PERSPECTIVES ON THE GLOBAL LANGUAGE EXTINCTION CRISIS: THE OKLAHOMA AND EASTERN SIBERIA LANGUAGE HOTSPOTS

GREGORY D. S. ANDERSON

Abstract. Language endangerment, linguistic diversity, and levels of documentation are not evenly distributed around the world. One must consider all three of these logically independent factors when making agendas for future research and funding allocation, since many of the world's languages will be lost this century. In other words, given the finite amount of time and potential financial and human resources that are likely ever to be available to address the global language extinction crisis before it is too late, I have identified priority areas where linguists need to focus their collective efforts in documentary linguistics. These are the so-called language hotspots and reflect areas where there are concentrations of endangered, diverse and poorly documented languages. Roughly two dozen such hotspots have been identified to date. The criteria for establishing language hotspots are introduced here and two such hotspots exemplified in brief. These are the Oklahoma and Eastern Siberia language hotspots.

0. INTRODUCTION

Every two weeks on average it is estimated that the last speaker of a language passes on and takes with her/him a storehouse of knowledge of the history, riddles, thoughts, legends, songs and experiences of an entire people. Indeed, vanishing and underdocumented endangered languages offer challenging data for the field of linguistics, and inform theoretical advancements, by testing the received canon of what is typical or possible and what is not in human language. The loss of a single language leaves linguistics impoverished as a discipline and yet most *language families* will likely be lost by the end of this century.

Language endangerment thus stands out as a pressing sociocultural issue for the 21st century. Documentation of endangered languages must become the primary focus of the field of linguistics in the coming decades before it is simply too late, with support for indigenous movements in language revitalization a secondary focus. Given the fact that there are limited resources, both financial and human, and, for many languages, unfortunately, a limited amount of time as well, I felt it was time to 'brand' the issue of language endangerment to make it more palatable for both professional linguistic and public/popular consumption. Thus was born the global language hotspots list (Anderson and Harrison 2006; www.languagehotspots.org). These areas have concentrations of the most diverse

RRL, **LV**, *2*, p. 129–142, Bucureşti, 2010

and fragile languages where rapid focused action is needed. Language hotspots are meant both to be a promotional metaphor and also to serve as a roadmap for the future of language documentation in this century.

In the following sections I briefly outline the definitions of terms used and the causes of language endangerment (section 1) and I detail the science behind the global language hotspots list (section 2), and then give a bit more concrete information on the makeup of two such language hotspots, Oklahoma (section 3) and Eastern Siberia (section 4).

1. LANGUAGE ENDANGERMENT

Languages are abandoned by their speech communities for a complex set of reasons but some overall trends in the causes and effects of the shift of one language to another on the languages and their speaker population can be elucidated. When two language communities come into contact there are various possible outcomes of the interaction between the two languages concerned. In many such language contact situations, there is a social imbalance between the value accorded to one language over another. When a language is heavily devalued, it is subject to abandonment by its speaker population. Ideologies of linguistic/cultural dominance or superiority coupled with an intolerance to linguistic diversity and bilingualism has caused widespread abandonment of indigenous languages across the globe, e.g., North America, South America, Siberia, Australia or Taiwan. When children reject or no longer acquire a language as their mother tongue, a language may be considered endangered, and on a path to oblivion that can only rarely be reversed, and then only with great effort.

Technically speaking, a language has begun to be endangered when there has been a disruption in intergenerational transmission of the language[1]. Once endangered, languages gradually further lose their functional domains and speaker base, and eventually stop being used altogether once the last few speakers of terminal-phase or moribund languages pass on, following a path of healthy > threatened > endangered > seriously endangered > moribund > extinct; cf. similar hierarchies used by Kinkade (1991), Wurm (1991) and Krauss (1992). Language endangerment is basically caused by a conflict between language ideologies. A

[1] This generally manifests itself in one of two ways. Either a semi-fluent or fluent bilingual parental generation simply never speaks to the children in the language, as its functional domain has been narrowed to not include the domestic interactions between parents and young children, or the youngest children acquire the language at home but relatively rapidly and definitively reject its use when they have entered the domains of national schooling and (trans)national or urban/metropolitan culture. This is due to the valorization of the majority language and the devaluing of the traditional minority language in the market of social capital to which school age children (and adolescents) are so attuned (Heller 1987). Once this decision has been made by children in the speech community, the path to language extinction can rarely be reversed or altered, due to the social ecological factors of language endangerment alluded to here.

