From Degrammaticalisation to Regrammaticalisation? Current Changes in the Use of NEED

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Based on corpus data from the ARCHER corpus and the Oxford English Dictionary (OED) from 1800 to the present, this paper presents a syntactic and semantic analysis of the verb NEED. It will be argued that its two different forms for the expression of modal meanings can be treated as two different verbs both on syntactic and semantic grounds: While need is used with modal auxiliary syntax, need to is used as a main verb, and the two verbs express different modal meanings. Since in PDE the emerging modal need to drastically gains in frequency at the expense of central modal need, this development must be interpreted against the background of current changes in the system of English modal auxiliaries pointed out in previous studies. It will be shown that need to is not a direct rival of need but of other modals of obligation such as must and have to because the obligation expressed by need to often is more polite, implying that the action demanded is in the addressee’s own interest.¹

1. Introduction

This paper will give a detailed analysis of the development and use of the verb NEED, focussing on its modal functions. These functions are realised either in main-verb syntax (in combination with a to-infinitive, e.g. does not need to) or in auxiliary syntax (needn’t and bare infinitive). As I will show below, previous research disagrees on whether in view of this syntactic inconsistency NEED should be considered a marginal modal, or whether we should distinguish two verbs NEED. Irrespective of the analysis one adopts,

¹ I would like to thank Christian Mair for his helpful comments and suggestions on a previous version of this paper.
though, there is a clear diachronic trend in the use of NEED. As Leech (2003), Smith (2003) or Krug (2000: 201f.), among others, have shown in analyses of corpora of 20th-century English, need in auxiliary syntax is declining in frequency while need to has been increasing sharply – and to an extent much in excess of what would have been needed to compensate for the decrease of auxiliary need.  

The aim of the present study is to investigate the path of change for both need and need to and to determine in how far both can be regarded as two different verbs with respect to their syntax and semantics, thereby complementing recent work on NEED by Nokkonen (2006) and Taeymans (2003), the only two studies I am aware of which are entirely devoted to the investigation of modal NEED. As the title of the paper suggests, grammaticalisation theory (e.g. Hopper and Traugott 2003; Heine 2003) will provide an important theoretical frame of orientation, as will recent typological studies of the semantic development of modality (Bybee et al. 1994; Auwera/Plungian 1998). Empirically, the analysis is based on two diachronic English corpora, the ARCHER corpus, which was used for initial exploration, and the quotation base of the Oxford English Dictionary, which – owing to its far greater size – provided the data for the detailed quantitative and qualitative analyses.

Although the ARCHER corpus offers a valuable source for grammaticalisation studies and for modal auxiliaries in particular (cf. Biber et al 1994: 2ff; Krug 2000: 31), the corpus is too small to analyse less frequently occurring items such as need (62 tokens over-all) and need to (16 tokens) statistically with enough confidence. For this reason, the findings from the ARCHER corpus were complemented by an analysis of the quotation database of the OED, “the longest continuous historical record of any language available in digitised format” (Mair 2003: 123), which returns more than a thousand relevant hits. From among these, five sample decades (1800–1810, 1850–1860, 1900–1910, 1950–1960, 1994–2004), that is a total of 157 tokens of need and 180 of need to, were singled out for a detailed analysis. For advantages and drawbacks of using the OED as a corpus the reader is referred to Mair (2003) and Hoffmann (2004).

2. Theoretical background

For a categorisation of modal auxiliaries it is necessary to analyse both their syntactic and their semantic characteristics. In two major reference gram-

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2 To avoid clumsy expressions I will refer to NEED with small capitals as a superordinate term covering all uses of the verb; I will refer to the occurrences with surface auxiliary syntax as need, and to NEED used with surface main-verb syntax as need to. That as an exponent of modality even need to has auxiliary-like functions in present-day English is understood.
mars of contemporary English, the syntactic status of NEED is characterised in different ways. Quirk et al., who distinguish main verbs from modal auxiliaries on a gradient scale, with central modals at one end and main verbs at the other, regard NEED as a marginal modal which closely resembles the central modal verbs but additionally has a homomorphic main verb (Quirk et al. 1985: 137). While need is mainly used in non-affirmative contexts, the use of need to is not restricted. Blend constructions of main verb and auxiliary are cited as evidence against a completely distinct treatment of the two uses (ibid.: 138). Huddleston/Pullum (2002: 104), in contrast, treat need and need to as two distinct verbs, a modal and a lexical verb, because almost all of the NICE\(^3\) properties they establish to distinguish modal auxiliaries from main verbs apply to need, while need to is viewed as a lexical verb.

Nokkonen points out two major characteristics of the semantics of the central modal verbs that most linguists agree on: firstly, their subjectivity, i.e. the speaker’s involvement, and secondly, their lack of subject selection (Nokkonen 2006: 31). With regard to NEED he refers to recent studies on semi-modals which increasingly show a development of grammaticalisation towards a more modal behaviour (Facchinetti et al. 2003: viii; Krug 2000: 4). Need to being one of these emerging modals, Nokkonen points out that it should be distinguished from need, since the two modal expressions also differ in meaning (Nokkonen 2000: 66).

