form for each root morpheme and write the changes which you think must have taken place to produce these variants. Present your reasoning; why did you choose this solution and reject other possible hypotheses? (HINT: the original form of the possessive pronouns was: *n- 'my', *hi- 'your', *hu- 'his'; original *n+h > n.) Note that what is structurally a labialised w is realised phonetically as [wⁱ], but is written as wʷ in this problem.

	my	your	his	Meaning of the noun root
1	mbata	peta	pota	duck
2	mbapaj	pepaj	popaj	father
3	nda?	te?	to?	man's brother
4	ndarap	terap	torap	woman's younger sister
5	ŋkʰan	kʰen	kʰon	bed
6	nlara	lera	lora	mouth
7	ntsʰam	tsʰem	tsʰom	foot
8	mbe	hepe	pʷe	rock, stone
9	mbep	hepep	pʷep	fingernail
10	mberam	heperam	pʷeram	tongue
11	mpʰel	hepʰel	pʰʷel	arm
12	ŋgerew	hekerew	kʷerew	cousin
13	ŋkʰere	hekʰere	kʰʷere	bone
14	ŋgiwaj	hikiwaj	kʷiwaj	woman's brother
15	njič	hičič	čʷič	tendon
16	njipe	hičipe	čʷipe	paired sibling
17	mbomam	pʲomam	hopomam	chokecherry
18	mpʰok	pʰʲok	hopʰok	cheek
19	ŋgol	kʲol	hokol	belly
20	ntsʼul	tsʼʲoul	hutsʼul	intestines
21	mpʰɨja	pʰʲeja	hɨpʰɨja	tobacco
22	mpʼɨs	pʼʲes	hɨpʼɨs	deer
23	ndɨm	tʲem	hitɨm	heel
24	mbasas	wesas	wosas	woman's sister-in-law
25	mbis	hiwis	wʷis [wⁱin]	tooth
26	mbin	hiwin	wʷis [wⁱin]	toad
27	mbojum	wʲojum	howojum	husband
28	namas	mes	mos	hand
29	nemen	hemen	mʷen	neck
30	nimik	himik	mʷik	nose
31	nɨmɨnɨ	mʲenɨ	himɨnɨ	yam
32	namap	hemap	homap	aunt
33	nasunu	hesunu	hosunu	chest

9

Syntactic Change

Our speech hath its infirmities and defects, as all things else have. Most of the occasions of the world's troubles are grammatical.

(Montaigne, Essays II, xii)

9.1 Introduction

The study of syntactic change is currently an extremely active area of historical linguistics. Nevertheless, there has been no generally recognised approach to the treatment of syntactic change, such as there is for sound change. While there have been some excellent studies in historical syntax in the nineteenth century and many in the last twenty years or so, syntactic change was very often not represented (or present only superficially) in the textbooks on historical syntax. The approach followed in this book is that of Harris and Campbell (1995) (on which this chapter relies heavily). In this chapter, we learn about the mechanisms of syntactic change – reanalysis, extension and borrowing – and the common pathways that grammatical changes take; that is, we are interested in the more commonly occurring kinds of syntactic changes found in the world's languages. Grammaticalisation, an approach currently of much interest, is also considered together with its limitations. Finally, the possibilities for syntactic reconstruction are described and defended.

9.2 Mechanisms of Syntactic Change

There are only three *mechanisms* of syntactic change: *reanalysis*, *extension* and *borrowing*. Let us consider these mechanisms in turn, first with a brief characterisation of each, followed by additional examples.

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9.2.1 Reanalysis

Reanalysis changes the underlying structure of a syntactic construction, but does not modify surface manifestation. The *underlying structure* includes (1) constituency, (2) hierarchical structure, (3) grammatical categories, (4) grammatical relations and (5) cohesion. We will come to examples illustrating changes in each of these shortly. *Surface manifestation* includes (1) morphological marking (for example, morphological case, agreement, gender) and (2) word order.

An important axiom of reanalysis is *reanalysis depends on the possibility of more than one analysis of a given construction*. The following example from Finnish exemplifies both reanalysis and this axiom. In Finnish, a new postposition (seen here in (2)) was derived through reanalysis from what was formerly an ordinary noun root with a locative case (as in (1)):

(1) *miehe-n rinna-lla*
     man-Genitive chest-Adessive ('Adessive' is a locative case)
     'on the man's chest'   (Original)
(2) *miehe-n rinna-lla*
     man-Genitive Postposition-Adessive
     'beside the man'   (Reanalysed)

In this case there is nothing ambiguous or opaque at all about (1), and in fact it is still fully grammatical in the language. However, it came to be interpreted as having more than one possible analysis, as a regular noun in locative case (as in (1)), but also as a postposition (as in (2)). This new postposition in Finnish is quite parallel to the development of the preposition *abreast* of in English, which comes historically from *a(t)* 'locative' + *breast*. Such developments are common in English and other languages, as seen in English *beside* < *by* + *side*, *behind* < *by* + *hind*, and so on. In this instance, an original construction with an ordinary lexical noun in a locative case, as in (1), was the basis of the reanalysis which produced the new construction with the postposition, as in (2). Notice, however, that (1) and (2) are the same except for their internal analysis; that is, though a reanalysis took place to produce (2), the surface manifestation remained unchanged – (1) and (2) are identical in form, but not in their internal structure.

9.2.2 Extension

Extension results in changes in surface manifestation, but does not involve immediate modification of underlying structure. This is best shown through examples.

9.2.2.1 First example: change in some Finnish subordinate clauses

Finnish subordinate clauses provide an example which underwent first reanalysis and then extension. Old Finnish had sentences of the form illustrated in (3):

(3) näen miehe-m tule-va-m
      (NOTE: orthographic *ä* is phonetically [æ])
  I.see man-Accusative.Singular come-Participle-Accusative.Singular
  'I see the man who is coming'

Here, the noun *miehe-m* 'man' is the direct object of the verb *näen* 'I see', and the participle *tule-va-m* 'coming/who comes' modifies this noun ('man') and agrees with it in case and number (both take the 'accusative singular' suffix *-m*). Later, Finnish underwent a sound change in which final *-m* > *-n*, and as a result the accusative singular *-n* (formerly *-m*) and genitive singular *-n* became homophonous, both *-n*. After this sound change, the resulting form, shown in (4), was seen as having two possible interpretations, in (4a) and (4b) (Acc = Accusative, Part = Participle, Pl = Plural, Sg = Singular):

(4) näen miehe-n tule-van
(4a) I.see man-Acc.Sg come-Part
(4b) I.see man-Gen.Sg come-Part
    'I see the man who is coming'

This led to a change in which the older interpretation in (4a) was eventually eliminated and this subordinate clause construction was reanalysed as (4b). That is, *miehe-n* was reinterpreted not as the direct object (in accusative case) of the verb *näen* 'I see' as it had originally been in Old Finnish (as in the example in (3)), but as the subject (in genitive case) of the participle *tule-van* (as in (4b)). (The change is somewhat like starting with the equivalent of *I saw the man coming* and changing it to *I saw the man's coming*.) At this stage there is still no visible difference in the surface manifestation ((4a) of older Finnish and (4b) of modern Finnish are in form the same, though different in analysis).

