

Reference: The Cambridge Handbook of Sociolinguistics, edited by Rajend Mesthrie (2011)

Language maintenance, shift, and endangerment

Nicholas Ostler

18.1 Introduction and overview

Language maintenance, shift, and endangerment are all outcomes of the dynamics of language communities. A language community is endlessly recreated, as the grammar and lexicon that embody knowledge of the language are reconstituted in each new generation of learners. Some imperfections or innovations occur in this learning process, which give rise to language change. And some knowledge of language difference is built into the process: learners sense the differences in language as used by those more distant to them; and they come to experience their own particular code as a badge of their identity, or of membership in their own community.

A language is *maintained* if speakers effectively pass it on to the next generation. This transmission may fail because speakers do not use it sufficiently in the learners' presence; or because the learners themselves, for some reason, do not choose to make use of it, but get their language from some other source. We first consider what can be said about forces, institutions, and situations which tend to support this effective transmission, that is, which are positive for language maintenance.

If the transmission is impeded in some way, the language is endangered. Unless this is happening because the population itself is dying out, this implies that some other language is being acquired in its place. This may occur partially, for some language uses but not others; but however full or partial the process, language endangerment within a continuing population implies a *language shift*. Our second major section is to anatomize the causes of language shift, that is to consider how some other language can get into position where it becomes a replacing language. There are three major issues to address: how a new language can come on the scene, to be available in the community; how the rising

generation can come to learn it; and what determines when the result is language replacement, and when bilingualism.

Turning to *language endangerment* from the point of view of the languages being lost, the first major issue is: What is the value of what is lost? We shall see that there is concern – which is like an enlightened self-interest – for the loss of language knowledge, but a completely different concern, more like sympathetic solidarity, for the loss of the use of a language – which implies its demise as a badge of a particular human identity, one that is felt by insiders as well as recognized by outsiders.

These two aspects of language loss have different remedies, respectively *documentation* and *revitalization*. We review the issues, primarily political, ethical, and technical, which arise in attempting to implement these remedies. Revitalization, since it aims at a response from a whole language community, is far harder than documentation, which is all about systematic recording. Nevertheless, we attempt to review the gamut of activities relevant to each.

A final section assesses the prospects for future linguistic diversity.

18.2 Language maintenance

Normal transmission of a language to children may be disrupted or inhibited when they are exposed in some way to other languages. There are reasons both of demand and supply that can act as obstacles to language transmission down the generations.

18.2.1 Language acquisition: demand and supply

When the reasons result from changing demand, the other languages will have some property which makes them seem superior to the dis-favored language, usually through association with some high-prestige group, wealthier or more powerful, more trendy or more politically correct. In most cases today, the initiative for change seems to come in this way from the learners; but in others – for example, in the common colonial practice of sending indigenous children to boarding schools – it may have been imposed on them by inculcation of a new language, while the traditional language is physically discouraged: in a sense, the supply of that language has been constricted.

Language maintenance, then, can be thought of as the survival of a language in a situation where it might be expected to be endangered. As Fishman (1997: 87) points out, the issue of how language maintenance is to be secured is curiously difficult to characterize, since its practical content depends crucially on the kind of threat that a language is facing, or its degree of advancement. Likewise, it is difficult to advise people on how to keep healthy, without knowing where they live, how old they are,

etc. But nonetheless, there are some guidelines on nutrition, hygiene, exercise, etc. which conduce to a healthy life anywhere. Are there similarly any properties or practices of communities that can be seen to have kept, and be keeping, their traditional language use vigorous?

As it happens, there has been a natural experimental laboratory in language survival in a place that is particularly accessible for study, namely the advent of immigrants to the USA over the eighteenth to twentieth centuries. This was examined in essays in Fishman (1966), especially those by Heinz Kloss and by Nathan Glazer. Their results are highly ambiguous, even ambivalent. A large number of candidate factors are identified, such as early settlement (i.e. before the predominance of English was established), degree of sociocultural isolation or difference (often caused by religious separatism), the internal structure of the immigrant community (e.g. presence of a highly educated professional class, tradition of bilingualism), their absolute numbers, the degree of pressure to conform from the outside, the previous experience, and hence practical know-how, of a community in defending its language against outside influence. But none of these supports any clear, determinative model. All factors can either have their presumed direct effect on language maintenance, or be recognized, and so counteracted, by an immigrant community. Even the apparently benign, non-constraining environment for settlers offered by the early United States and its frontier could either allow the growth of autonomous language communities, or (and this was the predominant effect) encourage assimilation to Anglo-American norms and language. In looking for a determinant of actual outcomes, it appears that one must abstract from these objective facts, and look rather to imponderables, above all to the degree of morale and social will to remember traditions and sustain an identity.²

18.2.2â Generalizations about language maintenance

Some generalizations do emerge, although these are not sufficient to provide predictive power.

One concerns timing. Naïve populations can easily underestimate the degree of threat there is to the survival of their language: adults tend to focus on the use made of the language among their peers and elders, and fail to notice that the next generation's linguistic behavior, or linguistic loyalties, are changing. This leads to the common observation that the perception of a problem in language maintenance comes one generation too late to address it.