language ideology (Woolard 1998, Irvine and Gal 2000, Mikihara & Schiefflein 2007) reflects a complex set of attitudes by a speech community towards the language it uses, for example, attitudes about its expressive flexibility, whether it can tolerate another language competing for use in any contexts, or whether it is a language associated with power, prestige, economic gain/upward mobility, etc. Therefore, the social ecology of languages in contact is primary in determining the type and nature of the structural outcomes of language contact (Thomason & Kaufman 1988, Woolard 1989, Martin-Jones 1989, Mühlhäusler 1996, Silverstein 1996, Brenzinger 1997, Labov 2001, Mufwene 2001, Sankoff 2001, Thomason 2001, Winford 2003, Anderson 2005, Calvet 2006, Mufwene 2008) and the likelihood of language shift (Gal e.g. 1979). The loss of knowledge that the global language extinction crisis embodies (see Harrison 2007 for an overview) will be catastrophic for humanity as a whole.

2. LANGUAGE HOTSPOTS

Language hotspots are motivated by the fact that most language families in the world are found in areas where language endangerment is also concentrated, and where many of the languages and families remain poorly known or undocumented. Also, there are simply too many languages and too few linguists and too little potential funding for every language in the world to be adequately documented. Priorities need to be established.

It is clear that the languages of the world are not evenly distributed across the globe and neither is linguistic diversity. Certain areas have more different kinds of languages than others, while some areas simply have many more languages than others, and these two factors are independent, reflecting concentrations of total number of languages and of diversity of languages[2]. Further, the particularly aggressive linguistic ideologies and the enforced attendant linguistic practices that require replacement of local linguistic identities with national ones have also not been spread evenly around the world, thus it should also come as no surprise that the distribution of endangerment and processes of shift are likewise not evenly spread across languages of the world, but rather cluster in certain areas due to the uneven spread of the socio-cultural conditions that favor such shift[3]. Furthermore, only a small fraction of the world's languages have been adequately described, and many languages will likely lose their last speakers before they are documented at all[4]. These factors all are taken into consideration when trying to identify the priority areas that have been called language hotspots.

[2] It is the diversity of language families that is encoded in the genetic index component of the language hotspot model.

[3] The rating of individual languages on a five-point scale, averaged over an area yields the endangerment index of a language hotspot

[4] The level of documentation of the languages of an area averaged is used to identify the documentation index of a language hotspot.

The estimate that roughly half the world's languages will become extinct in the twenty-first century is widely regarded as true in contemporary linguistics. However, even within the field of linguistics it is not widely understood just how catastrophic this loss will be for linguistic diversity. Most of the different types of the world's languages are included in the half that are threatened/endangered. Thus, linguistics is facing an enormous task of documenting languages before it becomes impossible to do so, and modern linguists owe this to the future of the discipline, and to the posterity of all of humanity. The issue is overwhelming and the numbers staggering, so concerted and focused effort is required. In addition, the reality is that there is a finite amount of time, a finite amount of money and a finite pool of potential linguists that have the ability or likelihood to ever play a role in endangered language documentation. Also, while many linguists are aware of the issue, despite two decades of effort, the general public has remained largely uninformed about the looming global language extinction crisis. So linguistics needs a marketing tool to brand the concept of language endangerment, as a means of recruiting new blood and mobilizing public support, and at the same time as a scientific discipline it needs a focus for pursuing concentrated documentary efforts on a global level in order to have maximal impact. It was for these reasons that the global language hotspots list was born (Anderson and Harrison 2006, LTIEL 2007, www.languagehotspots.org). The language hotspots list should thus be understood to be both a means of raising public awareness, and as a guideline for future work in documentary linguistics in the coming decades.

As a promotional metaphor, it is straightforward for people to get their heads around the relatively short global language hotspot list. The hotspot metaphor was chosen for this as a public promotional branding device due to its success in the biodiversity conservation movement (cf. Conservation International).

The global language hotspot list is intended to be understood and used by linguists as a roadmap for the future of linguistics in the 21st century. It is where a majority of the discipline and its human and financial resources must focus in the coming decades. The global language hotspot list resulted from years of research and thus has a sound scientific grounding: Language hotspots are found where there are concentrations of diverse, endangered and poorly documented languages. They are arrived at by overlaying maps of three quantitatively supported but logically independent parameters. These are the density of language family diversity (i), and overall levels of endangerment (ii) and documentation (iii). Thus, for a given area one can speak of a genetic index, an endangerment index and a documentation index. Roughly two dozen such hotspot areas are found across the globe. Within these, the overall degrees of threat can be ranked from moderate to very high. Hotspots can be found in such a diverse array of places as Eastern Siberia, Northern and West-Central Australia, Western North America, the Southern Cone of South America, Southern Africa, Oklahoma, Eastern Melanesia, (South) Central South America, Interior Southeast Asia, (North) Eastern Africa, Northern South America, Taiwan and Northern Philippines, Central Siberia, West-Central Africa, Mesoamerica, or Western Melanesia. Language hotspots thus emerge where there are concentrations of languages with a high average endangerment index, a low average level of documentation or documentation index and the area has an overall high genetic density or high genetic diversity index.