The next phase was the *extension* of the reanalysed structure to other instances where the surface manifestation was visibly changed, as seen in the comparison of Old Finnish (5) with modern Finnish (6):

(5) näin venee-t purjehti-va-t
    I.saw boat-Acc.Pl sail-Part.Acc.Pl
    'I saw the boats that sail'

(6) näin vene-i-den purjehti-van
I.saw boat-Pl-Gen sail-Part
'I saw the boats that sail'

In Old Finnish, sentence (5), with *venee-t* in the 'accusative plural', did not permit a second interpretation, as (4) did, where the 'accusative singular' had the same form as the 'genitive singular'; however, the reanalysis (from accusative to genitive) that began with the homophonous singular form was extended to include the plurals, so that in modern Finnish *venee-t* 'accusative plural' is no longer possible in this construction (as it was in (5) in Old Finnish), but was replaced through extension by *vene-i-den* 'genitive plural', as in (6). Where formerly the singular had two possible interpretations, accusative singular direct object of the main verb or genitive singular subject of the participle, after the change had been extended to the plural making it also genitive, the original (accusative) interpretation was no longer available.

9.2.2.2 Second example: Spanish reflexive to passive

A second example which shows both reanalysis and extension involves changes in the reflexive in Old Spanish. Old Spanish had only the reflexive as in (7), with none of the other functions that the Spanish reflexive later came to have:

(7) Yo no vestí a Juanito; Juanito *se* vistió
I no dressed Object Johnny; Johnny *Reflexive* dressed
'I didn't dress Johnny; Johnny dressed *himself*'

A reanalysis of the reflexive took place in which *se* could also be interpreted as a passive. In the first stage of this change, certain transitive verbs with *se* and a human subject came to have multiple interpretations as either a reflexive of volitional/consentive action, or as a passive, as illustrated in (8) and (9) (REFL = reflexive):

(8) El rico se entierra en la iglesia
the rich REFL bury in the church
(8a) 'The rich person has himself interred/buried in the
church' (volitional reflexive; literally:
'the rich person inters himself in the church')
(8b) 'The rich person gets buried/is buried in the church'
(*passive*)
(9) Cum esto se vençen moros del campo
with this REFL they.conquer Moors of.the countryside
(9a) 'Therefore Moors of the countryside give themselves up

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for conquered' (*consentive*; literally: 'with this Moors of
the countryside conquer themselves')
(9b) 'Therefore Moors of the countryside get conquered/are
conquered' (*passive*)

In (8) and (9), different interpretations are possible, either reflexive or
passive; the surface manifestation is unaltered in the new, reanalysed
passive interpretation of these sentences. Also, the original reflexive
construction (as in (7)) remains grammatical in Spanish. In the next
step, the passive interpretation of the former reflexive *se* was extended
to include not just human subjects, but also non-animate subjects, where
no reflexive interpretation was possible, as in (10) and (11):

(10) Los vino-s que en esta ciudad se vende-n ...
     the wine-Pl that in this city REFL sell-3rd.Pers.Pl
     'The wines that are sold in this city ...'
(11) Cautiváron-se quasi dos mil persona-s
     they.captured-REFL almost two thousand person-Plural
     'Almost two thousand persons were captured'

These sentences are now clearly passive and not reflexive; in (10) the
'wines' cannot 'sell themselves', and in (11).the 'two thousand persons'
are not 'capturing themselves'.

9.2.3 Syntactic borrowing

Syntactic borrowing is much more frequent and important than some
scholars have thought in the past, though others have gone to the other
extreme of assuming that everything not otherwise readily explained in
a language's grammar is due to borrowing. It is important to avoid such
excesses but also to recognise the proper role of syntactic borrowing in
syntactic change. The following is a straightforward example of syntactic
borrowing. Pipil (a Uto-Aztecan language of El Salvador) borrowed the
comparative construction, *mas ... ke*, from Spanish, as in (12):

(12) ne siwa:t *mas* galá:na *ke* taha
     the woman more pretty than you
     'That woman is prettier than you are'

Compare the Spanish equivalent in (12'):

(12') esa mujer es *más* linda *que* tú (/mas ... ke/)
     that woman is more pretty than you

Pipil had several different comparative expressions before its contact with Spanish, but these have been eliminated, replaced by this borrowed comparative construction.

Another case involves the extensive borrowing of grammatical elements and constructions among the Australian aboriginal languages of Arnhem Land, in particular among Ritharngu, Ngandi, Nunggubuyu and Warndarang. This includes the direct borrowing of case affixes (for example, for ergative markers, instrumental, ablative, genitive-dative-purposive, comitative), number affix, noun-class affixes (with discourse functions of reference and anaphora), diminutive affix, derivational verbal affixes, negative affix, postpositions and the inchoative verbaliser, among others (Heath 1978). (For several more examples of syntactic borrowing and discussion, see Harris and Campbell 1995: 120–50.)

9.3 Reanalysis and Extension Exemplified

As mentioned above, reanalysis can change underlying structures involving constituency, hierarchical structure, grammatical categories, grammatical relations and cohesion. We now turn to examples of reanalysis (and extension) which show changes in these sorts of syntactic patterns.

9.3.1 Constituency and hierarchical structure

The English complementiser construction with *for* + *to* is the result of the reanalysis of a former construction in which the *for* + Noun Phrase was a regular prepositional phrase which belonged to the main clause and originally had nothing to do with the complementiser construction, as in (13):

(13) [It is bet for me] [to sleen my self than ben defouled thus]
(from Chaucer)
'It is better for me to slay myself than to be violated thus'

Here, although *me* is part of the prepositional phrase *for me*, a surface constituent, it was also co-referential to the logical subject of the infinitive *to sleen* 'to slay' (where in interpretation 'I' is the subject of 'to slay'); later *for* + Noun Phrase + Infinitive was itself reanalysed as a constituent, as seen in modern English (14), where as a single constituent the whole lot can be preposed:

(14) [For me to slay myself] [would be better than to be violated thus]

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9.3.2 Grammatical categories

Reanalyses involving change in grammatical categories are quite common; the Finnish example above (in (1) and (2)) in which a noun in locative case was reanalysed as a postposition illustrates this sort of change. Another is the change in the African language Twi in which the verb *wɔ* 'to be at' was reanalysed as the preposition *wɔ* 'at'. Many examples of grammaticalisation (below) are of this sort.

9.3.3 Grammatical relations

In the Modern English passive sentence in (15), *the king* is taken as the subject (in the nominative case):

(15) the king was offered a seat

However, in Old English in such sentences this was not the case; rather, one said not *king* but *cyning-e* 'king-Dative.Singular' (which often occurred with the definite article *pæ-m* 'the-Dative.Singular'), and in this dative form the sentence meant simply: 'to the King was offered a seat'. This is still the case in the modern German equivalent (Nom = nominative):

(15') Dem Könige wurde ein Sitz angeboten
the.Dative king.Dative was a.Nom seat.Nom offered

However, in English, due to loss of certain final vowels, the dative and nominative cases were no longer distinct (*cyning-e* > *kinge* > *king*) and thus in (15) *king* was reanalysed as the subject of the sentence in the nominative case. The grammatical relation of the nouns in such passive sentences was changed through reanalysis.

9.3.4 Cohesion

Cohesion refers to the degree of attachment which an element has to other elements, whether as a fully independent word, a clitic, an affix or an unanalysable part of a larger unit. In many changes, an element that was formerly a fully independent word becomes a clitic and then an affix, and can sometimes go on to end up as an unanalysable part of another word. Examples of this sort were seen among the cases of amalgamation in Chapter 4, and many examples of grammaticalisation (see below) are of this sort. Varieties of Nahuatl offer examples of change involving cohesion in which constructions with *nemi* 'to live, to walk' have changed so that *nemi* has lost its status as an independent word.

