

Here is an example from Basque, one which was unravelled only very recently by the Dutch linguist Rudiolf P. G. de Rijk (de Rijk 1995).

Basque anciently had a word **dan* 'now'. At some stage, however, Basque acquired a second word for 'now', *orain*. This consists of the Latin loan *hora* 'hour' plus a Basque case-suffix meaning 'at'; its original literal meaning was 'at the hour', entirely parallel to modern English 'at the moment'. Now Basque readily forms *dvaninva compounds* (copulative compounds) like *zari beltz* 'black and white', literally 'white-black', and *aitamak* 'parents', literally 'father-mothers'. It appears that the synonymous *orain* and *dan* were combined into just such a *dvanva*: **oraindan*, literally 'now-now', but probably comparable in sense to English 'right now'. Like any adverb of time, this could take the ablative case-suffix *-dik* 'from', producing **oraindantik*, which underwent phonological simplification to *oraindanik* 'from now on', a word which still exists in modern Basque.

This formation was perfectly regular and transparent. With time, however, the old word **dan* simply dropped out of the language in favour of the newer form *orain*, and the structure of *oraindanik* therefore became opaque to native speakers. Consequently, the original structure *orain-dan-ik* 'now-now-from' was reanalysed to *orain-danik* 'now-from', with the opaque sequence *-danik* being reinterpreted as meaning 'from, since'. At first this reanalysis would not have been visible. But then speakers began attaching the new morpheme *-danik* to other adverbs of time, like *orduan* 'then' and *iaz* 'last year', producing as a result things like *orduidanik* 'since then' and *iazdanik* 'since last year', which had not previously been possible. As a result of this reanalysis, Basque has acquired a new suffix, *-danik* 'since', whose origin in the ancient **dan* 'now' has been completely lost.

In the Basque case, it was the loss of **dan* as an independent word which triggered the reanalysis of the phrase containing it, and this is a common phenomenon. Recall from Chapter 2 the case of English *bride-guna* 'bride-man': it was the loss of *guna* 'man' as an independent word that led to the folk etymology in which the now opaque *bride-guna* was re-formed into *bridegroom*.

Reanalysis can, however, take place without the loss of any elements. The American linguist Ronald Langacker has presented some interesting cases from the Uto-Aztecan languages of southwestern North America (Langacker 1977). Let us consider Uto-Aztecan reflexives.

At some ancient stage of the Uto-Aztecan family, there was apparently a reflexive element **na*. This, however, did not occur in isolation, but only in longer phrases of certain kinds. In particular, to express a meaning like 'He is working by himself', the ancestral language used two complete clauses: 'He is working'; he is by himself'. It is the second clause which interests us here. This was expressed as follows: **pa-na-k-a-yi* 'he-self-by-be', with the usual Uto-Aztecan word order. Now, even though none of these four elements was lost from the language, Langacker demonstrates that this probably common sequence was reanalysed as consisting of only two

elements: **pi* and **nak*² *ayi*. Since the Uto-Aztecan languages are postpositional, the meaning 'self' was transferred to **pi*, while **nak*² *ayi* was reinterpreted as a single postposition 'with, by'. That such a reanalysis must have occurred is shown by the fact that, in the Nunnik branch of the family, we find *pi* being used as the ordinary reflexive pronoun, while the new postposition **nak*² *ayi* has simply been lost in that branch. Other languages underwent different reanalyses; for example, in Tarahumara the whole sequence **pinak*² *ayi* was reanalysed as a single intensive pronoun 'himself', which in turn has lost its intensive status and become the ordinary third-person pronoun 'he', though the form is now *binoy* by regular phonological change.

Cases like *an ewi* > *a newt* show that morpheme boundaries can be moved so as to shift a segment from one morpheme to another. But reanalysis can be more drastic: it can move entire morphemes from one word to another. Here's an example from Basque.

Basque anciently did not distinguish interrogative pronouns from indefinite pronouns, and hence *nor* meant both 'who?' and 'somebody', while *zer* meant both 'what?' and 'something'. (This is in fact very common in languages.) When one of these was used as the subject of a verb, however, the verb took the prefix *bait-* to indicate that the indefinite meaning was intended (this prefix also had other functions). Thus, 'Who is coming?' was **nor dator*, while 'Somebody is coming' was **nor bait-dator*. These pronouns took the ordinary case-suffixes, including the ergative case-marker *-k* to mark the subject of a transitive verb; hence **nork dakar* 'Who is bringing it?' but **Nork bait-dakar* 'Somebody is bringing it'.