The endagerment index is arrived at by assigning every language a numerical value on a five point scale, where 5 represents healthy and 1 moribund (and 0 already extinct). The documentation index also references a five-point scale (or again six if 0 is included), where 5 represents an ideal 'complete' documentation with full sets of grammatical and lexical materials and annotated text collections, multi-media annotated digital audio and video corpora, etc., and 0 represents a completely undocumented language.

As for the genetic index, this can be done in two ways. One is a numerical value assigned for a hotspot as a whole, which is arrived at by dividing the number of genetic units represented by the total number of languages[5]. Genetic unit here is understood to be a taxonomic level of relatedness akin to that typified by the Germanic or Romance family, for this level of classification remains both easily comparable across the globe and straightforwardly demonstrable and uncontroversial, while broader classifications frequently entail not insignificant controversy among specialists and/or are supported by more tenuous data. Further, each individual language can be assigned what I call a weighted genetic rating. This is calculated by a complex set of considerations such as number of languages in the genetic unit and number and make-up of identifiable subgroups among others[6].

With these quanitizable indices that constitute the criteria for establishing whether a given area should be considered a language hotspot in mind, let us now turn our attention to a brief exemplification of a subset of some of these language hotspots which are particularly noteworthy. While overall trends in language endangerment on a global scale are overwhelming enough, the gravity of the situation is not evenly distributed across the language hotspots. Thus in certain areas of the world, the hottest of hotspots can be identified. Among the particularly devastated areas where immediate action is required to help turn the tide against language shift can be reckoned the language hotspots Oklahoma and Eastern Siberia.

3. OKLAHOMA LANGUAGE HOTSPOT

Due to the particular history of the American state of Oklahoma, many indigenous populations were offered an alleged safe haven in so-called Indian Territory in the 19th century, some famously moved there accompanied by great

[5] Basically this encodes the probability of (un)relatedness between any two randomly selected languages in the hotspot or area in question.

[6] Thus, it identifies how unique within a genetic unit a language might be considered and thus how it should be “valued”.

loss of life (e.g., the celebrated *Cherokee* Trail of Tears) or following defeat by US forces (the *Modoc*, who were removed from California). Many Oklahoma Native communities have been in steady decline since offical statehood in 1907. However, perhaps due to the concentration of Native communities, a portion of the languages has survived into the 21st century, which distinguishes Oklahoma from much of the surrounding area broadly speaking. Although a number of Oklahoma Native languages remain, many are in an advanced state of shift and may be considered moribund, including the isolate language *Euchee/Yuchi*, who lack officially sanctioned (federally recognized) tribal identity and are subsumed under the Cherokee nation, or the Algonquian *Sauk* language of the Sac and Fox Nation. Other communities are in a much better state, and even seeing new generations of native speakers, e.g. the Iroquoian *Cherokee* or *Choctaw*, a large language of the Muskogean language family. Sadly, a range of Oklahoma Native languages have no fluent speakers remaining currently, for example *Modoc*†*, Tonkawa*†*, Natchez*†, or *Kaw*† *(Kansa)*. Throughout Oklahoma, grassroots language activism is found in many communities, and a number of tribes have official tribal language departments. Some of the projects are linguist-aided programs, and many communities have successful language activists. Immersion schools or language nests are the preferred revitalization activity, but adult language lessons are found in many Oklahoma communities as well.

Like any hotspot, Oklahoma can be assigned an average endangerment index and genetic index on the macro-level quite straightforwardly. Weighted language-specific genetic indices and the documentation index require more extensive calculations and data crunching and are not offered here. I outline some of these details relating to the Oklahoma language hotspot below.

