English *fail to* as a periphrastic negative: an FDG account[*]

J. Lachlan Mackenzie
VU University Amsterdam and ILTEC Lisbon

Abstract

The verb *fail,* preceding *to* + infinitive, has two senses. One presupposes active attempt; the other lacks this presupposition and approximates in meaning to simple negation. Examining all relevant occurrences in the British National Corpus, the paper considers the second sense of *fail to* in the framework of FDG. An initial analysis of the second sense as involving a subject-raising verb is abandoned in favour of seeing the relevant use of *fail to* as a periphrastic negative. Close corpus analysis reveals that *fail to* obeys various collocational restrictions pertaining to dynamicity, telicity and positive semantic prosody. This leads into a case study of *fail to be*, which reveals several additional facts. In the FDG-theoretical section, the first sense of *fail* is analysed as involving a lexical verb taking a Configurational Property as its complement and the second as corresponding to a Negative operator (Neg) on a Configurational Property. The use of *fail to* in litotes entails two loci for Neg, while the periphrastic use of *failure* arises from applying Neg to a Lexical Property. The conclusion reflects on possible motivations for the grammaticalization of *fail* invoking a view of negation as not purely semantic but also as having pragmatic aspects.

1   Introduction

The purpose of this paper is to examine the distribution in contemporary British English of the verb *fail* (and the corresponding nominalization *failure*) when followed by a *to*-infinitive. The focus will be on those uses which have been interpreted, for example by Givón (1973), as involving no sense of attempt or intentionality on the part of the subject of *fail* (or the corresponding genitive premodifier of *failure*).[1] Here are some relevant examples from the BNC, the corpus that underpins the present study (emphases mine, JLM):

(1) a   No decision made will **fail to** be carried out … (BNC, HH2)
    b   Once you'd lied – even if it were only by implication or simply by **failing to** deny something – you were forced to go on lying (BNC, HHA)
    c   He had never come to terms with his former master's **failure to** expire properly. Is the old buzzard dead or isn't he? (BNC, HA3)

In such examples, it has been claimed, *fail to* is equivalent to simple negation, so that these examples could be paraphrased as (2a–c) respectively:

(2) a   No decision made will **not** be carried out …
    b   … only by implication or simply by **not** denying something ...
    c   He had never come to terms with his former master's **not** expiring properly ...

If the lexical verb *fail* indeed lends itself to a usage which is entirely equivalent to the grammatical strategy of negation, this suggests that, in this usage, it has been subject to a degree of grammaticalization.[2] To the extent that this is so, the English lexical verb *fail* also has uses as a grammatical marker of negation.

The relevant history of the lexical verb *fail* can be followed in various studies on the diachrony of complementation, in particular Rudanko (1996) and Fanego (1996; 2007). What emerges from their work is that *fail,* very much like other complement-taking verbs, has permitted a variety of complement types through its history. It has always allowed the *to*-infinitive, i.e. *fail to do*. However, in a development that climaxed in the 18th century, *fail to* came to prefer the gerund, i.e. *fail doing*; this construction, however, has now receded completely in favour of the *to*-infinitive (with no example of gerundive complementation being found in the BNC). Rudanko (1998) shows that *fail* has at various points in its history also accepted a range of prepositional complements: *fail in doing, fail at doing, fail of doing*; however, he states that his present-day informants resist *fail in doing* (1998:22) and *fail at doing* (1998:101) and totally reject *fail of doing* (1998:21–2). All the constructions involving an *-ing* complement will accordingly be left out of consideration in this paper; to the extent that any of these are acceptable at all, they appear to retain the 'unsuccessful attempt' sense that is crucially absent in (1a–c); in other words, they have not been subject to grammaticalization. This paper will therefore consider only *fail* when followed by a *to*-infinitive.

In order to gain an accurate view of *fail to* in contemporary English, every instance of the strings {*fail to*, *fails to*, *failing to*, *failed to*, *failure to*} was excerpted from the 100,000,000-word British National Corpus, using the BYU-BNC

Concordancer (http://corpus.byu.edu/bnc/), with supplementary use of the AntConc concordancer (http://www.antlab.sci.waseda.ac.jp/); this yielded a total of 12690 hits. The distribution of forms is shown in Table 1.

fail to	1833
fails to	1242
failing to	1369
failed to	5840
failure to	2406
Total	12690

Table 1. Frequencies of *fail to* forms in BNC Corpus (UK English)

The mean number of occurrences of each sequence per 1m words is shown in Table 2. As is clear from this Table, the occurrence of the *fail to* sequence (in both its uses) is markedly more common in newspaper, academic and non-fiction macroregisters than in fiction or spoken English, with the miscellaneous macroregister occupying an intermediary position, a point to which we will return briefly in Section 9.