In the typological literature on modality there is general agreement that epistemic meanings of modals derive from deontic or root uses (e.g. Sweetser 1990: 49 or Bybee et al. 1994: 167). From such analyses, three pathways of change result for the expression of modality, two of them belonging to the domain of necessity and therefore being applicable to need (Bybee et al. 1994: 240). These three paths of change are used as a starting point for the study of van der Auwera and Plungian (1998), who connect and extend them in a semantic map and whose terminology will be used in the present paper. They summarise four domains for expression of modal meanings, namely those involving possibility and necessity as paradigmatic variants. These four domains are defined as follows: ‘Participant-internal modality’ refers to a “kind of possibility/ necessity internal to a participant engaged in the state of affairs” (Auwera/Plungian 1998: 80). Thus, in the domain of necessity it includes meanings expressing the participant’s internal need. The term ‘Participant-external modality’, in contrast, is used to refer to “circumstances that are external to the participant, if any, engaged in the state

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3 Huddleston/Pullum use the acronym NICE to summarise the major syntactic differences between lexical and auxiliary verbs; these are ‘Negation’ (He has not seen it. vs. *He saw not it.), ‘Inversion’ (Has he seen it. vs. *Saw he it.), ‘Code’ (He has seen it and I have too. vs. He saw it and I saw too.) and ‘Emphasis’ (They don’t think he’s seen it but he has seen it vs. *They don’t think he saw it but he saw it.)(Huddleston/Pullum 2002: 92f.).
of affairs and that make this state of affairs either possible or necessary” (ibid.), thus subsuming possibility and necessity. The third domain, ‘deontic modality’, is a special case/hyponym of participant-external modality. It "identifies the enabling or compelling circumstances external to the participant as some person(s), often the speaker, and/or as some social or ethical norm(s) permitting or obliging the participant to engage in the state of affairs” (ibid.: 81). Thus, permission and obligation count as deontic possibility/necessity. The last domain, ‘epistemic modality’, refers to “a judgement of the speaker: a proposition is judged to be uncertain or probable relative to some judgment(s)” (ibid.: 81).

Their research is furthermore based on a hypothesis “that associates grammaticalization with meaning change and polyfunctionality, and it is these diachronic and synchronic links that constitute the paths of the map” (Auwera/Plungian 1998: 87). Therefore, the semantic map is meant to represent the different uses and relations between modal meanings (ibid.: 86) and sketches the development from premodal to modal and then to postmodal meanings for the notions of both necessity and possibility, assuming that this development shows a grammaticalisation chain (ibid.: 91). Thus, to prove that semantically, need and need to are examples of grammaticalisation, the different meanings of need and need to have been analysed with reference to the semantic map. Having pre-modal NEED as a source expression for necessity, the following part of the semantic map will be analysed:

Figure 14: To necessity and beyond (extract from Auwera/Plungian 1998: 96, fig. 11)

3. **Need and need to** in previous corpus-based approaches

Among grammaticalisation studies on modal auxiliaries only a few deal with the differences between need and need to in more detail. Coates points out that the modal need has to be distinguished from its related verb need to (Coates 1983: 49). Warner characterises NEED as a modal verb with unclear or overlapping membership (Warner 1993: 11). Krug shows that NEED used to be a regular lexical verb in Old and Middle English but that by Shakespeare’s time auxiliary constructions clearly outnumber the main verb constructions. As his analysis of samples from the spoken BNC reveals, this
tendency is now reversed and today need to strongly dominates (Krug 2000: 202f.). Leech compares the frequencies of modal verbs in 1961 (the sampling year of the LOB and Brown corpora) and 1991/92 (F-LOB and Frown) and notes a number of fairly drastic shifts in frequency, among which are a decrease for need and an increase in need to (Leech 2003: 228f.). On the basis of the same data, Smith argues that need to can often function as an obligation marker in disguise, i.e. as weakened must or have to (Smith 2003). Martine Taeymans arrives at the same conclusion in her investigation of the two marginal modals need and dare.

As far as the semantic change is concerned, the development of need to is unidirectional and in accordance with van der Auwera and Plungian’s semantic map: “Need to combines its internal necessity meaning with external necessity/obligation reading, and comes to be associated with functions similar to have to and must in affirmative contexts” (Taeymans 2004: 107). However, structurally need to violates the unidirectionality constraint posited in most grammaticalisation models (Taeymans 2003: 107).

The most recent detailed semantic analysis of need to was undertaken by Solili Nokkonen (2006), who elaborates on the studies mentioned above. He focuses on the semantics of need to but also compares its non-affirmative instances with those of need and argues that need and need to clearly function as two distinct modal markers. Since need is mainly used as the negation of must, its decline reflects a parallel decline of must. The meanings of need to, by contrast, compete with those of have to (Nokkonen 2006: 64ff.).

4. **Need and need to in the OED quotation base**

4.1 **Senses, functions and uses of need in the analysis**

In the *Oxford English Dictionary*, the history of need is described as follows: need derives from the Old English impersonal verb geneodan. After its transition from impersonal constructions with need and indirect object to personal constructions with a subject expressing the person or thing having a need and a direct object it began to combine with verbal complements (which according to the OED might have been encouraged additionally by existential-predicative uses of the noun need (need n¹) with or without a following infinitive and in the phrase have need to). Whereas in the case of the core modals the main-verb syntax was lost, in the case of need (and, of course, dare and ought to) modal and non-modal characteristics have coexisted since the Early Modern English period.

