Chapter 9: Language Death

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> ‘This study is based primarily on materials 1 collected in Carnarvon and Onslow . . . The corpus consists of vocabulary and sentences elicited from six speakers . . . I was unable to record any text material . . . The competence of the speakers I interviewed ranged from semi-speaker abilities through to limited fluency. All speakers had knowledge of some other languages of the area, and there are inconsistencies in the data which suggest interference. Other inconsistencies may result from the erosion of contrasts which may occur as a language dies, or which may reflect earlier dialect variation which can no longer be recognised by speakers. In any case, the quality of the data is not comparable with that which may be collected from the fluent speakers of fully viable languages, and the current analyses must be considered in this light.' (From a descriptive grammar of a language of western Australia, by Alan Deutsch, 1998, p. 9)
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> 'When we were buying, there's things we can't say in Gaelic, we'd have to say that in English.' (A comment by a speaker of Scottish Gaelic in Nova Scotia, quoted in 'Sociolinguistic~creativity: Cape Breton Gaelic's linguistic "tip"', by Elizabeth Mertz, 1989, p. 108)
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> 'me djéljtë nëkë fljásëm moré: pljákat sc cë jémi' ['we don't speak [Arvanitika] with the children: only with old folks like ourselves']. (A comment by an elderly woman about the dying variety of Albanian spoken in Greece, quoted in 'Skewed performance and full performance in language obsolescence', by Lukas D. Tsitsipis, 1989- p. 122)
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> 'White Thunder, a man round forty. speaks less English than Menomini, and that is a strong indictment, for his Menomini is atrocious. His vocabulary is small: his inflections are often barbarous: he constructs sentences on a few threadbare models. He may be said to speak no language tolerably. His case is not uncommon among younger men, even when they speak but little English. Perhaps it is due, in some indirect way, to the impact of the conquering language.' ('Literate and illiterate speech', by Leonard Bloomfield. 1970 [1927]. p. 154).
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> 'The language is of great importance to our tribe, and we must be careful about how we use it. Elders keep the words long but younger people chop them off, and this must stop, or the words will disappear entirely' (a comment by a Montana Salish tribal elder and prayer leader, at a ceremony in the Longhouse in St. Ignatius. MT. 26 July 1995)

Language death is as melancholy as its label, a culturally devastating loss to every speech community whose, language dies and a loss to the scholarly community too. Every loss of a language deprives us of a window into the human mind and the human spirit: every language that dies deprives us of a unique repository of human experience and thought. Loss of a language deprives its speech community of much more, because a large part of a culture must inevitably vanish with the language. Language death is not a modern phenomenon - historical records are littered with names and some times attestations of dead languages but current rates of language loss are alarmingly high, and are a matter of urgent concern to linguists as well as to speakers of endangered languages. In the next chapter we will look at language death from a worldwide perspective, and at some responses to the threat of language loss. This chapter, however, will be devoted to an examination of the linguistic processes through which

language death comes about. Its relevance to this book is obvious: language death is almost always a result of intensive language contact.

Defining language death

As usual, we need to begin with a definition. It seems at first glance as if defining language death ought to be trivially easy: a language must be dead when it no longer has any speakers. There are problems with this definition, though. For instance, what if only one person still has any practical knowledge of a dying language? Can we say that the language still lives'? Tricky: it lives in that person's head, in a sense, but it is not in use as a means of communication, because its one 'speaker' has nobody to speak it to. Can we say, then, that a language dies when it is no longer used as a means of regular communication'? This too is tricky. Most linguists would agree that Latin is a dead language, and yet it was the main language of international European diplomacy for centuries after it ceased to be spoken as a first language. Consider, too, the way in which Latin 'died': it never lost speakers. Instead, its speakers spread out through much of western Europe and, over several centuries, their speech diverged until they were speaking the several Romance languages, not Latin itself. By, the time Latin evolved into several separate languages, it had vanished as the primary language of any speech community; Old French is not Latin but a descendant of Latin, and likewise for the other early Romance languages. There was no moment at which the language people were speaking ceased to be Latin and became Italian, French, Spanish, Rumanian, and other Romance languages, so pinpointing the death of Latin is clearly impossible. (Some linguists. in fact, will disagree with the claim that Latin is a dead language, arguing that -like the dinosaurs that turned into birds Latin evolved instead of dying.)

A different set of problems arises when we try to settle on criteria for deciding what it means to be a speaker of a language. If we insist on full fluency, then many languages that are still spoken regularly within their traditional speech communities would have to be considered dead. And who gets to decide whether someone is fluent enough to count as a 'real' speaker or not? Someone who learned a few words of her grandparents' language would not be regarded by everyone as a speaker of the language, but she might regard herself as a speaker, and members of her community might (or might not) agree with her. Someone who knows some phrases and numerous words might be able to carry on conversations about certain topics in the language; is she a speaker? It's also easy to imagine a situation where the sole remaining speaker of a language does still use it - speaking it to a grandson, perhaps, who understands it but doesn't speak it (and who therefore responds in a different language). So even if we were to agree that a language is dead when no one uses it for communication, then, we would still have difficult decisions to make when classifying languages as dead or alive.