	Spoken	**Fiction**	**Newspaper**	**Academic**	**Non-fiction**	**Miscell.**
fail to	4.0	8.6	17.7	31.8	20.6	22.2
fails to	0.6	2.0	15.2	29.2	10.7	14.5
failing to	2.9	3.8	36.3	18.0	17.7	11.3
failed to	9.3	31.3	118.3	69.9	86.3	51.6
failure to	4.3	3.9	19.8	55.5	33.7	23.7
Mean	4.2	9.9	41.5	40.9	33.8	24.7

Table 2. Mean number of occurrences of each sequence per 1,000,000 words

In order to check whether the phenomena under examination also apply in American English, statistics for the Time Corpus of American English, also of 100,000,000 words, were calculated using the BYU interface (http://corpus.byu.edu/time/x.asp), and the overall results were remarkably similar to those shown in Table 1; see Table 3, which warrants the conclusion that the overall frequency of *fail to* does not differ significantly between the two varieties of English considered (correlation coefficient = 0.992):

fail to	1544
fails to	1078
failing to	1224
failed to	7119
failure to	1840
Total	12805

Table 3. Frequencies of *fail to* forms in the Time Corpus (US English)

In addition to providing these quantitative data, the BNC also served as a basis for a qualitative study of the clausal and discourse contexts in which *fail to* occurs; it is on this qualitative analysis that the bulk of this paper reports.

The paper will begin by describing *fail* as a regular complement-taking lexical verb, the antonym of the lexical verbs *succeed* or *manage* (Section 2). The next section will consider uses of *fail to* as a periphrastic negative, i.e. equivalent to *not*. Section 4 will initially analyse *fail* in the latter usage as a subject-raising verb but conclude that *fail* belongs semantically with its apparent complement. Section 5 considers why *fail to* is not an alternative to negation for all verbs, identifying three factors that condition its use. This is followed by a case study of *fail to be* in Section 6. Then Section 7 proposes, within the framework of Functional Discourse Grammar (FDG; Hengeveld & Mackenzie 2008), that the relevant use of *fail to* differs in scope from clausal *not*, considering evidence from subordination and secondary predication. This leads in Section 8 to a consideration of litotes, reflecting the numerous instances in the corpus of a negative being applied to *fail to*, as in *She never fails to amuse me*. The Discussion and Conclusion (Section 9) considers the pragmatic and semantic bases for the grammaticalization of *fail to* and draws attention to some confusions that can arise with multiple negations in actual practice.

2   *Fail* as a complement-taking lexical verb

The lexical item *fail* has been classified since the pioneering work of Karttunen (1971a, 1971b) as a NEGATIVE IMPLICATIVE complement-taking verb. To understand what is meant by this, let us consider the complement-taking verbs *manage* and *want*. *Manage*[3] is said to be an implicative and *want* a non-implicative verb, since the complement of the former, used affirmatively, is necessarily true, whereas the complement of the latter is not necessarily true:

(3) a   John managed to escape from prison.
     b   John wanted to escape from prison.
     c   John escaped from prison.

(3a), but not (3b), implies (3c). In parallel with this, Karttunen classifies *fail* (*to* V), and other verbs such as *avoid* (V-*ing*), *decline* (*to* V), *forget* (*to* V), *neglect* (*to* V) and *refrain* (*from* V-*ing*) as negative implicatives, because their affirmative use, as in (4a), entails the negation of the complement clause, as in (4b):

(4) a   John failed to escape from prison.
     b   John didn't escape from prison.

As Karttunen also observes, the negation of *fail* entails the truth of the complement clause, with (5a) entailing (5b):

(5) a   I did not fail to reach the summit.
     b   I reached the summit.

This means that *fail* = *not manage* and conversely that *not manage* = *fail*.

In examples (3a), (4a) and (5a), Karttunen sees the clauses containing *manage* or *fail* as entailing, rather than being exactly equivalent to, (3c), (4b) and (5b) respectively. As noted by Givón (1973:894–895), this is because the former have a presupposition of attempt that is lacking in the latter.[4] Givón points out that both (6a) and (6b) presuppose (6c):

(6) a John managed to kiss Mary.
    b John failed to kiss Mary.
    c John deliberately tried to kiss Mary.