A second generalization concerns effective means to maintain a language. In the absence of effective isolation (i.e. given that language contact is inevitable), success can only be achieved through a dynamic, interactive response to the presence of other languages: not to deny their presence, attractions, and likely utility to members of the endangered

language community, but to work out a mode of coexistence which focuses on the value of the traditional language, the clear problems in perpetuating it, and the plausible—and perhaps non-traditional—means that may be needed to go on using it. Purism—the refusal to accept mixtures of the old language with new influences—is a natural, defensive reaction by traditional speakers, but it is usually counterproductive in modern conditions. To take an analogy with epidemiology, we have to develop antibodies to the influence of an outside language, not subject it to antibiotics.

third generalization concerns long-term realism. Language maintenance is not a problem for a single generation, a single campaign to be fought, and either won or lost. Where languages coexist, it is a struggle that will continue indefinitely into the future. As shown in the British Isles by English and its Celtic neighbors, principally Welsh and Gaelic, different eras will find different (temporary) resolutions.

English has been in contact with these languages since the fifth century AD, largely spreading at their expense. But the Statute of Kilkenny (1366) shows that English was then perceived as the language needing protection in Ireland, and the Act of Union (1536) that widespread use of Welsh was once seen as a danger to the English power. The Celtic languages declined in use—though on an unsteady course—in the subsequent centuries, apparently in gradual recognition of the dominance of the English and their language, but in the twentieth century many have staged an (as yet uncertain) recovery. The future is open, but will undoubtedly be contentious.

18.2.3â Institutions that support language maintenance

Fourthly, there are a number of linguistic institutions, some ancient, some very modern innovations, which are assets to a language tradition, and will always be positive for its survival and (potentially) its well-being. One key institution is literature. McKenna Brown (2002: 1) puts it like this:

literature, both in spoken and written forms, is a key crossover point between the life of a language and the lives of its speakers. Literature gives a language prestige: and knowledge of the literature enriches a language's utility for its speakers. Both act to build the loyalty of speakers to their own language. All these effects then reinforce one another in a virtuous circle.

Literary works, in this sense, may be metrical or in prose, with or without accompanying music or other non-linguistic action such as dance or ritual. Knowledge of a language's literature—what Bloomfield (1933: 21–22) called its “beautiful or otherwise noticeable utterances”—becomes useful as a guarantee of the value of the language. These particular concrete

uses hallowed by tradition are much more accessible, and usually more honored, than the language's abstract resources as such, its grammar and lexicon – although in fact, it is knowledge and use of these latter which must somehow continue if the language itself is to survive.³ Seen or remembered as valuable in themselves, literary monuments also serve as reminders of good style in the language, and give speakers a distinctive sense of authenticity, which does not arise from simple translations of other literatures into the language. (See, e.g., Ahlers 2002 for authenticity in Hupa.)

Beyond the remembered existence and, ideally, widespread knowledge of a literature, defenses against the inroads of other languages include literacy, broadcasting, the use of information technology, and (potentially, mostly in the future) the development of language technologies for the language in question.

Introducing literacy is widely seen as a necessary first step in maintaining and promoting use of a language. In fact, it may serve a useful purpose even before the skill becomes widespread in the language community, since some orthography is an essential preliminary for the creation of grammars, dictionaries, and teaching materials; it can also serve the preservation of traditional oral literature where younger generations lack the patience to learn texts orally.

There may, unfortunately, be cultural barriers to, or indeed negative consequences from, the widespread introduction of literacy. The Gauls of the first century BC, famously, refused to let any of their Druids' sacred information be written down (Julius Caesar, *De bello Gallico* vi.15) – and indeed it is all now lost. Even if the community appears open to this major cultural revolution, the presence of literacy may well overturn power relationships within it, typically in favor of younger learners. Literacy is often provided, in practice, by missionary organizations, who are not neutral about what texts should be available to the new readers, the aim being to provide access to a set of translated texts from the missionaries' own tradition.

But literacy is everywhere the inescapable basis for administration and bureaucracy. In a modern context, no community hoping to control its own fate (including the future of its language) can afford to do without it.

Broadcasting – like many of the sound- and video-recording media which became available in the twentieth century – appears to have the advantage of short-circuiting the necessary analysis of a language which will underlie providing it with an orthography and literacy. Every speaker of a language can benefit immediately from access to broadcast media, without special training – though they will require special equipment, if only a transistor radio. It certainly can play an important role in raising the profile, and the prestige, of a language – and also its practical importance as a long-distance means of communication. In practice, it is a capital-intensive asset for a language, which will require massive

investment, and quite likely government toleration, if not actual government funding.⁴

Going beyond broadcasting, we can consider serious electronic processing of a language at all levels, from e-mail, word-processing and spell-checking through to machine translation and speech analysis. These services are not fully provided for even the most technically advanced language cultures; nevertheless, there is no reason in principle—only in funding—why they cannot be provided for any language at all. Just as Max Weinreich once remarked that a language is a dialect with an army and a navy, nowadays a language is a dialect with a dictionary, grammar, parser, and a multi-million-word corpus of texts, which are computer tractable, and ideally a speech database too.