Of the five major sense groups of need distinguished in the OED, the one relevant here is IV, “expressing necessity, obligation etc.” The quotations are
structurally divided into tokens with bare and to-infinitive and into negative, affirmative and interrogative contexts in order to display the main structural distinctions which show variation throughout the centuries. In Present Day English, however, modal and non-modal uses can be regarded as being in complementary distribution (ibid.), which will be further investigated in ch. 4.3. Apart from (deontic) necessity, the OED also lists occurrences of negative need expressing epistemic necessity and of need to expressing the “desirability (or not) of a course of action” (ibid.).

Complementing the meanings given in the OED by those shown on Auwera/Plungian’s semantic map the semantic categories ‘participant-internal’, ‘participant-external’, ‘deontic’ (‘obligation’) and ‘epistemic’ necessity served as a basis for the semantic analysis. A few occurrences where the meaning expressed cannot be subsumed under any of these categories had to be characterised as ‘indeterminate’.

In order to analyse the PDE complementary distribution of need and need to syntactically, the focus was on the following questions: If the verb is used in an affirmative context, does it have any inflections which are typical of main verbs (-s, -ed, -ing)? If the verb appears in negations, does it function as operator or does it display main verb syntax and use do as operator? If the verb is used in interrogative contexts, does it function as operator or does it use main-verb do as operator? Is the verb used in other non-affirmative contexts (e.g. with semi-negatives, negative adverbials)? Does a different modal verb function as operator in the clause?

Whereas assigning the samples to a certain syntactic category was relatively easy in both corpora, the semantic analysis often proved difficult especially in the OED, where in contrast to the ARCHER corpus no context is available. Since the distinction between external necessity and obligation, for example, is often blurred, those cases which have been analysed as expressing an obligation must be regarded with some caution. A closer analysis of the relevant examples, however, revealed that what at first appeared to be problematic in the analysis, later turned out to be an important characteristic of need to, which might serve as an explanation of its currently increased use.

4.2 Frequencies of need and need to

The following figure illustrates the frequency of need and need to in the OED from 1800 to 2004:
Figure 2: (Normalised) frequency of need and need to in the OED

While need is already used at the beginning of the nineteenth century, need to only starts spreading a century later; there are only comparatively few occurrences in the OED before this time. Starting in the middle of the nineteenth/ at the beginning of the twentieth century, its frequency has been increasing until today. Even though both verbs coexist for half a century and slightly gain in frequency, need is more commonly used. The coexistence or layering of two different forms in the first half of the twentieth century is a by-product of grammaticalisation. After 1950, however, need declines whereas need to drastically gains in frequency, which is even higher at the end of the twentieth century than was ever attested for need. Is need to taking over the role of need – maybe even to the extent that the latter form will eventually fall out of use?

One remaining question is when and how need to emerges. The data suggest that it comes into regular use only at the beginning of the nineteenth century since there are very few examples of need to before this time. Later it apparently begins to gain in frequency. The OED, however, attests the first

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4 The normalised frequency was calculated with reference to Hoffmann (2004: 25), who gives an overview of the average number and length of quotations from 1000–1980. The number of quotations from the first year of each period was multiplied by ten in order to achieve an approximation of the total number of quotations during the decade in question. To calculate the normalised frequency, the total number of occurrences was divided by the number of quotations and the result multiplied by 100. Since the number of quotations for the period beginning in 1994 is not shown in Hoffmann, assuming that the definite article the occurs in almost every quotation, its frequency was regarded as representing the number of quotations for this period.
occurrences of both forms, *need* and *need to*, in the 14th/15th centuries. According to Visser, by the 16th century constructions with *need (for) to* by far outnumber bare infinitives (Visser 1969: 1424). Krug points out that in Early Modern English, modal constructions with *need (to)* were fully established and frequently used while in Present Day English, *need to* strongly favours main verb syntax (Krug 2000: 202). The following samples taken from the OED exemplify that until at least 1800 *need* + bare infinitive and *need* + *to*-infinitive are two different forms of the same verb which are used in variation with auxiliary and main-verb syntax:

(1) 1719 A. BEDFORD Ser. Remonstrance 28 But I *need not* to transcribe any more.

(2) 1641 MILTON Of Reformation 52 He that is but meanly read in our Chronicles *needs not* be instructed.

Neither (1) – combining auxiliary negation with following *to*-infinitive – nor (2) – combining third-person singular -s with the bare infinitive – would be acceptable today.