These are only some of the issues that complicate the task of determining the point of a language's death, and many or most of the issues are truly indeterminate: there is really no objective way of arriving at a definition that will satisfy everyone and work on all occasions. We can give a definition that will be generally useful, but it won't cover all the possibilities. Here it is: a language dies when it ceases to be used for any purposes of regular spoken communication within a speech community. Old English and Middle English are both dead, because no one has spoken them for centuries. Latin died when it stopped being the regular language of any speech community (because it turned into the Romance languages), although it survived as a spoken lingua franca among educated people for a long time afterward. Pidgins pose a problem for this definition: they must surely be considered living languages as long as they continue in use, but they fit the definition only if we use a rather elastic concept of 'speech community'; and if we do that, it's hard to exclude Latin.

Hebrew presents yet another set of analytic problems. It is the most famous example to date of language revival: according to the usual view, it was dead for many centuries and was

then revived in modern Israel, where it is now the nation's main spoken language. The question is, was it ever really dead, or did it live throughout the centuries of exile? As the language of a major religion, it was always learned for religious purposes, and it was even spoken regularly in certain formal religious contexts, but it wasn't used for ordinary everyday communication within any speech community. Instead, Jewish people in Europe ordinarily spoke Yiddish and other Jewish languages, and or the language(s) of the countries they lived in. Everyone will acknowledge that Hebrew entered into vigorous life when it became a widely spoken everyday language after two thousand years of very restricted usage. But not everyone will agree that it ever died at all, because it did continue in regular, though limited, use.

Still, in spite of the various problematic cases, the phenomenon of language death is usually easy enough to recognize. No one studies Latin as a case of language death; the cases people study are those in which a once viable language loses ground to a dominant language until finally it is no longer a fully functional living language. A typical example is the case of Yingkarta, which is featured in a quotation from Alan Dench's grammatical description at the beginning of the chapter. The difficulties reported by Dench plague many, many fieldworkers who investigate dying languages.

A theoretical framework

A comprehensive theoretical model of language death was proposed in 1992 by Hans-Jürgen Sasse, based primarily on the information available in two exceptionally detailed case studies: his own long-term study of the dying Arvanitika variety of Albanian, spoken in Greece, and Nancy Dorian's longterm case study of East Sutherland Scottish Gaelic. He does not claim that his model is valid for all cases of language death, but rather urges that other cases be compared with these two in light of the model's predictions.

Sasse summarizes his model schematically in a flow chart with three interacting columns: the external setting, the speech behavior of the dying language's speakers, and the structural consequences in the dying language. His schema does not specify a majority/minority relationship between two language groups in contact, but I'll assume that for convenience here (since it's the most likely relationship). The First, or external setting, column is headed by a reference to `historical events which lead to uneven distribution of languages in multilingual setting': this in turn leads to pressure on the minority population, and then a negative attitude toward the minority group's language develops, which ultimately culminates in a decision to abandon that language-to shift away from it to the language of the majority group. In the second, or speech behavior, column, the historical events of column one dictate restriction of the community's languages to different domains, and the analyst's task is to discover (in the words of the sociolinguist Joshua Fishman) `who speaks what language to whom and when'. This encourages increasing levels of bilingualism among members of the minority group (since they need the majority group's language for use in certain domains of daily life-as, for instance, in the quotation about having to use English instead of Cape Breton Gaelic for some purposes in Nova Scotia). Once the minority language is negatively stigmatized, its speakers develop still more competence in their other language. And as part of the decision to abandon their ethnic-heritage language, they are likely to avoid transmitting it to their children, resulting in a sharp break in transmission and at best incomplete acquisition of the language by the youngest generation. The quotation at the beginning of this chapter about Arvanitika being spoken only among 'old folks' exemplifies this step. At this point the majority's language is the entire community’s main language: the domains in which the minority language is used shrink further, until at last nobody uses it regularly for everyday communication. Community members may retain some residual knowledge of it in a few domains, for instance some lexicon for use in a secret language or for

group identification, or some formulaic sentences and texts for use in religious services. (In this brief description of the model, I am omitting mention of a few of the directional arrows in the flow chart.)

Sasse's first two columns provide a brief overview of the social processes that combine to trigger the linguistic consequences - his third column, the one of greatest interest for this chapter. The first step is loss of lexicon or, if the domains are new, a failure to develop lexicon for domains in which the majority group's language is used exclusively. Borrowing, Sasse predicts, will increase as time goes on and more speakers of the minority language become more fluent bilinguals in the majority language. Even while the minority language continues in regular use in its appropriate domains, Sasse says, it will keep acquiring more majority-language features and will also undergo structural simplification, losing linguistic features that are not replaced. Once transmission of the minority language to children is interrupted, the linguistic result is predicted to be 'pathological reduction in the speech of "semispeakers" (namely_ the children who fail to learn the minority language fully). At the final stage, if the minority language continues to fulfill emblematic religious or social functions, knowledge of it will likely be restricted to unanalyzed words and phrases. Sasse also predicts, however, that a variety of the majority language influenced by the minority group's original language will persist in the now monolingual community.

