without dwelling further on the process of indigenous lexicography, there are two issues worth drawing out. First, as anthropologists know full well and as linguists are just beginning to discover, partnerships and collaborations are always contested and can lead to cognitive challenges and conceptual realignments. The simple refrain of "giving back to the community", to be found in so many contemporary grant proposals, is more problematic than many imagine. Documents are powerful and potent, and the authority and authorship of documents is seldom singular. Second, I suggest that in these contestations lie interesting research questions that only begin to emerge when the researcher engages with community demands. This process of negotiation and arbitration can be enormously intellectually fulfilling, as it helps to first challenge and then transcend mechanical discussions of cultural repatriation to arrive at a more finely graded position where trust is established and maintained through collaborative work.

SPEECH : TEXT, ORALITY : LITERACY, AND THE TECHNOLOGICAL BEYOND

Through all of this, the Thangmi community—and I as their partial agent and sometime linguistic advocate—were journeying on the well trodden path from orality to literacy, leveraging their verbal expressions into written form through documents: sometimes digital, mostly physical and invariably political. There is no space to dwell on the wider issues of orality and textuality here (we might refer to Ong, 1982; Pollock, 2006, Finnegan, 2008 and Gaenszle, 2010 for helpful discussions), but we must make space to address the sometimes surprising directionality of the process among the Thangmi of Nepal: from textual to oral, as well as (the more traditional and expected) other way around, oral to textual.

In a recent compilation of his formative essays on myth, ritual, and orality, the Cambridge anthropologist Jack Goody returns to one of his primary concerns: looking at societies more from the actor's point of view' and acknowledging the immense creative power of the human mind as played out through culture. To quote Goody:

> […] considering such forms not as a fixed, formulaic product but as reflecting man's creativity, as a language-using animal in face of the world, not free from tradition but not bound down by it [Goody, 2010, p. 1].

Goody remains unsatisfied by the simple, sometimes almost evolutionary discussion, of communities and individuals moving from orality to textuality, as if this process were inevitable and monodirectional. While the oral and written are of course, he confirms, distinct registers with major differences, we would do well to recall the ways in which writing can also influence the spoken word, a process that he calls "the lecto-oral" (Goody, 2010, p. 42). Since writing almost always follows speech (in natural rather than computer languages, at least), its advent has "necessarily had a profound influence on the latter, which is never the same as when it stands alone" (Goody, 2010, p. 42). While oratory is often a major practice in entirely oral cultures, its "formal counterpart, rhetoric, with an explicit body of written rules" (Goody, 2010, p. 44) is an example of this lecto-oral response. To push further still, Goody argues, epic is really a written genre that has gone oral (these days, we might say "gone viral"):

> At the very moment in history when writing allows one to dispose of verbal memory as a means of recalling such works, the role of such memory is in fact enhanced—hence part of the difficulty in deciding whether these works are both orally composed and orally reproduced [Goody, 2010, p. 45].

The point that some degree of two-way traffic exists between the written word and speech is cognitively interesting and particularly salient in the context of the Himalayas, where a pervading ideology exists which suggests that in order to be a real language, a speech form has to be written. In such a "caste" system of languages, underwritten by a lexical hierarchy of authority and orthodoxy, some Thangmi language activists have been apprenticing with elder shamans to textualise the oral tradition (myths, cosmology, and ritual invocations). Once these "texts" have been standardised in written form, they are exported around the region and repatriated to areas where the language has been eroded for such documents to be internalised, ingested, and memorised for future performance. In this circulation, then, orality has come full circle, albeit facilitated by text. We would do well to recall Michael Corballis's point made in this volume about the different affordances of manual language versus speech: the former requires light and physical proximity, whereas speech is just as effective at night or when obstacles prevent visual access and cues. The same holds for writing, as written text can also easily be obscured by darkness and distance.