Note that presupposition is here defined as a semantic notion, namely as a relation between propositions such that P presupposes Q iff {true (P) → true (Q)} and {false (P) → true (Q)}. The presupposition of attempt is regularly made explicit in the corpus, as in (7):

(7)   Labour tried and failed to make the election a referendum ... (BNC, AK2)

As Givón (1973:898–899) further points out, the status of *fail* as a negative implicative only applies to what he calls the TIME-AXIS of *fail*, i.e. the critical transition from the presuppositions pertaining to the time preceding the moment of failing and the implications pertaining to the time following it. In other words, nothing in principle excludes the possibility of expanding (6b) as in (8):

(8)   John failed to kiss Mary, but later he succeeded.

The upshot of Karttunen and Givón's work on *fail*, then, is that it is a negative implicative complement-taking lexical verb with a semantic presupposition of attempt.

3   *Fail to* as a periphrastic negative

From the perspective of this paper, Givón's major additional observation is that *fail* can also be used in contexts in which there is no presupposition of attempt (1973:898). In such examples, the subject of *fail* has not been deliberately trying to achieve the result expressed in the complement clause. Consider as an example of his point[5] a sentence such as (9a), in which *the bomb* is clearly not capable of having intentions or undertaking attempts:

(9) a The bomb failed to explode.
    b The bomb did not explode.

Givón asserts that (9a) and (9b) are fully equivalent. In other words, *fail to* (in the non-attempt sense) is an alternative form of negation.

In a section of his article devoted to diachrony, Givón claims (1973:915) that *fail*, in the relevant usage, has lost the "presupposition of Active-attempt". This claim is repeated a couple of pages later (1973:917), where it is furthermore claimed that "[t]his type of a development is extremely common in Bantu languages", with examples from

Kihung'an (Congo) and Bemba (Zambia) of negation markers that have developed from verbs meaning 'refuse' and 'lack, miss' respectively. Although Givón produces no evidence for his claims about the diachrony of English *fail*, it may well be correct. The OED, s.v. *fail*, recognizes the use of *fail* with a presupposition of active attempt as sense 12: "To be unsuccessful in an attempt or enterprise. Const. *to* with *inf.*; also *in*. Said of persons; occas. of the means."; all the OED's examples with a *to*-complement have a human subject, the earliest being from Chaucer (dated c. 1385). The non-attempt meaning is recognized as sense 10c: "With *inf.* as object, of a thing, circumstance, situation, influence: not to have the effect of, not to result in (doing something)". The first attestation of this usage has been found by Rudanko (1998: 60), who gives an example from Adam Smith's *The Wealth of Nations* (1775): *The wealth of the burghers never failed to provoke their envy and indignation.*[6]

We thus have *prima facie* evidence for a historical development in English from *fail* as a complement-taking verb with an agentive subject and a presupposition of deliberate attempt on that subject's part (as described in Section 2) to an additional use of *fail to* as a marker of negation pure and simple. In other words, we may have identified an example of grammaticalization, specifically the development of a content word into a function word. The term 'grammaticalization' will be understood here in the sense of Croft (2000:156), who defines it as "the process by which constructions with specific lexical items develop grammatical functions, leading to the reinterpretation of the lexical items as possessing grammatical functions". Croft (2000:159ff) recognizes three successive phases in grammaticalization: periphrasis, fusion and erosion. My claim will be that there is evidence for only the first phase, i.e. for an analysis of a use of *fail to* as a periphrastic negative.

Givón may have been the first to observe the use of *fail to* as a periphrastic negative, but he is not alone. The equivalence between *fail to* and *not* is also observed by Halliday & Matthiessen (2004:507, fn. *). They interpret the sentence *People failed to accept her* as 'People did not accept her despite her efforts'[7] and comment that here "*failed to* is functioning as a simple negative", adducing two other examples, *I sent them a letter but it failed to arrive* and *The banks failed to support them*. For them, the construction is an example of 'incongruence', or 'grammatical metaphor' (Halliday & Matthiessen 2004:636), characterized as a construction "not part of the grammar of ordinary, spontaneous conversation that children meet in the home and neighbourhood, rather it is associated with the discourses of education and science, bureaucracy and the law". We will briefly return in Section 9 below to the registers in which *fail to* is most frequently encountered; cf. also the numerical data in Table 2 in Section 1 above.

The claim that *fail to* functions as a simple negative in such cases is also found in Rudanko (1998:33–34), who distinguishes between the lexical and grammatical uses, or in his words, "failing in spite of an effort ... and not doing something, with no necessary implication of an effort. In the latter sense *fail* can easily take a animate [i.e. inanimate, JLM] subject and the meaning of the construction comes fairly close to that of negation with *not*". Rudanko's cautious formulations ("no necessary", "easily", "fairly close") are inspired by his feeling that, in relevant contexts, *fail to* and *not* are "perhaps not entirely equivalent" (1998:34). He believes that *fail to* retains "a sense of a non-fulfillment of an expectation" as felt by "some unnamed person that is salient in the context", although he concedes that this may not always apply. As a test, he predicts that sentences of the type (10a) will be less likely than sentences like (10b):

(10) a The remark was not expected to upset him, and indeed it failed to upset him.
     b The remark was not expected to upset him, and indeed it did not upset him.