Sasse's theoretical model is extremely useful, because it makes explicit predictions about the course of language death. In the next section, we'll examine several linguistic routes to language death and consider whether they all fit neatly into Sasse's framework.

How do languages die?

Focusing on the linguistic effects of processes of language death raises a new set of complex issues. A perusal of the literature will reveal various predictions about the kinds of changes that do and do not happen in dying languages, and exceptions to most of the predictions. The typology of typologies at the beginning of Chapter 4 listed three routes to language death: attrition, grammatical replacement, and no change at all. Like most typologies, this one won't fit all cases, and even for the cases it does fit, it looks much neater than the actual dying languages do; still, it highlights an important set of distinctions in the linguistic correlates of language death. The typology is intended to characterize the dying language as a whole in its final stages, when there are still at least a few speakers but barring some drastic change in social circumstances - extinction is imminent. This 'moment' is of course an idealization, perhaps even more so than with most abstractions from the messiness of real-life language: dying languages notoriously display a continuum of' more and less lexical and structural deviation from the language state before the beginning of the slide toward death. As one might expect, a sharp break in transmission - when (another idealization) children suddenly stop learning the dying language as a first language - puts the younger generation at a great distance from the predecline language state; in such a case, treating the parents' version of the dying language and the children's version as a single language is of dubious validity. In fact, for some of the same reasons why a language like Tok Pisin or Jamaican Creole English cannot reasonably be claimed to be a variety of English, it doesn't seem to make much sense to claim the speech of the less proficient semi-speakers as the 'real' language: the semi-speakers have not learned the full language, just as the creators of (abrupt) pidgins and creoles, even if they wish to learn the full lexifier language, do not succeed in doing so. This observation reflects a strictly linguistic perspective, of course. From the community's perspective, as noted above, things may look very different. Here, though, the linguistic perspective will be adopted, and the typology will be treated as relevant for the last reasonably fluent speakers of the dying language. We'll look at each of the three categories of the typology in turn.

Before we begin our survey, a preliminary comment is in order. Throughout this chapter I'm assuming a general type of contact situation in which a dominant group's language is replacing that of a numerically and or socioeconomically subordinate group. Language shift is not confined to situations of this precise type. Nevertheless, since the focus here is on linguistic results, I will follow the bulk of the language-death literature in assuming this one context and so avoid getting into the intricacies of social conditions for language shift.

Attrition

As far as we can tell from the still small number of detailed case studies, this category is by far the most common linguistic route to language death, and it is the one that Sasse's model envisions. Attrition is a gradual process in which a language recedes as it loses speakers, domains, and ultimately structure; it is the loss of linguistic material that is not replaced by new material (for instance, by material borrowed from a dominant group's language). By the definition given at the beginning of Chapter 4, attrition is of course contact-induced change: any given change in attrition would be less likely to happen outside a particular contact situation.

First, as Sasse predicts, lexicon is lost when a language is excluded from domains where it used to be employed, such as religion. Lexicon is also lost when assimilation eliminates former cultural practices in the dying language's speech community. So, for instance, Montana Salish elders now have difficulty remembering certain words in the elaborate system of kinship terminology -- such as the term for one's son-in-law after the death of one's daughter - because the kinship system itself has eroded within the culture over the past few generations. And as knowledge of traditional uses of plants has faded within the Montana Salish community, current elders can no longer bring to mind the names of some plants and the terms for their former uses. Another aspect of attrition, this one perhaps universal, is shrinkage in the range of stylistic resources. In the Montana Salish community, storytelling in the tribe's language is no longer a common activity, so the traditional devices of oral performance have been lost; similarly, in the quotation at the beginning of the chapter about conducting fieldwork on Yingkarta, Alan Dench reports that he was unable to record any texts from his six consultants. Of course, lexical losses of these types can also be found in viable languages, because culture change is hardly confined to language death situations; to give just one of many obvious examples, most current English speakers have no knowledge of terminology for parts of horse harnesses (and many of us have not replaced this lost knowledge with lots of words for parts of automobile engines). Lexical loss is peculiar to language death only when it is so pervasive as to lead to significant reduction in the language's overall vocabulary - which may or may not be true for the last fluent speakers in a language death situation.

In any case, the main emphasis in research on attrition is on loss of structure - mainly phonology, morphology, and syntax, but also discourse structure. Analyzing data from a dying language presents special difficulties, because there are several different sources of innovations, and they do not all have anything to do with the process of language death. Attrition is the focus of interest because it is unique to language death. One typical kind of attrition is reduction of rule-governed alternations by analogic generalization of one variant. For example, in some varieties of Nubian, a dying Eastern Sudanic language (Nilo-Saharan family) spoken in southern Egypt and the Sudan, speakers tend to generalize one of several plural endings, eliminating the rule that governed alternations in plural endings and thus simplifying the plural marking system. In the Australian language Dyirbal, examples of attrition include regularization of an irregular verb inflection and generalization of one case affix so that it fulfills several different case functions. A phonological example is found in a dying variety of the Uto-Aztecan language Pipil, Teotepeque Pipil, spoken in El Salvador.