We would do well to reflect on the question of how one can write about a culture that has already been written by its native spokesmen (Burghart, 1996). How do partnerships actually work, and how are technologies (whether written or digital) changing both the experience of documentation and the document itself? Once again, the apparent contradiction of globalisation is located in that final question: the very processes that are portrayed as eroding cultural and linguistic diversity are at once bringing individuals into closer contact with one another and providing affordable and appropriate tools to document these expressions in non-linear form. As the much mourned John Miles Foley noted, oral tradition and the Internet can be seen as "homologous technologies of communication", a convergence that is not lost on members of the Thangmi community who perceive new digital recording technologies to be opening up not only documentary, but also representational, space for their own expressions which had previously been precluded by the long dominance of textual modes of production and dissemination.

But what of language *in situ*, and multilingualism? Many older Thangmi in villages across Nepal are still not literate, or at least not effectively literate, but remain doggedly multilingual—in Thangmi, some Nepali, and perhaps Hindi or another regionally dominant language. Yet their children are increasingly literate and monolingual. May we propose a strange correlation between linguistic plurality in an oral world versus a narrowing, even constrictive monolingualism, when literacy and text become widespread?

These days, ever fewer ethnic Thangmi speak the Thangmi language. Many community members have taken to speaking Nepali, the national language that is taught in schools and spread through the media, and their competence in their ancestral language is rapidly declining. While growing fluency in any national language is naturally to be encouraged, and no small feat for an economically unstable country such as Nepal, such progress can be at the expense of unwritten speech forms. Within a single Thangmi family to this day, it is possible to find a Thangmi-speaking grandparent living in the same household as their middle-aged child who is bilingual in Thangmi and Nepali, alongside grandchildren enrolled in a government school who speak only Nepali. While this is not an unusual picture around the world, such complete language shift in the space of two generations (with grandparents and grandchildren not sharing fluency in a common language) can be a massive rupture for a small speech community, and one that can have a profound impact on the transmission of cultural knowledge and history.

Communities that may have been plurilingual a generation ago, speaking different languages in different social contexts (the home, the local bazaar and elsewhere in the region when trading), are now increasingly schooled

through the medium of a national language that firmly instils and reinforces monolingual identities, and monolingual cognitive frames. Even today, multilingualism is often tragically portrayed as an impediment to full citizenship and participation in a modern nation state. This is certainly the case in Nepal, where only two decades ago the nation building experiment effaced all linguistic diversity in the name of fostering unity: in one language, one religion, and one nation. While legislation in Nepal has become more progressive over time, when communities actually articulate and challenge hegemonic notions of linguistic belonging in the courts or through education, the state regularly rejects their claims, resulting in an implementation gap between aspirational legislative frameworks, on the one hand, and practical linguistic realities, on the other. In so many countries, linguistic diversity—whether national, regional, or local—is being eroded rather than nourished, challenged when it should be supported.

LANGUAGE UNIVERSALS AND COGNITION

In 2008, the National Science Foundation released a Special Report on the state of endangered languages. Under a heading entitled "Why It Matters", the author of the report, Elizabeth Malone, asserts that:

> The enormous variety of these languages represents a vast, largely unmapped terrain on which linguists, cognitive scientists and philosophers can chart the full capabilities—and limits—of the human mind [Malone, 2008].

The idea—by no means novel but still important—that the tapestry of human expressive diversity remains an untapped sandbox for linguistic experimentation has generated considerable traction in the last few years. The cognitive argument, certainly in the context of the present issue of this journal, is particularly interesting. In 2009, Nicholas Evans and Stephen Levinson published an article in *Behavioral and Brain Sciences* entitled "The myth of language universals: Language diversity and its importance for cognitive science". Their contribution was powerfully argued, generating over 40 pages of "Open Peer Commentary" (their initial contribution weighed in at under 20 pages). Their principal contention is that:

> Talk of linguistic universals has given cognitive scientists the impression that languages are all built to a common pattern. In fact, there are vanishingly few universals of language in the direct sense that all languages exhibit them. Instead, diversity can be found at almost every level of linguistic organization.

> This fundamentally changes the object of enquiry from a cognitive science perspective. This target article summarizes decades of cross-linguistic work by typologists and descriptive linguists, showing just how few and unprofound the universal characteristics of language are, once we honestly confront the diversity offered to us by the world's 6,000 to 8,000 languages.
>
> After surveying the various uses of "universal", we illustrate the ways languages vary radically in sound, meaning, and syntactic organization, and then we examine in more detail the core grammatical machinery of recursion, constituency, and grammatical relations [Evans and Levinson, 2009, p. 429].