18.3â Language shift

Language shift is in some sense the complement of language maintenance: it is what happens when a language is not maintained. A community who had spoken language A come to speak language B. By the same analogy from epidemiology used above, it corresponds to disease, or a range of possible diseases; and as such it is easier to characterize, analyze, and explain than the steady state which it subverts, the conditions under which language A simply continues to be spoken where it has been. Above all, the cause of language shift is clear: it can only result from language contact, although it is by no means necessary that language contact will always give rise to language shift.

18.3.1â Channels of language shift

The progression of a language into a new setting is traditionally characterized as occurring by *migration*, *infiltration*, or *diffusion*, depending on whether a whole speech community moves to a new location; some speakers go to live among another community, bringing their language with them; or speakers of the language somehow cause others to pick it up. This trichotomy in fact marks points on a continuum between language shift which is wholly due to the movement of a population and shift which is due to a new population coming to learn it. As a concrete example, one could cite some of the varied ways that English spread round the world from the seventeenth to twentieth centuries. Into North America it spread by migration, since the English colonies simply displaced the previous inhabitants. Into South Africa it spread by infiltration, English colonies being set up separately but interacting with others, and subsequently merging in a multilingual community with Afrikaans. And into India it spread by diffusion, given the tiny number of English-speakers resident there

during the Raj, via the systems of English education that were deliberately established by them.

All of these channels have been made easier, and more frequent, as a result of technical progress. Modern transportation systems have made global migration on their own initiative feasible for families and individuals, and has led to migration into European metropolitan countries from many of the countries which had been (temporarily) their colonies, and so previously the recipients of European settlers. (These reverse flows were not foreseen in the heyday of the empires, and it remains to be seen what their long-term linguistic effects will be.) Electronic communication systems of various kinds, often referred to as “globalized media,” mean that diffusion of languages is now possible with little or no presence of their speakers. The transportation and communication also serves to keep the new migrants in regular contact with their original communities, which may sustain their original languages in their new environments, possibly making infiltration more likely in the medium or long terms.

18.3.2 Scales of language shift

These three channels can all contribute to language shift on vastly differing scales. On the mass scale, migration can involve whole populations on the move, as when four Gaulish tribes moved into Anatolia ca. 270 BC, settling in the Ankara area to form the Galatian community, and keeping their language (according to St. Jerome’s report) at least until the fifth century AD. Migrations can equally be encompassed by many small moves, for example the continual emigration of small parties of English-speakers to North America from the sixteenth century. (The movement of Spaniards to what would become Latin America, and the French to Canada, are better characterized as infiltrations, since the immigrants tended to come as individuals and often founded mestizo families with local wives, as per Ostler 2005: 343–44; 412–15.)

Likewise, mass diffusion of languages is now being supported by mass media of all kinds, whereas traditionally a new language would have to be taught to one speaker at a time—or at most to one class of pupils. Mass infiltration can be arranged too. Like Rome planting its colonies of Latin-speaking army veterans in new provinces, the Inca empire used to organize *mitmaq* ‘transplants’ both inward and outward, to seed knowledge of their language, Quechua, in its conquests. As Father Blas Valera said, quoted by Inca Garcilaso, *Commentarios Reales*, Part I, vii.3:

The Inca kings, from antiquity, as soon as they subjected any kingdom or province, would ... order their vassals to learn the courtly language of Cuzco and to teach it to their children. And to make sure that this command was not vain, they would give them Indians native to Cuzco to teach them the language and the customs of the court. To whom, in

such provinces and villages, they would give houses, lands and estates so that, naturalizing themselves there, they should become perpetual teachers and their children after them.

Those kings also sent the heirs of the lords of the vassals to be educated at the court and reside there until they came into their inheritance ... Whenever they returned to their lands they took something they had learnt of the courtly language, and spoke it with such pride among their own people, as the language of people they felt to be divine, that they caused such envy that the rest would desire and strive to learn it ... In this manner, with sweetness and ease, without the particular effort of schoolmasters, they learnt and spoke the *lingua general* of Cuzco in the domain of little less than 1,300 leagues' [4,000 km] extent which those kings had won.

These infiltrations, both by the Romans and the Incas, ultimately led to language shift – the total obliteration of many of the original languages of the conquered.

On the smallest scale, individuals can immigrate individually, or get into learning contact with speakers of another language. It is notable, though, that the smaller or less concentrated the group that has moved or that comes into language-learning contact, the more likely it is that the migrant or language-contactor will lose his or her own language and adopt that of the target community. Languages are social entities, and without an ambient society, their speakers lose the memory, and often the will, to go on speaking them.

This “majority/minority” effect has had some paradoxical results, totally overwhelming the presumed tendency – and interest – of conquered populations to adopt the language of their conquerors. The Goths and other Germanic tribes who took possession of the western Roman Empire in the fifth century AD retained their own languages for a couple of centuries thereafter but never passed them on to the settled Latin-speaking population, who probably outnumbered them by over 40 to 1 (Ostler 2007: 134–35). Neither has the sedentary and vast population of China shown any tendency to adopt any language of the much smaller barbarian forces which have repeatedly gained control of much or all of the country – the Huns and Tabgach in the fourth century, the Khitan in the tenth, the Jurchen in the eleventh, Mongols in the thirteenth. Most recently, the Manchu ruled the whole country from the mid seventeenth to early twentieth centuries, though outnumbered by a factor of fifty. Despite their declared intent to use the Manchu language as the medium of government, the bizarre net effect was to expunge use of it utterly from all classes of society – even from Manchuria. The only remnant of Manchurian is in the extreme northwest, where a community, originally of border guards, the Xibo, has been able to retain some coherence in isolation from the rest of the country. (On relative population density in China and other major empires, see Ostler 2005: 152–53.)

