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ON THE STATUS OF GRAMMATICALISATION AND THE DIACHRONIC DIMENSION IN EXPLANATION

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ABSTRACT

The purpose of this paper is to consider how grammaticalisation, which is generally considered to be a diachronic process, can be fitted into a theory of language change that is based on the idea that change is brought about by the speaker, and hence is essentially a synchronic matter.¹ First the question of the relation between explanation, the theory of grammar and the theory of change will be discussed, on the basis of which a number of guidelines will be suggested which should direct empirical research in the area of language change. In the second part of the paper, one particular case of grammaticalisation will be investigated, namely the development of *have to* in English from a possessive, full verb to a modal semi-auxiliary. It will be shown that this case contains both diachronic and synchronic aspects, which need to be kept apart. In keeping them apart, this particular case of grammaticalisation can be seen to accord with the principles of language change argued for in the first part.

¹ A first version of this paper was written for a workshop on explanation in linguistic change, which took place in Jena (Germany) in 1993, as part of the 'Jahrestagung der Deutschen Gesellschaft für Sprachwissenschaft'. Since then it has been much revised. It was presented as a paper to audiences in Gothenburg, Budapest and Amsterdam and to the Philological Society at its annual meeting in London in May 1996. The paper has benefitted from many comments given both orally and in writing. In particular, I would like to thank Aimo Seppänen and Joe Trotta of the University of Gothenburg, my colleagues in Amsterdam, Frederike van der Leek and Willem Koopman, and the editor and two anonymous reviewers of this journal for their helpful comments and criticisms. I am also grateful to Joe Trotta and Steen Schousboe (University of Copenhagen) for their willingness to provide me with information on the development of the cognates of *have to* in Swedish and Danish.

1. INTRODUCTION

When investigating a case of so-called grammaticalisation in the history of English, the development of the verb *have* from a possessive, full verb into a modal semi-auxiliary, I happened to note that grammaticalisation processes are not exactly in favour with generative diachronic linguists, even though these processes have been attracting a great deal of attention of late – witness, for instance, the publication of a two-volume work on the topic by Traugott & Heine (1991), and the textbook by Hopper & Traugott (1993). The reason for this may well be the generativists' greater interest, as far as language change is concerned, in the theory of grammar, which, being essentially synchronic, cannot really deal with diachronic processes like grammaticalisation. This made me wonder about the status of grammaticalisation within an explanatory model of language change based on a (synchronic) theory of grammar. In order to shed some light on this question, I would first of all like to have another look at the relationship between the 'explainability' of language change and the theory of grammar, and especially in what way diachronic facts should be analysed so that they can add to our knowledge of the (synchronic) theory of grammar (see section 2). Next, I will investigate the nature of grammaticalisation and its place within an explanatory model of language change that centers on the speaker by means of a case study, the development of *have* followed by a *to*-infinitive from a full verb to a semi-auxiliary (section 3). The discussion will be rounded off by a brief conclusion (section 4).

2. EXPLANATION OF SYNTACTIC CHANGE AND THE THEORY OF GRAMMAR

In the last few decades theoretical linguists have shown great interest in historical linguistics because it has been considered to provide 'a window on the form of linguistic competence' (Kiparsky 1968:174). When Kiparsky wrote these words, his main concern was with phonology; it was Lightfoot who turned his ideas towards syntax: 'to undertake work on syntactic change . . . is . . . desirable if the theory of grammar is to maximize its empirical content and provide

testable claims about markedness' (1979:79). Not only are historical data said to provide insight into the form and content of the theory of grammar – Lightfoot (1979:154) again says 'we have provided a methodology for making grammatical theories responsible to historical change' – the relationship works even more strongly the other way around: 'for historical linguists seeking to delimit possible changes, the focus of attention must shift from a theory of change to a theory of grammar' (Lightfoot 1979:152). According to Lightfoot, then, the 'real work' (p. 150) as far as change is concerned is done by the theory of grammar² (not by the theory of change, which, in Lightfoot's view, is fairly empty of content) so that it makes sense to see the research on diachronic change as 'fully integrated with work on grammatical theory in general' (p. 154). The changes concerned here are changes only of an internal kind. It goes without saying that external factors are also involved in change, but the occurrence of such factors is not accounted for by the theory of grammar. From the point of view of the synchronic study of language and the theory of grammar, this may be a good approach to take, but it has to be noted that it is heavily skewed towards the synchronic viewpoint and has little consideration for the theory of change as an object of investigation interesting in itself, as something that is more than merely an annexe to the theory of grammar.

In more recent years, the generative theory of grammar has taken a new turning, in its search for parametric principles. This has also influenced work in historical linguistics, which has now become concerned with changes in the way parameters are set. It seems to me that the parametric approach is and has been fruitful. Not only does it give a clearer and more constrained idea of the form and properties of universal grammar, but it has also, very recently, led to a clearer formulation of the relationship between the theory of grammar and the explanation of language change. Whereas before (see above) it was usually thought that the explanation of a change was to be found within the theory of grammar, it is now realised that it is not the theory of grammar that *accounts* for a different

² Lightfoot adds 'and by the set of general perceptual mechanisms.' It is not clear what the status of these mechanisms is. One might consider them as meta-principles of the theory of grammar, or as principles of a higher, cognitive order. Other 'natural' principles also belong here, such as those to do with iconicity, economy, etc.

parameter setting, but that a different parameter setting can only be explained by a difference in the triggering experience. In other words, it is through an account of how language acquisition takes place that we can begin to explain language change. Thus, in Lightfoot (1979, 1981 etc.) it was still believed that a change could be *explained* by reference to a principle of grammar (such as the Transparency Principle 1979:114, 231 etc. or the Trace Erasure Principle 1981:89–90) or to changes in the rules of grammar (such as a change in case assignment, or addition of a new rule like S-bar-deletion 1981:113), or to fixing a parameter differently (1981:90). In more recent work (1991; 1993), Lightfoot has distanced himself from this earlier work.³

It means that a modern historical linguist cannot say that some changing phenomenon 'is due to' the new parameter setting which accounts for it, although this is often said. Rather, it manifests and provides evidence for that parameter setting; it is *due* to changes in the triggering experience which in turn entailed the new parameter setting (Lightfoot 1993:211).

Thus, language change is now explained by a combination of the learning theory (in Lightfoot's case, degree-0 learnability), and differences or changes in the triggering experience. There is still a clear link with the past, of course, in that the learning theory (or the theory of language acquisition) must also rely on the principles of universal grammar contained in the theory of grammar.

It seems, then, that it is now realised also by linguists from within the generative school that to say, for example, that a certain parameter has shifted does not provide an *explanation* of a change, but merely a description. There is, however, another problem with the postulated parameters of generative grammar. Although they are part of a theory that is cognitively real in the

³ It must be stated that it is not always altogether clear how far Lightfoot saw a new parameter setting as an explanation for a change. On the one hand, he writes, 'given a change in some parameter certain phenomena must follow' (1981:91), but he also admits (p. 90) that apart from a new parameter setting in explaining a change, 'a new phenomenon (. . .) must be the way that it is, given some general principle(s) of grammar and the new property of the particular grammar.' However, it is clear that in his later work the process of language acquisition plays a much more important, explanatory role.

sense that it represents, or is said to represent, the language faculty, the actual way in which the theory reflects this faculty is still very much a hypothesis. Generative linguists, on the whole, envisage an economical and elegant grammatical model that accounts for language phenomena with a minimal apparatus. However, this very model also requires the rules and principles to be highly abstract, and requires one to build in functional categories that need not be visible on the surface. Since the main aim of historical linguists is to understand how language change takes place, and not in the first place to describe the theory of grammar, it is important for them to find an explanation working from the data itself. This information can then, on a different level, be used by synchronic linguists to deepen their understanding of the theory of grammar. In order to understand change, and to understand what principles are important in change (and in language), it seems sensible to approach it from two directions, and not to make one subservient to the other, as is indeed suggested by Lightfoot's (1979:149) notion of an 'impoverished theory of change'.