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Originally *nemi* was an ordinary verb meaning 'to live, to walk (around)'. In Tetelcingo Nahuatl, Michoacan Nahua and North Puebla Nahuatl, a construction has developed in which *nemi* lost its independent status and has become a verb clitic meaning 'to go around doing, to be currently engaged in doing', as illustrated by North Puebla Nahuatl in (16):

(16) čoka-ti-nemi
cry-Connective-Ambulative
'He/she goes about crying'

Huasteca Nahuatl has developed further, reanalysing the clitic *nemi* as a 'habitual' marker and moving it into the position before the verb root occupied by directional morphemes (which include 'towards', 'away from' and so on), as illustrated in (17):

(17) ki-nen-palewiya
her-Habitual-help 'she helps her continually'

(Note that *-nen-* is a regular allomorph of *nemi* in certain environments, as in, for example, *nen(-ki)* 'he/she lived/walked'.) In these cases, the verb *nemi* has lost its independent status, exhibiting a change in degree of cohesion.

The development of Modern French yes–no questions provides additional examples of reanalysis and extension, also involving cohesion. Old French used inverted word order to mark such questions; in these, the entire verb and subject were inverted; as seen in (18) in Old French:

(18) est morte m'amie?
is dead my.friend
'Is my friend dead?'

From around the fifteenth century, a structure came to be used in yes–no questions which developed because of preference for a cleft structure for a content question, equivalent to *Is it that my friend is dead?*, as in (19) (rather than the earlier inverted form equivalent to *Is my friend dead?*, as in (18) above):

(19) est-ce que mon amie est morte?
is it that my friend is dead
'Is my friend dead?' (literally: 'Is it [the case] that my friend is dead?')

The earlier yes–no question pattern with inverted subject and verb, as in (18), has been reanalysed as a pattern with sentence-initial question particle *est-ce que*, as in (19). That this has become a question particle

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is shown by the fact that the former verb *est* 'is' in this construction occurs only in the invariant form *est-ce* and can no longer occur in the full range of tense/aspect forms which are available for 'to be' in other contexts.

Colloquial French has developed further and has adopted an additional question particle, *ti*, whose origin and development provide a further example of reanalysis. In the mid-fifteenth century, forms like (20) contrasted with examples such as (21), where the verb ends with a *t*:

(20) aime il? 'does he love?'
(21a) dort-il? 'does he sleep?'
(21b) est-il? 'is he?'
(21c) aimerait-il? 'would he love?'

In both (20) and (21), the questions show the inversion of subject–verb, though in these examples the inverted subject is *il* 'he', following the verb. The final *l* of this pronoun was eroded in the colloquial pronunciation, leaving the examples in (21) ending phonetically in [ti], with the *t* of the verb and the *i* of the pronoun *il*. This *ti* came to be reanalysed as a marker for questions which involve third person masculine pronoun subjects. Later this *ti* was extended, gradually becoming a general interrogative particle and used not only with third person masculine forms, but in questions in general, as seen in (22) and (23):

(22) les filles sont ti en train de dîner?
      the children are Question in way of to.dine
      'Are the children about to eat dinner?

(23) *tu vas ti?*
      you go Question
      'Are you going?'

As seen here, the reanalysed question particle *ti* has been extended far beyond its origins from verbs ending in -*t* followed by *il* 'third person masculine pronoun'. Through a change in cohesion, the -*t* of certain third person verb forms combined with *i(l)* to give the new question marker. (For more on syntactic change in general, see Harris and Campbell 1995.)

9.4 Generative Approaches

Most work on historical syntax since 1960 has taken the perspective of Generative Grammar (or its descendants). Generative linguists generally associate syntactic change with child language acquisition, seeing

syntactic change as part of what happens in the transition of grammars from one generation to the next. In this view, child language learners hear the output of adults around them and on the basis of these data they must construct their own grammar. The grammar which the children acquire reproduces the output which they hear from the adults' grammar more or less accurately, but it does not necessarily coincide with the internal structure of adults' grammar. After learning an optimal grammar as children, adults may later add rules to their grammars which make them no longer optimal. Children of the next generation, hearing the output of this non-optimal adult grammar, restructure it as they construct their own internal grammars, making it more optimal. Since the generative interpretation of syntactic change was originally modelled on the view of phonological change, we can begin to illustrate this approach with a phonological example (seen in Chapter 2).

An adult grammar of Proto-Uto-Aztecan had dictionary forms such as /sik/ 'navel' and /sɨk/ 'cold', plus an allophonic rule, Rule (1):

Rule (1): s → ʃ /__ i.

By Rule (1), /sik/ 'navel' became [ʃik], but Rule (1) does not apply to /sɨk/ 'cold', since this form did not have the /i/ specified in Rule (1) for the change to take place. Later, in the transition from Proto-Uto-Aztecan to Nahuatl, adults added a new rule, Rule (2):

Rule (2): ɨ → i (merger of *i* with *i*)

The adult grammar at this stage had the derivation shown in Table 9.1. Children, hearing as output [ʃik] 'navel' and [sik] 'cold', would no longer have sufficient evidence for learning Rule (1) (since some examples of *s* before *i* now do not become *ʃ*, as in [sik] 'cold'). Therefore, they learn instead an optimal grammar, which merely has the dictionary forms //ʃik// and //sik//, but without Rules (1) and (2) of the former generation's grammar, so [ʃik] and [sik] also become the children's output. In this restructuring, the no longer optimal Rules (1) and (2) are eliminated from the grammar, though the output of this more optimal grammar matches that of the adults' less optimal one in Table 9.1.

TABLE 9.1: Pre-Nahuatl phonological derivations

Dictionary form	//sik// 'navel'	//sɨk// 'cold'
Rule (1) (palatalisation)	ʃik	—
Rule (2) (merger)	—	sik
Surface form	[ʃik]	[sik]

Let us turn now to a syntactic example; this one is somewhat hypothetical, but figured in early generative work on syntactic change. Suppose that an earlier generation had learned a grammar with the rule that the pronoun *who* requires an object case marking (*whom*) when it occurs as the object of a verb or a preposition, and then later as adults these speakers added another rule that just deleted the object marking (*whom* → *who*). The next generation of children acquiring the language would hear only *who* as the output of the adult grammar, and would simply learn *who* in all contexts, eliminating the two adult rules. That is, the adults' non-optimal grammar would have two rules, Rule (1) to add object case marking (*whom*) in object environments, and Rule (2) to convert *whom* into *who* (deletion of the object case marking). The children learning the language, hearing only the output *who*, would not learn Rule (1) or Rule (2), but would simply learn to use *who* in all contexts and thus would construct their grammar with simpler internal structure (with *who* but no rules), and would still be able to achieve the same output as that of the adult model.

David Lightfoot's (1979, 1991) work has been very influential and is considered a major representative of later generative views. His scenario for the explanation of syntactic change is that grammatical complexity builds up gradually in a language (through minor changes of little importance) until eventually a sudden catastrophic and far-reaching restructuring of the grammar takes place which eliminates this complexity that made the language's grammar difficult for children to learn. One criticism of this view is that there is no reliable means of distinguishing the catastrophic changes (which overhaul grammars that become too complex, Lightfoot's major interest) from the gradually accumulating less significant changes. Another criticism is that catastrophic changes of this sort are extremely rare in the attested history of most languages. A central feature of Lightfoot's (1979) treatment is the claim that syntactic change (and syntax in general) is autonomous, meaning that syntactic change takes place independently of semantic relations, pragmatic considerations, discourse functions or sociolinguistic considerations. For Lightfoot, syntactic changes operate independently of considerations of meaning and use. This claim has been much criticised because syntactic rules and changes do not operate independently of meaning, use, pragmatics, sociolinguistic value judgements, foreign-language influences and so on.