What happened is that forms like **nor bait-dator* were reanalysed so that the morph *bait-*, instead of being a prefix on the verb, was taken instead as a suffix on the pronoun, and hence new indefinite pronouns *norbait* 'somebody' and *zerbait* 'something' were created. It is possible that such pronouns at first had the very odd case-inflected forms like ergative **norkbait* as a result, but such forms, if they did exist, were quickly replaced by more normal forms with the case-marking on the end. Hence today, 'Somebody is bringing it' is not **Norkbait dakar* but rather *Norbaitek dakar*; reshaped forms like these confirm that the reanalysis has taken place.

Reanalysis is not confined to morphology. In the next chapter we shall see that it is also a common process in syntactic change. For now, though, let us turn to a different kind of morphological change, the one which has attracted the most attention of all.

5.2 Analogy and levelling

Suppose I tell you (truthfully) that *ziff*, *zo*, and *zax* are all obscure English nouns denoting things that can be counted. What do you suppose their plurals

are? Easy, I'm sure you'll agree: *ziffs*, *zofs*, and *zaxes* – though notice that the plural ending is pronounced differently in each case. In such cases, you can effortlessly produce the correct plural form without thinking about it. How can you do that? You do it by invoking **analogy** – that is, you assume that the required plurals are formed according to a pattern which is already familiar to you from large numbers of other English nouns.

In this case, the pattern for forming plurals is so widespread and regular that it actually constitutes a *rule* of English grammar, just one of the many rules you acquired when you were learning English many years ago. But analogy does not always operate on such a large scale. Very often, speakers create forms by invoking an analogy with a much smaller number of existing forms, perhaps only a dozen or two, perhaps even only a single form. And such use of analogy is a very common and powerful pathway of language change generally, but most particularly of morphological change.

Let's begin with a simple example. English has a small class of nouns derived from Latin and commonly used with irregular plurals derived from Latin: *cacti*/*cacti*, *radii*/*radii*, *succubi*/*succubi*, and some others. All of these have singulars ending in *-us*. Now English also has a noun *octopus*, but this word is not derived from Latin: it's of Greek origin, and its Greek plural, if we used it in English, would be *octopodes*. In fact, however, the plural form which is used by many speakers is *octopi*, and perhaps you even use this form yourself. But where did it come from?

It came from analogy with the Latin nouns. Noticing the *-us/-i* pattern in the Latin nouns, many speakers have created an analogical plural for the Greek word. We can represent the process by a proportion:

cactus:*cacti* :: *octopus*:?

The missing term required to complete the proportion is, of course, *octopi*, and that form, which formerly did not exist, has therefore been brought into the language.

This is the simplest type of analogy; for obvious reasons, it is sometimes called **proportional analogy** or **four-part analogy**. Examples of proportional analogy are very easy to find. English verbs provide a wealth of examples. Here's one:

drive:*drove* :: *dive*:?

As a result of this analogy, the past tense of *dive*, which is historically *dived*, and still so for most speakers, has become *dove* for many eastern American speakers. This new form has not become standard, but here's another example:

teach:*taught* :: *catch*:?

Apparently as a result of this analogy, the past tense of *catch*, which was formerly *catched* for all speakers, has become *caught*. This time, the innovating form *caught* has become standard and nearly universal, and the few speakers who still say *catched* are regarded as rustic or ignorant.

(Incidentally, you may occasionally come across the term *false analogy* applied to some of these cases, such as that of *dived/dove*, but this term is never used in linguistics, since it means nothing more than an instance of analogy that somebody dislikes. No doubt *caught* was once regarded as a 'false analogy' too.)

Proportional analogy is perhaps particularly conspicuous in inflected forms, but it also turns up in other circumstances in which it is perhaps a little less conspicuous, such as word-formation. On the analogy of *land* and *landscape*, we have recently created such forms as *seascape* and *moonscape*. By analogy with cases like *Japan* and *Japanese*, we have recently begun coining a large number of words with the general sense 'language typical of', such as *Japanese*, *motherese*, *Americanese*, *headlines*, and *officialese*. Simple analogy of this kind is a common factor in word-formation.

