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Language Endangerment and Language Death

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Introduction

Global linguistic diversity is decreasing sharply and rapidly. Various estimates predict that 25% to 90% of the world’s 7,000 some languages (most unwritten and undocumented) may soon vanish. Precise calculations of extinction rates and endangerment risk are difficult to obtain and vary widely for reasons discussed in this chapter. After outlining the current state of linguistic diversity from a global perspective, this chapter will examine the issue of endangerment in more detail and consider some challenges in evaluating priorities for preserving the future of language diversity.

The Current State of Global Linguistic Diversity

Different aspects of linguistic diversity are distributed in different ways across the world. The most commonly used metric in global assessments of language diversity and endangerment is language richness, i.e. number of languages in relation to some unit, like country or region. No one knows precisely how many languages exist, either historically or presently. The attention of linguists has been highly selective, focusing mainly on more familiar and easily accessible languages spoken by large numbers of people. Hence, 80% or more of the world’s languages have yet to be adequately recorded, classified, and studied. Most assessments of the current state of global language diversity rely on data compiled by the Summer Institute of Linguistics, released periodically since 1950 in the Ethnologue, a catalogue of all known languages of the world. Their most recent count lists 7,102 languages, including 137 sign languages, in use among the world population of 6.3 billion people (Lewis et al., 2015). This figure does not include dialects because no clear criteria exist for defining boundaries between languages and dialects (see Wolfram and Schilling-Estes [1998] on dialect endangerment; Hammarström [2015] on Ethnologue’s reliability).

In addition, Ethnologue reports 367 languages that have become extinct since 1950. This rate of loss amounts to six languages per year, considerably more conservative than Crystal’s (2000: 19) estimate of one language extinction every two weeks. However, given our lack of knowledge about many regions, thousands of languages have probably gone extinct without...
Language Endangerment and Language Death

Language may have effectively disappeared from active everyday use without being completely forgotten by all its former speakers. Many languages survive only in remembered bits and pieces and are no longer regularly used. It is not always possible to locate all the remaining speakers in a dwindling and sometimes scattered population, and it is sometimes no longer clear even to community members themselves who still speaks or remembers a language once more widely spoken. In addition, languages like Manx, whose last speaker died in 1974, and the Miami language of Oklahoma, whose last speaker died in the early 1960s, are undergoing revitalization and gaining new speakers and uses. Some prefer to use the term ‘sleeping’ or ‘dormant’ rather than ‘extinct’ to refer to documented languages associated with populations claiming a heritage to but no speaking knowledge. Still other languages not spoken for over a century, like Kaurna, once used by Aboriginal people in what is now the area of Adelaide in South Australia, are being reconstructed from written sources and are being used for limited activities such as greetings, songs, and naming activities (Amery, 2001). The revitalization of dormant or sleeping languages is sometimes also referred to as ‘(re)awakening.’

For most of human history the world was close to linguistic equilibrium, with the number of languages dying roughly equaling the new ones created. This balance endured for millennia because there were no massive differences between the expansionary potential of different peoples of the type that might cause a single, dominant language to spread over a large area. However, various events have punctured this equilibrium forever. First, the spread of agriculture, the rise of colonialism, later the Industrial Revolution, and today mass media, globalization of economies, etc., have propelled a few languages to spread over the last few centuries. A very small number of Eurasian languages like Chinese, English, Arabic and Hindi have spread around the world to become the official languages of government and education, with English very much in the lead. Today a language of European origin—either English, Spanish, Portuguese or French—is the dominant language in every country in North, Central and South America.

Global Language Richness

The spread of large languages in modern times has rendered the distribution of languages across the globe strikingly uneven. Figure 3.1 shows enormous disparities in the size of populations speaking the world’s languages. If all languages were equal in size, each would have around 885,000 speakers. Instead, however, the median size for a language is actually only about 7,000 speakers. Grouping all languages into three categories based on the size of their speaker populations reveals only 394 languages with at least a million speakers (Lewis et al., 2015). In fact, the number of languages with more than one million speakers has expanded over the last two decades as the world population has grown by about 25% (Loh and Harmon, 2014: 24). Most of the world’s languages (N = 3,943 or 55%), however, are spoken by a total of only 8 million people, a tiny fraction (less than 1%) of the world’s population. Between these two extremes, 357 million people speak a total of 2,765 languages ranging between 10,000 and 999,999 speakers.