Central to the generative view of language change is the notion that linguistic change in general, and therefore also syntactic change, takes place in the language acquisition process and in the transition of

grammars from one generation to the next. Many cases of syntactic changes would seem to conform to this view, though others seem at odds with it. This approach assumes that many of the kinds of changes are the results of the child language learners just getting it wrong, making mistakes. For example, this view claims for the change in the Finnish participle construction (sentences (3–6) above) that in language acquisition children incorrectly assumed that sentence (4) was to be analysed as containing the genitive singular because they incorrectly perceived what was (formerly) the accusative singular (in (4)) and then they carried through with this assumption (by extension) by imposing their new and erroneous genitive interpretation on sentences with the plurals (as in (6)) as well, which were not ambiguous at all, as the singulars had been (where the suffix -*n* might be seen as either 'accusative singular' or 'genitive singular'), resulting in a restructuring of the grammar. However, this view is simply not available for many kinds of syntactic change where after the change the original construction still remains grammatical and unchanged alongside the innovative construction that the change is based on; the development of the new Finnish postposition (above) is such a case. In such changes, the original construction remains but in effect gains additional interpretations, that is, multiple analyses. In the development of the new Finnish postposition ((1) and (2) above), the source construction (in (1)) and the new postpositional construction based on it (in (2)) both survive; the same is true of the changes involving the Spanish reflexive (in (7) above) and the new passive construction derived from it (in (10–11)). In these changes, there is nothing which requires the assumption that the child language learner got it wrong which resulted in the grammar with a different construction (a new and different analysis of the old construction) which eliminates the original interpretation of the construction from the grammar. In these examples, there is nothing that requires child language acquisition to be the driving force behind the changes. Adult speakers could just as easily initiate the new analyses alongside the pre-existing ones. If these changes did begin with adults, their results would be part of the language which the next generation would hear around them, and consequently the children would simply learn these new, additional constructions together with any others that happen to be around as part of the grammar which they acquire. The argument that the language acquisition process need not be seen as the crucial locus of syntactic change challenges assumptions of the generative approach to syntactic change.

9.5 Grammaticalisation

Grammaticalisation is a topic of extensive current interest. The famous French Indo-Europeanist Antoine Meillet (1912: 132) introduced the term 'grammaticalisation' with the sense of 'the attribution of a grammatical character to a formerly independent word', where an independent word with independent meaning may develop into an auxiliary word and, if the process continues, it ends up as a grammatical marker or bound grammatical morpheme. Jerzy Kuryłowicz's (1965: 52) much-cited definition is: 'Grammaticalisation consists in the increase of the range of a morpheme advancing from a lexical to a grammatical or from a less grammatical to a more grammatical status'. This process is often characterised by a concurrent 'weakening' of both the meaning and the phonetic form of the word involved. In grammaticalisation, two related processes are the typical objects of investigations: (1) changes of the lexical-item-to-grammatical-morpheme sort, which can involve phonological reduction and exhibit change from independent word to clitic or affix; and (2) the discourse-structure-to-morphosyntactic-marking sort, the fixing of discourse strategies in syntactic and morphological structure (Traugott and Heine 1991: 2). In both kinds, grammaticalisation is typically associated with *semantic bleaching* and *phonological reduction* (to which we return below). Thus, Heine and Reh (1984: 15) define grammaticalisation as 'an evolution whereby linguistic units lose in semantic complexity, pragmatic significance, syntactic freedom, and phonetic substance'.

A frequently cited example is English *will*, which originally meant 'want', as its German cognate, *will* '(he/she) wants', still does. We can see remnants of the former 'want' meaning in such things as *have the will* [= desire], *if you will* [= if you want to] and *good will* [= wishes, desires]. English *will* became semantically bleached (lost its sense of 'want') and was grammaticalised as a 'future' marker. Grammaticalised forms are also often associated with 'phonetic erosion' (reduction of fuller forms to phonologically shorter ones). In this example, grammaticalised *will* 'future' can also be reduced in form, as in contractions such as *I'll, she'll, my dog'll do it,* and so on. Meillet presented a parallel example in Greek of the grammaticalisation of a verb 'to want' as a future marker, though its history is more complex than the change in English and is coupled with the loss of infinitives in Greek. Modern Greek *θa* 'future marker' began life as the Classical Greek main verb *thélei* 'want'. Greek lost its original infinitive construction and replaced it with a subordinate clause construction: *thélō hina gráphō* 'I want to write' [literally 'I want that I write'], *thélei hina gráphei* 'he/she wants

to write' ['he/she wants that he/she writes']. Though *thélei* continued as a main verb meaning 'want', it also came to mean 'will' (future), so that *thélō hina gráphō*, for example, could mean either 'I want to write' or 'I will write'. Later, the 'future' became restricted to the 'third person' form only, /θeli/ (from *thélei*), and eventually the combination of /θeli hina/ changed to /θa/, going through the steps: /θeli hina/ > /θeli na/ > /θe na/ > /θa na/ > /θa/, giving Modern Greek /θa ɣráfo/ 'I will write' (Joseph 1990). Another example is the frequent grammaticalisation of lexical 'go' to 'future', as with English *(be) going to* which originally referred only to the verb of motion, but then acquired a sense of 'future'/'future intention', which can be reduced phonologically to *gonna* in spoken language.

9.5.1 Examples of typical grammaticalisation changes

It may be helpful to mention some of the sorts of grammaticalisation changes, and the pathways which they typically take, that are seen to recur with some frequency in languages around the world.

(1) Auxiliary < main verb.

(2) Case suffixes < postpositions.

(3) Case marking < serial verbs.

(4) Causatives < causal verb ('make, have, get, cause, force') + clause with another verb.

(5) Complementiser/subordinate conjunction < 'say'.

(6) Coordinate conjunction ('and') < 'with'.

(7) Copula ('to be') < positional verbs, 'stand', 'sit' or 'give','exist' (Spanish *estar* 'to be' < Latin *stare* 'to stand', Spanish *ser* 'to be'; Quechua dialects *tiya-* 'to be' < *tiya-* 'to sit').

(8) Dative case marker < 'give'.

(9) Definite article < demonstrative pronoun.

(10) Direct object case markers < locatives or prepositions (for example, a dative marker has become an accusative marker in Spanish, Kwa, Bemba and so on).

(11) Durative, habitual, iterative < 'stay'; durative aspect < 'remain, stay, keep, sit'.

(12) Ergative < passive (only one of several sources of ergative marking).

(13) Existential/presentational constructions < 'have, be' (often with no inflection or only third person present inflection allowed), or < locative pronoun (Spanish *hay* < *haber* 'to have'; French *il y a* < *y* 'there' + *a* 'has'; English *there is/are*).

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(14) Future < 'want, have, go, come'; adverbs ('quickly, tomorrow, then, afterwards').

(15) Grammatical gender < noun (masculine < 'man, male, boy'; feminine < 'woman, female, girl').