Cases like *moonscape* and *motherese* are sufficiently striking that you might notice one of these the first time you come across it. Some other cases, however, are much harder to spot, simply because the analogy in question has already become highly productive. A good example is the suffix *-able*. The Latin suffix *-bilis* occurs in a large number of words which have found their way into English: *imaginable*, *edible*, *invincible*, *portable*, *credible*, *tolerable*, and hundreds of others. In some cases, we have also borrowed the related Latin verb, as with *imagine* and *tolerate*. The existence of pairs like *imaginable/imaginable* has induced English-speakers to extend the suffix *-able* to all sorts of other verbs not of Latin origin, including native English verbs, and so we now readily coin adjectives like *washable*, *likeable*, *lovable*, *burnable*, *unkillable*, and even *kissable*, as well as more elaborate forms like *machine-washable* and *biodegradable*. It is most unlikely that you would notice the first time you came across *unscratchable* or *varnishable*: this particular analogy has now become so widespread that it is effectively a rule of English word-formation.

The construction of new words by any of these analogical processes is sometimes called **analogical creation**, though this term is equally applied to instances of the construction by analogy of new inflected forms, like *octopi* and like some other cases we shall consider below.

A key fact about analogy is that it can sometimes block or reverse the effect of a regular phonological change. For example, there was a change in English by which /w/ was lost after /s/ and before /o/: hence *sword* has lost its /w/ in speech, though we still retain the traditional spelling. The same thing should have happened in forms like *swore* and *swollen*, but these are none the less pronounced with /w/ today. We are not sure quite what happened, but we know the reason is the existence of the related forms *swear* and *swell*. Either the analogy of these forms, which always retained their /w/, prevented the regular sound change from affecting *swore* and *swollen*, or the change did apply but the /w/ was later restored by the analogy with *swear* and *swell*. In the first case we speak of **analogical maintenance**; in the second, of **analogical restoration**.

Something similar occurs in Basque, in which intervocalic /n/ was categorically lost some centuries ago. But modern Basque has plenty of ancient nouns ending in /n/, like *gizon* 'man' and *lan* 'work', and these never lose their /n/ in inflections: *gizona* 'the man', *gizonak* 'the men', *lanean* 'at work', and so on. Since there is no evidence that /n/ was ever lost in such inflected forms, we are inclined to think that this is a case of analogical maintenance, but we can't be sure, especially since there is a third possibility in this case: that the presence of a morpheme boundary after the /n/ simply blocked the sound change. (But verb-forms *do* lose intervocalic /n/ before a morpheme boundary, making this last possibility unlikely here.)

These last examples bring us to an important point. Regular phonological changes very often disrupt regular inflectional paradigms, but at the same time the pressure of analogy tends to maintain or restore those regular paradigms. There is thus a fundamental conflict between sound change and analogy. This conflict is neatly summed up by a dictum often called **Sturtevant's paradox**, after Edgar Sturtevant, the American linguist who first stated it nearly a century ago: sound change is regular, but produces irregularity; analogy is irregular, but produces regularity.

Here is a splendid example of Sturtevant's paradox. The majority of Latin verbs had perfectly regular inflectional paradigms, with each verb exhibiting a single constant stem taking a regular set of endings. However, Latin had a stress rule which assigned stress by counting syllables from right to left, so that the stem of a Latin verb was stressed in some forms but unstressed in others, depending on the length of the ending. During the development of spoken Latin into Old French, stressed vowels developed differently from unstressed vowels; in particular, stressed /a/ was diphthongized to /ai/, while unstressed /a/ was unaffected. This produced Old French verbal paradigms in which formerly regular verbs showed stem alternations. At a later stage, however, analogy intervened: the numerically fewer forms with /a/ were analogically replaced by forms in /ai/. This once again made the paradigms analogically regular, as they are in modern French. All these developments are summarized in Table 5.1, in which the stressed vowels of Latin are marked with an acute accent and the forms undergoing analogical change are marked in boldface. This kind of analogical development illustrates Sturtevant's paradox exceedingly well. It is called **analogical levelling**, or **levelling** for short. Such levelling is extremely frequent in languages. Here is another example.