This dialect of Pipil inherited a rule that devoiced word-final resonant consonants, specifically /l/, /w/, and /y/. The rule has been generalized for /l/, so that all instances of /l/ are voiceless, not just word-final occurrences; but the voiced allophones of /w/ and /y/ have been generalized instead, so that all instances of those two phonemes are voiced, in all positions. The result, of course, is loss of the final-devoicing rule, although the particular generalizations differ for the lateral and the two glides.

A slightly different but also typical kind of attrition is merger or elimination of morphosyntactic categories. In the Australian language Warlpiri, for instance, there is an ongoing merger of pronominal forms for inclusive and exclusive `we'. The process is not unidirectional - sometimes an exclusive form is replacing an inclusive form, but sometimes inclusive is replacing exclusive - and it is more advanced among younger speakers. The widely-reported tendency to replace morphologically complex constructions with analytic constructions - that is, with constructions making use of separate words rather than such morphological processes as affixation also fits into the general category of attrition. Another tendency that has caught the attention of a number of fieldworkers is the loss of complex syntactic constructions. Leonard Bloomfield's story of White Thunder, quoted at the beginning of the chapter, illustrates this tendency - White Thunder, according to Bloomfield, `constructs sentences on a few threadbare models'.

As Sass's model indicates, however, another prominent category of change in a dying language is borrowing of both structure and lexicon from the dominant group's language. Borrowing itself cannot be symptomatic of language death, because - as we saw in Chapters 4 and 5 in particular - it occurs in all sorts of languages, including fully viable ones. Even heavy borrowing is found in viable as well as dying languages: we have seen examples in linguistic areas and also in such places as New Guinea (and other regions in and around the Pacific), where multilingual speakers readily adopt linguistic material into their native languages from other languages they speak. There is a widespread belief that borrowing proceeds more rapidly in dying languages than in viable languages, but no one has presented solid evidence to support this belief. Gradual language death is only one of numerous contexts where extensive lexical and structural borrowing are likely to occur. Although borrowing must be considered in any analysis of changes in a dying language, then, it cannot be considered part of the dying process.

Like other languages, dying languages will undergo ordinary internally motivated changes as well as contact-induced changes. These cannot be assumed to have any direct connection with language death. One special type of supposedly internal change, however, has been claimed to be specifically a characteristic of language death: these are innovations introduced by semispeakers, perhaps deliberately, into an imperfectly learned dying language. Unlike attrition, these changes do not always reduce or simplify the system: sometimes they complicate it. An example is the overextension of a marked, and markedly non-Spanish. feature in Jumaytepeque Xinca, a Guatemalan language belonging to the small (and perhaps by now completely extinct) Xincan language family: in this language, glottalization of consonants has run rampant, so that all possible consonants arc glottalized - apparently I means of emphasizing the community's differentness from the dominant group's Spanish language. This sort of deliberate exaggeration of differentness is not in fact specific to language death, however. In the framework of this book, these innovations would not count as internally motivated changes, because they would be much less likely to occur outside the contact situation that made speakers want to emphasize their differentness from the dominant group. Moreover, we saw examples of deliberate changes in Chapter 6, under Mechanism 7, that are comparable - and that have the same difference-enhancing motive. Here again, changes that at first seem to be closely linked to language death turn out to be more general contact phenomena.

It appears, therefore, that most of the linguistic processes that are common in language death situations are also common in contact situations in which no languages are dying. Lexical loss in particular domains takes place in every language in the world over time, though overall dramatic reduction of the lexicon is probably known only in language death. Borrowing, including heavy borrowing, has been shown in previous chapters to be common in many contact situations, not only those leading to language death. Internally motivated change affects all living languages, including dying ones. This leaves attrition as the only type of change that is exclusive to language death.

In analyzing changes in dying languages, though, we need to consider all the above types of change. If we simply look at a change in a dying language, decide that it simplifies the language's structure_ and then label it an example of attrition, we are in serious danger of overlooking crucial features of the change. We need to look carefully for multiple causation, with both attrition and interference from the dominant group's language contributing to the change, because this combination seems to be very common in dying languages. The particular type of interference may well differ from case to case. It will be borrowing if the people introducing an interference feature arc in fact fluent in the dying language, but shift-induced interference if the people introducing the feature are semi-speakers who learned the dying language as a second language - or, of course, both, if both fluent speakers and semi-speakers help to introduce the change.

One study that attempts to sort out some of these issues is Anna Fenyvesi's 1995 investigation of structural changes in a dialect of American Hungarian that is spoken in McKeesport. Pennsylvania. The community includes both fluent speakers and semi-speakers: the numbers of deviations from Hungarian as spoken in Hungary varied in the two groups, but the patterns of types of errors were similar for the two groups. Fenyvesi classified the changes in her data into three categories: (1) borrowing alone - changes that did not simplify the language and did bring it closer to the dominant group's language, English; (2) attrition alone - changes that simplified the language but did not make it more similar to English; and (3) both borrowing and attrition - changes that simplified the language and made it more similar to English. Her argument was that a change that could be either borrowing or attrition was quite likely to arise from both sources, since two possible causes pushing in the same direction ought to make a change more likely to happen. And even if this is not always true, it will be difficult or impossible to make a solid case for one of the two possibilities as the sole cause of the change. It should also be noted that Fenyvesi's borrowing category includes both the incorporation of some morpheme or structural feature from the other language (e.g. the SOV word order of Hungarian replaced by the SVO word order of English) and what is sometimes called 'negative borrowing'_ the loss of Hungarian features that do not correspond directly to anything in English, such as voicing assimilation in clusters of obstruent consonants.