4.3 Syntactic differences of *need* and *need to*

Although figures 2 and 3 might suggest that *need to* takes over the role of *need* because *need to* gains in frequency as *need* loses, a detailed qualitative analysis of authentic examples of both uses lends little support to the reality of such a direct shift from *need* to *need to*. *Need to* evidently starts spreading in the 19th century, but not necessarily in exactly the type of context previously favoured by *need*. As was already pointed out, only a small number of constructions show blending between auxiliary and main verb properties. In only two quotations is the modal verb *need* used with third person inflections and there are only two instances of *need* being negated with *not*. In the remaining majority of quotations, *need* and *need to* are used as two different verbs syntactically. *Need* displays auxiliary syntax while *need to* behaves as a main verb with reference to Quirk et al.’s gradient scale of modal auxiliaries. Both forms are attested before the period analysed but occur in free variation rather than complementary distribution. For the explanation of the origin of the semi-auxiliary *need to* it is necessary to determine its possible source forms. Apart from auxiliary *need*, the lexical verb *need* +
NP might have influenced its development and could have led to the development of two different verbs for the expression of modal meaning (cf. figure 3). Biber et al. (1998), Krug (2000) and Leech (2003), among others, demonstrate that the English central modals are declining in frequency while semi/quasi-modals are rising correspondingly. Krug analyses the quasi-modals\(^6\) in more detail and suggests that \textit{going to}, \textit{have got to}, \textit{want to}, \textit{have to}, \textit{need (to)}, \textit{ought (to)} and \textit{dare (to)} are changing into a new category, which he calls emerging modals. Emerging modals take \textit{to}-infinitives and \textit{do} support in questions and negations; they consist of two syllables with the phoneme structure/CVC/?/ (Krug 2000: 230). They are listed above in the order of their centrality; thus the prototypical emerging modals are \textit{going to}, \textit{have got to}, \textit{want to} and \textit{have to}, which are frequently used in a phonetically reduced form as \textit{gonna}, \textit{gotta} and \textit{wanna}. \textit{Need (to)}, \textit{ought (to)} and \textit{dare (to)} are peripheral members of this set. Comparing the emerging modals with the central modals, \textit{need (to)}, \textit{ought (to)} and \textit{dare (to)} oscillate between the two. Of the peripheral members, \textit{need to} is syntactically and phonetically closest to the emerging modals (ibid. 237ff.). The recent increase in the frequency of \textit{need to}, i.e. precisely the type of construction that is in line with the syntax of the emerging modals, brings it even closer.

Krug investigates the years from 1850–1950 as the major formation period for the central emerging modals (ibid. 169). Categorizing \textit{need to} as an emerging modal explains its rise in the late nineteenth century. Since the central emerging members grammaticalised first and then influenced the peripheral members of the category, the increase in frequency of \textit{need to} sets in with some delay. Categorising \textit{need} as a modal auxiliary and \textit{need to} as an emerging modal, I suggest the following grammaticalisation path:

\begin{figure}
\centering
\begin{tikzpicture}
\node (need) at (0,0) {need + bare infinitive \rightarrow modal auxiliary need (stable or declining)};
\node (needto) at (0,-1) {need + to-infinitive \rightarrow emerging modal need to (expanding)};
\node (need) at (-1,-0.5) {lexical verb need};
\node (needto) at (-1,-1.5) {need + to-infinitive};
\end{tikzpicture}
\caption{Path of change for need and need to}
\end{figure}

There is further evidence for treating \textit{need} + bare infinitive and \textit{need} + \textit{to}-infinitive as two separate modal expressions. In Present Day English, the modal \textit{need} is restricted to non-affirmative contexts. It occurs in questions and negations but also in sentences with a negative implication containing semi-negatives, for instance \textit{hardly, but} and \textit{only} and conditionals with \textit{if} and

\(^6\) The term quasi-modal is adopted from Traugott and subsumes Quirk et al.’s marginal modals, modal idioms and semi-auxiliaries (Krug 2000: 1).
as. Need to, in contrast, occurs in both affirmative and non-affirmative contexts throughout the centuries. Figure 4 illustrates their development displaying interesting changes in the 1950s: parallel to the decline of need in affirmative contexts, the use of need to increases so dramatically that the reversed situation of need can be found: need to is almost completely restricted to affirmative contexts. The same tendency is revealed in the ARCHER corpus.

**Figure 4:** Distribution of need and need to in affirmative and non-affirmative contexts (OED)

![Figure 4: Distribution of need and need to in affirmative and non-affirmative contexts (OED)](image)

Although this development might suggest that need to is the affirmative form of need, a semantic analysis will show that the two verbs are not used for the expression of the same meaning, one in affirmative and one in negative contexts.
4.4 Semantic functions of need and need to

The distribution of meanings found for need and need to across the periods is illustrated in the following figures:

**Figure 5:** Semantic functions of need to in the OED

![Figure 5: Semantic functions of need to in the OED](image)

**Figure 6:** Semantic functions of need in the OED

![Figure 6: Semantic functions of need in the OED](image)
The figures above display that the most frequent meaning of both *need* and *need to* is participant-external necessity whereas participant-internal necessity occurs only in two negligible instances. Nonetheless, there are some semantic differences between the two verbs: epistemic meanings are only expressed by *need* whereas – apart from a few earlier instances – only *need to* is used for the expression of obligation. The different meanings will be explicated in more detail in the following sections.

For the two different verbs, a synchronic comparison at certain points in time proves to be difficult since their frequency is reversed and therefore results of the less frequent item are less representative. For this reason, the major meanings found for both verbs will be introduced without making any distinction regarding the period but by mentioning significant shifts in the text.