Recall from Chapter 3 that early Latin underwent a change in which intervocalic /s/ developed to /r/, and recall also that this change introduced alternations into previously regular paradigms, so that, for example, earlier alternations in the paradigm *flōs*, plural *flōres*, with an /s/ - /r/ alternation in the paradigm. This same change affected a number of other nouns, such as *honōs* 'honour', plural **honōres*, which became *honōr*, *honōres*. These are the forms found in our pre-classical Latin texts, but in the classical texts the forms of this noun are *honōr*, *honōres*. What happened? In this case,

Table 5.1 Analogical levelling in French

	Latin	Old French	Mod. French
1Sg	ámo	aim	aime
2Sg	ámas	aimes	aises
3Sg	ámat	aimet	aime
1Pl	amánus	aimons	aimons
2Pl	amátis	amez	amez
3Pl	ámant	aiment	aiment

the /r/ found between vowels was generalized by analogy to all forms of the noun, thereby eliminating the alternation and once again producing a fully regular paradigm. In this case too, a regular sound change disrupted a perfectly regular paradigm; an irregular analogical levelling then restored a regular paradigm.

Observe that the levelling applied to only some nouns. Like *honōs*, others, like *flōs*, were never affected by it and continued to have paradigms with alternations. This may seem odd, but the occurrence of analogy is generally quite unpredictable.

A somewhat more elaborate example occurs in English and German. These two languages share a remote common ancestor, and that ancestor underwent two regular sound changes: first, intervocalic /s/ changed to /r/ in certain circumstances only (before a stressed vowel), and then later all remaining instances of intervocalic /s/ changed to [z]. These changes left Old English with a number of verbs exhibiting rather complex alternations in their stems. Here, for example, are some forms of *cēosan* 'choose' in Old English; the fourth form is the Past Participle):

Present	<i>cēosan</i>	[z]
Past Sg	<i>cēas</i>	[s]
Past Pl	<i>curon</i>	[r]
Past Part	<i>gecoren</i>	[r]

The modern English forms of these are *choose*, *chose*, *chose*, and *chosen*, respectively, with [z] in every case; the two past-tense forms are no longer distinguished. Analogical levelling has applied and generalized the [z] alternant right throughout the paradigm. Much the same thing has happened to other Old English verbs showing the same alternations, such as *frēosan* 'freeze' and (*for*)*lēosan* 'lose': modern English has *freeze*, *froze*, *frozen* but *lose*, *lost*, *lost*, the last having been only partially levelled. The ancient forms in /r/ survive only in a few instances which have become divorced from their original paradigms, such as *lorn* (the original participle of 'lose'), found in phrases like *a lone lorn figure* and *lovelorn* (originally 'love-lost'), and

forlorn, the original participle of the now-lost prefixed verb *fortlose*. Most English-speakers no longer connect these isolated forms with *lose*. The original alternations have vanished, save only in the verb *be*, whose past singular *was* and past plural *were* still retain the ancient alternation.

Old High German had exactly the same alternations as Old English. Here, for example, is part of the Old High German paradigm of *kriusan* 'choose':

Present	<i>kriusan</i>	[z]
Past Sg	<i>kōs</i>	[s]
Past Pl	<i>kurum</i>	[r]
Past Part	<i>gikoran</i>	[r]

Modern German too has levelled all such paradigms, but in a different way from English. The modern German forms of this verb (which is now rare and old-fashioned in German) are present *kriren*, past singular *kor*, past plural *koren*, and past participle *gekoren*. That is, German has generalized the /r/ variant instead of the [z] one. The same occurs in German with the other verbs in this group, such as *frieren* 'freeze' and *verlieren* 'lose' (with the same prefix as English *forlose*).

Let's look at just one more example of levelling in English, a particularly interesting one which has not so far been extended to every possible case. Old English had the voiceless fricatives /f/ s/θ/, which had voiced allophones [v z ð] between vowels or between a liquid and a vowel. As we saw in Chapter 4, English later acquired a set of contrasting voiced fricative phonemes [v z ð], but the alternations remained. In the case of /f/ - /v/, the alternation still survives today in a number of cases, such as *leaf/leaves*, *knife/knives*, *wife/wives*, *lifelives*, *shelf/shelves*, *elf/elves*, and *wolf/wolves*. On occasion, it has even been extended to loan words, as in *scaff/scaffes* (*scarf* is a loan from Old French), though most loan words, like *chief* and *mischiefs*, do not show it (though note *mischievous*). No doubt the spelling difference has helped to maintain the alternation in these cases. But even some of these cases have been lost, or partly lost. For you, what is the plural of *hoof*? *Hooves* or *hoofs*? Of *roof*? *Rooves* or *roofs*? Almost everyone now has *roofs*, and *hoofs* is probably now more frequent than *hooves*. English *dwarf*, which derives from Old English *dwearg*, should not show the alternation, and the standard modern plural is indeed *dwarfs*, though the celebrated fantasy writer J. R. R. Tolkien writes *dwarves* throughout his books: presumably he invokes the analogy with *leaves* and *elves* to make the word look more like native English.