Figure 3.2 shows the nine largest languages, each with 100 million or more speakers as a percentage of world population. Altogether these very large languages are spoken by about half the world’s population and have large global footprints because they are all spoken in more than one country. Their spread would be even more extensive if figures for second language speakers are included. Although with only 335 million speakers, English is not the
world’s largest language, it is without doubt the most important of a small handful of what may be called ‘global languages’ in terms of geographic spread and number of users worldwide. In addition to large numbers of English speakers in the United States, UK, New Zealand, Canada, Australia and South Africa, the number of non-native speakers ranges from 470 million to more than 2 billion and greatly outnumbers native speakers (Crystal, 2003).

Languages are also unevenly distributed across regions and countries of the world. Africa and Asia each have around 30% of the world’s languages, whereas the Americas account
for around 15%, and Europe only 4%. Generally speaking, language richness (like species richness) correlates strongly with latitude, resulting in many more languages (and species) in the tropics than at higher latitudes (Mace and Pagel, 1995; Nettle and Romaine, 2000; Gorenflo et al., 2012, 2014; Gavin and Stepp, 2014). The reasons for this skewed geographic distribution for languages are still not well understood, given the complexity of different environmental, social, political, economic and historical factors operating in different areas (Currie and Mace, 2009). Eurasia, for instance, has a history of human settlement at least as ancient as New Guinea going back 50,000 some years, but yet has far fewer languages, presumably at least partly due to the spread of agriculture and the rise of empires. Conventional explanations for the linguistic diversity of New Guinea as well as other mountainous areas like the Caucasus have typically invoked the rugged terrain as a significant factor impeding communication between groups. However, geographic barriers to dispersion of groups and languages cannot on their own satisfactorily explain high levels of linguistic diversity. The areas of greatest linguistic diversity in New Guinea are concentrated in coastal regions like the northeast-facing coast and the islands to the east in the Bismarck Archipelago, whereas the highlands, by contrast, with some of the most isolated and rugged areas, are more uniform linguistically. The absence of state formation in New Guinea has generally inhibited the sustained spread of any one language group, whereas in the Highlands specifically, lower incidence of malaria has allowed a few large language groups like Enga, Huli, etc., with over 100,000 speakers to spread (see Fincher and Thornhill, 2008, concerning variation in parasite intensity and species dispersion). In addition, the presence of pidgins/creoles as lingua francas like Tok Pisin in Papua New Guinea has helped, at least until recently, to maintain linguistic diversity by facilitating inter-group communication. Social factors have probably played at least as important a role as geography in the development of linguistic diversity in the Caucasus too (Comrie, 2008: 140–141).

Languages do not respect geopolitical borders; however, the nation-state is the most critical unit of analysis in assessing endangerment because policies pursued within national boundaries give some languages (and their speakers) the status of majority and others that of minority. As the bedrock of the current political world order, the nation-state therefore plays a key role in determining which cultures and languages will survive and which will not. Not coincidentally, the vast majority of today’s threatened languages and cultures are found among socially and politically marginalized and/or subordinated national and ethnic minority groups, who face unprecedented pressure to abandon their local languages. Estimates of the number of such groups range from 5,000 to 8,000, among them Indigenous peoples, who are particularly vulnerable to forces of language shift. Comprising about 4% of the world population, and one-third of the world’s 900 million extremely poor rural people, they speak around 60% of the world’s languages (Nettle and Romaine, 2000: ix).

Figure 3.3a shows that just over 80% (N = 5,772) of the world’s languages are found in just 20 countries, including some of the richest in the world (United States, Canada and Australia) as well as some of the poorest (Chad, Democratic Republic of the Congo and Nigeria). Other measures of linguistic diversity provide a more nuanced view by examining the number of speakers of each language in a country as a proportion of the total population. Figure 3.3b shows the top 20 countries based on Greenberg’s (1956) index of linguistic diversity, ranging from 0 to 1, with 0 indicating no diversity, and 1 indicating total diversity, i.e. no two people speak the same language. Although seven of the same countries (i.e. Papua New Guinea, Nigeria, Vanuatu, India, Cameroon, Democratic Republic of the Congo, Chad) appear in both rankings, these metrics yield somewhat different results.
Figure 3.3a  Twenty countries with highest number of languages
Source: Based on data from Lewis et al., 2015

Figure 3.3b  Twenty countries with highest index of linguistic diversity
Source: Based on data from Lewis et al., 2015
Global Phylogenetic Diversity

Advances in various datasets and analytical methods allow researchers to address the distribution and composition of global linguistic diversity and its evolutionary dynamics in a more systematic fashion. Although measures of language richness give equal weight to all languages, computational phylogenetics is shedding new light on the geographic location and time depth of language families and their spread. Measures of phylogenetic diversity consider the number of different language families or branches of families in relation to some unit, e.g., country or region. Nettle and Romaine (2000: 32–39), for example, mapped hotbeds of linguistic diversity defined in terms of number of languages in relation to phylogenetic units. Although there is no unanimously agreed system of genetic classification, looking at the landscape of linguistic diversity from a phylogenetic or family perspective provides a more nuanced measure than simply counting the number of languages because the diversity distinguishing language families from one another has taken much longer to develop than that which distinguishes languages in the same family.