The documentation index for North American languages is generally higher than it is for languages from such language hotspot areas as Central South America or Western Melanesia due to the now more than century-long tradition of academic/scientific language documentation that has been an integral part of the American intellectual scene, particularly in the first half of the twentieth century. While these efforts have continued in the second half of the last century, mainstream linguistics veered off the path of new primary data collection and headed down a more introspective analytical/theoretical one, and academic/scientific analysis of the Native languages began to lag behind. Taking up this place are the many grassroots efforts, sometimes linguist-aided, that numerous Oklahoma indigenous language communities have actively pursued in the past few decades. These are increasingly utilizing multi-media formats to help promote maintenance and revitalization of the language[7].

[7] A tiny fraction of such grassroots movements and some general information on the languages of the Oklahoma language hotspot with presence online include the following: http://www.kawnation.com/langhome.html (Kanza); http://www.culturalsurvival.org/node/8014 (Euchee/ Cultural Survival Project); http: //www. talk-lenape.org/(Lenape Talking Dictionary); http: //www. cherokee.org/Culture/Lexicon/Default.aspx (Cherokee online multi-media dictionary); http: //www. ahalenia.com/iws/index.html (Oklahoma information portal).

As for the overall genetic index of Oklahoma, for the present purposes I am including 24 languages representing 9 genetic units, or a genetic index of .375. This is a very high rating (as 1.0 could only be achieved if every language in an area was unrelated to every other one). Thus, the Native languages of Oklahoma exhibit a very high degree of phylogenetic diversity among themselves. The language families represented include Algonquian, Athabaskan, Caddoan, Euchee, Iroquoian, Kiowa, Muskogean, Siouan, and Uto-Aztecan. Extinct genetic units of the region include *Modoc*†*, Tonkawa*†, or *Natchez*† so this genetic index would have been even higher only a few decades ago. Unlike most of the other language hotspots, Oklahoma's genetic linguistic diversity was augmented as a result of conscious manipulation and construction due to the state's history as Indian Territory. Space does not permit a detailed discussion of how a weighted genetic value for individual languages of the Oklahoma language hotspot is accomplished but I will draw particular attention to *Euchee (Yuchi)* and *Kiowa*, as they are either unique or nearly unique representatives of their individual genetic units, critically endangered or moribund in status, and found only (or almost exclusively) in the Oklahoma language hotspot.

With respect to average level of endangerment, this can be reckoned at 1.42, or in other words, very near extinction or moribund being a typical rating. Many indigenous people were forced to abandon their ancestral tongues during the often harsh regimes of boarding schools that children from many Native communities in Oklahoma had to endure in past generations. The legacy of overt discrimination in schools in combination with the slightly more covert linguistic oppression coming from American society as a whole is one in which the future for these Oklahoma Native speech communities is now often at best uncertain.

According to an information portal on Oklahoma Native languages (http://www.ahalenia.com/iws/status.html), as of 2006, five languages of Oklahoma are being acquired by some percentage of the children in the community. The actual percentage of such younger speakers found in a given community ranges from relatively high among the *Kickapoo* to a relatively low percentage (but with an overall relatively high total number of children speakers) among the *Cherokee*, with the Muskogean language communities of the *Chickasaw, Muskogee-Creek* and *Choctaw* falling in between.

Even languages for which no fluent first language speakers remain may nevertheless still have active language revitalization programs underway. Among such groups in the Oklahoma language hotspot should be mentioned *Delaware* or *Lenape* and *Miami* from the Algonkian (Algonquian) language family, *Seneca* and *Wyandotte* of the Iroquian language family and *Kaw (Kansa*) representing the Siouan language family.

A table of the languages of the Oklahoma language hotspot is offered in Table 1. A representative map of the Oklahoma language hotspot is provided in Figure 1.

Table 1

Languages of the Oklahoma language hotspot

Language	Genetic Unit	# Speakers	EI
Arapaho	Algonkian	< 100	1.5
Caddo	Caddoan	< 20	1
Cherokee	Iroquioan	9000	3
Cheyenne	Algonkian	< 400	2
Chickasaw	Muskogean	< 600	1.5
Chiricahua Apache	Athabaskan	?1	1
Choctaw	Muskogean	4000	2
Comanche	Uto-Aztecan	< 100	1
Euchee	Isolate	< 7	1
Iowa	Siouan	< 30	1
Kickapoo	Algonkian	< 400	2.5
Kiowa	Kiowa-Tanoan	< 400	2
Muskogee-Creek-Seminole	Muskogean	6000	3
Osage	Siouan	?1	1
Otoe	Siouan	< 3	1
Ottawa	Algonkian	< 3	1
Pawnee	Caddoan	< 7	1
Plains Apache	Athabaskan	< 3	1
Ponca	Siouan	< 33	1
Potawatomi	Algonkian	< 20	1
Quapaw	Siouan	1	1
Sauk (Sac and Fox)	Algonkian	< 9	1
Shawnee	Algonkian	200-800	1.5
Wichita	Caddoan	< 5	1