In the case of /s/ - /z/, however, where the conventional spelling fails to represent the alternation, it has been levelled out to /s/ in all nouns except one: *hoose* whose plural *hooves* is still *hoovies* for most speakers. (Though even here a few speakers have borrowed the plural *hoofs*.) Almost everyone, however, retains /z/ in the related verb *hoose* and the derivative *hoousing*. The Old English /s/ alternation, though not applied as thoroughly, English speakers used /z/ in the plural of all such nouns as *bull*, *crash*, *path/pathes*, *mouth/mouths*, *month/months*, *wreath/wreaths*, and *death*.

deaths. (There was formerly a vowel before the plural -s.) But there has been a steady tendency for centuries to level these in favour of /θ/. The voiceless fricative is now the only possibility in *deaths*, but the others show considerable variation. You may find that you have /θ/ in some of the plurals but /ð/ in others, and your friends may differ from you on one or two of them, especially if they don't come from the same place as you. On the whole, Americans are perhaps more likely to retain /ð/ than are British speakers. I myself (I'm American) pronounce *moths* as mɒθz, which my British friends find hysterically funny, since mɒθs appears to be virtually universal today in Britain.

In some cases, the result of levelling is to split a single paradigm into two new paradigms, both of them regular. Pre-Latin **deivos* 'heavenly, god' had a regular plural **deivi*, but these forms underwent several quite regular phonological changes, crucially including the loss of *w* before *o*, and the result in classical Latin was singular *deus* but plural *divi*. The second of these no longer looked like a plural of the first, and levelling took place, but what happened is that *deus* acquired a complete new regular paradigm, including a new plural *dei*, while *divi* also acquired a complete new regular paradigm, with a new singular *divus*, and the result was two different words deriving from a single ancestor. Something similar has happened with English *staff*, whose plural was formerly *staves* (compare the cases like *knife/knives* above), but this word too has split, and we now have two words, *staff/staffs* and *stavel staves*. The English pairs *shade/shadow*, *meal/meadow*, and *cloth/clothes* also represent the splitting of what were originally single words.

The processes of word-formation discussed in Chapter 2 illustrate various types of analogy. Here I shall mention just two more, beginning with **contamination**. Contamination is an irregular change in the form of a word under the influence of another word with which it is associated in some way. For example, the opposite of *male* was formerly *femelle*, but the constant pairing of these two words has induced speakers to alter the second to *femate*, in order to make it more like its opposite. Similarly, the word *overt* is borrowed from French *ouvert* 'open', and has final stress. The word *covert*, though, is an origin merely a variant of *covered*, and was formerly pronounced accordingly. But the frequent use of these two words as opposites has resulted in an alteration of the second: most people now pronounce *covert* to rhyme with *overt*.

A slightly different case is represented by *regardless*. This word, with its negative suffix *-less*, is very similar in meaning to *irrespective*, and many speakers have consequently altered the first to *irregardless*, a form which is now frequent, though not at present considered standard English.

Numerals appear to be particularly prone to contamination, probably because they are very often used in sequence while counting. The Latin numeral for 'nine' would have been **novein* if the word had developed regularly, but the classical form is *novein*, influenced by the following *decem* 'ten'. The Russian and Lithuanian numerals for 'nine' should have been

**nevyni* and **nevial'*, respectively, but the forms are *deyvyni* and *devyal'*, again influenced by the following *desjini* and *desjal'* 'ten'. The original Basque *bederatzu* 'nine', preserved in the east, has become *bederatzzi* in most dialects under the influence of the preceding *zortzi* 'eight'.

It is possible for contamination to apply in both directions. Old French had two words meaning 'native inhabitant', *citien* and *denzein*; in Norman French, the first acquired a *z* from the second, and the second acquired an *i* from the first, leading to *citesein* and *denisein*, whence English *citizen* and *denizen*.