The latter approach is indeed one of the problems many historical linguists, who themselves are not strict generativists, find with the generative position towards language change and explanation. Witness, for instance, Faarlund's comment on the use of the T(race) E(rasure) P(rinciple) as an explanation for change:

. . . the T.E.P. is a very theory-specific and model-internal principle. Its success as an explanatory device depends on whether it can be shown to be a universal principle, or whether it just expresses a generalization based on other randomly observed facts in some (closely related) languages. Until syntactic principles of this sort can be shown to reflect cognitive processes, *it remains a description, and cannot qualify as an explanation* (Faarlund 1990:181 emphasis added).

Although it is in principle true that the theory of grammar should be able to explain why an internal grammatical change has taken place, the theory at the moment (and for a long time to come) is no more than a hypothesis based on a very small number of languages; a hypothesis, therefore, which will doubtlessly undergo a great many changes yet. This is one reason why it may be 'healthier' for

historical linguists to concentrate on the data surrounding the change (the triggering experience, if you like) and to seek an explanation there, rather than to take the theory as their main lead into the data. A theoretical explanation at this stage will provide little insight into the causes of change, and it will, indeed, often turn out to be circular. I therefore agree with cognitive linguists such as, for instance, Dressler, that one should attempt 'to find cognitive and other extralinguistic bases for grammatical principles and preferences', and that 'in addition to traditional internal evidence' we should accept 'external (or substantive) evidence (e.g. from language acquisition and disturbances, diachrony, language contact etc.)' (Dressler 1994:22).

Lightfoot, in his later work, thus, rightly emphasises the importance of the theory of learning *and* the triggering experience for both the diachronic linguist (in order to provide an explanation of change, and, presumably, to come to an explanatory model of change) and the synchronic linguist (in order to find out the form of the language system and the theory of grammar). By shifting from the theory of grammar to the theory of learning, Lightfoot has shown that in order to get an explanation rather than a mere description of the change, it is necessary to go to another *domain*. This is also indicated in the work of Bybee (1988), Faarlund (1990) and Heine (1994). Faarlund (1990:36) writes, 'for a theory to have explanatory value, it must relate the facts to other facts in a different domain'. Heine (1994:255) confirms this. He draws a distinction between internal (weak) and external (strong) explanations. In the former, 'phenomena are explained exclusively with reference to and within the domain to which they belong', while in the latter, 'explanations . . . are derived from independently motivated principles.'

It is not always so easy to determine what constitutes a different domain. According to Faarlund, these domains may be sisters of one another, such as for instance syntax and semantics (i.e. different modules within the theory of grammar), as well as higher order domains. When Faarlund (1990:36) mentions learnability and universal grammar as 'one such [higher order] domain relative to syntax', the question arises whether that domain is really different enough from syntax. Since the hypothesis of universal grammar is based on the hypothesis of the system of one or more particular

grammars, we are still very close to the earlier position taken by Lightfoot as described above, to which Faarlund himself takes exception. Faarlund also suggests in the above quotation that universal grammar and learnability are one and the same domain. If that is true, Lightfoot's new position will not have altered the picture a great deal after all. I think, indeed, that there must be a large overlap between the two, since whatever children use to learn a language must also to some extent be present in the system of that language and hence in the universal system. The difference between Lightfoot's earlier and later stance is, however, that he is now more concerned with the role of the speaker. The role of the speaker brings in social and historical considerations, which are absent in the theory of grammar. Compare also Labov (1989:96) who writes, 'there is little evidence to support the notion of a language learning faculty isolated from social and historical developments.'

Bybee does not explicitly mention different domains. She writes that 'complete explanations must specify a causal mechanism; thus we cannot explain change with reference to preferred types, but we must explain common types by referring to the factors that create them' (Bybee 1988:357). One of the examples she cites concerns the use of an analogical principle, such as Vennemann's Natural Serialization Principle or Hawkins's Cross-Category Harmony Principle, to *explain* the differences in the order of the genitive and its governing noun in prepositional and postpositional languages. Bybee shows, however, that it is not the analogical principle that explains these phenomena. The explanation can be found simply in the fact that pre- and postposition developed from older genitive-head noun constructions, whose internal order determined the later development of either pre- or postpositions. Thus, in languages with Genitive-Noun order the grammaticalisation of a noun into an adposition would have the following result: *of-the-house by the side* > *the house beside* 'beside/by the house', i.e. the language would develop *postpositions*. In languages with Noun-Genitive order, the same process would result in a *preposition*, *by the side of-the-house* > *beside the house*. What Bybee proposes here is similar to what Haiman (1993) suggests in his notion of 'emancipation', that is, we can understand why a particular rule is the way it is by looking at how it developed. Haiman (1993:301) describes how 'objects' may

become 'signs', and he notes (p. 318) that rules that now seem arbitrary or dysfunctional usually find their origin in functional ones. The environment has been changed, however, (for example nouns have become prepositions) and therefore the rule looks arbitrary.

So it is by looking at the diachronic dimension that we can learn how some of the (postulated) 'principles' of grammar have arisen, and find out, as in this case, that the principle may not be a causal factor at all, and thus may not even exist. In a sense Bybee's search for an explanation also involves looking in another domain. In this example, she turns from the synchronic plane to the diachronic one.⁴ She then notes that there is a grammaticalisation process which links up the two orders and which explains the present-day correlation between the order of governing noun + genitive and the use of pre/postpositions. Furthermore, the process of grammaticalisation – the topic of discussion here – involves not only a grammatical restructuring but also bleaching (as we will see below), which must be the result of some cognitive process (belonging to the semantic domain). More important, I think, is the fact that Bybee shows that it pays to turn to the linguistic *facts*, to the *data* (both the synchronic and the diachronic) rather than to some principle of grammar for an explanation. Joseph (1992:124) also strongly supports the use of diachronic data in order to *understand* the state of the synchronic system, 'the synchronic account certainly provides a true generalization . . . and the diachronic account does indeed give some insight into why such a generalization is possible and why there are exceptions to this generalization' (and see also Klooster 1988; Fischer 1990:6; and Lass 1994, who applies this to his description of Old English phonology and morphology).

The greater emphasis on learning theory and especially on the triggering experience should also be welcome to linguists like Joseph, who pleads for a more prominent role for the speakers in the field of diachronic explanation. It is of course evident that the role of the speaker is paramount when there are external factors operating on the language, such as in changes via language contact

⁴ Heine (1994:259) also considers 'diachronic change' another domain, and therefore as providing a 'strong' explanation.

and changes due to prestige (as Joseph 1992:129 indicates). However, Joseph also emphasises the role of the speaker in changes of a more internal kind. He illustrates by means of a number of examples from language change that 'speakers pay much more attention to their immediately apparent data, in particular to surface forms of words and expressions, than they do to more "distant" data of the sort that a linguist – or a perfect speaker – might be aware of' (1992:140–141).⁵ In other words, speakers tend to generalise only 'locally' (Joseph 1992:140), and their reanalyses may be rather more opaque or less economical than a (generative) linguist might hypothesise, who tends to have a more global and abstract view of the rules of grammar (see also note 11).⁶

The observation about the role of the speaker made by Joseph (and others) has two important consequences for us in the present context. First of all, it emphasises once again that historical linguists when trying to provide an explanation for (a particular) change should not make use of notions such as 'diachronic principles', 'diachronic tendencies' or 'diachronic processes' (Joseph 1992:127).⁷

⁵ A good example of such speakers' strategies on a small scale is the phenomenon called folk-etymology (see Joseph 1992:132). Folk-etymology demonstrates that speakers often do not look *beyond* the immediate surface forms. Joseph does not explicitly address the question whether speakers involved in language change are language learners or also include mature speakers. It seems most likely that he includes both. It has often been suggested that children cannot change language on their own, because they do not have the necessary social influence (Aitchison 1991:179). Bybee and Slobin (1982) have made a specific study of the changes made by adults and by children and conclude that the innovations made by children learning the language accord more with universal tendencies while adults manifest more language-specific tendencies, and that it is the older speakers who are in control of the changes that occur. This may show that the changes that 'stick' may be more local (in Joseph's sense) than the innovations of the younger children.