(16) Impersonal/agentless verb forms: the following constructions are interrelated in many languages, and changes frequently go from one to another among these, though directionality is not strongly determined in most cases: reflexive ~ reciprocal ~ spontaneous/automatically occurring ~ potential ~ honorific ~ plural ~ detransitivising constructions ~ middle/medio-passive/ pseudo-passive ~ passive ~ defocusing ~ non-agent topicalisation ~ impersonal verb ~ first person plural imperative/hortatory ~ causative ~ transitive (for example, 'John had/got his car stolen') ~ stative/resultative ~ perfect ~ ergative. A directionality is frequently attested in which reflexive > reciprocal > passive > imdersonal (where reflexive > passive, or reflexive > impersonal are possible and occur with frequency).

(17) Indefinite article < 'one'.

(18) Indefinite pronoun < 'person, man, body, thing'; 'one'; 'you'; 'they'.

(19) Locative constructions < body-part terms.

(20) Negative < negative intensifiers (for example, French *ne pas*, originally 'not a step' where *pas* was a negative intensifier much like English *not a bit* is today; similar changes are attested in many languages).

(21) Quotative < 'say'.

(22) Perfect(ive) < 'finish', 'complete', 'have'.

(23) Preposition/postpositions < verb (preposition < VO; postposition < OV).

(24) Progressive < locative + non-finite verb (English, for example, *is hunting* < *is a-hunting* < *is at hunting*; Pennsylvania German, Cologne German *ist am schreiben* [is on.the to.write] 'is writing').

(25) Progressive/habitual < durative verbs ('keep'), 'do', copula, positional verb.

(26) Reflexive pronoun < some body-part noun ('body, head, belly, person') + possessive.

(27) Relative pronouns < *wh*-question words/interrogative pronouns.

(28) Relative clause markers < demonstrative pronouns.

(29) Third person pronoun < demonstrative.

(30) *Wh*-questions < cleft or pseudo-cleft.

These are just a few of the many. Also, these are not the only paths by which many of these elements can develop. (For actual examples of these and others, see Campbell and Harris 1995, Heine and Reh 1984, and Hopper and Traugott 1993.)

9.5.2 The status of grammaticalisation

Some argue that grammaticalisation has no independent status of its own, that there is nothing special or unique about it, that it merely involves other kinds of linguistic changes which are well understood and not inherently connected with grammaticalisation: sound change, semantic change and reanalysis. It is important to understand the basis for this challenge to grammaticalisation.

Most scholars agree that grammaticalisation is not a mechanism of change in its own right, but relies on the other mechanisms, primarily on reanalysis, but also sometimes on extension and borrowing. There are, however, many reanalyses which do not involve grammaticalisation, for example those involving word-order changes, affixes becoming independent words (which is rare, but a number of examples are known from various languages), changes from one syntactic structure to another, and so on – that is, any reanalysis which does not involve lexical items shifting towards having a more grammatical status or discourse structure becoming more fixed morphosyntactically.

That grammaticalisation is often associated with 'semantic bleaching' (also called *fading, weakening*) should perhaps not be seen so much as a special attribute of grammaticalisation as just regular semantic change in action (see Chapter 10). Semantic bleaching in grammaticalisation can hardly be seen as very remarkable, since it is essentially part of the definition of grammaticalisation, a shift from more lexical meaning to more grammatical content. The types of semantic change involved in grammaticalisation are primarily narrowing, sometimes coupled with metaphor, metonymy, and others (see Chapter 10). The emphasis on semantic loss or weakening is perhaps unwarranted, however, since in the process of grammaticalisation forms also take on new meanings, such as 'future' in the case of *will* and *gonna*, and it is not necessarily the case that any lexical meaning is lost, since often the source of the grammaticalisation remains in the language with its former meaning alongside the new grammaticalised form, as *be going to* as the original meaning of directional verb has in English alongside the new 'future' meaning acquired in the grammaticalisation. The semantic bleaching (and the semantic change in general) in grammaticalisation can in no way be considered independent of semantic change in general.

The phonological reduction ('erosion' of form) which many associate with grammaticalisation is also best not seen as unique to grammaticalisation, but as normal phonological change. Phonological reduction processes apply to items of the appropriate phonological character generally in a language, not just to certain items which happen to be involved in processes of grammaticalisation. Reduction often follows grammaticalisation because it is at that stage that the conditions favourable to changes of phonological reduction first come about, for example where the forms which get reduced no longer have an independent lexical meaning and hence come to be in relatively unstressed positions.

In short, grammaticalisations involve reanalysis, but reanalysis is a much more powerful mechanism of change and is by no means limited to nor coextensive with grammaticalisation. Sound change and semantic change apply to all sorts of things in addition to grammaticalisations. For this reason, many find grammaticalisation derivative, perhaps an interesting intersection of these various sorts of change, but with no special status of its own. (For general treatments of grammaticalisation, see C. Lehmann 1995, Hopper and Traugott 1993, and Traugott and Heine 1991).

9.6 Syntactic Reconstruction

Opinions are sharply divided concerning whether syntax is reconstructible by the comparative method. Nevertheless, the evidence available for comparison is often sufficient for successful reconstruction of many aspects of the syntax of a proto-language. To understand why there has been doubt about reconstruction of syntax and to see the real potential which we have for successful reconstruction in this area, we need to look at some of the obstacles to such reconstruction that are sometimes mentioned and to ways of surmounting the difficulties which they raise. Following this, we will consider some beneficial things which can help in syntactic reconstruction.

9.6.1 Reanalysis as an obstacle to reconstruction

Instances of traditional analogy sometimes pose obstacles in phonological and lexical reconstruction. Reanalysis in syntactic change is like analogy, and cases of reanalysis can make syntactic reconstruction difficult. However, in instances where analogy changes the form in one language so that it does not fit those of the related languages with which it is compared, we seek an explanation for the non-fitting form, and often

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we find the analogical reformation which caused the form to deviate, as in the following cognate set from Germanic:

English	German	Gothic	Old Norse	
adder	*natter*	*nadr-*	*naðra*	'adder'/'snake'

The weight of the evidence in German, Gothic and Old Norse suggests an initial **n-* in the proto-form, and this bids us seek an explanation for why no reflex of this *n-* is seen in the English cognate. In seeking an explanation, we eventually discover that the pattern of the English indefinite article with *a* before words beginning in a consonant (as *a cousin*) and *an* before vowel-initial words (*an aunt*) suggests analogical reinterpretation, from *a #nadder* to *an #adder* (compare Old English *næddre* 'snake'). In a situation such as this one, the analogical change is not devastating to lexical reconstruction, and it is precisely the comparative method and the evidence from the other languages which helps us to unravel the complication. We reconstruct initial **n-* and posit an analogical change to account for the deviance of the English cognate.