Few in field linguistics could have hoped for a more strongly worded endorsement from prominent colleagues. As Evans and Levinson put it, linguistic diversity "becomes the crucial datum for cognitive science", because "recognizing the true extent of structural diversity in human language opens up exciting new research directions for cognitive scientists (…) confronting us with the extraordinary plasticity of the highest human skills" (Evans and Levinson, 2009, p. 429). In particular, Evans and Levinson pick a bone with the claims of Universal Grammar, which they regard as "either empirically false, unfalsifiable, or misleading in that they refer to tendencies rather than strict universals" (Evans and Levinson, 2009, p. 429). Their critique of the Chomskian way, and all of the theoretical apparatus that it endorses and encourages, is unequivocal and hard-hitting: "this widespread misconception of language uniformity' can in part be attributed "simply to ethnocentrism" (Evans and Levinson, 2009, p. 430). We are reminded once again of Goody, who stresses throughout "the imaginative factor, individual 'creation', variability, and therefore the fundamental difficulty of any deep analysis" (Goody, 2010, p. 12). Simply put, cross-cultural comparison and cross-linguistic analysis is far more challenging when one's conceptual frames are widened to include the full range of human ethnolinguistic experience. In short, it is far easier to compare like with like when you are dealing only with English, French, and Spanish.

Evans and Levinson's argument for the repositioning of diversity as central to understanding our cognitive selves strikes a chord with the central argument in Michael Corballis's recent *The Recursive Mind*. In his elegant Preface, Corballis prioritises thought—in other words cognition—over language: "Where Chomsky views thought through the lens of language, I prefer to view language though the lens of thought (Corballis, 2011, p. ix). Recursion, as Corballis presents it, is a mental and cognitive process, and not something that is necessarily bundled up with words and framed through vowels.

LEARNING ORALITY ORALLY: COGNITIVE CHALLENGES

While Thangmi is no Pirahã, and I am certainly no Everett, what better way to illustrate the cognitive limitations of the fieldworker-linguist than by laying bare the challenging process of actually learning such a language. My progress in Thangmi was desperately slow, every success being eroded by another moment of confusion at a more complex puzzle lying in wait. It took me the best part of three years to learn Thangmi to a decent enough level to tell a joke, and then another year to be able to tell a joke that was actually funny. This underscores the importance of the cultural element in language: while I had become grammatically adult, I was still a cultural child, with no real sense of what was locally relevant, resonant and meaningful. Learning an unwritten language, for individuals as heavily invested in text and list making as I was, was a tough challenge. It is what people refer to in the United States as a "big ask". It was also, my Dutch grandmother would have said, a *verkleutering*: a return to the naivety of childish expression (but without any of the associated benefits). Through learning a language so different to one's own, one leaves the world of sophisticated linguistic competence—of confidence, fluency, and wit—only to regress to lexical infancy. The cognitive challenges of doing fieldwork on, in, and through an unwritten language were intense and unremitting.

Part of my struggle was that I was used to learning languages from books where someone else had taken the time to parse each word out and explain the rules of grammar. With Thangmi, I was faced with decoding a complex and unwritten language with no basic rulebook to refer to and with no obvious path into it. It would be like hearing the French phrase *Qu'est-ce que c'est?* for the first time, without knowing how the words fitted together, simply because the words themselves had never before been written down. Bilingual Thangmi-Nepali speakers were my first point of contact, and my early months in the field were spent using (and improving) my existing Nepali language skills to ask increasingly complex questions on the lines of "In your language, how would you say 'that man over there is my mother's elder brother'?", to which I might receive the tired and slightly irritated reply, and then in Thangmi, "I told you already, he's not my mother's elder brother but my mother's elder sister's husband", often suffixed with a *sotto voce* "this foreign guy learns *really* slowly".