⁶ The idea itself is of course not new. Joseph himself refers to Anttila ([1972] 1989), Joseph & Janda (1988), Derwing & Skousen (1989:58), Watkins (1989:798). I may here also add van Marle (1990), who in his inaugural speech as Professor of Language Change stressed the *ongelijksoortige karakter* 'unequal character' of synchrony and diachrony. He writes that 'many forms of language change are indeed the result of the synchronic activities of speakers, but mainly of those activities which do *not* agree with the normal system [i.e. the synchronic system]' (van Marle 1990:13, translation mine).

⁷ One of the clearest expositions on this methodological topic is still Lightfoot (1979:34ff.). In spite of this, the notion of diachronic syntactic processes is still frequently encountered, as can be seen for instance from descriptions of grammaticalisation in a number of articles in Traugott & Heine (1991) (I will come back to this below). Especially revealing too is Hawkins (1990:102–103), who talks about

Since language change involves the speaker, it must always take place in the present. Each speaker builds up his own grammar afresh and for that reason he cannot, logically, have insight into or take account of processes that have started long before he was there. His grammar is by necessity a purely synchronic affair. It follows, therefore, that 'diachronic principles or generalizations do not exist . . . outside of the synchronic processes of grammar formation at synchronic stage after synchronic stage' (Joseph 1992:127). This is of course of importance when we look in the next section at the phenomenon of grammaticalisation, which is generally considered to be a diachronic process.⁸

Secondly, the idea that speakers display a tendency to look for local solutions plays havoc with notions of markedness or simplicity; notions which by their very nature rely on broad or deep generalisations.⁹ It thus also calls into question the very neat computational model of language change devised by Clark & Roberts (1993). They subscribe to Lightfoot's idea that the problem of language change is a subcase of the logical problem of language acquisition, and hence that an explanatory model for language change should be found there. Similarly, they also believe that 'diachronic change can provide crucial information on those factors that learners rely on to select hypotheses' (Clark & Roberts 1993:302). I have no problems, as I said above, with this position, but I do find some of the

'diachronic universals' ('regular diachronic drifts'), and states that 'the causes of these drifts are various and constitute part of the theory of language change.' I think it is important here to make a clear distinction between the description of psycholinguistic processes in language change, i.e. the processes that take place in the speaker's head, which cannot be diachronic, and the description of diachronic developments that take place in language where *language itself* is the *object* of study. It must be clear that the latter are of a different order, and that terms such as 'diachronic processes' can only be applicable on this level.

⁸ Cf. Heine et al. (1991:149), 'what is common to all definitions of grammaticalization is, first, that it is conceived as a *process*. Although this process can be interpreted synchronically as well (. . .) there is wide agreement that it forms essentially a diachronic phenomenon.'

⁹ For the idea that the notion of (un)markedness is related to naturalness and frequency, see e.g. Anttila (1989:125–127), Hopper & Traugott (1993:145–146) and Trask (1993:167). Smith (1981) shows, moreover, that notions of markedness are very difficult to test either in the area of language acquisition or in the area of historical change.

inferences that they make problematic.¹⁰ They write that because 'the appropriate choice of grammar is underdetermined by the linguistic environment' (pp. 301–302) or because 'external pressures do not force the learner to select a particular grammar, it [i.e. the learning-device that every learner possesses] will turn in on itself, abandoning external pressure, and rely on its own internal structure to select from the alternatives at hand' (p. 302). What does it mean for a learning-device to 'rely on its own internal structure'? The authors mention factors like 'elegance' (pp. 312 ff., 331, 342), the 'subset condition' (pp. 326 ff., 342), and the property of markedness as an interaction of certain parameter values (p. 341). With the introduction of such notions we have in fact turned away from the data and the role of the speaker, back to the theory of grammar.¹¹ As long as we have no independent domain against which to evaluate hypotheses about the content of the theory of grammar, we really have no way of falsifying the above ideas or explanations. We seem to be back onto the circular path.¹²

¹⁰ I do like their notion of a fitness-metric (comparable to Darwin's idea of natural selection, and survival of the fittest) in so far as it relates to observable data. It entails that 'the learner converges to the most fit hypothesis relative to the input text' (Clark & Roberts 1993:301). As I see it, there are two sides to this. First it shows how one tentative hypothesis may be replaced by another, more fit, as the learner progresses in his learning (e.g. when more constructions are seen to be part of the same pattern). Secondly, the fitness of a hypothesis may also be strengthened by the frequency of a certain construction. In other words, when a particular construction is becoming obsolescent, it may well be that the learner fails to make the 'correct' hypothesis (i.e. the hypothesis of the target language) and comes to a different hypothesis. In both these cases the fitness-metric is closely associated with the input text, i.e. with surface data. When the fitness-metric is applied to more abstract levels (Clark & Roberts 1993:316 ff.), it becomes less convincing (see below).

The fitness-metric resembles in some ways Kroch's (1989) model for language change in that both show how a change in the input text may lead *gradually* to a structural change in the grammar. But in Kroch's approach more room is given to external changes, to surface data and to psycholinguistic processes, and more use is made of quantitative data. To my mind, this makes his model more convincing, and more amenable to empirical investigation.

¹¹ Cf. Joseph (1992: 140) on this need for elegance, economy, simplicity, etc., in internal structure: 'the typical types of evaluation metrics that linguists use to argue for the proper formulation of a fragment of grammar cannot (always) be maintained; the grammars linguists construct, therefore, ought to be allowed to reflect uneconomical "solutions", at least in diachrony, but also, given the relation between synchrony and diachrony argued for here, in synchronic accounts as well.'

¹² It seems to me that this has indeed happened in Clark and Roberts' explanation

In fact, we have not really progressed – except that the theory of grammar itself is more constrained – beyond the generative position of the sixties and seventies when language change was ‘explained’ as a reordering of abstract rules, the loss of a grammatical rule, etc. As Joseph (1992:128) writes, ‘[they] treated change as driven more by abstract properties of grammar . . . than by speakers’ actual linguistic behavior, e.g. as represented by the surface forms they produce.’

Because of the emphasis that generative diachronic linguists place on the theory of grammar, external factors involved in change are neglected. This is in itself not surprising since causes of a social or cultural nature cannot be part of the theory of grammar. However, simply leaving out these factors creates a problem of its own. First of all, one cannot neatly distinguish between external and internal factors. Weinreich, Labov & Herzog (1968:188) wrote:

Linguistic and social factors are closely interrelated in the development of language change. Explanations which are confined to one or the other aspect, no matter how well constructed, will fail to account for the rich body of regularities that can be observed in empirical studies of language behavior.

A workshop devoted to the topic of the interrelation between internal and external factors (see Gerritsen & Stein 1992) has shown the importance of external factors in the actuation of a change (and see also Andersen 1989, who rejects the idea of purely linguistic explanations). The position taken by, for example, Clark & Roberts puts too much emphasis on internal factors. Thus, there is a

of a syntactic change in the history of French. They write that in French the loss of the V_2 rule was triggered by the introduction of new word order patterns such as XSVO. Since this new word order was introduced when the V_2 parameter was still in existence, they hypothesise that the subject was a clitic (i.e. XSVO was still a V_2 order). At the same time, the diminishing frequency of XVS led to the instability of the V_2 parameter. Next, the authors assume that XSVO was reanalysed as a basic SVO pattern. In other words, the S must have lost its clitic status soon after it had acquired it. It seems to me that the clitic status of S is rather an ad hoc and a theory-internal device to explain the various developments. In my opinion it would be necessary to investigate what evidence there is for the syntactic clitic status of S and its loss, and to find out what other factors may have led to the introduction of XSVO.

tendency to ascribe a particular change *completely* to an internal syntactic, a morphological or a phonological change rather than to a combination of factors. The result is, of course, that too much weight is given to internal factors in change; this may ultimately also give a distorted view of the shape of the theory of grammar and how it 'works' (because of the 'window' provided by language change on the theory of grammar, mentioned in the first paragraph), as also noted by Joseph (see note 11).