Papua New Guinea, for instance, tops the list of both Figures 3.3a and 3.3b, followed by Cameroon and Vanuatu. Comparing these three, however, illustrates clearly the contrasts between various dimensions of language richness and phylogenetic diversity. Thus, Papua New Guinea has many more languages than Cameroon or Vanuatu; it also has a larger population and land area than Vanuatu, so that on average there is one language per 900 km². Vanuatu, however, with 112 languages spoken by a population of about 260,000 scattered over 80 islands comprising 12,189 km², has the greatest language density of all countries, with about one per 88 km² (François et al., 2015: 8). Although not as dense, Papua New Guinea’s linguistic richness reflects deeper phylogenetic diversity. Vanuatu’s languages all belong to one family, viz. Oceanic, while Papua New Guinea’s belong to at least 40 or 50. Meanwhile, Cameroon has much less phylogenetic diversity than Papua New Guinea, but more than Vanuatu; its languages belong to three language families—Niger Congo, Nilo-Saharan and Afro-Asiatic.

If all of Europe’s languages vanished, we would lose relatively little of the world’s phylogenetic linguistic diversity. Europe has only about 4% (N = 286) of the world’s languages, belonging to only six families. Four of the languages with more than 100 million speakers are European (Figure 3.2), and most of the largest European languages are also widely spoken outside Europe. More importantly, however, most of Europe’s languages are structurally quite similar because they are related historically. If the same number of languages in Papua New Guinea or the Americas (which contains the highest number of families—as many as 200) disappeared, the loss would be far more significant because the divergence between languages there runs much deeper. By contrast, the African continent with its 2,138 languages accounts for nearly one-third of the world’s languages, but contains relatively few language families. Even if all the languages of Europe and Africa disappeared, we would still lose a relatively small amount of global phylogenetic diversity. The Americas and Papua New Guinea are also rich in terms of the number of isolates, i.e., languages with no known relatives, and no demonstrable genetic relationship to any other language. Isolates are in effect language families with only one member and are distinct from unclassified languages, i.e., languages for which data is lacking to establish genetic relatedness to other languages.

Assessing Language Vitality and Criteria for Endangerment

Differing data, terminology and categories used by different researchers and resources make it very difficult to assess language vitality and endangerment on a global and regional scale
as well as to gauge trends longitudinally. Often the only common category is that of extinct, which is also open to differing interpretations. Therefore, comparing various resources reveals a wide range of overall endangerment estimates: 25% (Amano et al., 2014; Loh and Harmon, 2014), 32% (Sutherland, 2003), 34% (Lewis et al., 2015), 43% (Moseley, 2010), 46% (Catalog of Endangered languages, n.d.), 90% (Krauss, 1992). Most scholars offer more conservative estimates than Krauss (1992), who suggested that 50% of languages might already be moribund and that only those with over 100,000 speakers are safe. Relying on size as a proxy for endangerment will yield different risk rates globally and regionally depending on number of speakers considered necessary for a language to be viable. If Krauss is right, then using Ethnologue’s most recent data, 80% (N = 5,765) of the world’s languages could be at risk. If the viability threshold is set at the lower level of 10,000 speakers, then up to 55% (N = 3,943) of languages could be vulnerable. The lowest estimates in this range, 25% and 32%, also rely on population size, but are based on a more limited sample of languages, and apply the IUCN’s (International Union for Conservation of Nature) Red List criteria for species endangerment to languages. Biological criteria regard a language as threatened if speaker numbers fall below a critical threshold (1,000 for vulnerable, 250 for endangered, 50 for critically endangered), even if there is no decline across generations (see Table 3.1). Using the criteria of restricted geographical range, small population size and rapid population decline, Amano et al. (2014) concluded that 25% of languages are endangered, with the tropics, Himalayas and northwestern North America at greatest risk. In addition, they suggest that the viability threshold is about 330 speakers, much lower than Krauss’s.