Using the same procedure, in many instances where one of the languages being compared has undergone reanalysis in some particular construction, we can discover the reanalysis and explain it so that it no longer prevents us from reconstructing the syntactic pattern in question. Earlier in this chapter, we saw the example in which a Finnish participle construction was reanalysed so that the noun that had originally been an accusative direct object of the main verb (as in (3) and (5)) came to be interpreted as the genitive subject of the participle (as in (4b) and (6)). If we compare cognate constructions among the Balto-Finnic languages, which include Finnish and its close relatives, we soon discover that Finnish stands out as not fitting the pattern of the other languages, as seen in the following examples:

(24a) *Finnish*: näin häne-n tule-van   [genitive]
I.saw he-Gen come-Part
'I saw him coming/that he comes'

(24b) *Estonian*: nägin te-da tule-va-t   [accusative]
I.saw he-Acc come-Part-Acc
'I saw him coming/that he comes'

(24c) *Vote*: näin me:s-sä tulə-va-a te:tä mö   [accusative]
I.saw man.Acc come-Part-Acc street along
'I saw a man coming/who comes along the street'

Compare *Finnish*: näin miehe-n tule-van tietä pitkin

[genitive]

I.saw man-Gen come-Part road along

(same meaning)

(24d) *Lapp*: son oia'dna boc'cu-i-d vuol'-ga-m [accusative]

he see reindeer-Pl-Acc leave-Past.Part-Acc

'he sees that the reindeer have left'

Compare *Finnish*: hän näkee poro-j-en lähte-neen

[genitive]

he sees reindeer-Pl-Gen leave-Past.Part

The cognate constructions in Balto-Finnic languages, except for Finnish, present the noun phrase which plays the role of the subject of the subordinate clause syntactically as a direct object in accusative case of the main verb, not as a genitive subject of the participle, as in Finnish. The difference in Finnish demands an explanation. In seeking an explanation, we soon discover that the accusative singular and genitive singular cases are both signalled by -*n*, allowing for multiple interpretations. Given this and the difference between Finnish and the other languages with respect to this construction, we encounter little difficulty in determining that Finnish has undergone a reanalysis and does not reflect the original form. We reconstruct the construction as reflected in the other Balto-Finnic languages, with the noun phrase as accusative object of the main verb, and we write out the changes of reanalysis and extension that have caused Finnish to depart from this structure.

9.6.2 Borrowing as an obstacle to syntactic reconstruction

Just as borrowing can complicate lexical reconstruction, it can be a serious obstacle to syntactic reconstruction as well. However, the techniques for identifying borrowing (in Chapter 3) can often help to identify syntactic borrowing and thus get beyond this obstacle. For example, a comparison of the words for 'mother' across Finno-Ugric languages reveals reflexes of **ema* 'mother' in most of them; however, Finnish has *äiti* 'mother' instead, and this difference turns out to be the result of borrowing. Closer investigation reveals that Finnish did indeed borrow this word from Germanic 'mother' (Gothic *aipei* [ēθī], Old High German *eidī*, Proto-Germanic **aiθī*). Since it is borrowed, it is not a legitimate witness of what the form in the proto-language may have been; to determine that, we rely rather on the information available from the other languages which did not replace the original cognate word through

borrowing. In syntactic reconstruction, we do the same thing. For example, in most varieties of Finnish, verbal constructions involving obligation require the subject to be in the genitive case and the verb to be in a third person form (that is, the verb does not agree with this genitive subject), as in the following example from Standard Finnish (Gen = genitive, Sg = Singular, Nom = nominative, Pl = Plural, Part = Participle):

    (25a) minu-n täyty-y mennä
            I-Gen must-3rd.Person.Present to.go
            'I must go'
    (25b) minu-n pitä-ä mennä
            I-Gen must-3rd.Sg.Present to.go

However, Western Finnish lacks this obligation construction; rather, it has borrowed its construction from neighbouring Swedish, now with a subject in nominative case and with the verb agreeing in person with this subject, as in the following examples:

Western Finnish:

    (25c) mä täydy-n mennä
            I-Nom must-I to.go
            'I must go'
    (25d) mä pidä-n mennä
            I-Nom must-I to.go
            'I must go'

When we compare the many regional varieties of Finnish (in (26–27)), Western Finnish (illustrated in (25c–d)), with its nominative subjects and verb agreement, stands out as inconsistent with the others, which take genitive subjects and no verb agreement. This is illustrated here with an example from just two of the many dialects, Vermland (in Sweden) and Koprina (Inkeri, former Soviet Union):

Vermland:
    (26a) nii-j-en ois pitän-nä lahata oamuśe-lla
            these-Pl-Gen would.have must-Past.Part to.slaughter
              morning-on
            'they should have slaughtered in the morning'
            Compare *Standard Finnish*:
    (26b) nii-den olisi pitä-nyt lahdata aamu-lla
            these-Pl.Gen would.have must-Past.Part to.slaughter
              morning-on

Inkeri (Koprina):

(27a) sulhaśe-n pitʲ antaa kolme ruplaa pojil viinarahaa ·
bridegroom-Gen had to.give three roubles boys.to
wine.money.of

'The bridegroom had (was supposed) to give three roubles
of drinking money to the boys'

Compare *Standard Finnish*:

(27b) sulhase-n piti antaa pojille kolme ruplaa viinarahaa
bridegroom-Gen had to.give three roubles boys.to
wine.money.of

Given that all other varieties of Finnish have the genitive subject and non-agreeing third person verb form in verbal obligation constructions, we reconstruct this pattern and we explain the Western Finnish one with nominative subjects and verbs that agree in person with these as a later change due to borrowing from the Swedish model. The evidence from other varieties shows that Western Finnish is inconsistent, and further research reveals that it is due to borrowing. Therefore, in spite of the borrowing in this case, we are able successfully to reconstruct the older stage of the language, with genitive subjects and non-agreeing verbs, based on the weight of the comparative evidence from the other varieties compared.

In summary, there are many obstacles to reconstruction of syntax, but they are largely the same sort that we encounter in phonological and lexical reconstruction, and often it is possible to see beyond the obstacles. Let us turn now to some considerations which prove beneficial in efforts to reconstruct syntax.

9.6.3 Morphological reconstruction as clues to syntactic reconstruction

Morphology and syntax are so interrelated that to the extent that morphology can be reconstructed, many aspects of the proto-syntax in many cases will automatically become clear. The techniques used for lexical reconstruction (Chapter 5), based on the sequence of sound correspondences in cognate words, can frequently be used to reconstruct polymorphemic words. Morphological analysis of these reconstructed proto-words provides the proto-morphology free, so to speak. An example of this sort is seen in Table 9.2, where some polymorphemic cognate words for the paradigm for the verb 'to read' in Balto-Finnic are compared. With just these few compared words, we see indications of such aspects of Proto-Balto-Finnic morphosyntax as tenses and aspects,

passive, embedded clauses with the third infinitive, and the participle (which is also used in relative clauses). This is enough to illustrate how the technique of reconstructing the proto-morphology can help us to obtain aspects of the proto-syntax.

TABLE 9.2: Balto-Finnic comparative verbal morphology

	Finnish	Vote	Estonian	Proto-Balto-Finnic
(1)	luen	lugən	loen	*luɣe-n
	'I read (indicative)'			
(2)	olen lukenute	ələn lukənnu	olen lugenud	*ole-n luke-nut
	'I have read' (first person perfect indicative)			
(3)	luettiin	lugəti:	loeti [loetti]	*luɣe-ttiin
	'(it) was read' (past passive)			
(4)	lukemaan	lukəma:	lugema [lukema]	*lüke-ma-han
	'third infinitive'			
(5)	lukeva	lukəva	lugev [lukev]	*luke-va?
	'reading' (present active participle, basis of relative clauses)			

The 'third infinitive' is an infinitival form (formerly nominal) used especially with verbs of motion.