### 4.4.1 Participant-internal necessity

On modality’s semantic map, items expressing a need can develop the meaning of participant-internal necessity. As the figures demonstrate, hardly any instances of *need* or *need to* convey this meaning. There are only two out of 428 samples analysed, one of them being

(3) In fact, it was fresher and less deep frozen than on the Elizabeth and quite as much as we *needed to* eat. 1950–90.bre\1963whit.j9

Although such uses are attested only in the most recent material from the corpora, they do not contradict van der Auwera and Plungian’s semantic map. Grammaticalised forms typically have overlapping senses as a result of their diachronic development and it will be pointed out that the meaning of internal necessity is still inherent in the other meanings because the external necessity and obligation expressed by *need* and *need to* typically convey that the action is in the addressee’s own interest. Including the source form *need* + NP might help explain the low frequency of internal necessity in the modal uses of *need* because it closely resembles the internal necessity expressed by *need to*:

(4) 1978 M. AMIS *Success* vi. 138, I feel marvellous now; that work-out was just what I *needed*.

For this reason, a possible explanation of the marginal use of internal necessity for *need* (to) is that this meaning is still expressed by the source form while the grammaticalised modal constructions have developed new meanings. Further corpus-based research on *need* + NP could demonstrate

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7 Note, incidentally, that this example occurs in a comparative clause and thus allows the reconstruction of two different underlying forms: (1) *We needed to eat this much* or – alternatively – *we needed this much to eat*. Obviously, such occasional contaminations are one minor contributory factor in the rise of *need to.*
whether speakers prefer lexical verb constructions such as ‘I need some food/a pizza/some sleep’ to ‘I need to eat (a pizza)’ or ‘I need to sleep’ for the expression of internal necessity.8

Through pragmatic inferencing, the participant-internal necessity, implying that a necessity arises out of the agent’s personal need, is extended to a necessity which is caused by outer circumstances. If the circumstances make it necessary that a certain state of affairs be the case, this meaning is characterised as external necessity. If the circumstances are compelling, need (to) expresses an obligation. If on a more abstract level certain facts make an action necessary as a logical conclusion, we can speak of epistemic necessity. The path of change indicated on the semantic map is from participant-internal necessity to obligation to participant-external necessity, thus from hyponym obligation to hyperonym external necessity. The corpus analysis, in contrast, suggests that participant-external necessity arises first and then grammaticalises into deontic necessity as a subcategory.

4.4.2 Participant-external necessity

The most frequent and most stable meaning throughout the centuries of both need and need to is participant-external necessity which occurs in various syntactic environments and can be paraphrased as ‘it is (not) necessary for X to do sth./ that sth. is done’.

A comparison of need and need to that could reveal in how far both need and need to are interchangeable, however, proves to be difficult. One of them being restricted to non-affirmative and the other being preferred in affirmative contexts, inevitably leads to a slight difference in meaning so that an exact comparison is almost completely limited to the relatively few non-affirmative uses of need to (cf. also Nokkonen 2006: 36). In the following examples, non-affirmative need to is contrasted with non-affirmative need:

(5) 1950 Analysis X. 79 When one is asked, ‘Is “heterological” heterological?’ no answer need be given until the notion of heterologicality is further analysed.

(6) 1860 HOLLAND Miss Gilbert i. 19 Of the gorging of fruits...that followed in the grove back of Dr. Gilbert’s house, nothing needs to be said.

(7) 1904 J. P. MANNOCK Billiards Expounded 86 By this you will see that so long as you keep your cue in a horizontal line, no fears need be experienced of causing damage to the cloth, nor need there be any on the same score when a massé shot is being attempted.

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8 On the role of structures such as ‘I need some food/a pizza to eat’ see the comment on example (3) above.
All examples express the absence of necessity, but while need and need to could be exchanged without difference in meaning in (5) and (6), there is a difference in undertone in (7) and (8). Whereas the absence of a necessity expressed by need to is part of a rule, it comes close to an assurance or a promise with need. This difference will be illustrated by a few more examples in order to show that the semantic differences are to some extent due to their different (non-) affirmative context but also display general characteristics of both verbs so that need and need to can be regarded as two different verbs both syntactically and semantically. To achieve the best comparability between the two verbs, they are divided into occurrences with the same person. Their syntactic distribution is presented in the following table.9

Table 1: Subjects of participant-external need

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<td>3rd person animate</td>
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<td>3rd person inanimate</td>
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Table 2: Subjects of participant-external need to

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9 For convenience, no distinction between singular and plural is made; if necessary, important deviations between singular and plural uses are noted in the text. Third person occurrences are further subdivided into animate and non-animate subjects. Since a great number of the non-animate subjects are part of passive constructions, the percentage of passives is listed as well. For better comparability between the periods, the total amount of need/need to is added.
The semantic difference between *need* and *need to* is most evident in the second person where some good advice (9) is contrasted with an instruction (10).

(9) a1903 M. A. COURTNEY in Eng. Dial. Dict. (1903) IV. 278/1 [West Cornwall] You *need not* get out of the carriage, it is only a short nip.

(10) 1994 Internet World July-Aug. 92/3 To understand how the chip works, you *need to* look at what officials call its key escrow encryption method.

The meaning of *need* illustrated in (9) is frequently used in the 19th century. *Need to* was rarely used in the second person until recently; there are only very few occurrences in the earlier periods and it is not until 1994 that 32% of the uses of *need to* are in the second person.

*You need to* is used in different contexts than *you needn’t* because it is typically not part of a conversation where a speaker gives some good advice to another person but in impersonal situations where it expresses a condition to fulfil a purpose. In (10), we neither have a concrete speaker nor an addressee but the speaker/writer is the author of a magazine and the addressee interested readers. *Need to* is characterised as external necessity because it states a necessity to do something in order to achieve an aim, which is expressed by the purposive to-infinitive *to understand*. When no context is available, the instruction expressed by *need to* is sometimes hard to distinguish from obligation (cf. 4.4.4).