Rudanko appears not to be sure of his ground here, and indeed a Google search reveals examples such as (11) or (12) that gainsay his prediction, since both instances of *fail to* occur in contexts in which there is an expectation of non-success:

(11) Our next stop, Jaipur, had a difficult time impressing us, and indeed it failed to do so (www.pbelow005.com, consulted 29 January 2008)
(12) She had no idea how to solve the problem, and indeed, she failed to solve it.[8]

Rudanko (1998:60), later in his book, returns to the fray, pointing out that "it is not always easy, or necessary, to decide between the two senses"; and indeed this kind of indeterminacy is not untypical of grammaticalization scenarios of the type posited in this paper, where the lexical use of an item persists alongside the grammatical use.

4   Periphrastic negative *fail* as a subject-raising verb

If, despite the difficulties in characterizing individual instances invoked by Rudanko, we grant the existence of *fail* as a periphrastic negative verb, how are we to characterize it grammatically? Where *fail to* expresses nothing more than negation, its subject is clearly not a semantic argument of the verb *fail* (as it is when *fail* is a lexical verb with the meaning 'not succeed'). In other words, such a subject is akin to those of verbs like *seem, appear, begin* and *continue*, which have been characterized in generative accounts as SUBJECT-RAISING verbs. We can then predict that *fail to* will display the same characteristic properties as other subject-raising verbs; and this prediction is indeed borne out.

Like *seem* and the others, *fail to* can occur with such expletive subjects as meteorological *it* and existential *there* (cf. (13) and (14)); it can occur with a Subject Idiom Chunk (Radford 1988:319) like the non-referential NP *the fur* in the idiom *the fur fly*, denoting a situation in which people have a violent argument (cf. (15)); and where the clause syntactically embedded under *fail to* appears in the passive, there is no appreciable difference between the representational meaning of the active and passive clauses (cf. (16)):

(13) a It failed to rain the entire week.
     b It seemed to rain the entire week.
(14) a There failed to be sufficient interest.
     b There seemed to be sufficient interest.
(15) a The fur failed to fly whenever their mother was in the room.
     b The fur seemed to fly whenever their mother was in the room.
(16) a She failed to be influenced by the opinion polls.
     a' The opinion polls failed to influence her.
     b She seemed to be influenced by the opinion polls.
     b' The opinion polls seemed to influence her.

It is characteristic of a so-called subject-raising verb that its syntax displays a subject and an infinitive complement, while its semantics involves only one argument, which corresponds to the infinitive complement, with the subject of that complement appearing as the syntactic subject of the higher verb (hence the notion of 'raising', from a movement perspective). Such verbs express schematic meanings, of the type associated in morphologically richer languages with grammatical rather than lexical items: evidentiality with *seem* and *appear*, aspect with *begin* (ingressive) and *continue* (continuative); and now negation with *fail to*. However, the presence of schematic meanings cannot in itself be taken as indicative of grammatical status. If certain uses of *fail to* indeed reflect grammaticalization, we need to find evidence that the grammatical uses pattern differently from the lexical uses. Let us consider two pieces of evidence in favour of this conclusion.

The first relates to INDEPENDENT MODIFIABILITY. Only a fully lexical item can be a head modified by an adverb(ial) (cf. Hengeveld & Mackenzie 2008: 218 ff. on the lexical status of heads (and modifiers)). Where *fail* is lexical (i.e. equivalent to *not manage*), it should be modifiable independently of the content of the complement clause. In the corpus, it emerges that lexical *fail* (where the sense of attempt is clearly present) is regularly premodified by degree adverbs that indicate how near the referent of the subject comes to success (e.g. *singularly, patently, noticeably*) or how frequently s/he is denied success (e.g. (*all too*) *often, repeatedly, regularly*):[9]

(17)   Joe Ashton, a Labour MP, narrowly failed to gain election to the Wednesday board. (BNC, A3L)

(18)   Students who are inexperienced in research frequently fail to narrow and focus their efforts to achievable units. (BNC, B25)

The adverbs *narrowly* and *frequently* in (17) and (18) clearly apply to the lexical item *fail* only. (17) is different in meaning from *Joe Ashton failed to narrowly gain election* and (18) from *Inexperienced students fail to frequently narrow and focus their efforts*; in both manipulated examples the adverb modifies the embedded verb only.