It may have become clear from the above discussion that a really workable explanatory model of language change based on the theory of grammar is perhaps not feasible at this stage. However, we do have some clear principles or outlines, which may help us to direct empirical research in the area of change. These directives concern (i) the strict separation of synchronic processes and diachronic developments; (ii) the importance of the role of the speaker in change and his tendency to find 'local' solutions;¹³ (iii) the importance of language learning strategies and the nature of the triggering experience; (iv) the importance of non-linguistic (external) factors and their interaction with internal ones; and (v) the temporary relegation of ideas of markedness, elegance, etc. With these 'tools' or methodological guidelines, I would now like to proceed to an investigation of a process of grammaticalisation in English to find out what the status of such a 'diachronic process' can be in the theory of grammar and the theory of change.

¹³ Another recent study that very much emphasises the role of the speaker in change is Keller (1994). He tries to account for the grey area between a (speaker's) innovation and the structural linguistic change that may result from it. He argues that language is neither a natural system (such as physics or chemistry), nor an artificial system (such as programming languages, mathematics), but rather a 'phenomenon of the third kind' because, unlike natural systems, covering laws do not apply to it (so prediction is not possible), nor is it completely man-made; indeed, it partakes of both. Like other socio-cultural phenomena, language change is the result of human actions but not the goal of their intentions. In other words, language change involves a process which runs from the level of individual purposeful actions to a higher level of unintended resulting structure; that is, change begins intentionally, but continues causally. In order to study linguistic change, therefore, it is necessary to look at the speaker's intentions (this can be done according to Keller with the help of Gricean maxims) and at how these affect the structure.

3. THE CASE OF *have to* IN THE HISTORY OF ENGLISH3.1. *Previous studies*

The development in English of the verb *have*, followed by a *to*-infinitive, from a full verb with possessive sense to a semi-auxiliary with obligative sense has quite generally been seen as an instance of grammaticalisation (van der Gaaf 1931; Visser 1969:§1396 ff.; Brinton 1991; the first two understandably do not yet use the term grammaticalisation, but the process is clearly implied).¹⁴ I have described the history of this case in detail (Fischer 1994), and will here only present the facts essential for this discussion. The main question will be, how can we reconcile a *diachronic process* such as grammaticalisation (as it is generally thought to be, see below, section 3.2) with the principles of change sketched above, i.e. with a model that centers on the (synchronic) speaker?

Both van der Gaaf and Visser recognise three stages in the development of *have* + *to*-infinitive, A to C in (1) below,

(1) A *have* + NP + *to*-infinitive

- *have* is used as a full verb meaning 'possess'
- the NP functions as the direct object of *have*
- the infinitive depends on the object NP and can be analysed as an adverbial adjunct or a condensed adjectival clause
- the order of words does not influence meaning (as it does in PrDE, where *I have to write a letter* differs from *I have a letter to write*) (van der Gaaf 1931:180–181)

¹⁴ Neither van der Gaaf nor Brinton give a definition of the category (semi-) auxiliary. There is a great deal of controversy about the status of auxiliaries in English, whether they exist as a separate word-class and/or take up a position in the clause which is different from V (Warner 1993). The main problem, of course, is that the verbs that show auxiliary properties (the so-called NICE properties, see Warner 1993:82 ff.) are on a cline. In Warner's (1993:11) classification, *have to* belongs with the core modals in the class of operators, but within this group it clearly takes up a less central position. Here, I am not concerned with the question whether *have to* is a true Aux or a subclass of V (the latter is Warner's suggestion). What is important here is that Present-day English *have to* has a number of syntactic properties that make it different from full verbs. Thus, when I refer to the auxiliarisation or the auxiliary status of *have to* in this article, I refer to (an increase in) these properties.

- B – through the combination with the *to*-infinite, possessive *have* could undergo a semantic change, and come to express *duty* or *obligation* in addition to *possession*
 - not clear whether a syntactic change is also considered at this point (van der Gaaf 1931:181)
- C – through further bleaching of possessive *have* before infinitives, *have* now expresses only *duty/obligation*
 - a change in the syntactic status of *have*, which now becomes ‘to all intents and purposes’ (van der Gaaf 1931:184) an auxiliary
 - a change in the status of the NP object, which now becomes an argument of the infinitive
 - the auxiliary status of *have* leads to a change in word order, which becomes *have* + *to*-infinitive + NP_O. (van der Gaaf 1931:184)

As far as timing is concerned, all three stages already occur, according to van der Gaaf (and Visser), in Old English, with this proviso: that the word order change mentioned under C is clearly later: it is ‘still rare in Middle English; [and] only became firmly established in Modern English’ (van der Gaaf 1931:184).

Brinton (1991) (and see also Bock 1931:164–165 and Mitchell 1985:§950 ff.) notes that there are quite a few problems with this account. They have mainly to do with the fact that it is very difficult to distinguish between the three stages of (1) since there are really no surface differences to support the distinction (except for the change in word order, which is, however, rather late). In spite of that, Brinton sticks to the general development of (1). She tries to find additional support for it by showing (i) that it shares certain features with other cases of grammaticalisation (cf. Hopper 1991:20: ‘the application of such cross-linguistic generalizations about grammaticization is a standard technique to guide an investigation of grammaticization in a particular language’); and (ii) by providing more detailed linguistic criteria that may help to decide to what stage a particular construction belongs. Using other cases of grammaticalisation as a guideline is of course legitimate, but there is a danger involved. As Bybee says (quoted in section 2), ‘we cannot explain change with reference to preferred types.’ In other words, the case of

have + *to*-infinitive is not explained by referring to the tendency of *have to* to grammaticalise in other languages. It seems to me, however, that Brinton believes that it is indeed the process or 'principle' of grammaticalisation that explains the development in English. It is for this reason that she takes great pains to show how the process develops, how each step in the process as it were inevitably leads to the next.

Brinton recognises four stages (see (2)), the first three roughly corresponding to the A to C stages described in (1). Below each stage (the labels used are Brinton's) the linguistic circumstances of the construction at that stage are listed. Stages A and B are attested from Old English onwards, stage C from Middle English and D from early Modern English onwards.

(2) A *have* + NP + *to* infinitive: full predicate

- *have* functions as a full verb meaning 'possess' (Brinton 1991:22)
- the infinitive is an adjunct to the NP, which is the direct object of *have* (p. 22)
- the NP is 'normally a concrete object which can be possessed' (p. 22)
- *have* and infinitive have separate subcategorisation frames (p. 24)
- lack of subject identity (between subject of *have* and infinitive) possible
- infinitive is not obligatory (p. 23)
- order invariably: *have* NP *to*-infinitive, unless NP is fronted (p. 23)
- *have* can be substituted by other verbs of possession (p. 23)
- meaning of *have* may have modal colouring (p. 25)

B **predicative structure** (NB: the older A construction also remains¹⁵)

- the meaning of *have* is generalised; it expresses a combination of obligation and possession (p. 27)

¹⁵ The coexistence of the old and the new, more grammaticalised construction is usual in cases of grammaticalisation: see among others Hopper (1991:22), who has termed this phenomenon 'layering'.