While in some situations this technique can recover a considerable amount of the proto-syntax, it works less well where the cognate grammatical morphemes have undergone functional or positional shifts or have been lost due to other changes in the languages. Successful reconstruction here, as with phonological and lexical reconstruction, depends on the nature of the evidence preserved in the languages being compared. For example, when we compare the modern Romance languages, we are able to recover much less of the original morphology because so much has been lost in the various languages. This being the case, the technique of morphological reconstruction which worked well for aspects of Proto-Balto-Finnic syntax provides less for Proto-Romance syntax.

9.6.4 Directionality

Just as knowing the characteristic direction of change in various sound changes provides clues to the best reconstruction in phonology, the directionality of a number of grammatical changes is also known, and this provides clues for the best grammatical reconstruction. An example of this is the fact that postpositions frequently become attached to roots and lose their independent status, becoming case suffixes; however,

case suffixes hardly ever become independent postpositions. With the directionality Postposition > Case in mind, consider the comparisons of forms meaning 'with' in Table 9.3, where Postp = Postposition; Com = Comitative case ('with'). In this example, given the known directionality of Postposition > Case, it is incumbent upon us to reconstruct the postposition as original and to postulate that the comitative case endings which are the cognates in Veps and Estonian are due to a grammatical change, 'postposition' > 'comitative case'.

TABLE 9.3: Comparison of Balto-Finnic 'with' forms

Finnish	Karelian	Veps	Estonian	Vote	Livonian	Proto-Balto-Finnic
kanssa (Postp)	kanssa (Postp)	-ka (Com)	-ga [-ka] (Com)	ka:sa (Postp)	ka:zu (Postp)	*kans(s)a? (Postp)

9.6.5 Archaisms

An *archaism* (also often called *relic*) is something characteristic of the language of the past, a vestige, which survives chiefly in specialised uses. Archaisms are in some way exceptional or marginal to the language in which they are found. They are most commonly preserved in certain kinds of language such as in proverbs, folk poetry, folk ballads, legal documents, prayers and religious texts, very formal genres or stylistic variants, and so on. A straightforward example is English *pease* for 'pea', an archaism preserved in the nursery rhyme 'Pease porridge hot, pease porridge cold, pease porridge in the pot nine days old'; it reflects the older *pease* before it was changed by analogical back formation to *pea* (mentioned in Chapter 4). As exceptions, archaisms have somehow been bypassed or exempted from the general changes which the language has undergone. Grammatical archaisms are highly favoured in syntactic reconstruction – some scholars believe them to be the single most useful source of evidence. Naturally, if we can tell what is archaic – by definition 'old' – it affords us extremely valuable information for historical reconstruction.

A difficulty with using archaisms (relics) for reconstruction is that it can be difficult to tell whether we are dealing with a legitimate archaism or something that is exceptional for other reasons but is not old. Another difficulty comes from the frequent situation in which we easily identify exceptions, but where the archaism provides too little information for reliable reconstruction. For example, in early Latin, adjectives and nouns occurred in the order Adjective–Noun; this gradually changed and today

the most neutral order in all the Romance languages is Noun–Adjective. In spite of the change to Noun–Adjective in the contemporary Romance languages, the older order Adjective–Noun remains with some of the most frequently occurring adjectives. When we attempt to reconstruct the order of adjective and noun in Proto-Romance, we compare the correspondences in the neutral order (Noun–Adjective), but we also note the exceptional order (Adjective–Noun), as in Table 9.4. However, the facts summarised in Table 9.4, including the exceptional (archaic) word order, are not be sufficient to permit us to reconstruct *Adjective–Noun* as the neutral order in Proto-Romance with any confidence.

TABLE 9.4: Comparisons of Romance word orders with adjective and noun

	Spanish	Portuguese	French	Italian	Romanian
Neutral order:	Noun–Adj	Noun–Adj	Noun–Adj	Noun–Adj	Noun–Adj
Exceptional order:	Adj–Noun	Adj–Noun	Adj–Noun	Adj–Noun	Adj–Noun

Let us look at a slightly more complicated example. As we saw above, Proto-Balto-Finnic had a participle construction in which the logical subject of the participial verb was originally a direct object (in accusative case, as in (3) and (5)) of the main verb, but this was reanalysed in Finnish so that the noun phrase came to be interpreted as the subject (in genitive case) of the participle (as in (4b) and (6)). This reanalysis was made possible by the homophony of the accusative and genitive singular case endings, both -*n*. Finnish archaisms preserve evidence of the construction before the change with the accusative. For example, in folk poems there are instances of relics such as (28a) (Acc = 'accusative', Pass = 'passive', Pl = 'plural', Part = 'participle', Gen = 'genitive'):

(28a) kuul-tihin kala-t kute-van, lohenpursto-t loiskutta-van
   hear-Past.Pass fish-Acc.Pl spawn-Part salmon.tail-Acc.Pl
   splash-Part
  'the fish were heard spawning, salmon-tails splashing'

Instead of the accusative plural of 'fish' (*kala-t*) and 'salmon-tails' (*lohenpursto-t*), modern Standard Finnish has the genitive plural, as in (28b):

(28b) kuul-tiin kalo-j-en kute-van, lohenpursto-j-en loiskutta-van
   hear-Past.Pass fish-Pl.Gen spawn-Part salmon.tail-Pl.Gen
   splash-Part

The relic contained in this folk poem provides additional support for the reconstruction above with the accusative pattern which was securely established on the basis of comparative evidence from the related languages. However, if other supporting evidence from related languages were not available, this archaism alone would be insufficient for a reliable reconstruction. We would not be certain whether this was in fact an archaism (and thus evidence of a former state of the language) or perhaps just some exception to the normal pattern for expressive or poetic purposes.

9.6.6 What can be successfully reconstructed

Another way of appreciating the possibilities for successful syntactic reconstruction is by evaluating the results of attempts to reconstruct the syntax of language families. The application of the comparative method to languages of the Uralic family reveals a proto-language with the following grammatical features. There were three contrasting grammatical numbers, 'dual' (*-$k\partial$ (-)), 'plural' (*-t and *-j) and 'singular' ($\emptyset$). Direct objects of finite verbs were marked by the 'accusative' case (*-m), but the objects of an imperative verb bore no accusative marker. Case and definiteness were related; the genitive and accusative cases implied definiteness, while indefinite nouns took no marking (that is, in form they were not distinct from the nominative case). The 'genitive' case marked not only the possessor but also served to signal an adjective attribute before its head noun. Proto-Uralic verb tenses included: *-j 'past', *-$m\partial$ 'past (perfect)', *-pA 'present' and *-$\acute{s}A$ 'past' ('A' denotes vowel harmony with the attached root). There was a negative verb, *e-. Sentences minimally had a nominal subject and a predicate (verbal or nominal); the subject could be signalled by personal pronominal suffixes attached to the predicate. The predicate agreed with its subject (in person and number); there was no other agreement. The predicate of embedded clauses was in form a verbal noun, where personal possessive pronominal suffixes were used to signal its subject. The role of the embedded clause in the overall sentence was shown by case markings on the verbal noun (a nominalisation) which was the core of the embedded clause. Proto-Uralic had no overt conjunctions or relative pronouns; embedded verbal nouns, nominalisations, were the only means of showing subordination. In brief, the application of the comparative method to the reconstruction of Proto-Uralic morphosyntax has proven quite successful and this case shows that, at least in some instances, we are capable of syntactic reconstruction (Janhunen 1982; Campbell 1990a).