The migrations which bring about language shift are not special: they can be the results of any human motivation that brings population movement. Nomadism and military raiding may be among the earliest motives: the Celts, for example, whose languages dominated Western Europe for most of the first millennium BC, were the first Iron Age cul-ture in Europe, and presumably used this to press home their advantage. Advances of whole peoples could be in the form of mass migrations, or more modern-seeming armed assaults, with a disciplined army (such as the Assyrian, or the Roman) preparing the way for organized civilian settlements. Sometimes a mass movement could be more like a mili-tant gathering of refugees, as when the Goths invaded the Balkan prov-inces of the Roman Empire in the fifth century to escape from Attila's advancing Huns marauding in their rear. Another example is that of the Magyars entering modern Hungary in the tenth century, looking for relief from the Pecheneg Turks to the east, and prepared to fight for a place to stand.

Migrants can have utopian motives (notably present among the Pilgrim Fathers entering the Massachusetts colonies in the seventeenth century), or more mixed ones, combining hope for newfound wealth with sup-posed missionary zeal to save the souls of the "benighted savages" whom they might encounter on the way. This heady mix of doing well and doing good seems to have animated Spanish adventurers' incursions into the Americas in the sixteenth century, as well as the more trade-oriented endeavors of the Portuguese around the shores of the Indian Ocean.

But these motives are not always found in combination. Economic motives alone were enough to propel English and French speakers into the Caribbean. Those relatively few who went to settle there, predom-inantly to grow sugar cane, effectively infiltrated their languages into these islands, and the amplifying effect of the vast gangs of slaves who were acquired to do the real work— and who lost their own languages in the process— has resulted in the spread of English and French (and cre-oles thereof) until all others were extinguished there. On the other side of the world, religious motives may have had a freer hand, as Christian missionaries of the nineteenth century infiltrated these same two lan-guages onto the remotest of Pacific Islands. They are widely used there to this day as auxiliary languages (likewise in company with recent cre-olized forms), but the absence of slavery— and perhaps the lesser cogency of economic interests— has meant that the indigenous languages have only been supplemented, not replaced.

18.3.3â Motives for language shift by individuals

Besides the variety of the motives which have brought groups of speak-ers, and hence languages, into contact with one another, there is more commonality in speakers' motives for learning other languages when

brought to them. (This, of course, is the essential mechanism of language diffusion.) The basic options are *cohabitation*, leading to the creation of bilingual families, and *recruitment*. The recruitment can be into any new employment, but often into the army of the newly dominant power. Both cohabitation and recruitment provide environments in which new languages are rapidly and effectively learnt, largely without conscious instruction.

Cohabitation seems to have predominated in the spread of Spanish in the New World, with considerable *mestizaje*, mixed families, from the very beginning. Adventurers came out to make their fortunes there, and settled down; their wives and concubines became the first local learners of Spanish. Combined with informal contact among the young,⁵ this is the primary “natural” environment for the spread of competence in a language. Recruitment, by contrast, had been the Roman way, as young men from all over the empire were taken into the army, thrown together with other Latin-speakers and commanded in Latin, and pensioned off at the end of their active service in newly established Latin-speaking colonies; there they would bring up families, and through cohabitation pass the new language on to the next generation.

18.3.4 The role of language teaching in shift

In the case of Latin as a written language, this natural method of transmission was supplemented, and ultimately replaced, by explicit instruction in the schoolroom. (The result of this was diglossia in the Western European world: language change was suppressed in the written language, and so the use of Latin was preserved, while it continued unabated in the speech of the largely illiterate populace, so creating the Romance languages.) In the European lands, Latin was (beside Greek in the East) for over fifteen centuries the only language that was taught formally in this way; hence until the sixteenth century, explicit and for-

mal language teaching can essentially be discounted as a mechanism for language spread.

Even in subsequent centuries, and latterly with the worldwide spread of mass education, it is doubtful if language teaching has had a crucial influence in favor of language shift as such. Language teaching in the schools has certainly contributed to the spread of auxiliary languages, mostly used for wider communication than the mother tongue, and in some parts of the world, these languages – sometimes called Metropolitan Languages – have become threats to the survival of local languages, replacing their use in all contexts. But where this has happened (e.g. English in North America and Australia, Spanish and Portuguese in South America, Russian in North Asia), the spread has largely predated the widespread provision of schools, and hence of language teaching in them. Nevertheless, it is likely that teaching of such languages in schools

has acted at the margin to reinforce the prestige of these metropolitan languages at the expense of the students' (or their parents') mother tongues. But more significant will have been insistence on their use there, and active discouragement of speaking in other mother tongues, driving out even restricted uses of the latter.