Although speaker numbers may be a critical indicator for vulnerability to the kinds of pressures leading to language extinction, and small languages can disappear much faster than large ones, size does not tell the whole story. In some parts of the world languages have always been small in terms of both speaker numbers and range, e.g., Australia and New Guinea. In Vanuatu languages typically have only a few hundred speakers and are spoken in one or two villages; only 22 languages have more than 3,000 speakers (François et al., 2015: 8). Available data do not always allow us to distinguish if a language originally had a small range size or if its range size has contracted recently. Even languages with large speaker numbers can lose many speakers within a short period depending on circumstances. Ravindranath and Cohn (2014) found little correlation between small size and threatened

<table>
<thead>
<tr>
<th>Table 3.1</th>
<th>IUCN Red List criteria applied to language endangerment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Least concern</td>
<td>Speakers are widespread and abundant</td>
</tr>
<tr>
<td>Near threatened</td>
<td>Not currently threatened, but likely to be in near future</td>
</tr>
<tr>
<td>Vulnerable</td>
<td>Speakers observed or projected to decline by 30% or more in three generations (75 years), or number less than 10,000 and declining by 10% or more in three generations, or speakers number less than 1,000</td>
</tr>
<tr>
<td>Endangered</td>
<td>Speakers observed or projected to decline by 50% or more in three generations, or number less than 2,500 and declining by 20% or more in two generations (50 years), or speakers number less than 250</td>
</tr>
<tr>
<td>Critically endangered</td>
<td>Speakers observed or projected to decline by 80% or more in three generations, or number less than 250 and declining by 25% or more in one generation (25 years), or speakers number less than 50</td>
</tr>
<tr>
<td>Extinct</td>
<td>No speakers remain</td>
</tr>
</tbody>
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status (or conversely, large size and stability) for languages of Indonesia. Many large languages like Javanese, by far the most widely spoken local language, are endangered. Indeed, Javanese is the 11th largest language in the world, spoken in three countries by 84.3 million speakers. However, it is the only language in this group that is not a national or official language of any country. Even more importantly, however, younger speakers are shifting towards Indonesian as their primary home language.

The health of a language quite obviously depends on the youngest generation. Languages are certainly in danger when parents or other caretakers no longer transmit them to children. UNESCO’s *Atlas of the World’s Languages in Danger of Disappearing* suggested that languages being learned by less than 30% of young people may be vulnerable, and estimated that up to half of the world’s languages may be endangered (Wurm, 2001: 14). UNESCO’s most recent edition of the atlas, covering about 2,466 potentially threatened languages (Moseley, 2010), relies on an index of Linguistic Vitality and Endangerment (LVE) incorporating nine factors (UNESCO, 2003). Each factor may be further broken down, as indicated in Table 3.2, highlighting six possible degrees of endangerment for intergenerational transmission. Overall, LVE distinguishes four levels of endangerment: vulnerable, definitely endangered, severely endangered, and critically endangered. Globally, at least 43% of languages assessed are endangered, with around 18% falling into the severely or critically endangered categories.

The *Catalogue of Endangered Languages* (ELCat), a similar resource to UNESCO’s atlas, focusing specifically on endangered languages, lists 3,242 languages, categorized into eight levels of endangerment (at risk, vulnerable, threatened, endangered, severely endangered, critically endangered, dormant and awakening) based on four factors: intergenerational transmission, absolute number of speakers, speaker number trends, and domains of use.

<table>
<thead>
<tr>
<th>Degree of endangerment</th>
<th></th>
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<tbody>
<tr>
<td>safe</td>
<td>spoken by all generations</td>
</tr>
<tr>
<td>vulnerable</td>
<td>spoken by most children, but may be restricted to certain</td>
</tr>
<tr>
<td></td>
<td>domains</td>
</tr>
<tr>
<td>definitely endangered</td>
<td>no longer learned at home</td>
</tr>
<tr>
<td>severely endangered</td>
<td>spoken by grandparents and older generations, but not used</td>
</tr>
<tr>
<td></td>
<td>with children</td>
</tr>
<tr>
<td>critically endangered</td>
<td>youngest speakers are grandparents and older, use the</td>
</tr>
<tr>
<td></td>
<td>language partially and infrequently</td>
</tr>
<tr>
<td>extinct</td>
<td>no speakers left</td>
</tr>
</tbody>
</table>

Table 3.2 UNESCO’s Linguistic Vitality and Endangerment (LVE)

1. Absolute number of speakers
2. Intergenerational language transmission
3. Community members’ attitudes towards their own language
4. Shifts in domains of language use
5. Governmental and institutional language attitudes and policies, including official status and use
6. Type and quality of documentation
7. Response to new domains and media
8. Availability of materials for language education and literacy
9. Proportion of speakers within the total population
ElCat’s estimate for global endangerment is 46%, with one language disappearing every three months, but unlike UNESCO’s, LVE does not regard amount and quality of documentation as a factor contributing to language vitality.