- the infinitive functions as an object complement (p. 26)
- the NP object is frequently ‘factitive’ or negative, i.e. it denotes something that cannot be possessed (pp. 28–29)
- argument structure determined by the infinitive (p. 26)
- subject identity between subject of *have* and of infinitive (p. 26)
- infinitive is obligatory (p. 26)
- order still as in A (p. 27)

C periphrastic structure (a further development of B; A and B also remain¹⁶)

- semantically, the meaning of ‘possession’ is no longer possible
- syntactically, *have* is developing into an auxiliary (p. 37)
- increase in ‘quasi-objects’ and factitive objects, appearance of *it* reflexive pronouns and clauses as object (p. 34)
- appearance of inanimate subjects (with the beginning of a shift from deontic to epistemic meaning) (p. 36)
- appearance of intransitive infinitives (p. 32)
- development of new word order *have to*-infinitive NP but not yet fixed (p. 38)
- *have to* begins to occur after modals, in non-finite form and in the perfect (p. 37)

D *have* as operator

- integration of *have* into modal paradigm, epistemic meaning fully developed (p. 39)
- syntactic rebracketing to *I [have to write] [a paper]* (p. 41)
- word order completely fixed (p. 39)
- contraction of *have* with *to* (p. 39)

¹⁶ According to Brinton (1991:40), from this period onwards, English shows three types of *have to* constructions (corresponding to the first three stages): (i) the old possessive type which remains in use throughout, (ii) the new obligative type, which preserves the old *have* NP *to* infinitive order and later will come to express the ‘obligation to accomplish a result’, and (iii) (a further development of (ii)) the new order *have to* infinitive NP, which expresses the ‘obligation to perform an action.’

(3) a *hwilum* *him* *ðyncð* *ðæt* *he* *hæbbe* *fierst* *genogne* *to*
sometimes him seems that he has time enough to
hreowsianne
repent

'sometimes it seems to him that he has time enough to repent'
[O2 IR RELT CP (Sweet 1958:415)]¹⁷

b *Ond þa hi þa tid hæfdon ymb þæt to spreconne*
 And when they the time had about that to speak
 'And when they had time to speak about that'

[O2/3 NN BIL MART (Kotzor 1981:37)]

In other cases, examples are indeterminate because they are difficult to interpret. Thus, Brinton gives an instance of an obligatory infinitive in stage B (see (4)), which is not really very different from (5), an instance from stage A, where according to the author the infinitive must be optional.

¹⁷ The references in the text will be the ones used in the Helsinki corpus (see Kytö 1991; for a brief description of this corpus, see below), but with the name of the editor added (for references, see the bibliography); the numbers refer to pages, not lines. These references are given in square brackets, as in the corpus, to distinguish them from other references. The labels in the references indicate the periods; thus, *O* refers to Old English, *M* to Middle English and *E* to early Modern English texts. *OE* indicates early Old English, *OE* late Old English, etc. For examples which are not drawn from the corpus but from other studies, I have kept the reference provided by the author in question, plus an indication where this author has used the example. The data drawn from the Helsinki corpus have been assembled in the Appendix in Fischer (1994), reproduced as an Appendix here.

- (4) *þu hefdest clað to werien*
 you had clothes to wear
 (Lamb.Hom.33 (cf. also Visser 1969:1475), (16a) in Brinton)

- (5) *hæfst ðu æceras to erigenne*
 have you acres to plow
 (Æ Gram B.S. 2, (25b) in Brinton)

Similarly, the object in (6) Brinton qualifies as factitive (stage B), distinguishing it from (7), which according to her belongs to stage A.

- (6) *nu ic longe spell hæbbe to secgenne*
 now (that) I long story have to tell
 (Or. 2 8.94.16, Brinton (21a))

- (7) *That Nature had a joye hir to behelde*
 (Chaucer, *Anel.* 80, Brinton (17a))

In (6) the *spell* is factitive because it only materialises through the action of the infinitive, but doesn't the *joye* in (7) also arise by the action of *behelde*?¹⁸

Also quite a few examples she quotes simply represent a misreading of the text.

- (8) *(I had as much to do) as I myght have to save myself (fro you unshamed)*
 (Malory, Vinaver (1967) p.299, 13, Brinton (31c))

(8) purports to show the emergence of reflexive objects with *have* in stage C, but quite clearly more context (given in brackets in (8)) shows that there is no syntactic relation whatsoever between *have* and *save myself*. (9) and (10) are given as examples, respectively, of the occurrence of an intransitive infinitive after *have*, and of the epistemic meaning of *have*. However, these instances prove to be rather different when one looks at the context. In the translation

¹⁸ It is interesting to note in this respect that Carey (1994) has found, in a study of the development of the perfect in English, which also involves the grammaticalisation of *have*, that it is most likely that the perfect was first conventionalised with factitive objects rather than with concrete ones, even though the concrete objects may have occasioned the first perfect-like readings. This shows that the stages involving types of object are not clear-cut as stages, but that both types of object may have contributed to the development (or, as I would prefer to see it, to variant interpretations of *have*) as it were in an interlaced kind of way.

which I have provided (in brackets) below Brinton's, this context is taken into account.

- (9) *ne hast you nat to faste*

'you do not have to fast'

('do not hasten (yourself) to fast')

(Chaucer, *Mel.* 2240, Brinton (30a))

- (10) *Stylle as hit had be a plumpe of woode*

'Still as it had (to) be a clump of woods (sic)'

('Still as if it had been a clump of wood')

(Malory, Vinaver 1967:35, 33, Brinton (55b))

In Fischer (1994), I went through all the characteristics that Brinton lists for the first three stages and their accompanying examples, and I came to the conclusion that it is really not possible to make any distinction between stages A, B and C. In other words, there are no real developments before stage D, the early Modern period. When we *do* find changes, they are found to be related to a recognisable linguistic surface change, namely, the change in word order (see (2)D). Since word order must, anyway, play an important role in the whole process – it is only in the fixed order (*have* followed immediately by the *to*-infinitive) that the semi-auxiliary developed – it is necessary to look at this in somewhat more detail.

Brinton dates the first indications of a change in word order to stage C, the Middle English period. I do not think this is correct. In all the examples she quotes of the new word order, there is only an *accidental* connection between *have* and the infinitive. (11) illustrates this (the fuller context, not quoted in Brinton, is given in brackets).

- (11) (*but full lytyll undirstood they that travayle that*) *Sir Launcelot had to endure hym*

(Malory, Vinaver 1967:1217, 21, Brinton (38d))

It is evident that *have* and the infinitive belong to two different clauses. It is also quite clear that in these examples *have* does not have an obligative sense. According to Brinton (1991:38), however, the *new* order is exclusively modal in meaning.

To look more closely at the role of word order, I thought it expedient to obtain a larger corpus to examine. I therefore checked

all the occurrences of *have* followed by a *to*-infinitive in the so-called Helsinki corpus. This corpus covers the Old, Middle and early Modern English periods. In the Appendix, a (surface) analysis of the data found is given. I made a distinction between constructions where only *have* has an object (A1 in the Appendix); where both *have* and the infinitive have their own separate objects (A2); where *have* and the infinitive as it were 'share' an object (here the object NP is generally found between *have* and the infinitive, unless topicalised or wh-moved) (A3)¹⁹; and, finally, where *have* is followed immediately by the infinitive, either an infinitive without an object (B1) or one with (B2). (12) illustrates the various types.

- (12) A1 *þæt he stowe hæfde in ðæm streame to standenne*
 that he place had in the stream to stand
 'that he had a place to stand in in the stream'
 [O2 NN HIST BEDEHE (Miller 1959:436)]
- A2 *Ic hæbbeanweald mine sawle to alætanne*
 I have power my soul to leave
 'I have power to lay down my life'
 [O3 XX NEWT WSNEW (Forshall & Madden 1879:98)]
- A3 *By nyȝte, whanne he hadde no man to teche*
 By night, when he had no man to teach
 'By night, when there was no one that he could/should teach'
 [M3 NN HIST TREVISA VI (Lumby 1876:225)]
- B1²⁰ *. . . he js wel avysyd þat sche seyde sche wuld neuer have to done wyth all*
 '. . . and he is well advised that she said she would never have [anything] to do [with this] at all'
 [M4 XX CORP MPASTON (Davis 1971:223)]

¹⁹ In Fischer (1994) these are analysed as zero relative clauses; the object of *have* is coreferential with the object of the infinitive, which is a zero relative (cf. the analysis given in (13)).