The other special type of analogy is **hypercorrection**. This occurs when a speaker deliberately tries to adjust his or her own speech in the direction of another variety perceived as more prestigious but 'overshoots the mark' by applying an adjustment too broadly. Sporadic hypercorrection is very common. A British speaker trying to acquire an American accent will carefully insert non-native *r*'s into words like *dark* and *court*, but may overdo it and produce things like *avocarda*. I myself, being American, lack the British contrast between *do* and *dew*; attempting to acquire the British diphthong in *dew* and *new*, I occasionally overdo it and produce things like *What shall we dew?* Such hypercorrections are easily visualizable as instances of four-part analogy: in my case, *new* /nu:/; /nju:/ :: *do* /du:/; /dju:/.

On occasion such hypercorrections may establish themselves in the language. In Middle English, the word for 'throne' was *trome*, borrowed from French. But this word derives ultimately from Greek *thronos*, and English-speakers apparently re-formed their word to *throne* in order to show the Greek connection, or perhaps just to sound more erudite. But then they did the same thing to *author*, which is not of Greek origin at all, producing as a result the modern form *author*, in which the dental fricative derives purely from hypercorrection.

5.3 Universal principles of analogy

Analogical change is irregular and seemingly unpredictable, but there have none the less been some serious attempts at identifying general principles of analogy. The most famous of these is the 'laws' of analogy proposed by the Polish linguist Jerzy Kurtyowicz in 1947. He proposes six such laws, as follows; here I have reworded his statements for the sake of clarity, at the expense of a certain measure of precision.

The first law: a complex marking replaces a simple marking. A standard example of this is provided by German. Old High German, the ancestor of modern German, had a variety of patterns for constructing plurals. One of these was exhibited by nouns like *gast* 'guest', plural *gesti*, in which the stem-vowel undergoes the change called **umlaut** under the influence of the

vowel in the plural suffix. This noun comes into modern German as *Gast*, *Gäste*, with a double plural marking (umlaut plus suffix). Now the Old High German noun *boun* 'tree' had a plural *bouna*, with no umlaut, and this should have come into the modern language as *Baum*, **Baume*. Instead, German has *Baum*, *Bäume*. The double plural-marking has been extended from cases in which it is historically normal (like *Gast*) to others in which it is not regular.

The second law: a derived form is reshaped to make it more transparent and especially more similar to the simple forms from which it is derived. Basque provides a number of examples of this. The two nouns *ardi* 'sheep' and *ile* 'hair' formed an ancient compound **ardi-ile* 'wool'; this underwent the most normal phonological processes of the language to yield *artile*, the most usual form today. But some speakers have replaced this by a new and more transparent formation *ardi-ile*. In effect, the regular but somewhat opaque formation *artile* has been re-formed to make it more transparent.

The third law: a form transparently consisting of a stem plus an affix serves as a model for reshaping related forms in which the stem-affix structure is opaque. Here is an example from Basque. The Basque question word *non* - *opaque*. Here is an interrogative stem *no* - plus the ordinary locative case-ending *-n*. By the process described in Section 5.1, this word has acquired a corresponding indefinite *nonbait* - *nonbait* 'somewhere'. But this form is now unusual among locative forms in that it does not end in the normal *-n*. (Compare *hemen* 'here', *orduan* 'then', *etxean* 'in the house', and so on.) In some western varieties of Basque, therefore, *nonbait* has been replaced by an innovating form *nonbaiten*, in which the locative case-ending has been reattached to the end of the word, on the model of all the other locative forms.

The fourth law: when a form undergoes analogical reshaping, the new form takes over its primary function, and the old form remains only in secondary functions. A simple example of this is English *brother*. This used to have a plural *brethren*, but a new regular plural *brothers* has been constructed by analogy and now serves as the ordinary plural, while the older *brethren* is now confined to special contexts, especially religious ones: *nobody now says *I have two brethren*. Similarly, the compound of Old English *hus* 'house' and *wif* 'woman' developed by regular phonological change into *hussi*; now that the original compound has been renewed by the analogical formation *housewife*, *hussi* has lost its central meaning and become confined to a pejorative sense.