Table 3.2 also compares LVE with the criteria used by EGIDS (Expanded Graded Intergenerational Disruption Scale), an adaptation and expansion of Fishman’s (1991) Graded Intergenerational Disruption Scale (GIDS). Since 2013, each Ethnologue language entry includes an EGIDS score ranging from 0 to 10 based on the state of development versus endangerment. Languages undergoing endangerment have greater disruption and receive higher numbers, while those with lower numbers demonstrate greater levels of development. Globally, the majority of languages (N = 4,655, or 66%) are vital, i.e., level 6a or higher, but about 34% (N = 2,447) of languages worldwide are in trouble or dying because their EGIDS scores are between 6b and 9. They are spoken by 67,346,555 speakers, who make up 1.07% of population. This represents more than the number (N = 1,598, 23%) of developing languages, i.e., those above the 6a default stage of vigorous oral use. Only 8% (N = 576) of the world’s languages can be considered institutionalized, i.e., have reached EGIDS stages 1–4.

Endangerment is also distributed unevenly, as seen in Figure 3.4, which shows EGIDS scores grouped into five categories for languages by region and the world. The Americas have the highest percent (61%) of languages at risk, followed by Asia with 38%, Europe with 35%, the Pacific with 34% and Africa with 17%. These figures also reflect a correlation between size and risk. European, Asian and African languages tend to be large, whereas languages in the Americas and Pacific are much smaller. There are also clearly strong links between language vitality, size, domains of use and status. A healthy language is used in all domains. The three highest EGIDS levels distinguish international, national, provincial recognition. The healthiest (and safest) languages are the six official languages of the United Nations: English, French, Spanish, Russian, Arabic and Chinese. These six account for

Figure 3.4 Language endangerment by region using EGIDS scores
Source: Based on data from Lewis et al., 2015
0.1% of the world’s languages. The world’s 95 national languages (EGIDS 1) are spoken by about 60% of the world’s population, with a median size of about 7 million speakers. Fewer than 4% of the world’s languages have any kind of official status in the countries where they are spoken. A very small handful of languages function as languages of government and education. English, for example, is the dominant de facto or official language in at least 98 countries, whereas French has official or co-official status in 54. Less than 10% of the world’s languages have reached EGIDS 4, i.e., are used in education, whereas fewer than a third have reached EGIDS 5, i.e., literacy. Uninstitutionalized languages (EGIDS 5–6a) constitute 57% of the world’s languages and have a median size of about 20,000 speakers.

Overall then, the distribution of languages along a continuum of endangerment to development is skewed toward endangerment in the Americas and Pacific, but toward development in Europe. Africa has relatively few developed languages, with most countries favoring colonial European languages as official. Even regions like Europe, where 25% (N = 73) of languages are institutionalized (more than three times the rest of the world), the connection between official recognition and development status is evident. A quarter (N = 73) of Europe’s languages have official status at the international, national or provincial level, whereas fewer than 1% (0.7%, N = 503) have similar status in the rest of the world. Lewis and Simons (2014) found greater degrees of endangerment for European minority languages not covered by the European Charter for Regional and Minority Languages (ECRML), an instrument providing some measures of protection for some of Europe’s minority languages (Council of Europe, 1992). There are twice as many endangered languages, i.e., those with EGIDS scores between 6b and 10, in the 22 out of 47 countries that have not ratified ECRML.