²⁰ All the B1 examples here (except one) concern cases in which a (shared) object is implied, so not expressed on the surface. This means in fact that B1, within the limits of our data, is really a subcase of A3. Only one example was found where *have* is followed by a true intransitive infinitive. This is from early Modern English, so quite late:

He went in his coach because Jug has to goe gett hir a payer of bodis
 [E2 Barrington Family Letter (Searle 1983:78)]

B2²¹ *It is to weten þat auturs [who] tretyn of causon [= kind of fever] commaundeþ not mynuschynge [= bloodletting] to be don, . . . [because] if þer were made mynuschyng þe heet scholde be more scharped for þe habundance of blod ymynushed, weche haþ to repressen þe efecte of drynes & to scharpe het is þat þat is moste dred in causon.*

[M3 IS SCIM PHLEB (Voigts & McVaugh 1984:49)]

The data, given in the Appendix, show the following. The first unambiguous example of the modern order is found at the end of the Middle English period (12 B2); the first example with an intransitive infinitive dates from the middle of the modern period (see note 21). Both of these have clearly obligative meaning. When we look at the other constructions we find that A1 and A2 do not normally carry a sense of obligation (there are no examples among the 101 A1 instances, and only two among the 228 A2 instances), whereas with A3, this connotation is not at all unusual (39 out of 122 can be interpreted obligatively). However, it has to be noted, too, that the sense of obligation present among A3 constructions is no more frequent (relatively speaking) in early Modern English than it is in Old or Middle English (25 out of 80, compared to 4 out of 9 and 10 out of 33 respectively). In other words, there is no progression from less to more obligation, as the Brinton and van der Gaaf schemes would lead one to expect.

The data suggest the following tentative scenario. There was an equilibrium in the *have* + *to*-infinitive constructions up to the late Middle English period, when the first examples of the new order begin to appear. This new word order (i.e. the order Aux V, typical with core modal auxiliaries) led to the reinterpretation of *have* as a semi-modal auxiliary, expressing obligation. This in turn made it possible for *have* to be constructed with intransitive infinitives, to acquire epistemic meaning, like other modals, and to co-occur with possessive *have* (but these last two stages occur outside our

²¹ These B2 examples, which look like ones with the new word order, must be treated with some caution. The first three, given in the Appendix, represent cases where style must have determined the rather unusual word order. Of the other twelve, eight have a clause as object, which presumably accounts for their postverbal position. The earliest non-suspect 'modern' example is the one given here under (12).

period.²² Since the semi-auxiliary has an obligative sense, it seems quite natural to look for its origin in those constructions which already often expressed a sense of obligation, that is, the A3 constructions. My suggestion is therefore that the rise of the semi-auxiliary *have to* is connected with a change in word order affecting the A3 constructions.

I believe this may have happened as follows. It is generally accepted that somewhere during the Middle English period English underwent a change from being a language with a basic SOV order to one with basic SVO. Even though Old English already had surface SVO structures in main clauses and in some subclauses, it is quite clear that the surface word order in infinitival clauses was quite rigidly OV and that this remained so in most dialects until late in the Middle English period (Mustanoja 1985). What happened to the A constructions when the language changed from SOV to SVO? As far as A1 and A2 are concerned, not much, except that the object of *have* now normally followed the finite verb, and that the object of the infinitive (if present) became postverbal (although somewhat later in time) as well. But this had no further repercussions for the constructions involved.

The case was different with the A3 construction, however. Recall that here we have only one object. The object is syntactically connected with *have* (the infinitive being adnominal to the object of *have*), but semantically it has a link with both *have* and the infinitive (that is, the theta-role of the object fits both *have* and the infinitive). In Old English, the position of this object would be after *have* in main clauses (due to V₂) and before the infinitive. In subclauses it ought to precede *have*, but even here we regularly find it following *have*. Perhaps this is because the object (including the infinitive) counts as a heavy object – the infinitive is a type of relative clause dependent on the object – and therefore could undergo heavy-NP shift. Its position in subclauses may also be due to Verb Projection Raising (see van Kemenade 1987, Koopman

²² Bybee and Pagliuca (1985:73) see the development of epistemic meaning as part of the metaphorical extension, so as part of the extensive semantic change that *have* undergoes. In my view, the epistemic use is a development of the grammatical change of *have* into a (semi-)modal auxiliary.

1992; I owe this suggestion to one of the reviewers). It is to be noted, therefore, that the NP in A3 constructions normally occupies pre-infinitival position, the normal position for a syntactic object of the infinitive, thus strengthening its semantic link with the infinitive. Since *have* is semantically not a very 'concrete' verb – its meaning is more relational than fully referential – it seems likely that in semantic terms the object formed a closer link with the infinitive than with *have*.

What happens to this construction in an SVO-based language? What before could remain vague thanks to the intermediate (surface) position of the NP relative to *have* and the infinitive, now had to be made explicit. If the object was truly an object of *have*, it could remain in its position. If its relation with the infinitive was stronger, it would have to shift to post-infinitival position. And this is indeed what must have happened in many cases, see (13). The result of this was that *have* and the infinitive became adjacent in constructions where the object was reinterpreted syntactically as an infinitival object. This, more than anything else, must have triggered the slide of *have* towards auxiliary status.

(13)

²³ For the analysis compare note 19.

3.2 Grammaticalisation and the explanatory model

If we now reconsider the grammaticalisation process undergone by *have*, what picture do we get of it? For most linguists writing on it, grammaticalisation involves a slow, unidirectional, diachronic process driven by semantic factors, usually leading to semantic bleaching. This is accompanied by a loosening of lexical restrictions and an increase in grammatical constraints resulting in the establishment of a new grammatical category or the relegation of an item in question to another grammatical category (Abraham 1991; 1992; Brinton 1988; Bybee and Pagliuca 1985; Heine et al. 1991; Hopper 1991; Kilroe 1994; Lehmann 1991, Traugott & Heine 1991; Hopper & Traugott 1993). Thus, grammaticalisation is basically seen as a type of semantic change (Brinton 1988:95; Hopper 1991:19; Hopper & Traugott 1993:68; Rubba 1994:81), which is the result of 'conceptual manipulation' (Heine et al. 1991:174), and which is intertwined with or followed by grammatical restructuring.

In the case of *have*, we have seen that the semantic and grammatical aspects of the process should really be seen as separate. *Have* must also have undergone semantic bleaching, but this happened long before a grammatical reanalysis took place. Already in Old English *have* was semantically bleached to a verb which came very close to the existential verb *be* (see Allen 1971 on the close relation between *be* and *have* in many languages). Bleached *have* would indicate no more than that something is located somewhere or that a relationship exists between two referents, the subject and the object:

- (14) *And her beoð swyðe genihtsume weolocas . . . Hit hafað*
 And here are very abundant whelks . . . It has
eac, þis land, sealtseaðas, and hit hafað hat wæter
 also this land salt-springs, and it has hot water
 'And there are plenty of whelks . . . the country also has salt
 springs and there is hot water' (Bede, Brook 1955:100)

In this Old English example there is not much difference between the use of *have* and *be*; both refer to the presence of something in that country. Next to bleached *have*, full possessive *have* was also still used in Old English, with a whole range of meanings in

between.²⁴ In fact, one could say that the meaning of a referentially 'weak' verb like *have* depends to a large extent on context. Perhaps bleaching is therefore not such a felicitous term in connection with *have* because it suggests a diachronic development rather than synchronic variation. In the process of bleaching it is often difficult to separate out synchronic and diachronic developments. It is clear that it must start with synchronic variation (see also below, the discussion of Heine et al. 1991:165, who refer to this process as 'context-induced reinterpretation'), but in some cases this may soon develop into a diachronic process, because variant meanings get lost, whereas in other cases it may not become a diachronic process at all, because all the variants continue to be used. I believe that with *have* the latter is very much the case.