The biggest cognitive challenge as a fieldworker and documenter, however, lay in having to expand my memory and deepen my powers of recall. So accustomed was I to pen and paper (and increasingly keyboard and screen), that whether it be a shopping list or people's kinship relations, I always needed my textual crutch. But pen and paper do not work well in the monsoon, certainly not when walking up a steep mountain face collecting fodder with someone

who is telling you a story in rapid-fire conversational vernacular speech and simply cannot understand why you have to stop the whole time to write things down (and also catch your breath). "Can't you just *remember* that?", Thangmi friends would ask with incredulity. Invariably my answer was "no".

This indigenous surprise at my limited power of mental recall was heightened, I believe, because in other ways I "appeared" to be quite clever: after all, I could type, take photographs, and draw three dimensional figures. If I could do all of these things, my Thangmi language teachers wondered aloud, how on earth could it be that I had forgotten how to remember? Was the kind of knowledge in which I traded, and over which I had apparent mastery, therefore substitutive rather than cumulative? In my cognitive world, did I have to eject "remembering" in order to insert "reading"? As Thangmi research assistants came to appreciate, when they learned computers and Unicode fonts that were appropriate for their language, one ability did not *necessarily* have to displace the other. That malaise was a specific feebleness of this particular fieldworker, and perhaps a more general tendency among others of his kind, whose dependence on written and digital recording devices was so complete that the process of committing to paper—documenting—had effectively superseded and eclipsed my ability to learn by heart.

As my ability in Thangmi improved, Nepal's civil war took hold of the villages in which I was living. While life became uncomfortable for me in rural Nepal, it became untenable for my hosts, and I returned to Kathmandu, transporting our model of village living, as a joint family, to the city. Although all the people and characters were the same, my fluency in Thangmi began to tail off dramatically. There was very little that I could communicate about using Thangmi in the urban world around me. Thangmi was a language entirely ill adapted to city living, where the mechanisation, electrification and consumer models of daily life required a different lexicon—one that was almost exclusively in Nepali and secondarily in English. Even if we choose to reject the implications of environmental determinism and the thinking of Edward Sapir and Benjamin Whorf as addressed below, it is clear that a language such as Thangmi requires culture, place, and situatedness to survive and thrive. Taken out of its village context—like a fish out of water—Thangmi was a speech form gasping for air.

THE COGNITIVE WORLD OF THANGMI

Evans and Levinson (2009, p. 431) argue that "the crucial fact for understanding the place of language in cognition is diversity". To that end, I should provide some examples of such diversity to illustrate the distinctiveness of the

Thangmi language, and the cognitive frames with which I had to contend. Through this, we might reflect on whether, at a push, this might be referred to as "a/the Thangmi cognitive world".

In Thangmi, the verb "to be" has a range of different roots, contingent on the perceived state of permanence of being or whether the speaker has seen the event with their own eyes and thus verified the occurrence. To be more precise, Thangmi has no verb "to be" at all, but rather four different verbs that when clustered together, approximately convey our sense of "being".

First, there is Thangmi *thasa*, an apparently permanent state of being, as in "I am male". Second, there is Thangmi *hoksa*, conveying location and less permanent experiences of existence, as in "Ram is at home" or "this yak is angry" (Portuguese and Spanish speakers will naturally think of *ser* and *estar*). Third, Thangmi has *jasa*, to cover general statements of fact and opinion, even if the specifics of a certain case point in the other direction, as in "potatoes are usually good (*jasa*), but this potato is rotten (*hoksa*)". Finally, Thangmi has *nisa*, which principally means "to see", but can be used as the verb "to be" when the noun that it describes is in sight or is witnessable, as in "the food is (*nisa,* literally 'looks') tasty" or "elder brother is (*nisa*) at home (literally: I saw him enter the house so I know it to be true)".

Explained like this, it all looks rather obvious, but the challenge is in the decoding. In particular, since mother tongue monolingual fluency is a complete and all immersive cognitive experience, usually resisting exegesis from the inside (and sometimes even from the outside), there's no point in asking abstract questions along the lines of "would you please explicate the distinction between the copula *hoksa* and *thasa* in this verbal scenario?" Rather, the linguistic fieldworker must work as a code-breaker, comparing and contrasting, learning by doing (and undoing), to tease out a frame that translates, however imperfectly, into something that he can understand, an analytical distinction of which he can conceive.