4. EASTERN SIBERIA LANGUAGE HOTSPOT

The peoples of the large Eastern Siberia language hotspot primarily live in isolated rural communities and many continue to practice a range of traditional subsistence economic pursuits. In the coastal and riverine southeast region, along the Amur river and on the coast of Sakhalin, people live in small fishing villages, while in more mountainous parts of the interior southeast and Sakhalin, as well as in the interior northeastern parts of the region including Kamchatka, the populations have practiced a mixed hunting and reindeer herding economy, while on the northeastern coasts, sea mammal hunting dominates local subsistence economic practices. Some people are also employed in petrochemical and mining concerns, commercial fishing and logging pursuits, and a small percentage of the people in the language hotspot dwell in urban settings as well.

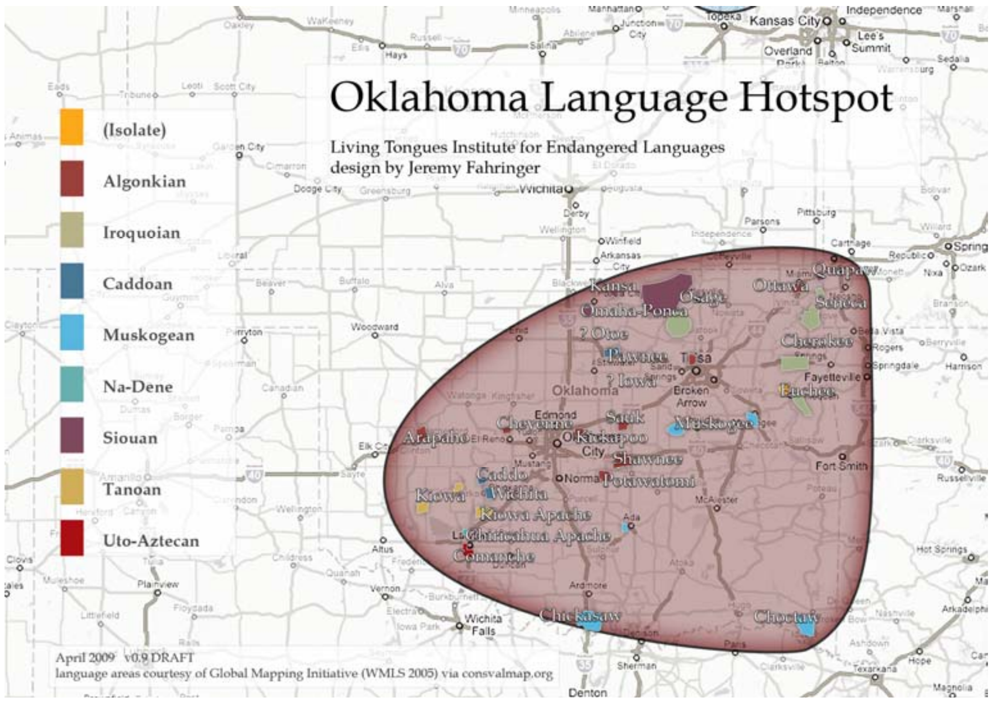

Fig. 1 – Map of Oklahoma language hotspot.

In the early 17th century, Cossacks first pentetrated into Eastern Siberia and established exploitation colonies for the purpose of collecting an Imperial fur tribute. As long as payment of the fur was met without resistance, the Native Siberians were mostly left alone. Therefore, in Eastern Siberia, the indigenous languages and cultures survived largely intact in the first two centuries of Russian rule. Later, during the initial phase of the penal colony that Siberia is infamous for, the old friend of European colonialist expansion, smallpox, lent a helping hand in subjugating the Siberian peoples, with the *Yukaghir* being particularly hard hit, literally decimated by the disease. In the mid-to-late nineteenth century former serfs began occupying areas across Siberia and massive multi-national Russian-speaking populations were moved or enticed there in the early Soviet period. To some extent the Imperial Russian, but mainly the Soviet settlement colonies triggered a process, still ongoing for some, complete for others, of language shift in local indigenous communities across Eastern Siberia.