This situation lasted for hundreds of years with no visible changes until the occurrence of the grammatical reanalysis some six centuries later. It is difficult, therefore, to see any *necessary* relationship between the semantic and the syntactic developments in this particular process of grammaticalisation.²⁵ Further support for their independence is lent by the fact that sister languages like German and Dutch have not witnessed the development of *haben/hebben* (the respective cognates of *have*) into a semi-auxiliary, in spite of the fact that these verbs are used in bleached meanings, just like *have*.²⁶ Note

²⁴ One can also consider here the development of *have* as a periphrastic auxiliary of the perfect, which already started in the Old English period (Carey 1994).

²⁵ The exact relation between the grammaticalisation of perfect *have* and semi-modal *have* still needs to be looked at in more detail. But I think the case of perfect *have* is somewhat different. Here semantic developments seem to have been much more important in the early stages (Carey 1994) – this might also explain why its cognates in German and Dutch shared more or less the same development here. It is of interest to note, however, that, as far as word order in the perfect is concerned, the decline of the old SOV order, *I have a letter written*, and the steep rise of the new order, *I have written a letter*, coincide rather precisely with the rise of the new SVO order in the *have to* construction (see Filppula 1994). An important difference, however, is that in the perfect both orders already occurred in Old English, which may also have contributed to the earlier grammaticalisation there. Finally, though, it should also be noted that the grammaticalisation of perfect *have* has gone further in English than in either German or Dutch: here *have* has not become the exclusive auxiliary of the perfect, and it cannot occur in a passive construction. These developments only took place in English *after* the word order change. For more data see Elsness (1996) and Filppula (1994).

²⁶ For a discussion of how the verb *hebben* in combination with a *te*-infinitive is used in contemporary Dutch, see Fischer (1994:16–17, note 24).

that both German and Dutch are still SOV languages – in which *have* and the infinitive are not as a rule adjacent. This may well be one of the reasons why the reanalysis that took place in English was not shared by these languages.²⁷ To sum up, I believe that the semantic bleaching is a prerequisite to grammaticalisation, but it does not, by itself, *trigger* the grammatical change.

If we accept that the semantic and syntactic processes are logically independent, we may also solve the problem of the diachronic nature of grammaticalisation. We have argued above that diachronic processes are not allowed in our (tentative) explanatory model of change. However, there seems to be no problem in interpreting the first stage, bleaching, as a diachronic process. Bleaching proceeds by metonymic steps (Heine et al. 1991), in which the meaning of a lexical item becomes progressively widened. This is a well-known semantic process. Heine et al. (1991:165, following Sperber & Wilson 1986:1) describe this process – which they refer to as ‘context-induced reinterpretation’ – as follows, ‘What appears to be responsible for the rise of metonyms is a discourse pragmatic manipulation of concepts whereby these are subjected to contextual factors in utterance interpretation’. Only a limited number of concepts are eligible for such a process; Heine et al. (1991:151–153) have termed these ‘source-concepts’. The bleaching of source-concepts seems to be a universal feature.

Thus, the semantic process that plays a role in grammaticalisation can be seen as a continuous (diachronic, but also synchronic) process. The grammatical change involved in grammaticalisation, however, cannot be seen as a similarly continuous process since the reinterpretation of a full verb as an auxiliary involves an (abstract) reanalysis of an underlying rule. I do not wish to deny that pragmatic, ‘surfacy’ factors may work as impulses for a grammatical change, but the grammatical reanalysis itself is a discrete

²⁷ It would be of interest to investigate more closely (as one reviewer suggested) what happened to the cognates of *have to* in Scandinavian languages, which like English changed from SOV to SVO. My informants tell me that an obligative meaning of *have to* is quite usual in Danish, but very restricted in Swedish. A more restricted use is perhaps not surprising considering the fact that, unlike English, Danish and Swedish still have the V_2 rule. In other words, *have* and the infinitive are not always adjacent in main clauses as is the case in English.

phenomenon, subject to grammatical constraints. Whereas bleaching can shade from one linguistic expression to the next guided by pragmatic factors, a grammatical reanalysis involves a construction type and must therefore be a discrete and internal matter. In other words, I do not believe that the forces that guide the semantic change (that is, Heine et al.'s 'conceptual manipulation') also, as it were, automatically guide the syntactic change.²⁸ (I would like to reiterate at this point that none of the grammatical changes in which *have to* is involved – the development of epistemic meaning, the cooccurrence of *have to* with the full verb *have*, the use of *have to* as a tag, etc. – which are part and parcel of the change from V to Aux, predate the word order change.)

The only author in the two volumes on grammaticalisation edited by Traugott & Heine (1991) who explicitly recognises the importance of *independent* grammatical factors in the process of grammaticalisation is Mithun (1991:159–160).

Understanding the processes of grammaticization involves not only discovering which categories tend to be grammaticized in languages, but also why these are not grammaticized in every language. Cognitive structures may set up predispositions for the grammaticization of certain categories rather than others, *but they are not mandates*. Whether a preferred category is grammaticized or not can be affected by several factors. First it may depend simply on chance. Second, it may depend on cultural preoccupations . . . Third, whether or not a category is grammaticized at a particular moment *must depend upon the shape of the current grammar*. The formation of new grammatical categories is motivated or hindered by the contours of the existing grammatical system [emphasis added].

In my view, therefore, both semantic *and* syntactic motivation play a role in grammaticalisation (that is to say, if a grammatical reanalysis is

²⁸ It is usual in discussions about grammaticalisation processes to see the semantic and the syntactic factors as intertwined and the result of the same 'motivation'. Heine et al. (1991:168) write, 'both grammaticalization and re-analysis [i.e. the syntactic reanalysis that accompanies grammaticalisation] are the result of one and the same strategy, namely the one which aims at expressing more "abstract" concepts in terms of less "abstract" ones'.

part of the process, which is not necessarily the case in grammaticalisation). What other factors are involved? Mithun does not mention frequency as a factor; possibly because it almost goes without saying that for a semantic item to be bleached and to become grammaticalised, it must be frequent (cf. also Traugott & Heine 1991:9, who see it as the most important factor, almost as a *sine qua non*). It is interesting to see that the construction involving *have* and an infinitive has indeed shown a tremendous increase between Old English times and the early Modern period; from 17 in Old English to 339 in early Modern English counting all categories (see Appendix; length of corpora used is 413,000 words for OE, 608,500 for ME, and 551,000 for eModE). The increase in the frequency of this combination could well be called a matter of chance (Mithun's first factor) since the greater preference of the language from late Middle English onwards for infinitival rather than finite clauses (see Manabe 1989) must be an independent phenomenon. Another chance fact that may have aided the auxiliarisation of *have* is the development that took place in the existent group of modal auxiliaries. These so-called core modals had been losing most of their non-finite forms (see Lightfoot 1979:98 ff.; Plank 1984). Thus, the development of new modals (in addition to *have to*, also *be able to*, *be obliged to* etc.) must have come in handy to fill a number of paradigmatic gaps. However, though these chance factors may have been supportive, they did not provide the trigger for the actual grammaticalisation (or rather, the *grammatical* reanalysis). The trigger must be found in the word order change and the resulting juxtaposition of *have* and infinitive.

The importance of adjacency has been emphasised by various linguists in different contexts. Givón (1991:118) shows the important role played by adjacency in the formation of serial verb constructions (which, additionally, shows also the importance of frequency). Adjacency has also a natural presence in many of the general principles or meta-principles that are thought to play a role in the theory of grammar. Givón (1985:202) proposes the 'proximity principle' (which is derived from his 'iconicity meta-principle' p. 189):²⁹

²⁹ This meta-principle has been long in existence in different forms. It reflects, for instance, von Humboldt's isomorphic principle of one meaning, one form. Givón's ideas about this principle differ from Haiman's (1983) in that for him the motivation of economy is inherent in the iconicity meta-principle, and not separate from it.