Fenyvesi's results were as follows. First, there were very few changes in category (2), attrition alone. More changes belonged to category (1), borrowing alone, but there were still more (though not too many more) changes in category (3), both attrition and borrowing as causes of change. Some of the changes in category, (2) actually complicated the grammar - for instance the frequent but not complete shift of word stress from the initial syllable to the verb's root. Typical changes in her category (2) were the loss of case suffixes (English has almost no case system) and degemination of double consonants between vowels.

Of course some questions can be raised about Fenyvesi's results. For one thing, it's by no means always easy to decide whether a particular change simplifies a language's structure or not. For instance_ in her data some case suffixes were replaced by others in certain constructions - diminishing the range of usage for a replaced case suffix (a possible simplification) but increasing the range of usage for a replacing case suffix (not necessarily a simplification, because the rules for its usage may be complicated). Historical linguists

believe that a change that simplifies the grammar in one place is likely to complicate it somewhere else. This doesn't necessarily happen; there are exceptions in all languages, not just in dying languages; but it is a generally justified expectation. Now, we expect to find a good deal of real attrition in a dying language, without concomitant complication elsewhere in the grammar to compensate for the loss of (say) an exclusive-inclusive 'we' distinction. Still, this expectation does not justify an assumption that every change in a dying language will result in a net structural simplification, because exceptions can arise from borrowing, from internally-motivated change, and from creative innovations introduced by reasonably fluent semispeakers. In addition, it is certainly not safe to assume that Fenyvesi's results for an immigrant language in the United States will be generalizable even to other dying immigrant languages in the United States, much less to dying languages in other types of contact situations around the world. Her study is. however, one of the very few investigations to date that directly address the issue of multiple causation in an effort to establish sources for a large complex of changes in one dying language. It is likely (though I don't know of any empirical evidence on this point) that there is a higher percentage of structural borrowings that also simplify the system in a dying language than in viable languages. That is, it seems likely that attrition plays a greater role in the borrowing process in a dying language.

Grammatical replacement

In this linguistic route to language death, the original grammar of one language is gradually replaced by the grammar of another; in the few cases we know about, there has also been a great deal of lexical borrowing. At first glance, this route looks like a variant of the first and more general route, attrition, only with much more structural borrowing than in ordinary cases of gradual language loss with attrition. But there's a difference, and a simple two-part thought experiment will help make it clear. Imagine a dying language that has undergone much attrition as well as some lexical and structural borrowing from a dominant group. Now imagine that, through some cataclysmic social upheaval, its speakers are completely separated from the dominant group and settled on a previously uninhabited island. What is their linguistic situation`? Their own traditional language has lost domains, stylistic resources, lexicon, and structure, and much of the lost structure and lexicon have not been replaced by borrowings from the dominant group's language. Their language is therefore severely impoverished. As Sasse's model predicts, their main language- and the first language of their children - is now the dominant group's language; so even though they arc no longer dominated by that group (or by any other group), they are quite likely to continue using that language, and let their traditional language disappear. Alternatively, they might settle on a mix of that language with some vocabulary from their traditional language, if they want to retain a linguistic piece of their ethnic heritage; if they do that, it is the mixed language that will be learned henceforth by children in the community, because they will have no use for a second language.

Now imagine a group whose language has undergone gradual massive grammatical replacement from a dominant group's language, and is likely to be given up entirely in the not too distant future. Again let us separate the two groups by placing the speakers of the dying language on an uninhabited island. What language will they choose to speak on their island? Their in-group language is now a mixture of the dominant group's grammar and what is left of their own traditional language - mostly lexicon, including most of the basic vocabulary. This mixed language may have lost some domains, but it is still learned as a first language by their children (though not necessarily as the children's only first language). It fulfills many functions of their daily lives. It's not clear whether it is their main language -- all its speakers are fully bilingual in the former dominant group's language - but it is not impoverished overall: it has changed by borrowing and more borrowing, and has not undergone any

significant attrition: it has all the complexity of the former dominant group's language, because it has that language's grammar.