As in the first and second person, occasionally, *need* contains a reassurance with third person subjects as well, for example in (11) where the speaker reassures his addressee that there is no need for the people referred to to be afraid. While *need* is often used with an abstract verb such as *fear* in (11), the absence of necessity expressed by *need to* is more concrete.

(11) He replied: “If they think they are doing the correct thing they *need not* fear.”1950–90.bre1959man1.n9

(12) ...Tulbach Browne, who, brazenly cheerful, leant on one corner of the bar with the air of a man who *doesn’t need to* work for some time to come, and said, [“I told you I’d make you famous, didn’t I?”] 1950–90.bre1956mons.f9

In (12), *doesn’t need to* could be substituted by *doesn’t have to* without a resulting difference in meaning because the necessity is based on facts. In the remaining examples, this substitution would cause a different undertone since as a general characteristic the source meaning of *need + NP*, internal necessity, is still implied in both verbs. This is obvious in the occurrences of *need* containing advice for the benefit of the addressee. However, using *need to* instead of *have to* in instructions does lead to a different emphasis, too: a manual to help the reader solving a problem, which is therefore in his own interest. By using *need to* in the first person plural or a passive construc-
tion, the instruction is formulated in a politer way and can be understood as a recommendation.

In (13), the absence of necessity expressed by need is predicated of an inanimate subject:

(13) The evidence need not be direct or positive, but it must be of such a character as to make it more probable that he died at a particular time. 1900–49.bre\1919fann.l8

*Need not* could be paraphrased as ‘it is not a necessary that the evidence be direct…’. Inanimate subject constructions such as this probably gave rise to epistemic meanings which typically imply that something is not necessarily the case by logical conclusion (cf. ch. 4.4.4).

In short, while need is restricted to non-affirmative contexts and typically denotes the absence of a necessity, need to states a necessity, and this inevitably leads to different meanings. Interchangeability and, if seen diachronically, mutual influence between the forms is restricted to the comparatively few cases in which need to is used in non-affirmative contexts (cf. (5) and (6) above). But, as is illustrated in (7) and (8), there may be subtle semantic differences even here.

### 4.4.3 Deontic necessity/obligation

In current English, obligation is only expressed by need to but not by need. This use is a relatively recent innovation. As figure 6 illustrates, apart from a single instance in the 1850 corpus, the obligation meaning is attested only from around 1950 onwards and, interestingly, it is this new meaning which largely accounts for the increase in frequency of need to.\(^\text{10}\) Its characteristics will be discussed in more detail and compared with further modal verbs expressing an obligation, such as have to, should and must.

But before turning to deontic need to, the occasional occurrences of obligation expressed by need will be discussed. The majority of deontic need occurs in the period beginning in 1850 where it is typically used in the second person and implies criticism which according to Coates can be paraphrased as ‘stop it, there’s no point’ (Coates 1983: 51). By using need instead of the imperative ‘don’t yawn so’ the utterance sounds more polite:

(14) Now, you needn’t yawn so, and say, “What a tiresome letter this is!” I’m going to tell you something about The Cup. 1850–99.bre\1881carl.x6

The following table describes the distribution of the subjects used with need to, as totals and divided by grammatical person. It contains the number of items found for each person with the percentage of all need to expressing an obligation in the respective periods.

\(^{10}\) The normalised frequency of all need to increases from 5.35 to 36.5 and the frequency of need to expressing an obligation from 2.44 to 18.93.
### Table 3: Subjects of *need to* expressing obligation

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td></td>
<td>singular</td>
<td>plural</td>
<td>Singular</td>
<td>Plural</td>
</tr>
<tr>
<td>1st person</td>
<td>1</td>
<td>-</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>2nd person</td>
<td>1</td>
<td>-</td>
<td>9</td>
<td>-</td>
</tr>
<tr>
<td>3rd person animate</td>
<td>2 (all passive)</td>
<td>1</td>
<td>7</td>
<td>9 (2 passive)</td>
</tr>
<tr>
<td>3rd person inanimate</td>
<td>1 (passive)</td>
<td>1</td>
<td>7 (3 passives)</td>
<td>9 (all passive)</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td></td>
<td>51</td>
<td></td>
</tr>
</tbody>
</table>

Of the relatively few examples expressing an obligation in the period between 1950 and 1960, it occurs evenly with subjects of all persons apart from first and second person plural. From 1994–2004, *need to* is mainly used with third person subjects, one half of which is animate and the other inanimate. All plural inanimate subjects are part of passive constructions. Furthermore, obligation is frequently expressed by second person singular and first person plural subjects.

With the speaker included, the obligation in the first person plural (15) is less face-threatening to others. In the following examples, the speaker/writer demands that some other agent should do something:

(15) 2003 Las Vegas (Nevada) Rev.-Jrnl. (Nexis) 15 May 1D, *We need to* stop piecemealing what we are going to allow and not allow on the Internet.

(16) 1996 Voice 25 June 47/2 (advt.) *You will need to* be flexible, capable of using your own initiative everyday and be prepared to muck in with a small team of committed staff.