I describe this process to students as analogous to being a car mechanic (with our colleagues in generative linguists surely the system engineers, some with a sideline in bodywork design): one must disassemble the whole vehicle, piece by piece, and then reassemble it, and then ensure that it still works. Put that piston (or morpheme) in the wrong place, and it backfires (or you accidentally insult an old man—as I did). The work is essentially cyclical: the aim is to reduce to the component parts and then rebuild, elegantly, parsimoniously, and transparently. The aim is not to improve.

Thangmi verbs of motion verbs vary by angle of inclination, so that "to come (up a hill)" is a completely different and unrelated verb stem from "to come (down the slope)". The verbs are *wangsa* and *yusa*, respectively.

Additionally, for those occasions that one comes from the same level or around a natural obstacle, Thangmi boasts *kyelsa*; while *rasa* is reserved for those special cases in which someone is coming from an unspecified or unknown direction. In short, four Thangmi verbs to cover the functional load "to come". It is inconceivable that a native speaker would confuse these terms, illustrating just how deeply the local geography and mountainous topography are etched into the language. Here we have a case of language mirroring ecology, or perhaps ecology could be thought of as reflecting the linguistic and cultural forms of a people inhabiting a specific topographical niche.

The Thangmi kinship system, which I thought I had finally mastered after many complex diagrams—eight different uncles and aunts depending on whether they are older or younger than parents, and differentiated between consanguinal (blood) relatives and affinal (those who are married in)—actually makes a distinction for gender of speaker, which I did not realise until I started working with a local woman who, as a "feminine speaker", turned my whole paradigm inside out. Spatial and temporal deixis is similarly highly elaborate in Thangmi, with many subtle divisions and slices between "here" and "there", not to mention discrete and precise lexical elements for up to five years in the past and similarly five years in the future. My trilingual glossary was quickly filling up with poor descriptive glosses, along the lines of "the year after the year after next", and so on.

The Thangmi lexicon itself is rather compact, restrained even, with just a few thousand words, and not always ones that we would expect. While there are no indigenous Thangmi terms for village, table, left or right (these are all borrowed from Nepali, the national language, which is increasingly well understood), there are specific verbs to mean "to be exhausted by sitting in the sun all day" and "to be infested with lice", as well as precise nouns to describe the edible parts of certain leaves or particularly chewy meat that gets stuck in one's teeth. In other words, the lexical inventory of Thangmi reflects those things that are culturally salient and meaningful to its speakers. How far and how hard, though, we may push Sapir-Whorf before becoming circular and self-defeating remains up for discussion. While it is beyond doubt—to me, at least—that something about the structure, features, and lexical inventory of a language impacts and influences the ways in which its speakers conceptualize their world, we must be very wary of ecological determinism and glorified primitivism. Influence and co-occurrence are not the same as causality, and in the case of language and culture, the direction of that causality remains hotly debated. Cognitive research and psycholinguistics are taking the discussion forward in exciting and innovative ways, unearthing old punching bags like Berlin and Kay's *Basic Color Terms* from 1969, and using

these studies to pose new questions. Experimental rigour combined with analytic nuance may help to address questions that have dogged linguistics for the best part of a century.

For me, though, learning Thangmi was a form of cipher, albeit in cognitive isolation: a voyage of incredible excitement, intellectual stimulation, and mental exploration, exploding my narrow expectations of what a language could do, what it could feel like, and how it could function. As the few illustrations above show, conceptual, social and ecological worlds open up when you come to understand a language vastly different from your own. Studying or documenting such a speech form is one thing, trying to actually speak it was something else again.

ONLY CONNECT...

There are still some monolingual English speakers who would have us believe that linguistic diversity is incompatible with the inexorable progress that requires linguistic interoperability and smooth international communication across national boundaries. But we know that this is not the case, particularly in parts of the world where many people are still functionally plurilingual, speaking an ethnic or tribal mother tongue inside the home, a different language in the local market town, conversing in the national language at school or in dealings with the administration, and often using an international language (or two) in dealings with the outside world. The monolingualism of much of the First World (and particularly its Anglo-Saxon segments) remains as provincial as it is historically anomalous.