The fifth law: in order to re-establish a distinction of central significance, the language gives up a distinction of more marginal significance. Old French provides a good example. Latin had a large class of nouns inflected like *murus* 'wall'; in Latin, such nouns inflected as follows in the nominative and the accusative (the only cases surviving into Old French):

	Sg	Pl
Nom	murus	muri
Acc	murum	muros

By regular phonological changes, these forms gave rise to the following forms in Old French:

	Sg	Pl
Nom	murs	mur
Acc	mur	murs

For this class of nouns, then, Old French no longer had a systematic distinction either between singular and plural or between nominative and accusative. In order to maintain the more central distinction of number, the language therefore abandoned the less central one of case; the accusative forms were generalized, and French wound up with singular *mur* and plural *murs*, with no remaining distinctions of case.

The sixth law: a native form may be analogically reshaped under the influence of a non-native form, especially if the non-native variety is more prestigious. For example, Basque has a highly productive suffix *-tasun* for deriving abstract nouns: *bakartasun* 'solitude' (*bakar* 'alone'), *edertasun* 'beauty' (*eder* 'beautiful'). But the language has borrowed a number of abstract nouns from the neighbouring and more prestigious Spanish with the Spanish suffixes *-dad* and *-dura*. As a result, these suffixes have, for some speakers in some cases, replaced the native *-tasun*, and many Basques say *bakardade* for 'solitude' and *ederdura* for 'beauty'.

Building on Kuryłowicz's ideas, the Polish linguist Witold Mańczak (1958) has proposed nine rather more specific principles of analogy which he calls 'tendencies'. These are as follows; I provide an example for each one of them.

The first tendency: longer words are more often reshaped on the model of shorter words, rather than vice versa, except in inflectional paradigms. For example, Old English *huswif* 'housewife' underwent regular phonological change to *hussy*, but the word has been re-formed in modern English as *housewife*, on the model of its components *house* and *wife*, while *hussy* is now confined to a different sense, in line with Kuryłowicz's fourth law.

The second tendency: root alternation is more often abolished than introduced. This, of course, is precisely what is shown by most of the examples of levelling cited in Section 5.2, such as the French case shown in Figure 5.1. Obviously, however, this tendency is in direct conflict with Kuryłowicz's first law.

The third tendency: longer inflectional forms are more often reshaped on the model of shorter ones than vice versa, except in cases in which one form has

a zero affix and another an overt affix. The Latin compound verb *calefacere* 'heat' (literally 'make hot') was remodelled on the basis of the common infinitive ending *-āre* (as in *amāre*) 'love') to produce the innovating *calefāre*, the source of modern French *chauffer*.

The fourth tendency: zero-endings are more frequently replaced by overt ones than vice versa. Earlier English had zero-plurals for some nouns; a few of these have survived, like *deer/deer*, but many others have gained a new overt plural ending, so that, for example, earlier *wordword* has been replaced by *wordwords*.

The fifth tendency: monosyllabic endings are more frequently replaced by polysyllabic ones than vice versa. The traditional allative case-ending with place names in Basque is *-a*, and hence the town name *Zarautz* has allative *Zarautza* 'to Zarautz'. But some speakers have replaced this with the two-syllable variant *-era*, and hence they have *Zarautzera* 'to Zarautz'.

The sixth tendency: the forms of the indicative more often bring about the reshaping of other moods than vice versa. Portuguese is a language in which the historical subjunctive forms have been partly remodelled on the basis of the indicative.

The seventh tendency: the forms of the present more often bring about the reshaping of other tenses than vice versa. In early Latin, the third-singular ending was *-t* in the present but *-d* in the perfect, but classical Latin has *-t* in both tenses.

The eighth tendency: place names preserve archaisms in their local case-forms better than do related common nouns. In Basque, place names preserve the ancient locative ending *-n* and the ancient allative ending *-a*; most other noun phrases (NPs) have acquired a new locative **-gan* > *-an* and a new allative *-ra*.

The ninth tendency: when a place name undergoes analogy, its local case-forms affect the non-local ones more often than the other way round. A number of German place names contain an old locative ending, such as *Baden*, a spa town whose name is derived from *Bad* 'bath'.

5.4 Morphologization

Sometimes what was formerly an independent word becomes reduced to a bound morpheme, in the process typically losing its former lexical meaning and acquiring instead a mere grammatical function. We call this process **morphologization**, and it is exceedingly common. Indeed, there are linguists who would maintain that all bound morphemes originate in just this way.

Here is a simple example from Basque. It appears that Basque once had a noun **kide* meaning something like 'company' or 'association'. (The word