(17) 1998 J. WEINSTEIN & T. ALSTON Baseball Coach’s Survival Guide v. 125 All backups *need to* be practiced. You can do this in a team situation with or without live runners and a coach fungoing.

The obligation conveyed in (15) is part of a newspaper article where the writer calls for changes and indirectly criticises the current situation. In order to convince their addressees of stricter rules what to allow on the internet *we need to* is used. This implies that the action demanded is in the interest of both, the addressee and the speaker. *Need to* could be substituted by *should* without much difference in meaning. Nonetheless, by using *need to*, the obligation is expressed more carefully. In the second person (16), the obligation is stated more directly than in the first person plural (15) or in passive constructions (17). In (16), for syntactic reasons, *need to* cannot be substituted by *must* or *should* but only by *have to*. Nevertheless, through the use of *need to*, the obligation is imposed more tentatively. The meaning of external necessity is still implied so that the obligation expressed by *need to* can be characterised as a strong or inevitable necessity which is in the addressee’s interest. The examples were characterised as obligation rather
than external necessity because the necessity is recommended more strongly and is of greater importance. *Need to* could be paraphrased as ‘It is absolutely necessary for you to be flexible/practice’ or even as ‘I advise you to be flexible/practice’ so that the obligation is understood as a recommendation which is meant to be for addressee’s benefit.

As Smith, quoting similar examples, states, “it appears that the speaker/writer is reporting a need for action in a rather vague way, as if the source of the requirement is the situation itself. But again the pragmatic interpretation of obligation imposed on others seems inferable, albeit more disguised” (Smith 2003: 61). Comparing modals of necessity and obligation in Present Day English, Smith points out that traditionally *must* is often compared with *have to*. The decline in the use of *must*, however, cannot be sufficiently explained by an increased use of *have to*. He states that while in conversation *have got to* displays increasing grammaticalisation and is preferred over *must*, it is still unpopular in printed texts. In these contexts, *need to* plays an important role because surprisingly, it dramatically gains in frequency. *Need to* is used for the expression of an obligation which is more carefully stated than an obligation by *must*, because it is expressed only indirectly and not as an “overt marker of power” (Smith 2003: 263f.).

Explaining the increased use of *need to* with its recently developed meaning of obligation, which, in contrast to the obligation expressed by other modal verbs such as *must* and *have to*, is more polite, points towards more general changes. As one of the reasons for the change from central modals to semi-modals, Leech suggests a tendency towards “democratization” (Leech 2003: 237). He refers to Myhill, who compares the use of the modals of obligation before and after the American Civil War and detects significant innovation from one period to the other. While the frequency of *must, should, may* and *shall* declines, the use of *got to, have to, ought, better, can* and *gonna* increases, for which he suggests the following explanation:

> [T]he “old” modals had usages associated with hierarchical social relationships, with people controlling the actions of other people, and with absolute judgments based upon social decorum, principle, and rules about societal expectations of certain types of people. The “new” modals, on the other hand, are more personal, being used to, for example, give advice to an equal, make an emotional request, offer help, or criticise one’s interlocutor (Myhill 1995: 157).

A similar semantic shift, as Leech points out, might have occurred in the 20th century (Leech 2003: 237).

### 4.4.4 Epistemic necessity

The frequency of *need* expressing an epistemic necessity in general is comparatively low. In the period beginning in 1950, however, when the frequency of *need* reaches its peak, half of the occurrences of *need* express
an epistemic necessity. In the other periods, there are only few occurrences, with one third of all *need* in the 1850 and 1994 periods and only one fifth in the 1900–1910 period.

*Table 4* illustrates that epistemic necessity – with two exceptions – is typically used with third person subjects, the majority of which are inanimate. The development of epistemic necessity is typical of the English central modals.

**Table 4:** Subjects of *need* expressing epistemic necessity

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>10</td>
<td>41</td>
<td>24</td>
<td>4</td>
</tr>
<tr>
<td>1st person</td>
<td>–</td>
<td>1</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>2nd person</td>
<td>1</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>3rd person animate</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>–</td>
</tr>
<tr>
<td>3rd person inanimate</td>
<td>–</td>
<td>4</td>
<td>22 (3 passives)</td>
<td>4</td>
</tr>
</tbody>
</table>

In prototypical examples of epistemic necessity, the speaker draws a logical conclusion from a certain situation. Of all examples of *need* expressing an epistemic necessity, only few express prototypical epistemic meaning where the speaker draws a logical conclusion in a certain situation, as in the following example:

(18) 1994 D. RUSHKOFF *Cyberia* II. v. 59 As explained by morphic resonance, the traits *need not* have been passed on genetically.

Here, the speaker infers from morphic resonance that there is not necessarily a reason to believe that the traits have been passed on genetically. In the majority of epistemic *need*, however, the logical necessity does not arise from a certain fact or situation, but is rather based on general contextual knowledge. In many occurrences, *need* collocates with *be*, for example in:

(19) 1853 LYNCH *Self-Improv.* v. 112 An unpolished man *need not* be an ill-mannered one.

It can be reformulated as ‘it is not necessarily the case that an unpolished man is an ill-mannered one.’ It is clearly distinct from participant-external necessity, since it does not mean ‘It is not necessary for an unpolished man to be ill-mannered.’