The most obvious difference between the two situations is that only the first one involves attrition, loss without replacement of lexicon and structure. But there are also other obvious differences. The language that has undergone grammatical replacement retains more domains of usage, including use with small children, than the language that has undergone attrition; as Sasse's model predicts, attrition, lack of transmission to children, and loss of domains of usage go together. All these differences can ultimately be explained by a vitally important attitudinal feature: the only languages that undergo massive grammatical replacement are those whose speakers stubbornly refuse, over a long period of time and under intense cultural pressure, to shift to the language of a numerically dominant group. We are in fact talking here about one of the sets of languages that were discussed in Chapter 8, namely, bilingual mixed languages that developed gradually in persistent ethnic groups. In Chapter 8 the question of language death was not emphasized. But clearly, once they have lost their original grammars by replacement, the original Laha and Ma'a languages no longer exist: they have died, though the communities that spoke them are still ethnic groups with their own distinctive languages. Whether the mixed languages that result from grammatical replacement survive is a different question. With stubborn enough resistance to total assimilation, the groups might be able to maintain their languages (without a social upheaval as drastic as the one in my thought experiment). But the most recent fieldwork on Ma'a, at least, suggests that the speakers have almost abandoned their resistance and shifted completely to Shambaa.

As James Collins suggests in discussing Laha (in the quotation at the beginning of Chapter 8), Laha speakers have maintained their language at the cost of giving up its grammar by adopting Ambonese Malay grammar 'bit by bit'. Although Laha and Malay belong to the Malayo-Polynesian branch of the Austronesian language Family, they are not closely related; Ambonese Malay and local languages of Ambon have converged, so that typologically Ambon and prechange Laha were probably quite similar. But even so, the process of change would have been grammatical replacement, not a mere leveling out of dialect differences.

As we also saw in Chapter 8, there are several types of evidence supporting the claim of gradual grammatical replacement in Ma'a, including the observation that the full Bantu morphological system was, as of 1960, established among younger speakers but not yet among older speakers.

The problem mentioned in Chapter 8 remains, however: if we have two languages - say, Anglo-Romani and Ma'a - that consist (almost) entirely of the grammar of a dominant group's language combined with part of the lexicon of a persistent ethnic group's language, how can we tell whether the emergence of the mixed language was abrupt or gradual? That is, how can we tell whether the mixture arose through attrition or as a last stage in a process of gradual but eventually massive grammatical replacement" The answer is that we can't always tell. We assume that Anglo-Romani was a typical case of attrition, with all the social and behavioral concomitants of Sasse's model, because both Anglo-Romani and real Romani are attested in England in the nineteenth century: if Anglo-Romani had arisen by gradual grammatical replacement, it could not have coexisted in the same place with real Romani. (Here we must also assume that the two languages are attested in the same group of speakers, with real Romani spoken by the last fluent speakers and Anglo-Romani spoken already by the least proficient semi-speakers.) Arguments for the gradualness of the Bantuization of Ma'a were presented in Chapter 8. The main point is that, for at least the past seventy years and by inference for over two hundred years before that, elements of the non-Bantu grammar of Ma'a were being replaced by elements of Bantu grammar, with no overall attrition, no semi-speakers, and in particular with no shift from a 'real' Ma'a with non-Bantu grammar to a Bantu language with lexical residue from the group's original language: there has been no lack of transmission of Ma'a to younger generations.

A question arises here: if there are languages which (like Laha and Ma'a) have gradually borrowed the entire grammar of another language as well as much of its lexicon, are there any instances of the logical next step, borrowing of the whole language, lexicon and all, so that language death comes about by complete transformation into another language? The answer appears to be yes, at least when the two languages involved are closely related. Extensive data showing precisely how such a process might unfold are hard to find, but some such process seems to have operated in the death of some varieties of Votic, a member of the Finnic branch of the Uralic language family that is (or was) in intimate contact with a closely related Finnic language, Ižora (also called Ingrian): 'Ižora words and grammatical features made their way into Votic almost imperceptibly, until they achieved preponderance. Then the language of these Vots was no longer Votic, but Ižora.' In other words, although Sasse's model fits a large number of language death contexts, it doesn't fit Ma'a or Ižora, and it presumably also doesn't fit Laha. It is difficult to estimate how many other languages have died as a result of massive gradual grammatical (and occasionally even lexical) replacement: but the number might be small, because so many groups of people do shift to a dominant group's language when they come under intense long-term pressure to do so. (It is important to remember that, as we saw in earlier chapters, there are many quite stable contact situations in which everyone is bilingual and no one is shifting away from any of the languages. But sometimes, especially in the modern world, people do indeed come under intense pressure to shift to another language.) And even if there are fairly numerous cases of death through replacement, we may never know about them: the case is strong for Ma 'a mainly because it happens to be attested over several decades, with significant changes visibly occurring during that period, and also because the oral histories of their Bantu-speaking neighbors attest to the Ma'a people's unusually strong desire to hang onto their ethnic identity. And we are lucky enough to know about the continuing close ties between the Ma'as and their kinfolk whose clans did shift to Bantu, providing an ideal context for the incorporation of Bantu features into Ma'a. The trouble is, we don't have such detailed information for most ethnic groups that might be candidates for this apparently rare class of bilingual mixed languages that replaced now-extinct unmixed languages.