Problems in Assessing Endangerment

Endangerment scales like EGIDS and LVE can be only as reliable as the sources of information they rely on. Inevitably, these tools provide a static snapshot of a language at a single moment in time using available resources. In practice, the amount and kind of data required for reliable evaluation of risk can be gained only through rigorous on-the-ground fieldwork and on-going monitoring of individual communities. Although EGIDS is currently the most comprehensive tool available for assessing language endangerment globally, regionally, and country-by-country and represents a major step toward global evaluation of language vitality, it is not without problems. EGIDS does not consider absolute or relative speaker numbers, community language attitudes, government policies and documentation like LVE. *Ethnologue* treats every language as a single speech community, assigning the highest possible EGIDS score on a country-by-country basis even though within countries a language may encompass numerous smaller speech communities with different and often continually changing sociolinguistic dynamics. Hence, cross-border languages and languages spoken by widespread diasporic populations may have different EGIDS scores, depending on factors like size of speech community, presence of other languages, language status etc. Venda in South Africa ranks as EGIDS 1 as one of 11 official languages, whereas in neighboring Zimbabwe it is only EGIDS 5. Chinese ranks as EGIDS 1 in China and Malaysia, where it shares co-official status with English and Malay, but in Myanmar, where it is spoken by about half a million, Chinese is EGIDS 5. Although *Ethnologue* provides speaker numbers for 96% of languages, they vary in quality and recentness. Because population estimates are not automatically extrapolated to the current year, this creates some anomalies, especially when comparing countries like
Canada, Australia, Ireland, and the United States, which collect various kinds of information on languages in their census reports. *Ethnologue* uses the most recent information for Canada (2011) and the United States (2010), but not for Australia (2011) or Ireland (2011). ElCat uses the most recent census data for Irish, but not for Indigenous languages in Australia or Canada. ElCat, however, has a useful feature allowing comparison of some key facts like speaker numbers and endangerment level across different sources, including UNESCO’s atlas and *Ethnologue* (albeit not the most recent version). ElCat also gives an estimate of reliability for its vitality ratings. In addition, UNESCO’s LVE allows finer distinctions within each of its nine factors, thus yielding a more detailed assessment of the relative strength or weakness of a language or community overall than EGIDS or ElCat.

Nevertheless, lack of commensurability means that different conclusions will be reached regarding a language, country, or region, depending on the source consulted. The fact that many languages are known by alternate names with variant spellings also makes comparison across resources difficult. Some of the problems arising from differing data, terminology and categories can be illustrated by comparing the situation of Indigenous languages in Australia and Canada using *Ethnologue*’s EGIDS, UNESCO’s LVE and ElCat. The Australian language family is the most endangered in the world, with 94% of languages threatened with extinction or already extinct since 1970, representing the fastest decline in linguistic diversity of any country-continent (Loh and Harmon, 2014). Once the location of considerable linguistic diversity, many of Australia’s Indigenous languages have disappeared since British colonization in the late 18th century largely due to massacre, forced removal and resettlement of their speakers. Assimilationist policies practiced by missions, government and schools further disrupted intergenerational transmission of language and culture. Currently, only 120 languages remain of more than 250 once spoken by around 600 tribes, who inhabited the continent for at least 50,000 years before European contact (Marmion et al., 2014). The 2011 Census lists 60,550 speakers, representing 11.6% of the population identifying as Aboriginal, concentrated primarily in remoter parts of four areas: the Northern Territory, Queensland, Western Australia and South Australia (Biddle, 2012). Only around 15 languages are still strong and spoken by all age groups—five less than 10 years ago (Australian Institute of Aboriginal and Torres Strait Islander Studies and Federation of Aboriginal and Torres Strait Islander Languages, 2005).

Generally speaking, both *Ethnologue* and UNESCO’s atlas agree that most of Australia’s languages are threatened or extinct, but differ in the details and coverage. Neither source uses the most recent census data. According to *Ethnologue*, which assessed 389 languages (compared to UNESCO’s 108, and ElCat’s 390), only 36 (9%) have EGIDS scores 1–6a and are safe. Forty-five per cent (N = 176) have EGIDS scores 6b-9, indicating various degrees of endangerment, and another 45% (N = 177) are extinct. According to UNESCO’s LVE, 94% (N = 102) of languages are endangered to differing extents, but only 6% (N = 6) are extinct. All but 19 languages are spoken by 1,000 or fewer speakers. Some languages may already be extinct, whereas others like Pitjantjatjara have increased speaker numbers by 30% (from 2,600 in 2006 to 3,394 in 2011). Both UNESCO and ElCat consider Pitjantjatjara as vulnerable, i.e., equivalent to EGIDS 6b, but *Ethnologue* ranks it as EGIDS 4 based on 2006 census data. Nearly half of *Ethnologue*’s data (44%) on speaker numbers for Australian endangered languages come from the 2006 census; for some languages the sources cited date from the 1970s.

*Ethnologue*’s EGIDS scores for Canada’s Indigenous languages are not always congruent with assessments based on UNESCO’s atlas and ElCat; nor do they always accord with conclusions reached by others using Canadian census data. The 2011 census recorded over
60 Aboriginal languages belonging to 12 distinct language families, with around 213,400 people reporting that they spoke an Aboriginal language at home. The languages with the largest number of speakers are Cree (83,475), Inuktitut (34,110) and Ojibway (19,275), which together account for almost two-thirds of the population claiming an Aboriginal language as their mother tongue (Statistics Canada, 2012).