In these cases, there was clear intent at high levels that bilingualism should only be transitional, that is, that acquisition of the new language should replace competence in the old one. But there is no necessity that this should happen when a new language is acquired, bilingualism being a natural state of human beings, and arguably having always been the majority option in the world as a whole. As a clear example, the learning of foreign languages in modern Europe is widespread, almost universal: but the languages learnt do not replace the learner's competence in their mother tongue. By contrast, in many colonial contexts, learning the metropolitan language was seen as a gateway—implicitly a one-way transition—to a new form of society. Language shift—the replacement of one competence by another—betokens a social choice of some kind, namely that speakers aspire for themselves—or are compelled by others—to con-sort with a new set of people distinct from their home or birth community. Rather than a simple opening of new, additional, opportunity, there is an implicit prohibition on the continuance of an old association.

18.4 Language endangerment

Looking at this from the viewpoint of any of the languages being left behind, the transition is seen less as education, and more as a gratuitous loss of an old society, and possibly of the old patterns of thought and action that it gave rise to. Those who do not acquire the new aspirants' language will increasingly be abandoned, with nobody to talk to. Their language, and its worldview, is said to be “endangered.”

18.4.1 The historical background

The phenomenon of widespread language endangerment, and indeed its fulfillment in widespread language extinction, is not unprecedented. Nor has it been uncommon in the past. Our present understanding of the long-term linguistic demography of the human race, as agricultural, technical, military, religious, and economic developments led worldwide to population movements, new cultural contacts, conquests, and indeed epidemics, suggests that there have been at least three previous periods when the rate of language shift has risen, and the number of languages in the world fallen markedly. (For the full story in brief, see Nettle 1999: 100–12, and Nettle & Romaine 2000: 104–32; also Pagel 2000.)

The first—and hitherto most devastating—of these was the Neolithic revolution, the spread of farming (and often herding) from perhaps seven different centers (West Asia, China, New Guinea, sub-Saharan West Africa, Mesoamerica, Amazonia, and the Great Lakes of North America), which struck in different parts of the world between 9000 and 3000 BC. These led to vast increases in human fertility (estimated at a hundred-fold) and a spread of burgeoning populations—especially, as it turned out in Eurasia and central-southern Africa; one consequence was the spread of certain languages at the expense of those of their hunter-gatherer neighbors. These spreading languages are the ancestors of many of the world’s currently vast language families (Sino-Tibetan, Austro-Asiatic, Semitic, Bantu, Dravidian). They must have replaced many pre-existing languages of hunter-gatherers, since all regions had already long had a human population with language.⁶

The second period when language shift was rife, and hence numbers of languages fell, was in historic times (broadly, from 3000 BC to AD 1500), when there were two types of spread. Both relied on the accumulation of surpluses in some agricultural or herding communities, resources which were then invested in “the oldest labor-saving device,” main force aimed at robbery, manifested as armies and weaponry. What was spread by this new trend was not a means of subsistence. Instead, dominance came either through simple use of new technologies (typically metal-foundry for weapons, but also horse-training and wheeled vehicles) to support direct looting; or by reinforcing this with centralized control and hence long-term revenue-gathering power.

The former approach led to self-appointed aristocracies, imposing themselves on rural populations, and over time imposing their languages on them, by so-called “elite dominance.” The latter approach led to large and growing empires, which—especially if they also distributed colonists from the growing centers—tended also to spread their languages among the populations they vanquished. Among the languages spread by the former groups are the Celtic, Germanic, and Slavonic languages of Europe (as well as, most recently, Magyar Hungarian), Iranian, Indo-Aryan, Tocharian and Turkic of Asia, and possibly Berber of Africa and Maya of America. The latter groups included Babylonians and Assyrians (spreading Akkadian, and later Aramaic), Hittites, Phrygians, Lydians, Greeks, Romans (with Latin), Arabs, Chinese and Tibetans, Russians (in Siberia), Incas (with Aymara, and later Quechua) and Aztecs (with Nahuatl).

It is hard to know how many, and which, smaller languages were sub-merged by these various empires. Easiest to assess is the Romans’ effect in Europe, where it is calculated that from 100 BC to AD 400 the count of languages within the empire fell from sixty to twelve, and outside Africa and the Greek-dominant east, from thirty to just four: Latin, Welsh, Basque, and Albanian (Dalby 2002: 46).

In some areas, the net loss of languages may not have been that great, since in West Asia the same areas were continually being claimed for different empires: Asia Minor, in particular, once home to its own Anatolian family of languages, notably Lydian and Hittite, probably lost most of its linguistic diversity through spread of Greek in the centuries after Alexander's conquest (323 BC), only to be gradually re-seeded with Turkish after the Greek defeat at Manzikert (1071); Mesopotamia like-wise switched its monolingualism from Akkadian to Aramaic (around the ninth century BC), and from Aramaic to Arabic (after the seventh century AD).