In summary, there are many obstacles to successful syntactic reconstruction, but many of these are like the obstacles encountered in phonological and lexical reconstruction, and in many instances, using normal historical linguistic techniques (recognition of borrowing, analogy and so on), we can get beyond the obstacles through the weight of the comparative evidence from related languages. Reliance on the known directionality of many grammatical changes helps, and reconstructed morphology and syntactic archaisms can provide very valuable information. In short, while syntactic reconstruction can be very difficult, it is clearly possible.

9.7 Exercises

Exercise 9.1 Syntactic change in Estonian

Compare the sentences in this exercise, which represent different stages of Estonian (a Finno-Ugric language); explain what changed and identify the kinds of changes or the mechanisms involved.

Stage I: Estonian had two alternative constructions for subordinate clauses involving the complements of speech-act and mental-state main verbs, illustrated in (1) and (2) (Gen = 'genitive', Nom = 'nominative', Part = 'participle', Pres = 'present indicative'):

(1) sai kuulda, et seal üks mees ela-b
    got to.hear that there one.Nom man.Nom live-3rd.Pres
    'he/she came to hear that a man lives there'
(2) sai kuulda seal ühe mehe ela-vat
    got to.hear there one.Gen man.Gen live-Part
    (same meaning as (1))

Stage II: (1) and (2) remain possible, but the construction in (3) also became possible (note that 'participle' became 'indirect'):

(3) sai kuulda, (et) seal üks mees ela-vat
    got to.hear (that) there one.Nom man.Nom live-Indirect
    (3a) 'he/she came to hear that they say a man lives there'/
    (3b) 'he/she came to hear that reportedly a man lives there'

Stage III: (1), (2) and (3) are all possible now, but forms formerly found only in subordinate clauses, as in (3), came to be found also in main clauses, as in (4):

(4) ta tege-vat töö-d
    he.Nom do-Indirect work-Partitive
    'They say he is working' / 'Reportedly he is working'

Exercise 9.2 *The development of perfect auxiliaries in Spanish*

In the following, the stages in the development of perfect auxiliaries in Spanish from its Latin origins are described and illustrated. On the basis of this information, compare the stages and attempt to determine the changes which took place and to identify the kinds of changes or the mechanisms involved. (Fem = 'feminine', Masc = 'masculine', Part = 'participle', Pl = 'plural', PPP = 'past passive participle').

Stage I: Latin used expressions with 'past passive participle' (PPP) in combination with the verbs *tenēre* 'hold', *habēre* 'keep, hold' and others meaning 'hold, possess, own', to represent something as ready or kept in a completed condition, as in (1):

(1) Metuō enim nē ibi vos habeam fatigā-tō-s (Late Latin)
    fear.I truly indeed there you have.I fatigue-PPP.Masc-Pl
    'I fear that I have you tired'/'that I have tired you'/'that you
        are tired'

This construction with 'past passive participle' was quite limited in its occurrence in Classical Latin, but became associated with 'perfect' aspect in combination with the development of *habēre* as an auxiliary. Originally this construction had *habēre* 'keep, hold, have' (a main verb) with the 'past passive participle' form as an adjective which modified the direct object (both the logical and surface object) of this main verb (*habēre*), which agreed in number and gender with this object as its head, as in (2):

(2) [habeō] [litter-ā-s scrip-t-ā-s]
    have.I letter-Fem-Pl.Acc write-PPP-Fem-Pl.Acc
    'I have written letters' = 'I have letters which are written'

Stage II: In Old Spanish, *haber* (spelled *aver* in Old Spanish, from Latin *habēre* 'to have, hold') in such constructions began to lose its possessive meaning and to consolidate the auxiliary function, resulting in compound tenses, but still with agreement in gender and number between the participle and the direct object until the mid-sixteenth century, as illustrated in (3) (where the *-o-s* 'masculine plural' of *hechos* 'made' agrees with the *-o-s* 'masculine plural' of *enemigos* 'enemies'):

(3) Los *había* . . . *he-ch-o-s* enemig-*o-s* de estotros (Hernán Cortés)
    Them had make-Past.Part-Masc-Pl enemy-Masc-Pl of these.others
    'He had made enemies of these others'

Stage III: Gradually, the *haber* + PPP construction changed, eliminating the requirement that 'past passive participle' must agree in number

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and gender with the noun which it modified, losing its passive sense, with the verb *haber* becoming the 'perfect auxiliary', and Modern Spanish no longer permits agreement between the participle and the object, as in (4):

(4) Hemos escri-to cart-a-s
    have.we write-Past.Part letter-Fem-Pl
    'We have written letters'

The adjectival participle source with number and gender agreement still survives in other contexts (but not in the perfect construction with forms of the verb *haber*), for example:

(5) Tenemos cart-<u>a-s</u> escri-t-<u>a-s</u> en tint-a roj-a
    have.we letter-Fem-Pl write-Past.Part-Fem-Pl in ink-Fem.Sg
        red-Fem.Sg
    'We have letters written in red ink'.

In the series of changes described here, the meaning is no longer 'X possesses that which has been done', but 'X has done', and is accompanied by the structural change of *haber* from main verb to an auxiliary.

Stage IV: Additional changes in connection with the new 'perfect' construction also came about. First, the verb *ser* 'to be' had formerly also been a perfect auxiliary used with certain intransitive verbs (especially verbs of motion) (as in (6a) and (7a)), but this was replaced by the auxiliary *haber*, as seen in the Modern Spanish equivalents in (6b) and (7b):

(6a) Old Spanish   ella *es* naci-d-*a*
                       she is born-Past.Part-Fem
(6b) Modern Spanish   ella ha naci-d-o
                       she has born-Past.Part
                       'she has been born'
(7a) Old Spanish   ellos *son* i-d-*o-s*
                       they are go-Past.Part-Masc-Pl
(7b) Modern Spanish   ellos *han* i-d-*o*
                       they have go-Past.Part
                       'they have gone' (Lapesa 1981:212)

Second, the word order changed, placing the participle closer to the auxiliary, for example from the equivalent of 'I have a letter written' (as in (2)) to 'I have written a letter' (as in (4)).

10

Semantic Change and Lexical Change

They that dally [= converse idly] nicely [= foolishly] with words may quickly make them wanton [= unmanageable].

(Shakespeare, *Twelfth Night* III, 1)

10.1 Introduction

Changes in meaning and vocabulary excite people. Non-linguists are fascinated by why *bloody* and *bugger* are obscene in Britain and not in America – the words don't even mean the same thing in the two places – and why *pissed* means 'angry' in the USA but 'drunk' in the UK, and why *pissed* is so much less obscene and more tolerated than it was a generation ago in both countries. People want to know how words such as *ditz, dork, dweeb, geek, nerd, twit, wimp, wuss* and *yutz* get added to the language so fast and why their meanings seem to change so rapidly, and whatever happened to the *groovy* of late 1960s love songs, anyway? Some find a certain delight (some would say a twisted satisfaction) in the seeming irony in the semantic history of *to bless*, from Old English *blēdsian* (earlier *blōdsian*), which originally meant 'to mark with blood' in an act of consecration in pagan sacrifice. With umlaut in mind, it is easy to see the connection between *blood* and the *blēd-* part of *blēdsian* (just think *to bleed* to see the connection more clearly). Some are charmed (perhaps perversely so) by a favourite example of handbooks, the story behind *cretin*. English *cretin* is borrowed from French *crétin* 'stupid', which comes, to the surprise and delight of etymology-lovers, ultimately from Latin *christiānum* 'Christian'. In Romance languages,

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