Census statistics from 1981 to 2001 show that for most languages the proportion of children with an Aboriginal mother tongue is well below Wurm’s (2001: 14) suggested minimum of 30%. Only about 20 languages are at or above this threshold (Norris and Jantzen, 2002; Norris, 2011). Statistics Canada (2012) estimated that only Cree, Ojibway and the Inuit languages have sufficient numbers to continue to be spoken well into the future. Among the 50 or so other Aboriginal languages spoken by 3,000 speakers or fewer, most were spoken at home by between 30% and 60% of the people who reported them as mother tongues. A language can, nevertheless, be viable even if spoken by only a very small population, as long as transmission is intact (Loh and Harmon, 2014: 33). Small languages like Dene (11,860 speakers), Montagnais (10,965 speakers), Micmac (8,030 speakers), Attikamek (5,915 speakers), Dogrib (2,080 speakers) and Naskapi (620 speakers) may also be viable because they tend to be spoken in isolated or well-organized communities with strong self-awareness, who regard language as an important identity marker (Norris, 2011: 34). Given the strong association between home language use and likelihood of transmission, children are most likely to acquire Aboriginal mother tongues if they live in Aboriginal communities and in families where both parents have an Aboriginal mother tongue or first language. In fact, Statistics Canada (2012) revealed a higher proportion of Attikamek (91.7%), Naskapi (90.2%) and Montagnais speakers (88.6%) reporting regular home use of their languages than speakers of Inuktitut (79.5%), Cree (55.2%), and Ojibway (37.4%).

The average age of those reporting an Aboriginal mother tongue or speaking it as a home language also indicates the extent to which the language is being passed on to the younger generation. Using census data from 1981 to 2001, Norris (2011: 34–36) calculated a continuity index measuring the degree to which a language is transmitted at home by comparing the number of people who speak a language at home to the number who learned that language as their mother tongue. Viable languages like Attikamek, Inuktitut and Dene are characterized by relatively young mother tongue populations (average ages between 25 and 29 years) and corresponding high indexes of continuity (between 79 and 92), whereas endangered languages like Haida, Kutenai and Tlingit have typically older mother tongue populations (average ages between 45 and 60) combined with extremely low continuity indexes of 16 or less.

The Ethnologue gives Inuktitut (EGIDS 2) the highest score of any Aboriginal language due to its status as a statutory provincial language in Nunavut and the Northwest Territories. It ranks Attikamek, Cree, Dogrib and Naskapi as EGIDS 5, but regards Ojibway, Montagnais, Micmac and Dene as EGIDS 6b. ElCat, however, with information on 74 languages, ranks Inuktitut, Ojibway, Cree, Dene Attikamek as vulnerable, Dogrib as endangered, and Micmac as threatened based on information sources dating from 2008. UNESCO’s Atlas also ranks Cree, Attikamek, Montagnais, Dene, Naskapi and Dogrib as vulnerable (= EGIDS 6b), but its population numbers come from the 2001 census.

Assessing the Status of Revitalizing Languages

Assessing the status of revitalizing languages poses special difficulties because they may be expanding into new domains like education while contracting in others and continuing to
be endangered in the home as the locus for intergenerational transmission shifts to schools. Irish illustrates well the complex dynamics involved in revitalizing languages undergoing significant institutionalization, which is reflected in the differing assessments offered by the *Ethnologue* (EGIDS 3), UNESCO’s atlas (definitely endangered—in effect equivalent to EGIDS 7), and ElCat (vulnerable). ElCat is the only one of the three resources using the most recent 2011 census, in which 1.77 million people (41.1%) of the total population of 4.5 million reported themselves as able to speak the Irish language, representing a slight proportional decline from 1.6 million (41.9%) in the 2006 census. However, only 1.8% (N = 77,185) of the population over the age of 3 said they spoke Irish daily outside of school, a decline from the 2006 figure of 3.2%. In Gaeltacht areas, legally recognized and protected traditional enclaves of Irish speakers, 35% of the population who actually can speak Irish claimed to speak it daily outside of school (Central Statistics Office, 2012: 40–41).