Given the overall small total number of languages, it is easy to see that such an area might well be overlooked when prioritizing areas, but this would be a grave mistake given the high level of unique phylogenetic linguistic diversity endemic to the region (twenty-one living languages representing 11 language families or genetic units). Two language isolates (*Yukaghir* and *Nivkh*) and two other genetic units occur only in the hotspot (*Itel'men* and Chukotko-Kamchatkan, as well as the genetically unclassifiable mixed language *Mednyj Aleut*) and one other family occurs primarily here (Tungusic), while others are found in Eastern Siberia and adjacent regions as well (Eskimoic, *Aleut*, Turkic, and the now extinct in E. Siberia (Sakhalin) *Ainu*). Almost all of these languages (*Yakut* or *Sakha* being excepted) are endangered, many of them critically so, or are even moribund. Some (e.g. *Omok*†, *Sakhalin Ainu*†) are now extinct.

Table 2

Languages of the Eastern Siberia language hotspot

EI	# of Speakers	Ethnic Population	Language	GU	DI
0/1	?0	?0	Ainu(†)	Isolate	3
0/1	?0	?0	Chuvan(†)	Yukaghiric	0.5
1	60	2481	Itelmen	Chukotko-Kamchatkan > S	4
1	?2	400	Kerek(†)	Chukotko-Kamchatkan > N	1.5
1	10-50	130	Kolyma Yukaghir	Yukaghiric	3
1	10	10	Mednyj Aleut	Mixed Language Aleut-Russian	1
1	100-150	900	Oroch	Tungusic > S	1
1	30-150	230-1100	Tundra Yukaghir	Yukaghiric	3
1	100	1600	Udihe	Tungusic > S	3
1	75	350	Yupik, Naukan	Eskimoic > Yupik	1.5
1.5	400	4673	Nivkh	Isolate	2
1.5	30-82	250-300	Orok	Tungusic > S	1
2	190	702	Aleut	Eskimo-Aleut > Aleut	3
2	500-1000	3200	Ulch	Tungusic > S	1
2	5000	30000	Evenki	Tungusic > N	1.5
2	300	1200-1500	Yupik, Siberian	Eskimoic > Yupik	4
2.5	100-200	2000	Alutor	Chukotko-Kamchatkan > N	2
2.5	7543	17199	Even	Tungusic > N	1.5
2.5	100-170	500	Negidal	Tungusic > N	1
3	3500	7000	Koryak	Chukotko-Kamchatkan > N	2.5
3	5760	11877	Nanai	Tungusic > S	2
3	10000	15000	Chukchi	Chukotko-Kamchatkan > N	2
5	363000	382000	Yakut	Turkic	4

The genetic index of Eastern Siberia is extraordinarily high at .478; if you include extinct languages, it is .429 which is still extremely high. In Eastern Siberia there are 21 living indigenous languages; 20 are threatened or endangered and all but one of the remaining 11 genetic units endangered. *Ainu*†, *Sirenik*†, *Omok*†, *Chuvan*† are already extinct genetic units of the area and sadly *Yukaghir, Itelmen, Mednyj Aleut,* and *Nivx* will likely soon follow.

The average level of endangerment is very high, 1.93 (0 is extinct, 5 healthy), or seriously endangered to moribund, with the average youngest speaker 60 or older. *Kerek, Ulch, Orok, Oroch, Chukchi* and *Evenki* stand out for their rapid decline. Note that some reports suggest *Orok* is down to 10 speakers and *Kerek* under 5! Recent census data is hardly encouraging. According to data of the 2002 Census of Russia (http://www.perepis2002.ru/). All languages but *Aleut, Oroch, Yakut* and *Yukaghir* report decrease in total number of speakers, and of these only Yakut likely reflects an actual rise in the number of speakers, as *Yakut* is absorbing other languages of Northeast Siberia, while *Russian* is also expanding almost everywhere else at the expense of the indigenous languages. The most drastic decline is seen among the *Chukchi, Orok, Koryak, Nivx* and *Eskimo*. Officially speaking *Orok* is down to 64 speakers, *Kerek* 15, *Al'utor* 40, *Negidal* 147, *Sirenik* now is extinct. This is very grim indeed, considering that Russian census numbers for speakers of Siberian languages are frequently inflated due to the practice of asking respondents for a self-identified mother tongue, which often reflects ancestral heritage/allegiance and identity, rather than actual linguistic competence or usage.

The average level of documentation (0 is lowest, 5 is highest) of the languages of the Eastern Siberia language hotspot ranges between 1.78 to 2.12 depending on whether extinct languages are included. Again, *Kerek, Negidal, Oroch* and *Ulch* stand out as the least documented of the Native languages of the Eastern Siberia language hotspot. However, it can be said that despite a range of recent works coming from Japan (e.g. Kazama 2003, Miyaoka and Endo 2004), often in collaboaration with Russian scholars, which are encouraging to be sure, nevertheless much remains to be done in language documentation and in particular for supporting and developing indigenous programs for language maintenance and revitalization in this region as well.