Turning now to adverbials appearing between lexical *fail* and *to*, we find that they either, as in (19), postmodify *fail* (again predominantly indicating either the degree or the frequency of failure) or, as in (20), premodify the following embedded infinitive:

(19)   Such gestures failed dismally to ratify his authority. (BNC, EDY)

(20)   The Civil Aviation Authority failed adequately to monitor the airline's maintenance procedures. (BNC, AJU)

The co-existence of these two parses may even lead to ambiguity, as in (21), which in principle can evoke either a total failure to register the words or a failure to register them all:

(21)   ... failed completely to register the next three words that Downes had thundered. (BNC, HWM)

Where *fail to* is hypothesized to be a periphrastic negative (i.e. where there is no sense of attempt), we will anticipate that modifying adverbials will lack this kind of scopal distinction. Consider (22):

(22)   Drinking water frequently fails to meet EC standards. (BNC, A9N)

The adverb *frequently* here modifies neither *fails* nor *meet* but rather their combination: the meaning is that 'It frequently occurs that there is non-compliance with EC standards', with *frequently* applying to the complex meaning expressed by *fails to meet*. This suggests that *fail to* in some way belongs to the same semantic unit as the syntactically embedded infinitive.

The second piece of evidence comes from the occurrence of POSITIVE AND NEGATIVE POLARITY ITEMS (PPIs and NPIs respectively; cf. Szabolcsi 2004). PPIs include items like *already* and *some* (including *something, somewhat*, etc.); NPIs are such items as *any*, *yet*, or *at all*. In FDG terms, PPIs are not acceptable in a negative State-of-Affairs (SoA) in which they are within the scope of that SoA's negative operator, but must be replaced by a corresponding NPI (see (23Ba) in response to (23A). Both PPIs and NPIs are acceptable, however, in a semantic unit embedded within a negative SoA (see (23Bb)):

(23) A. Surely he noticed you are different now?
     B. (a) No, he didn't notice *something/√anything.
         (b) No, I don't believe he noticed something/anything.

Where *fail* is a fully lexical verb in the sense of 'not succeed' (as in (24a), (25a) and (26a)) it behaves like a negated lexical verb, i.e. accepting both PPIs and NPIs in the embedded infinitive clause;[10] where it is used as a periphrastic negative (as in (24b), (25b) and (26b)), however, *fail* requires an NPI:

(26) a   Despite joining the speed-dating club, he failed to meet someone/anyone nice.
     b   Membership of the speed-dating club failed to bring him into contact with
         ?someone/√anyone nice.
(27) a   Even after changing the constitution, they have failed to somewhat reduce the
         president's power/to reduce the president's power at all.
     b   The change of constitution failed to *somewhat reduce the president's
         power/√reduce the president's power at all.
(28) a   Unusually, the critics have failed to already/yet find fault with the film.
     b   The reviews have failed to *already/√yet find fault with the film.

These data suggest that *fail to* behaves as though it were in the semantic unit as the NPI, i.e. an example such as (28b) would reflect one SoA only. The picture that is emerging is thus one of *fail to* as a periphrastic exponent of negation that belongs to the same semantic unit as the material it negates.

This section has examined the status of the grammaticalized use of *fail to*. After initially characterizing it as a subject-raising verb, we moved on to consider it as a grammatical item which is not independently modifiable and which behaves with regard to NPIs and PPIs as though it belonged to the SoA that is negated. This analysis will be

made more precise in Section 7 with the use of FDG. But now we must turn to the analysis of the verbs that can follow *fail to*.

5   *Fail to* cannot negate all verbs

Whereas *not* is a fully grammatical form in being applicable to all verbs, *fail to* is restricted in three ways. Interestingly, the first two of these restrictions appear to apply equally to lexical *fail* and to grammaticalized *fail to*, suggesting that the latter has retained them from its lexical origins; the third, however, reveals some further evidence of grammaticalization.