Clearly, most Irish people no longer habitually speak Irish in their everyday lives and have not done so for centuries. Nevertheless, with the establishment of the Irish Free State (later the Republic of Ireland) in 1922, Irish was declared the first official language and English recognized as a second official language; Irish is also one of 24 official languages of the European Union. Before the 17th century when the majority of the population overwhelmingly spoke Irish, it once ranked comfortably within the top hundred world languages in terms of speaker numbers; English was dominant only in a small eastern region around Dublin. By 1851, however, Irish had nearly disappeared from the eastern half of the country and was losing ground among young people everywhere except the far western margins. The great famine from 1845 to 1849 killed around 1 million people and led to mass emigration of another 1.5 million. By 1900 these losses reduced the population by more than half.

Census data reveal a continuing fundamental weakness in intergenerational transmission within and without the Gaeltacht despite nearly a century of Irish language policy and planning devoted to revitalization. Increases in the number of people reporting themselves as Irish-speakers in recent censuses are largely the result of school-based reproduction. State policies have not reversed the course of the moving frontier creeping ever westward, and it is arguable whether they have even slowed it. As traditional Irish-speaking communities continue to decline, the number of second-language speakers outside of the Gaeltacht has increased. About three-quarters (N = 59,230) of all daily speakers of Irish outside education live outside the Gaeltacht. Despite these weaknesses, Irish is in a stronger position than most Aboriginal languages in Canada, the United States, Australia and many other countries that cannot draw on official support or rely on institutions like schools to produce new users.

**Establishing Priorities for Securing the Future of Linguistic Diversity**

This chapter has discussed a variety of ways of assessing global linguistic diversity and evaluated the usefulness of EGIDS, LVE and other tools for prioritizing documentation and revitalization efforts. Over the last 500 years, as small languages nearly everywhere have come under intense threat, the fate of most of the world’s linguistic diversity, and by implication its cultural diversity, lies in the hands of a small number of people most vulnerable to pressures of globalization. The crucial role language plays in the acquisition, accumulation, maintenance and transmission of human knowledge means that the prospect of language extinction on such a large scale raises critical issues about the survival of humanity’s rich and diverse intellectual heritage.
With limited resources and much needing to be done quickly to secure the future of numerous languages under threat of extinction, establishing priorities is of critical importance. The high degree of endemism among languages with small numbers of speakers means that the risk to rare and unique languages is greater than the risk to more common ones (Nettle and Romaine, 2000: 62–67). Certain areas of the world, generally those with many stocks, also show a wide diversity of structural language types. Whalen and Simons (2012) identified 50 language families that have disappeared since 1950 and 102 families where intergenerational transmission is reported to be broken in every surviving language within the stock. In biological terms, the death of a language family would be equivalent to losing a whole branch of the animal kingdom. The population expansion of speakers of Eurasian languages has seriously skewed the typological distribution of the world’s languages and our expectations concerning the nature of human language. Object-initial languages, for example, the rarest word order type, were discovered only relatively recently (Derbyshire, 1977), and are found only among small groups. Such languages were once thought not to exist because it was believed they violated a linguistic universal requiring the subject or verb to go first.

Compared to Africa, Eurasia and the Americas, we know less about the languages of Melanesia than those of any other region on earth. More than half have only a wordlist or less of published descriptive material, and the Papua-Austronesian region is the region with the largest number of poorly documented languages and the largest proportion of poorly documented languages (Hammarström and Nordhoff, 2012: 26). Half of the world’s least documented language families are found in Papua, the easternmost province of Indonesia. This means that Papua tops the priority list of both endangered and least documented language families (Anderbeck, 2015: 37). The Australian macro-family comprising the large Pama-Nyungan stock covers most of the continent but there are around 27 non-Pama-Nyungan stocks in the far north. Relative to its size, this part of northern Australia is comparable in its family diversity to New Guinea.

We urgently need a clearer understanding of the various demographic, sociolinguistic and attitudinal factors leading individuals and communities toward language shift and proactive language policies supporting language diversity. This entails shifting our focus from regarding languages in isolation to considering the ecological niche occupied by language in a community (Romaine, 2010). Much of the professional linguistic literature on language preservation has been concerned with preserving the structures of individual languages in grammars and dictionaries, or has directed its attention to education programs in endangered languages. Although salvage operations aimed at documenting endangered languages are worthwhile and much-needed endeavors, and may be all that can be accomplished for some severely eroded languages, they do not address the root causes of language death and decline. Without further action, they do not contribute substantially to language maintenance efforts and cannot ensure survival in the long term.

Further Reading


References


Council of Europe (1992), European Charter for Regional or Minority Languages. CETS No. 148. Strasbourg: Council of Europe.