5. SUMMARY

The languages of certain areas are more at risk than others and what is at risk in some languages has greater consequences for the discipline of linguistics, and for all humanity more broadly. Given the finite amount of people, time, and money possible, one must prioritize those areas where the loss of diversity will be greatest: These are the Language Hotspots, two of which were introduced in brief above, Oklahoma and Eastern Siberia. Increased public awareness using the hotspots concept has proven very successful for biodiversity activism and it is hoped that this promotional metaphor will be similarly successful for increasing public awareness about, and engagement with, the global language extinction crisis as well.

The process of language endangerment involves isolation and invisibilization at the (trans)national, community and individual levels. The global model I outline here not only maps large-scale trends, but also raises awareness and helps to build connections among communities that may find themselves in a situation of language shift. Further, the global language hotspot list is intended to be used by both linguists and funding agencies as a ways of prioritizing particular areas and languages so that with coordinated efforts, positive developments and succesful documentation, maintenance and revitalization programs can be implemented and bear fruit, and the world's richly diverse linguistic heritage can be maintained for future generations of humanity.

REFERENCES

Anchimbe, E., 2007, “Linguabridity. Redefining linguistic identities among children in urban areas”, in: E. Anchimbe (ed.), *Linguistic Identity in Postcolonial Multilingual Spaces,* Cambridge, Cambridge University Press.

Anderson, G. D. S., 2005, *Language Contact in South Central Siberia*, Turcologica 54, Wiesbaden, Harrassowitz Verlag.

Anderson, G. D. S., 2006, “Towards a Typology of the Siberian Linguistic Area”, in: Y. Matras, A. McMahon, N. Vincent (eds.), *Linguistic Areas. Convergence in Historical and Typological Perspective*, Basingstoke, Palgrave Macmillan, 266−300.

Anderson, G. D. S, K. D. Harrison, 2006, “Language Hotspots: Linking language extinction, biodiversity and the human knowledge base”, ms. available for download at www.livingtongues.org/hotspots.html.

Brenzinger, M., 1997, “Language contact and language displacement”, in: F. Coulmas (ed.), *The Handbook of Sociolinguistics*, Oxford, Blackwell, 273−284.

Bulatova, N. Ja., L. Grenoble 1999, *Evenki*, Munich, LINCOM EUROPA.

Calvet, L.-J., 2006, *Towards an ecology of world languages*, Cambridge, Polity.

Campbell, L., 1997, *American Indian Languages*, Oxford, Oxford University Press.

Dürr M., E. Kasten, K. N. Khalojmova, 2001, *Itelmen Language and Culture*, Münster/Berlin, Waxmann.

Forsyth, J., 1992, *A History of the Peoples of Siberia. Russia’s North Asian Colony 1581−1990*, Cambridge, Cambridge University Press.

Gal, S., 1979, *Language Shift: The Social Determinants of Linguistic Change in Bilingual Austria*, New York, Academic Press.

Gordon, R., 2005, *Ethnologue*, 15th edition, Arlington, Tex, SIL.

Grenoble, L., L. Whaley, 2006, *Saving Languages: An introduction to language revitalization,* Cambridge, Cambridge University Press.

Grenoble, L., L. Whaley, 1998, (eds.), *Endangered Languages*, Cambridge, Cambridge University Press.

Gruzdeva, E., 1998, *Nivkh*, Languages of the World Materials 111, Munich, LINCOM-EUROPA.