The closer together two concepts are semantically or functionally, the more likely they are to be put adjacent to each other lexically, morpho-tactically or syntactically.

Other suggestions similar to Givón's proximity principle have been Bybee's (1985) 'relevance principle' and Haiman's (1983) 'distance principle', which are also seen as following from some natural (iconic) principle. They in turn refer to Bartsch's 'principle of natural constituent structure' and/or Behaghel's Law (for this law, see e.g. Hock 1986:332). One would expect the proximity principle also to be valid the other way around: that is, the moment two elements are placed together syntactically, it is likely that they will operate together semantically or functionally. Compare in this respect also Bolinger's remark (1980:297) that 'the moment a verb is given an infinitive complement, that verb starts down the road of auxiliari-ness.'

Another area in which adjacency has played an important role is 'perceptual strategies'. Here again it has been shown (especially in the work of Bever and his associates, Bever 1975; Bever et al. 1976; Bever & Langendoen 1971; 1972) that elements that are adjacent to each other are more likely to be processed as belonging to one another in some sense. This is perhaps the less surprising in a language like early Modern English, where a verb immediately followed by another verb very often formed one constituent rather than two due to the rise of an extensive network of auxiliaries or periphrastic constructions in the medieval period.

It must be clear that, although these general principles make the development of *have* into a semi-auxiliary more understandable, they themselves cannot be said to explain the change at this stage. Compare Bybee's remark quoted in section 2 that we must explain actual changes not with reference to preferred types, but we must explain the types by referring to the factors that create them. Although perceptual strategies clearly belong to a different domain and can in that sense be said to be more explanatory, the strategies themselves are at this stage still of a probabilistic nature (see Bever & Langendoen 1971: note 1) and as such only constitute suggestions not rules. The same is true of iconic principles, which, because of their relation to the 'world', belong to the cognitive

domain. However, even though we cannot use them to explain this change, we can use this case to give more body to these principles.

4. A BRIEF CONCLUSION

In this paper, I have tried to answer the question why it is that historical generative linguists have paid such scant attention to the phenomenon of grammaticalisation. Grammaticalisation is generally seen as a diachronic process. This viewpoint creates difficulties for the generative linguist who does not believe in diachronic processes since in his view each speaker builds up his own grammar on the basis of available synchronic data. These synchronic data do not allow him insight into 'diachronic processes', and the direction in which they may be developing. This is, I think, in principle correct. Change involves the speaker. A speaker may reanalyse his grammar on the basis of the data surrounding him, but he cannot be expected to interpret teleologically, as it were, towards some definite goal. For each analysis the present state of the data must be taken into account. Of course some reanalyses may be more likely to occur in certain circumstances than others, and a series of reanalyses may therefore seem with hindsight to belong together, giving the impression of a diachronic process or drift. As Aitchison (1987) has shown, there are quite often circumstances in which one particular change or reanalysis is much more likely to occur than other theoretically possible ones. Shapiro (1991) discusses how a 'drift' may develop: each stage in a particular development may lead to an iconically or systematically more pleasing or efficient situation, so that, as it were, each new stage forces the next stage along. But it is important to remember that this process is not automatic, it is the 'iconically or systematically inclined' speaker who reinterprets it this way, anew at each stage.

As far as grammaticalisation is concerned, which seems to flourish in a synchronically fluid state (with different meanings/bleached variants coexisting — a state of 'layering'; cf. note 15), a syntactic reanalysis will only take place if other circumstances warrant it. In other words there is no necessity about its progression and direction, only likelihood (which, as I mentioned above, may be substantial in some cases). Indeed, a very interesting investigation

into grammaticalisation processes in the English-based Surinam creole, Sranan (Bruyn 1995), has shown that the grammaticalisation processes which are said to be so typical for pidgins developing into creoles are not at all so straightforward in Sranan, when looked at in more detail. It could be the case, as Bruyn shows painstakingly, that a particular process was aborted before it was completed (for example, the case of *wan* 'one', Bruyn 1995:53 ff.), or that it was heavily supported or even instigated by substratum features (for example, the development of complex prepositions, pp. 241 ff.), or that it does not develop in the way it is expected to, or that the development is much more abrupt than is usual in grammaticalisation cases (pp. 237–239). Her investigation shows that it is important at each stage to take into account the synchronic circumstances, which will ultimately decide what will happen. In other words, there may not be such a thing as an *independent* process of grammaticalisation.

In this study, I have taken a closer look at a well-known case of grammaticalisation. I have tried to show in the case of *have to* that it is possible and even necessary to split up the semantic and syntactic aspects of this 'process'. It is only the semantic developments that can be seen as continuous, or continuously present. The grammatical reanalysis is linked to the semantic developments but is not an automatic part of it. Rather, it stands apart, and is constrained by grammatical factors. In the *have* case we have seen that the grammatical factors that motivate the reanalysis (or the grammatical part of the grammaticalisation) are different from the semantic factors, and also that there is a definite time lag between the semantic and the syntactic developments. In other words these two aspects of grammaticalisation should be seen as separate, which means that we can still see the syntactic part of the change as a synchronic rather than a diachronic process, and grammaticalisation as obeying the outlines of our tentative explanatory model.

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APPENDIX

period	A1 object of HAVE only	wh-/ topic	inf. = DO	object = negat.	quasi object	+ sense of oblig.	object = NEDE	subj. = in- anim.	A2 HAVE+ object infinitive + object	wh-/ topic	inf. = DO	object = negat.	quasi object	+ sense of oblig.	object = NEDE	subj. in- anim.
HO1																
HO2	2				1				1				1			
HO3	1						1		2				1			
HO4																
HM1	6	1(1)			(1)				9	1(1)			2	(1)		1
HM2	3	1		1					3	(1)			2	(1)		
HM3	18	2		2			1(2)	1(2)	33	1		2(1)	2		5(2)	(1)
HM4	15		(1)	(1)	1		1		26	2			2			
HE1	19	1						1	39	1		1	4		1	5
HE2	17	1			1		1		50	1			3(2)		2(2)	4
HE3	20							1	75	2	1		6		2	

period	A3 object shared by HAVE +infin.	wh/ topic	inf. = DO	object = negat.	quasi object	+ sense of oblig.	object = NEDE	subj. = in- anim.	B1 HAVE+to-inf. (no object) [=obligatory sense]	B2 have+to-inf. +object [=obligatory sense]	of which, object = clause	causative HAVE + to-inf.	HAD LEVER etc. + to-inf.
HO1													
HO2	3	(2)				(2)							
HO3	6	1		(1)	(1)	2			2				
HO4													
HM1	8	(2)	(2)	1	1(2)	1(1)			1 (TO DO)	1[1]			
HM2	8	1(3)	(2)	1(1)	(1)	1(4)			1 (TO DO)	1			1
HM3	13	2(2)		3(1)	(2)	1(1)		3	1	[2]	[1]	1	2
HM4	4		(1)	1(1)	1	1			1 (TO DO)				
HE1	31	1(11)	(12)	3(3)	(4)	3(8)	(1)		2[1] (3 × DO)	[3]	[2]	4+1?	
HE2	15	(3)	(1)	2(1)	2(3)	4(1)			4[1] (2 × DEAL)	[6]	[5]	5	2
HE3	34	3(5)	2(1)	4	1(1)	4(5)	(1)		3 (TO DO)	[1]		3	3

N.B.1 The labels A1, A2, A3, B1, B2 in the column headings correspond to the ones used in (12) in the main text. The numbers given here represent totals. The subcolumns following the main columns (main columns are distinguished by lines) indicate the number of each type of construction within the total given. Numbers given in brackets represent constructions which belong in more than one subcolumn. Thus, for example, in period HM4, a negative object is attested once with construction A1, but the negative object example also shows a feature of another subcolumn, which in this case can only be the example in the subcolumn 'infinitive = DO'. So one out of the 15 instances has a negative object and DO as infinitive.

N.B.2 The heading 'quasi object' includes nouns indicating time or space, but also prepositional objects.

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