No loss of structure, not much borrowing

Two kinds of cases fall into this category. First, some languages die so abruptly that there is no time for them to undergo attrition or any other significant changes as part of the dying process. The most tragic cases are those in which an entire ethnic group dies suddenly, either through illness or in a massacre. Even in these cases, of course, there are often a few survivors, so that the language survives for a little while in very limited usage. An example is the Lower Chinook language of the Pacific Northwest of the United States: the great majority of its speakers died rapidly after whites arrived in the region, mainly of introduced diseases; the language vanished entirely not long afterward. In less tragic cases, language shift may proceed so rapidly that no changes can accumulate; one example is the Lenca language of El Salvador, which vanished rapidly after a 1932 massacre in which thousands of Indians were killed and many others - including all the remaining speakers of Lenca - `simply stopped speaking their native languages as a survival strategy'.

The lack of linguistic changes in these situations is easy to understand, of course. If there is no younger generation in an intact speech community, there will be no semi-speakers; and if parents are afraid to transmit their language to their children, they are likely to transmit the fear itself instead, so that their children will be unlikely to insist on trying to learn the language. The last group of speakers will certainly remember their native language to some extent, but they will also forget much of it if they do not speak it over a period of many years - and, if they also fail to learn the dominant group's language well, they may be left without

fluency in any language at all. This may be what happened to White Thunder in Bloomfield's story, but we have too little information to be sure.

Interesting as these individual ‘rememberers’ are, however, the most significant cases, from the viewpoint of linguistic results of contact, are those in which there is plenty of time for a dying language to undergo significant changes, but it does not do so. These cases are especially interesting in view of the fairly common belief that they do not exist - as illustrated in one expert's comment that 'any case of language death involves . . . language change (at every grammatical level)'. Specialists do not predict that all dying languages will undergo extensive changes in all grammatical subsystems: one of the most often quoted observations in the entire language-death literature is Nancy Dorian's famous reference to East Sutherland Gaelic dying 'with its morphological boots on'. Still, the general expectation is that some kinds of changes will occur, and that they will be extensive.

Montana Salish is an exception. With fewer than sixty fluent speakers remaining, the language is seriously endangered, and will die soon if the current preservation efforts fail to produce a new generation of speakers. But in spite of a hundred and fifty years of increasingly intense contact with, and pressure from, English, Montana Salish has borrowed almost nothing from English - only a handful of words, and no structure at all. The Montana Salish people have acculturated to English-language culture to a great extent, but instead of borrowing English words for new objects, they invent new words out of Salish morphemes: we saw one example in Chapter l. Nor has Montana Salish undergone extensive attrition. It has lost some lexical domains as a result of culture change, as noted above; but these losses are not obviously more extensive than losses of lexical domains in fully viable languages such as English. Loss of stylistic resources, for instance rhetorical devices in storytelling, does look like significant attrition, but the current elders do not report any gaps in their ability to use their language in most areas of daily life. They do use it more rarely than they used to, of course, because many or most of the people they talk to are monolingual English speakers.

Like East Sutherland Gaelic, Montana Salish is dying with its morphological boots on, and they are jumbo-sized boots -the morphological systems of Salishan languages are among the most complex in the world. Its syntax, semantics, and most areas of the lexicon are also intact. So is its very elaborate phonology. But what about the tribal elder's complaint, quoted at the beginning of the chapter, that young people chop their words off, while ciders keep them long`? This suggests that the young people in question are semi-speakers; indeed, other scholars have found that semi-speakers sometimes tend to shorten long words. Here I think the eider was mistaken. The truncation process he refers to is rather old - it is a phenomenon that is shared with other dialects of the same language (especially Kalispel) and at least one other closely related language, and it dates back to a time when many adult tribal members were monolingual, well before one would have expected to find incipient processes of language death. (It is an interesting process: the basic rule is ‘truncate all material after the stressed vowel, unless it's important’: although some truncated forms are now permanently short, others show up in their original long forms when certain important suffixes are added to the stem.) Some of the oldest current elders truncate more words than fluent (slightly) younger speakers, and yet they are highly respected for their language abilities. So in spite of appearances, the truncation process seems not to be either a symptom or a product of language death; it does illustrate the gap between the complex reality of language structure and change, on the one hand, and speakers' (and linguists'!) perceptions of changes as belonging or not belonging to a process of language death on the other hand.

The Montana Salish situation suggests that there are no semi-speakers in the community- that the reason the language has not changed is that it was not transmitted in any form to the current younger generations. The youngest fluent speakers are now middle-aged, and they were raised by very traditional parents or, in some cases- by traditional grandparents. Some of them seem to worry that their command of the language is imperfect; in fact,

however, their occasional insecurity in elicitation sessions does not seem to correlate with any serious deficiencies in their knowledge of the language. Some younger tribal members understand at least some Salish, but they tend not to speak it: when spoken to in Salish, they seem to prefer to answer in English. (But I should add that there may be semi-speakers that I haven't discovered: like most fieldworkers who study extremely endangered and poorly documented languages- my concern has been to find the most fluent speakers to collect data from.) Together with the lack of interference from English, which all current speakers of Montana Salish also speak fluently, the absence of any significant attrition and the apparent absence of a sizable group of semi-speakers make Montana Salish highly unusual among the dying languages that have been described so far in the scholarly literature. It is hardly likely, though, that Montana Salish is a unique case of language death.