While in the present analysis, only *need* was found for the expression of epistemic necessity, Nokkonen detects a few epistemic uses of *need to* as well which mainly occur in the colloquial COLT corpus (Nokkonen 2006: 59).
This points towards even further grammaticalisation in Present Day spoken English.

5. Results of the Analysis and Conclusion

It was illustrated that in Present Day English *need* and *need to* can be treated as two different verbs syntactically and to a large extent semantically as well. Since the semantic development of *need* and *need to* to a large extent corresponds to the development on the semantic map of modality, both verbs are – semantically speaking – examples of grammaticalisation. Syntactically, both of them developed from the same construction – the lexical verb *need* + noun phrase – and were used in free variation for several centuries. Then, as the dynamics of grammaticalisation gathered steam, each of the two forms embarked on its own course of development, in line with parallel changes in the English modal system at two different points in time. First, as part of the development of the central modal auxiliaries, *need* (to) began to display modal syntax in Early Modern English. The analysis of the OED quotation database and the ARCHER corpus demonstrates that at least to 1800, auxiliary syntax and blends were by far the dominant grammatical constructions found with *need*. Subsequently, from the beginning of the nineteenth century, however, *need to* began to establish itself as a frequently used modal form with main-verb syntax. And just as *need* in auxiliary syntax developed as part of the wave which resulted in the grammaticalisation of the central modal auxiliaries *will*, *may*, *might*, *can*, *could*, *shall*, *should*, the rise of *need to* is parallel to the development of some English semi- or quasi-modals which can be categorised as emerging modals, namely *have* (*got* to), *going to*, *want to*, *ought* (to), *dare* (to) (Krug 2000). In other words, the historical evidence does not lend support to an interpretation in which the spread of *need to* is seen as an unexpected and surprising partial reversal on a developmental path which is assumed as unidirectional.

Currently, the frequency of *need to* is increasing dramatically while the use of modal *need* is declining. This development corresponds to general shifts in the English modal system. As Leech (2003), Krug (2000) and Biber et al. (1998) point out, the English semi-modals are increasing in frequency at the expense of the central modals so that the system of the English modal verbs is currently changing. *Need*, having grammaticalised twice into two different constructions, reflects these changes.

In order to explain the increased use of *need to*, it is necessary to compare *need to* not only with *need* but also with other modals of obligation in more detail. It was illustrated above that the obligation expressed by *need to* is often stated only indirectly. Speakers resort to *need to* instead of other modals of obligation in order to sound more polite. In some contexts, *need to*
is beginning to replace other semi-modals such as *have to* (Smith 2003, Nokkonen 2006). Further research is necessary in order to find out whether the increased use of *need to* for the expression of obligations mirrors general developments in society towards “democratization” (Leech 2003) because speakers do not want to seem to impose power and authority upon others but rather choose a polite way for putting their demands in order to ensure cooperation.

References


**Corpora used:**

A Representative Corpus of English Registers (ARCHER)

From Degrammaticalisation to Regrammaticalisation?

Appendix:

Table 5: Quirk et al.’s criteria for auxiliary verbs applied to *need* and *need to*  
(c.f. Quirk et al. 1985: 137)

<table>
<thead>
<tr>
<th>Auxiliary</th>
<th>Main Verb</th>
</tr>
</thead>
</table>
| (a) 1900 POLLOK & THOM Sports Burma 262 | 1909 P. W. BROWNE Where Fishers Go  
One *need* not necessarily burn straight powder. |
| (b) 1856 E. B. BROWNING Aurora Leigh (1898) II. 81 Need you tremble and pant Like a netted lioness? | 1950 M. MEAD Male & Female xvi. 338  
Floors *do not need* to be polished so often when there are no children’s feet to track them up. |
| (c) 1860–1 F. NIGHTINGALE Nursing 46, I *need* hardly say, that [etc.]. | 1998 *Dancing Times* Feb. 480/1 (advt.)  
Everything you *need* to know about stage fights, including notating them. |
| (d) – | 1857 Essays in Crit. VII. 209 One scarcely *needs* to pursue the poem through the Hollywoodese of ‘our hearts go round’. |
| (e) “(...) I hear a lot, but I don’t believe much of it.” “You *needn’t* (...)” | (They all *need to* come.) |
| (f) 1860–99.bre\1890drum.h6 | 2000 R. J. EVANS *Entertainment* xiii. 186,  
I *need* to express to Jason my deep understanding of his problems, you know? |
| (g) – | 1999 *Independent* 3 Feb. II. 11/6  
*Needing to* reinvest her matured certificates, she suffered quite a shock when she saw what income she would receive. |
| (h) 1850–99.bre\1890drum.h6 | 2000 G. BOYLE *Cover Story* 351 The guy was a Democrat, but he still *needed to* pull those Republican votes in to put him over the top. |
| (i) – | 1996 *Database* 19 80/1 From a Dialog user’s perspective, here’s what we *needed* to do. |
| (j) – | [past time] |
| (k) – | |
| (l) – | |
| (m) – | |
Criteria:

(a) Op (= operator) in negation
(b) Negative contraction
(c) Op in inversion
(d) Emphatic positive
(e) Op in reduced clause
(f) Position of adverb
(g) Postposition of quantifier
(h) Independence of subject
(i) Bare infinitive
(j) No non-finite forms
(k) No s-form
(l) Abnormal time reference

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