After 1500 begins the third period of threat to the world's languages, arising from the global penetration of European empires. This extended to the beginning of the twentieth century. Given the new feasibility of sea-bound exploration and invasion, and the excess population of Europeans ready to migrate wherever they could thrive with cheaper resources in an equable climate, the result was the export of some few European languages (Spanish, Portuguese, French, English, and Dutch) to many temperate zones of the world (North America, the southern cone of South America, South Africa, Hawai'i, Australia, and New Zealand). European political power was, of course, more widely spread than this, but only in the temperate zones was there massive European immigration (often accompanied by devastating epidemics to which they themselves were largely immune), meaning that previous inhabitants (and their languages) were effectively swept aside. This was language shift by migration, with a vengeance.

This brings us essentially to the present day. In the nineteenth and twentieth centuries, European imperialism was discontinued, even if large-scale settlements of Europeans (with their language effects) remained in place. However, in this period, a new cause of language endangerment has become prominent: this is largely driven by the aspirations of populations who become aware of the higher wealth and security on the whole possessed by the speakers of metropolitan languages, chiefly European languages that have spread in the period of colonial empires, but also, for example, Hausa and Swahili in Africa, Tagalog in the Philippines, and Tok Pisin in Papua New Guinea. The evident differentials in wealth and status are emphasized by the cultural products of the attractive languages, which are now effectively beamed by broadcasting and other electronic communications into every corner of the world. By association—and sometimes by national policy—often both based on an inferred causal link from this world of international languages to the attainment of affluence, small populations of language users attempt change to the languages perceived as big and successful.

This tendency seems to be present in most parts of the world, going far beyond the areas where European power was dominant. As well as a positive attitude to big languages, there may also be a correspondingly

negative attitude to smaller, domestic languages, seen as conducive to poverty and disrespect. It might be claimed, then, that just as the prime danger to languages before the twentieth century was through migration, the danger is now of language shift through diffusion, as rising generations aspire to learn as first languages tongues which had been no more than languages of wider communication for their parents, and often actively to avoid use of their (parents') indigenous languages.

In the present era it is, above all, language attitudes, not population movements or competition in lifestyle and economy, which endanger smaller language communities. Often, the traditional language is simply not spoken to the rising generation, giving them no chance to acquire it; but in many other cases, children brought up bilingually do not actively use the traditional language.

18.4.2â The value of a language

Nevertheless, this disrespectful attitude to minority languages is now, in many parts of the world, itself coming to seem rather old-fashioned. The languages are increasingly seen as having value in themselves, and the loss of an active language tradition is therefore seen as painful, to be avoided if at all possible. The reasons given for this value judgment are of three kinds: the value of the language as a unique instance of a language type; the value of the knowledge that has long been expressed in the language; and the value of the continuing use of the language to support (at least some) functions or domains of human life.

The value of the *language in itself*, as a unique member of the set of human languages, is primarily a matter for scientists, specifically theoretical linguists, who nowadays view each known language as a unique existence proof in linguistic typology. Each new language – and indeed dialect – exhibits a structure that has been created unconsciously by a social tradition of human beings, and is therefore learnable without instruction by a maturing human mind. Examining it must in principle throw light on the potential plasticity of the human mind. Furthermore, since all languages make infinite use of finite means, it is in principle not easy, and perhaps impossible, to exhaust the range of new knowledge about the mind that any single language can give. The indefinite conservation of any language, as a naturally evolved system, is therefore desirable on scientific grounds alone.

Besides this value of the linguistic structure and substance of a language, every language has inevitably been used over centuries, and often millennia, to express and communicate a vast body of knowledge and experience. This is the *language's knowledge base*. It is a commonplace of linguistic history, as observed, that the loss of a language (even when it occurs through language shift, with another language succeeding it)

leads to failures in the transmission of such cultural knowledge – which may include unique, practical knowledge about fauna, flora, and the environment. This is a further scientific reason to conserve language traditions, if at all possible, although the logic of the precautionary principle actually supports the retention of the whole cultural framework of which the language is part.

Thirdly, the continuation of this cultural framework, with language very much included, has a special value to the inheritors of the tradition that has created it, above and beyond the value of its content to the human race as such. This we may call the value of the *language in use*. It includes the language's role as a marker of ethnic identity, but also the sheer positive effects on morale of the sense of being a member of a living tradition. This *esprit de corps* at the level of a language community is invaluable to its survival as a community, but it may be undervalued when the community experiences sustained pressure, to its sense of security, its living standards, or most importantly, to its self-esteem.

These three measures of the value of a language call for two main different types of policies to protect them, documentation and revitalization. Documentation is about the making and keeping of permanent records on what the language has produced – in effect, language archives. This work diminishes the risk of depending on living traditions which have ever slimmer chances of being reproduced into the next generation. It is a kind of insurance policy against the breakdown of oral transmission. Revitalization is more fundamental, and as such harder to achieve, since it needs to find means to arrest and reverse the decline of language tradition, forming a new basis for its vitality into the future. It requires a combination of linguistic analysis, education, social work, economic management, and quite likely politics too.

Although documentation is primarily relevant to preserving knowledge of past facts, and revitalization to prolonging use, each is in fact relevant to all three language values. The materials provided by documentation may be applied as content for future taught courses in the language, practical dictionaries, etc., and so make an essential, if indirect, contribution to revitalization; meanwhile revitalization, to the extent that it is successful, lengthens the time that is available for language documentation, increasing the number of informants, and possibly (by creating new experts) deepening the knowledge that is available to be documented. Finally, the language knowledge base is nothing more nor less than the language community's cultural corpus. As members of a community communicate with one another in any non-transitory form, they will be contributing to its documentation; and language revitalization is just the process of passing on competence in this knowledge base, in its fullest sense.