Obviously, social differences must explain the different routes to language death followed by (for instance) Montana Salish, Ma'a- and East Sutherland Gaelic. Time certainly cannot be the crucial deciding factor: the time frame for the decline of Montana Salish is longer than that for American Hungarian, for example, and yet the linguistic paths of the two languages have diverged dramatically. Some of the relevant social factors have to do with speakers' attitudes. The nonborrowing of lexicon appears to be an areal feature in languages of the American Northwest - Montana Salish is by no means the only language in the region that has not borrowed words or structure from English, although (like other languages in the area) it has borrowed words and perhaps some structure from other Native languages. And there are numerous other cases in various parts of the world in which a language's speakers do not borrow linguistic material from other languages, even in conditions of extensive bilingualism. We saw in Chapter 4 that contact-induced change is inherently unpredictable: this turns out to be as true in language death as it is in other kinds of language contact. What this means is that we may be able to predict that a language will die in the near future, but we cannot predict with any confidence what will happen to its lexicon and structure as it dies.

Sources and further reading

The systematic study of language death in all its social and linguistic aspects has been pursued only since the 1970s, so it's an even younger field than pidgin/creole studies. Nevertheless, the scholarly literature includes a steadily increasing number of detailed case studies and several important collections of papers on the topic. An especially valuable source for orientation into this topic is Nancy C. Dorian's 1999 survey article `The study of language obsolescence: stages, surprises, challenges': Lyle Campbell's 1994 encyclopedia article `Language death' is also a very good survey, especially of linguistic correlates of language death. One of the most-cited works on the topic, with several very important papers, is Nancy C. Dorian's 1989 edited volume *Investigating Obsolescence: Studies in Language Contraction and Death*. Another important collection is Matthias Brenzinger, ed. *Language Death: Factual and Theoretical Explorations with Special Reference to East Africa* (1992). Book-length case studies of dying languages include Nancy C. Dorian's ground-breaking 1981 study *Language Death: The Life Cycle of a Scottish Gaelic Dialect*, Annette Schmidt's *Young People's Dyirbal: An Example of Language Death from Australia* (1985), Silke Van Ness's *Changes in an Obsolescing Language: Pennsylvania German in West Virginia* (1990), Hans-Jürgen Sasse's 1991 book on the dying Arvanitika variety of Albanian in Greece (*Arvanitika: die albanischen Sprachreste in Griechenland*), Don Kulick's 1992 study of shift from Taiap to Tok Pisin in Papua New Guinea (*Language Shift and Cultural Reproduction: Socialization, Self, and Syncretism in a Papua New Guinean Village*), and Mari C. Jones's *Language Obsolescence and Revitalization: Linguistic Change in Two Contrasting Welsh Communities* (1998).

Hans-Jürgen Sasse's model of language death is presented in his 1992 article `Theory of language death'; his flow chart is on p. 19. The quotation with multiple question words is the famous title of a 1965 article by Joshua Fishman, ‘Who speaks what language to whom and when’.

The example of Nubian plurals is from p. 265 of Aleya Rouchdy's 1989 article `Urban and non-Urban Egyptian Nubian: is there a reduction in language skill?' The Dyirbal examples of regularization and simplification are discussed on pp. 229-31 of Annette Schmidt's 1985 book (cited above). The fate of the Pipil rule that devoiced final resonant consonants in Teotepeque Pipil and the overextended glottalization of Jumaytepeque Xinca are described by Lyle Campbell and Martha C. Muntzel in their 1989 article `The structural consequences of language death' (pp. lli9-90). The ongoing Warlpiri merger of exclusive and inclusive pronominal forms is presented by Edith L. Bavin in her 1989 article `Some lexical and morphological changes in Warlpiri' (pp. 282--3).

The quotation about Votic becoming Ižora is from Paul Ariste's 1970 article `Die Wege des Aussterbens zweier finnisch-ugrischer Sprachen' ['The routes to death of two Finno-Ugric languages']: the quoted sentences are my translation of his German sentences (Ishorische Wörter und grammatische Züge sind ins Wotische fast unmerklich eingedrungen, bis sie das Übergewicht bekamen. Dann war die Sprache dieser Woten nicht mehr Wotisch, sondern schon ishorisch').

The quotation about Lenca (and two other languages o(' El Salvador) is from p. 1960 of Lyle Campbell's 1994 article 'Language death'. On the same page Campbell cites two other articles. Wolfgang U. Dressler's 'Language shift and language death - a protean challenge for the linguist' (1981) and Jane Hill's 'Language death in Uto-Aztecan' (1983), as sources for discussion of what he calls `sudden language death' and 'radical language death'.

The quotation about the inevitability of structural change in a (gradually) dying language is from p. 12 of Sasse's 1992 article `Theory of language death' (cited above). Nancy C. Dorian's comment about East Sutherland Gaelic's morphological boots is from her 1978 article `The fate of morphological complexity in language death: evidence from East Sutherland Gaelic': one of the many authors who cite this comment is Lyle Campbell, on p. 1963 of his 'Language death' article, where he also cites several other sources that report lack of morphological reduction in language death. On the same page, Campbell mentions that shortening long words has been reported as a feature of language death.