Table 4 shows the 30 commonest verb lexemes in the BNC and the ranking of their occurrence after *fail to*. It is immediately apparent that there is very little correlation between the relative frequency of verbs in the corpus as a whole and the relative frequency of verbs following *fail to*. The five modal verbs that occupy ranks 4, 5, 10, 17 and 25 are excluded for morphosyntactic reasons: they lack an infinitive form that could appear after *fail to*. The three most common verbs to follow *fail to* (*do*, *take* and *make*) are admittedly among the 12 most frequent verbs in the entire corpus, but of the next seven (*provide*, *comply*, *meet*, *recognize*, *get*, *find*, *reach*) only two figure in Table 4 (*get* and *find*). *Fail to seem to* is found only once in the corpus.[11] Most striking, perhaps, is the low ranking of the verbs *think* (194th), *know* (353rd), *feel* (575th) and *like* (761th) and the total absence from the corpus of *fail to need, fail to want* and *fail to mean*.[12]

Rank	Verb	Raw frequency	Rank after *fail to*
1	*be*	3672908	11
2	*have*	1173735	40
3	*do*	536263	1
4	*will/would*	497027	—
5	*can/ca(n't)/could*	424402	—
6	*say*	319361	194
7	*go*	229759	108
8	*get*	213652	7
9	*make*	212641	3
10	*may/might*	187132	—
11	*see*	186379	12
12	*take*	174747	2
13	*think*	159119	194
14	*use*	158017	77
15	*know*	157400	353
16	*like*	156457	761
17	*shall/should*	128970	—
18	*give*	128650	15
19	*look*	120987	160
20	*find*	97718	8
21	*need*	91405	not found
22	*want*	91265	not found
23	*mean*	84865	not found
24	*tell*	73887	112
25	*must*	70158	—
26	*put*	67883	81
27	*feel*	67090	575
28	*become*	66216	108
29	*call*	61248	403
30	*seem*	59923	761

Table 4. The 30 commonest verb lexemes in the BNC and the ranking of their occurrence after *fail to*

The semantic property that is lacking in the dominant uses of *feel*, *know*, *like*, *mean*, *need* and *want* is DYNAMICITY: none of them serves chiefly to indicate a change of state. Within the category of dynamic verbs, i.e. verbs denoting an event rather than a state, there is a marked preference for the additional property of TELICITY, i.e. for verbs that are used to identify events that have a goal or endpoint. This is reflected in the relatively low ranking for the predominantly dynamic but atelic verb *think*, despite its overall frequency (being ranked 13th) in the corpus as a whole. The use of the verbs *succeed* and *fail* implies not only effortful action but also an endpoint at which a decision can be made as to whether the effort has been successful or not (the time-axis invoked by Givón 1973, cf. Section 2). It is this that makes atelic verbs unsuitable companions for *fail to*. Accordingly, the property that links the verbs most commonly

encountered after *fail to* (see Table 5) is their combination of dynamicity and telicity. Inspection of the corpus shows that *do* (ranked 1st) mostly has an anaphoric object (*fail to do so*; *this they failed to do*), which strongly suggests completeness (i.e. an endpoint already textually evoked); *take* (ranked 2nd) occurs very frequently in the telic expressions *take into account* or *take account of*, as well as being used in a telic sense with various objects such as *action*, *a risk* and *notice*; *make* (ranked 3rd) has no dominant complement, but is found with objects like *impact, headway*, *payment, one's mark,* etc., all of which indicate the endpoint of the action. The verbs ranked 4th to 7th, *provide*, *comply*, *meet* (usually criteria or standards) and *recognize* are inherently telic, as are *get*, *find*, *reach* and *win* (ranked 8th to 11th). Even a verb like *see*, ranking 13th, is used almost exclusively in the telic sense of 'come to understand', 'achieve understanding'. *Carry*, ranked 30th, is inherently non-telic but predominantly occurs as part of the telic phrasal verb *carry out*. An apparent exception is *be* (ranked 12th), the prototypical non-dynamic (and thus non-telic) verb; Section 6 will devote a special case study to the occurrence of this verb after *fail to*.

A third restriction additional to dynamicity and telicity pertains to the rarity of *fail to* being combined with verbs with a negative semantic prosody. Although the term SEMANTIC PROSODY[13] was first defined by Louw (1993:157) as "a consistent aura of meaning with which a form is imbued by its collocates", the expression was originally suggested by and is intimately associated with the work of John Sinclair, as for example in the latter's (1991:74) corpus-based observation that the intransitive phrasal verb *set in* collocates strongly with notions that have a negative semantic prosody. Thus it is more natural to talk of winter setting in than summer, frost than thaw, disease than recovery, etc. *Manage*, the opposite of *fail* in its lexical sense, clearly collocates with verbs of positive semantic prosody (cf. (29a)), and where this does not apply, there is a strong tendency to ironic interpretation.[14]

(29) a She managed to pass her exam.
      b She managed to upset everyone in the room.

Fail, in its lexical sense, shares this positive semantic prosody with *manage*:

(30)   She failed to prove her innocence.