While the origin of the extraordinary diversity of human languages is intertwined with the evolution of cognition and culture, the spread of modern language families is a direct and more mechanical result of historical population movements, migrations across continents, and the colonisation of new geographical and environmental zones. A consequence of this peopling of the planet is that human languages are not evenly distributed: there are relatively few in Europe compared to an abundance in the Pacific. The Himalayan region is home to great linguistic diversity, in part because the mountains have in the past been a natural barrier to mobility and communication.

Recent scholarship on language endangerment now points to an intriguing correlation: language diversity appears to be inversely related to latitude, and areas rich in languages also tend to be rich in ecology and species. Both biodiversity and linguistic diversity are concentrated between the tropics and in inaccessible environments, such as the Himalayas, while diversity of all forms tails off in deserts. Around the world then, there is a high level of

co-occurrence of flora, fauna, and languages, and humid tropical climates as well as forested areas are especially favourable to biological and linguistic diversification.

Unlike colonial-era anthropologists, some of whom were conscripted to prove that indigenous peoples and their cultures in Africa and Asia were at a lower stage of evolutionary development than imperial, Western industrialised peoples, linguists at that time were faced with a great deal of data which indicated the opposite. Early missionary linguists were surprised by the complexity of unwritten ethnic languages spoken by only a few thousand members, a complexity which stood in sharp contrast to the apparently unelaborate material culture (simple tools, weapons, houses, and clothing) that some of these communities possessed. An unexpected question began to emerge in the colonial mind: what would it mean if an inverse relationship existed between the degree of material complexity of a culture and the grammatical complexity of its language? In other words, the simpler the culture, the more elaborate and sophisticated the grammar of the speech form used by its members. And then what of the reverse: the more elaborate and complex a culture (the summit of which would have been the colonising nation, of course) the simpler that the grammar of its language would be?

This dawning realisation by many early linguists flew in the face of contemporary and accepted wisdom about the evolutionary nature of world history, which had elevated Western Europe to the pinnacle of all achievement. Linguists were returning from the field with accounts of extremely complex verbal agreement systems, huge numbers of numeral classifiers, scores of different pronouns and nouns, and incredible lexical variation for terms that were simple in English. Such languages appeared to be untranslatable. At the same time, then, that 1950s-era ethnographic documentaries aired on the BBC were talking of "primitive" and "simple" cultures, linguists were exploring and describing the complexity of the languages that they were encountering. From its very beginning, I would argue, descriptive field linguistics emerged as a humanising and equalising force.

While the oppositions articulated above must not be given too much traction—they are over-simplifications for the purpose of the argument, of course—they serve as interesting tools to think with. Regrettably, such dualistic colonial oppositions endure to this day, continuing to inform incorrectly held but popular beliefs that small speech communities necessarily speak simple dialects, while larger speech communities converse in complex languages. There is simply no correlation between number of speakers and linguistic complexity, either way, and the search for such oppositions must be ended decisively.

Certain schools of Buddhism talk of "Taming the Monkey Mind" by which they mean making sense of and controlling the unsettled, restless, capricious, whimsical, fanciful, inconstant, confused, indecisive and uncontrollable aspects of our humanity.

> The eye can see, but cannot see itself …
> The fire can burn, but cannot burn itself …
> How can the mind think that it can change its mind …?

As we reflect on the nature of human cognition, and consider the borders of our own reason, maybe the frontiers of the human *condition* are really what we should be concerned about. Is what separates us from other primates that they have natural and wild minds, while we have domesticated and tamed ours? Nature versus culture, all over again? Or is what makes us human rather our monstrous cognitive capacity that in turn resulted in an explosion of linguistic forms, a diversity unrecorded in any other species. If language—in all of its manifestations—lies at the core of what makes us human, then we simply cannot afford to stand by and do nothing as the diversity of our cognitive capacity—these creative articulations of our shared humanity—slips through our fingers into oblivion.

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