18.4.3â Language documentation

As used here, language documentation includes all potentially permanent recording of a language. Traditionally— for the last 5,000 years— the only explicit way to do this was in written form, although mnemonic techniques, pictures, and oral literature will have fulfilled some of this purpose before writing became available— and it is arguable that the founding texts of Greek literature (the *Iliad* and *Odyssey*), as well as of Sanskrit grammar (Panini’s highly formalized *Ashthadhyayi*), record oral texts. (The practice of archiving written records is almost as old as writing itself, and to it we owe much of our present knowledge of long extinct languages, such as Sumerian, Akkadian, Hittite, Elamite, Tangut, Tocharian, Mayan, Mycenaean Greek.) Only in the late nineteenth century were means found to record speech (and other audio) in a form that did not need human mediation to interpret, and in the twentieth still and motion photography were added. Current documentation practice encourages use of all these, usually recorded in a common digital format.

If language documentation is deemed necessary and desirable for a language, it is likely that its community is not (yet) literate in the language. In this case, it is also likely that the initiative to undertake documentation will have come from outside the community, and the work will require interaction between members of the community who still have a command of the language and outside experts, primarily linguists. This in turn implies that negotiations will be desirable to ensure that the work goes forward with the support of the community as a whole, support that is usually mediated through some official or traditional political representatives. There is therefore a requirement for ethical guidelines to govern the terms of any such agreement. Such guidelines are likely to include safeguards against the public disclosure of private or sensitive information (as these are locally defined), and terms of use, access and ownership rights for resulting documents of the language. The smaller the community, the more sensitive and personal these negotiations may be.

The technical task of recording data in the language is distinct from the task of lodging it with an archive, or archives, where the data will be held safely and on some clear terms of accessibility; and it is distinct again from the task of publishing the data, or (more likely) some selected sections of it. In the field of publishing, there may be some conflicts of interest between the recording expert (looking for details of scientific interest) and the home community (looking for materials that can be used directly to convey knowledge of the language or its culture within the community).

Traditionally (e.g. in the “Americanist” tradition of linguistic fieldwork of the first half of the twentieth century), language documentation was expected to aim at producing the “Holy Trinity” of grammar, (bilingual)

dictionary, and corpus of texts. These are still necessary, the first two because they tackle the fundamental problem of size in language: how to represent the essence of the potentially infinite range of a language in a finite space? The answer (first understood in its generality by the Spanish missionaries tasked to learn and teach the languages of Mexico in the early sixteenth century) is to provide a set of grammatical rules, and a list of words with translations into a more familiar language. A corpus of (written or dictated) texts is now seen as just one part of a variety of spontaneous and prepared linguistic performances, which can be provided with simultaneous transcription, analysis, and translation. In this way, a far wider range of types of use of the language can be captured.

There is now an extended set of guidelines for “best practice” in attempting to provide documentation of a language. Given the inevitable idiosyncrasy of individual languages, which may call for variety in representation, the guidelines are most explicit for the archiving format, which should enable third-party outsiders to find their way to, and then around, the data. In the last decade, a variety of funding sources have become available for language documentation.⁷

18.4.4 Language revitalization

Revitalization means bringing a language back to renewed life. Some dismiss it outright, claiming that the life and death of languages is a matter of social forces beyond conscious human control, or else reject it on ethical grounds, claiming that it is wrong to attempt social engineering to change the clear, if implicit, social choice of individuals who abandon a language—either as potential teachers or learners.

However, outright dismissal is hard to sustain after some prominent successes: notably, the resurrection in the twentieth century of spoken Hebrew across the whole spectrum of a society in Israel, and the recent changing trends in speaker numbers after active policies have been adopted in countries such as Wales for Welsh, New Zealand for Māori, or Hawai’i for Hawaiian.

Any ethical case against revitalization is complicated by the fact that languages are sustained, if at all, by communities not individuals, so group rights and preferences, always susceptible to dispute, may need to be weighed against individual rights and preferences. Even on the individual level, there are precautionary reasons for a bias in favor of retention (and hence attempts at revitalization): although one generation—or age group—may choose to abandon a language, this will naturally deny access to the language to a later generation—or even the same people, later in their lives—who may wish to sustain the language but find it is now much harder, or impossible, to do so. This tends to bias in favor of sustaining support for a language, in the interests of those who may later adopt it. By contrast, any individual is free to abandon the language

at any time after attending (compulsory) education in it, losing only the time that they have invested in learning it.

The crucial aim of revitalization is to act positively on the process of transmission of a language from one generation to the next. This is done most directly through the institution of “language nests,” where speakers of the language are given a special role in the care of the young. Since this usually takes place when the language is already failing in transmission, the speakers are likely to be much older than the parents of the children. Effectively, there is a “missing generation,” the young adults, who miss out on the language. However, this is only one means of revitalizing a language, if a highly effective one. More orthodox language teaching—based probably on the results of prior language documentation—can be offered to any age group. Like all adult language education, its effectiveness will be highly dependent on the motivation of the learners to acquire and maintain use of the language.