Indeed, the verbs that most frequently collocate with *fail* in the BNC have a neutral or positive semantic prosody, as a second look at Table 5 will confirm. In addition, the verbs of neutral semantic prosody, in the company of *fail to*, collocate preferentially with words of positive semantic prosody: thus we find *do* frequently collocating with *enough*, *duty, justice*; *take* with *action, advice, step, notice*, etc.; and *make* with *headway*, *impact, breakthrough, progress*. As has been observed by Stubbs (1995:26), *provide,* although in itself rather neutral, is in practice associated with words of positive semantic prosody.

Rank	Raw frequency	Verb
1	385	*do*
2	374	*take*
3	362	*make*
4	272	*provide*
5	252	*comply*
6	238	*meet*
7	221	*recognise/ze*
8	217	*get*
9	215	*find*
10	201	*reach*
11	198	*win*
12	190	*be*
13	185	*see*
14	181	*produce*
15	153	*achieve*
16	151	*give*
17	133	*respond*
18	128	*keep*
19	123	*pay*
20	121	*understand*
21	118	*notice*
22	116	*agree*
23	109	*realise/ze*
24	104	*deliver*
25	98	*show*
26	92	*stop*
27	90	*secure*
28	86	*appreciate*
29	85	*turn*
30	79	*carry*

Table 5. The 30 commonest verbs after *fail to*

Comply and *meet* are examples of verbs that are inherently positive, and their dominant objects are neutral (e.g. *procedures, conditions*; *deadline, standards*). In each case, then, the prevailing pattern after *fail to* is positive, i.e. either neutral plus positive (yielding a positive) or positive plus either neutral or positive (again yielding a positive). In addition, a positive verb with a negative complement, given the syntactic and semantic dependence of the object on the verb, also yields a positive whole, as with *tackle the problems of drugs* (*tackle* ranks 92nd among the verbs following *fail to*).

Among the 100 commonest verbs after *fail to*, only one, *break*, ranked 75th, is an INHERENT NEGATIVE (Tottie 1982:89), having a basic lexical meaning that is negatively

evaluated. There are 38 instances of *fail to break* in the corpus. In terms of semantic prosody, four classes emerge from the data:

(a) where *break* has a negative-prosody complement which reinforces the negativity of the verb (*break down* 'collapse');
(b) where *break* has a positive-prosody complement (as in *break the spirit of the working people* or *break off diplomatic relations*), or a neutral-prosody complement (as in *failed to break it*, i.e. a disc) or no complement at all (in intransitive use, as in *it* (i.e. a cup dropped on a stone floor) *had failed to break*), and yields a negative whole;
(c) where *break* has a negative-prosody complement (as in *break the cycle of dependence*, *break down the dangerous elements*, *break the deadlock*, *break with essentialism*), where the negative verb and the negative complement together yield a positive;
(d) where the 'broken' complement is covert and the overt complement is positively valued (as in *break new ground, break through, break even, break free, break into a charmed circle*), yielding a positive whole.

We find the following distribution of the 38 instances over the four classes:

(a) 1
(b) 9
(c) 11
(d) 17

Even with an inherently negative verb and an inherently negative complement (overt or covert), we see that the complement of *fail* in the majority of cases (28/38 = 73.7%) has a positive semantic prosody.

One more example is *lose* (ranked 477th equal), the opposite of the verbs *find* and *win*, which are ranked 9th and 11th respectively in terms of frequency after *fail to* and together occur 413 times; *lose* occurs twice, once with *weight* and once with *a little of her egoism* as its complement (both clear cases of two negatives yielding a positive).

However overwhelming, the semantic prosodies that emerge from corpus analysis reflect tendencies rather than rules, as we have seen with *break*. So we may expect to find examples in the corpus which go against the grain and show *fail to* taking negatively valued concepts in its complement. Consider (31), (32) and (33):

(31) Haiducu not only failed to assassinate Goma and Tanase, but handed himself over to the French authorities. (BNC, CCK)
(32) Mr Birt's failure to abandon the advantages of self-employed status was 'a gross error of judgment'. (BNC, K5M)
(33) A first bomb failed to destroy the imperial carriage, and the Tsar dismounted to investigate. (BNC, EA6)

On the reasonable assumption that *assassinate*, *abandon* and *destroy* are 'inherent negatives', we may simply write off these examples as innocuous exceptions to the dominant trend. However, we may go further and observe that in (31), the use of *fail* (rather than *Haidicu did not assassinate …*) allows two syntactically affirmative clauses

to be linked by a correlative construction introduced by the already doubly negative *not only*; that in (32) the use of *failure* avoids a clumsy negated nominalization (*Mr Birt's non-abandonment of the advantages …*); and that in (33) there may be an echo of the 'not explode' sense found in *The bomb failed*. In other words, there may be a range of complex stylistic motivations for the choice of *fail to* rather than straight negation with *not* or *non-*.