Harrison, K. D., 2007, *When Languages Die*, New York, Oxford University Press.
Heller, M., 1987, "The role of language in the formation of ethnic identity", in: J. Phinney, M. J. Rotheram (eds.), *Children's Ethnic Socialisation: Pluralism and Development*, Newbury Park, California, Sage, 180−200.
Hinton, L., M. Vera, N. Steele, 2002, *How to keep your language alive*, Berkeley, Heyday Books.
Hinton, L., K. Hale, 2001, *The Green Book of Language Revitalization in Practice*, San Diego, Academic Press.
Irvine, J., S. GAL, 2000, "Language ideology and linguistic differentiation", in: P. Kroskrity (ed.), *Regimes of Language: Ideologies, Polities, Identities*, Santa Fe, School of American Research Press, 35−83.
Kazama, S., 2003, *Basic Vocabulary of Tungusic Languages*, Kyoto, ELPR.
Kämpfe, H. R., A. P. Volodin, 1995, *Abriss der Tschuktschischen Grammatik*, Wiesbaden, Harrassowitz Verlag.
Kinkade, M. D., 1991, "The decline of Native languages in Canada", in: R.H. Robins, E.M. Uhlenbeck (eds.), *Endangered Languages*, Berg Publishers.
Krauss, M. 1992, "The world's languages in crisis", *Language,* 68, 4−10.
Krejnovich, E. A., 1982, *Issledovanija i materialy po jukagirskomu jazyku*, Leningrad, Nauka.
Labov, W., 2001, *Principles of Linguistic Change Volume 2: Social Factors*, Oxford, Oxford University Press.
Living Tongues Institute for Endangered Languages [LTIEL], 2007, "Language Hotspots map", *National Geographic Magazine,* October edition, Geography section, 18. Interactive map available at www.nationalgeographic.com/mission/enduringvoices
Martin-Jones, M., 1989, "Language, power and linguistic minorities: the need for an alternative approach to bilingualism, language maintenance and shift", in: R. Grillo (ed.), *Social Anthropology and the Politics of Language*, London, Routledge, 106−125.
Mccarty, T. L., O. ZEPEDA, 1998, *Indigenous Language Use and Change in the Americas*, Berlin, Mouton de Gruyter.
Makihara, M., B. B. Schieffelin (eds.), 2007, *Consequences of Contact: Language Ideologies and Sociocultural Transformations in Pacific Societies*, Oxford, Oxford University Press.
Mithun, M., 1999, *The Languages of Native North America*, Cambridge, Cambridge University Press.
Miyaoka, O., F. Endo (eds.), 2004, *Languages of the North Pacific Rim*, Endangered Languages of the Pacific Rim A2-043, Kyoto, Nakanishi Printing Co.
Mufwene, S., 2001, *The Ecology of Language Evolution*, Cambridge, Cambridge University Press.
Mufwene, S., 2008, *Language Evolution: Contact, Competition, and Change*, London/New York, Continuum Press.
Mühlhäusler, P., 1996, *Linguistic Ecology: Language Change and Linguistic Imperialism in the Pacific Region*, London, Routledge.
Panfilov, V. Z., 1962, *Grammatika nivkhskogo jazyka Chast' I,* Moscow/Leningrad, AN SSSR.
Sankoff, G., 2001, "Linguistic outcomes of language contact", in: P. Trudgill *et al.* (eds.), *Handbook of Sociolinguistics*, Oxford, Basil Blackwell, 637−668.
Silverstein, M., 1996, "Dynamics of linguistic contact", in: I. Goddard (ed.), *Handbook of North American Indians*, vol. 17: *Languages*, Washington, DC, Smithsonian, 117−136.
Skorik, P. Ya., 1986, "Kategorii imeni sushchestvitel'nogo v chukotsko-kamchatskikh jazykakh" ["Nominal categories in Chukotko-Kamchatkan languages"], in: *Paleoaziatskie jazyki*, Novosibirsk, AN SSSR.
Thomason, S. G., T. Kaufman, 1988, *Language Contact, Creolization, and Genetic Linguistics*, Berkeley, University of California Press.
Thomason, S. G., 2001, *Language Contact*, Washington, DC, Georgetown University Press.

Volodin, A. P., 1976, *Itel'menskij jazyk*, Leningrad, Nauka.

Winford, D., 2003, *An Introduction to Contact Linguistics*, Oxford, Blackwell.

Woolard, K., 1998, "Introduction: Language ideology as a field of inquiry", in: B. Schieffelin *et al.* (eds.), *Language Ideologies: Theory and Practice*, Oxford, Oxford University Press, 3−47.

Woolard, K., 1989, "Language convergence and language death as social processes", in: N. C. Dorian (ed.), *Investigating Obsolescence: Studies in Language Contraction and Death*, Cambridge, Cambridge University Press, 355−367.

Wurm, S. A., 1991, "Language death and disappearance: causes and circumstances", in: R. Robins and E. Uhlenbeck (eds.), *Endangered Languages*, Oxford and New York, Berg, 1−18.

Zhukova, A. N., 1972, *Grammatika korjakskogo jazyka*, Leningrad, Nauka.

http://www.perepis2002.ru/

http://www.tooyoo.l.u-tokyo.ac.jp/Russia/bibl/

http://www.koryaks.net/biblio-ling.html

http://www.stanford.edu/~emaslova/Yukaghir.htm