This, however, is all about cohabitation as a means of language shift or retention. Fully effective transmission will not be assured until this re-grown ability in the language is taken up and “recruited” into active adult use in communities. For this to happen, all, or at least some substantial, domains of use for the language in adult life will have to be created or reinstated. There will have to be use of the language in the worlds of modern, as well as traditional, work, the media (at least radio, the press, and the Internet), literature, sport and leisure activities. Putting new life into your language effectively means making sure that the language is used throughout your new life. Revitalization, in practice, always requires supplementing the traditional uses of the language, not just reinstating them or re-emphasizing them. This is why purism alone—although a very common reaction among remaining fluent speakers—is an inadequate response, and a damaging one if it discourages learners who are at an early stage: language survival will require finding new places for use of the language in what is everywhere a changing world.

Everywhere, cohabitation for language acquisition, followed by recruitment for effective language retention, will be essential if revitalization is to be successful. Other specifics can be defined only in the context of individual language situations.⁸ However, there are other general observations possible about the context in which revitalization policies can be developed.

Since 1995, a number of charities or non-governmental organizations have been established that aim at the protection and revitalization of endangered languages.⁹ These have promoted a new view of the situation by analogy with global concerns about wildlife endangerment. It is notable that the global density of languages, highest in the Tropics, and falling off in temperate zones, is broadly similar in pattern to the density of plant and animal species (Nettle 1999: 60–63). The organization

Terralingua (www.terralingua.org) is dedicated to explaining this coincidence as a direct causal nexus: “unity in bio-cultural diversity” as they call it.

At a level higher than the individual nation-state, there has been one initiative to set a standard for governments’ policies toward the support of potentially endangered languages with their domains. The Council of Europe adopted in 1992 a European Charter on Minority and Regional Languages, which enables and encourages states each to commit to a specific level of support for their indigenous languages. The Charter is flexible, in that it allows for different levels and modes of support to different languages, taking account of their histories and current status. But of the two levels of protection it recognizes, all must apply the lower level to qualifying languages; signatories may further declare that some languages will benefit from the higher level of protection. If so, states must agree to undertake at least thirty-five from a specified range of actions. So far (by June 2008), twenty-one of the forty-seven member states of the Council have ratified the Charter.¹⁰

Language maintenance, and where desired—revitalization has also become a concern of the United Nations Educational, Scientific and Cultural Organization (UNESCO). It first set 1993 as the year to save endangered languages and an International Symposium on Endangered Languages was held in November 1995 in Tokyo, Japan. An International Clearing House for Endangered Languages (ICHEL) was then established, intended as a library of endangered language knowledge (hence primarily a service to documentation), likewise in Tokyo. As from 2000 UNESCO has given international status to 21 February as Mother Language Day.¹¹ The Convention for Safeguarding Intangible Cultural Heritage, passed in 2003, explicitly recognizes “oral traditions and expressions, including language as a vehicle of the intangible cultural heritage” and has a focus on endangered languages. The year 2008 was designated International Year of Languages, with its emphasis “to promote and protect all languages, particularly endangered languages, in all individual and collective contexts.”

18.5â Conclusion: prospects for linguistic diversity

As noted above in section 18.4.1, the number of languages currently surviving in the world (between six and seven thousand) is of the same order of magnitude as that estimated for the number spoken just before the Neolithic farming revolution. It would seem, therefore, that there has been some gross constancy in the number of languages in the world over the past 10,000 years, with fission of languages among the larger populations to some extent compensating—by numbers at least—for all the small hunter-gather languages lost as the farmers spread out.

The evidence for an impending mass extinction of the world's languages comes not from longitudinal statistics defining language population trends (there are no such statistics), but from the population distribution of languages. The prediction that 50 percent or more of the world's languages will be lost in the present century¹² is based only on the fact that the median population of languages now is little more than 5,000, and that this number of speakers seems an insufficient basis for a language to continue in a steady state in the present socially churning conditions that prevail in the world. This is given credibility by the common observation of age structure in small language communities, with younger generations not acquiring the language, and so almost setting a timetable for its impending death.

Consider, for example, using the most recent SIL population figures (Gordon 2005: 15), the median number of speakers for languages in some major continental blocs:

| | |
|----------|---------|
| Europe | 220,000 |
| Africa | 25,391 |
| Asia | 10,171 |
| Americas | 2,000 |
| Pacific | 800 |

From this it is clear that the languages with these low numbers of speakers are predominantly found in Australia, the Pacific, North America, and South America. (But there are a fair number of such languages: 1,002 in the Americas, 1,310 in the Pacific, together accounting for 33.5 percent of the world total.) These are often spoken by communities whose traditional way of life has been disrupted by European colonists and business interests over the past few centuries. There is therefore a consistency of quantitative and qualitative predictors, even if one must make allowance for the fact that traditional hunter-gatherer communities have always been very small.

This long tale of very small language communities is ominous for the overall total of languages likely to survive the twenty-first century. Nevertheless, conscious enthusiasm for cultural identities associated with traditional languages has never been higher, and this is a worldwide trend. It is too early to write off world language diversity as a vanishing phenomenon.