Such examples as (31) to (33) are extremely rare in the corpus. The fact that they occur at all, with a negatively charged complement, may be seen as further evidence of the partial grammaticalization of *fail to*. In its lexical sense, *fail* indicates lack of success at achieving what is presupposed to be a wished-for outcome. The corpus has shown us that these positive associations of the complement clause are typically preserved where *fail to* is a periphrastic negative. Where this is not the case, there is a greater distance between the *fail to* periphrasis and its lexical origins.

6   Case study: *fail to be*

If *fail to* has a massive preference for telic, dynamic verbs in its complement, we should expect *fail to* not to combine with the verb *be*, which is the prototypical non-dynamic verb. Nevertheless, as many as 177 examples of *fail to be* show up in the corpus, which, as is visible in Table 5 above, makes *be* the 12th most frequent verb after *fail to*. The occurrences are classifiable as shown in Table 6.

Sequence	Number of occurrences	Example
be + passive VP	104	*be stimulated by ...*
be + AdjP	50	*be beautiful*
be + NP	19	*be an improvement*
be + Clause	2	*be what it claims to be*
be + AdvP	1	*be indoors*
be + PP	1	*be behind them*
Total	177	

Table 6. Occurrences of *fail to be*

As is apparent from Table 6, the most frequent use of *be* after *fail* is as the passive auxiliary (104 = 58.8%). Here the verb *be* adds nothing to the semantics of the VP, which is determined by the lexical verb. Almost all the lexical verbs are of the telic, dynamic type recognized in Section 5 as being dominant after *fail*: the most frequent are *impress* (13 occurrences), *move* (4), *elect* (4), *strike* (4), *satisfy* (3), and *select* (3). There are, however, 3 instances of the non-dynamic verb *see* and 1 of *love*.

Of greater interest are the 50 instances of adjective phrases (28.2%) and 19 of noun phrases (10.7%). The adjective phrases generally share the positive semantic prosody identified in Section 4, with only *angry*, *sexist* and *unimpressed* as exceptions. The most frequent are *aware* (10 occurrences), *grateful* (3), *entertaining* (3) and *able to* V (3). The great majority of the adjective phrases are clearly non-dynamic (*beautiful, excellent, full of good things, pleasing to his sovereign, beneficial, tough, significant*) and accordingly atelic. If the adjective phrase *angry about the right things* may be seen as dynamic in its single occurrence in the corpus, shown in (34), then it still lacks an endpoint:

(34)   We can be angry about the wrong things. We can also fail to be angry about the right things. (BNC, CGE)

It follows that the use of *fail* with all the adjective phrases in the corpus must be regarded as lacking the sense of attempt, i.e. as grammatical rather than lexical. Here is an example that is typical of the *be* + AdjP combination:

(35)   They are failing to be as open-minded as they should. (BNC, CMF)
        (= They are not being as open-minded as they should)

The noun phrases similarly share the characteristic of positive semantic prosody (*an improvement, a hit, fun, a winner, the first to …, the hoped-for panacea*), although a few are neutral (*information, counterbalances, carbon copies*); no negative prosody is found. Again, the great majority of the NPs are non-dynamic/atelic, as is normal for that syntactic category, as in (36), in which the inanimate subject (which cannot make an attempt) indicates that *fail to* is being used as a periphrastic negative:

(36)   The information it carries will fail to be information at all. (BNC, C92)
            (=The information it carries will not be information at all.)

The examples of *be* + AdvP/PP are clearly non-dynamic (*indoors, behind them*), as is one of the two *be* + Clause examples (*fail to be what it claims to be*). In the other example of *be* + Clause, (37):

(37)   ... a reaction to the way he saw himself: a failure to be what he wanted to be most. (BNC, J0W)

failure is fully lexical, as in 'He saw himself as a failure' (i.e. as a non-achiever), and *be* must be understood as dynamic ('turn into').

This case study of *fail to be* has revealed that the relatively high rank of *be* as a verb in the complement of *fail* is understandable partly as reflecting the role of *be* as the passive auxiliary and in a couple of cases the use of *be* as a dynamic and telic verb of becoming. However, in all the remaining cases and possibly in some of the cases with a passive VP complement, *fail to be* must be interpreted as a periphrastic negative. Its occurrence is indeed particularly salient and distinctive when followed by an AdjP or NP, since these are by and large non-dynamic (and thus atelic).

One interesting observation is that *fail to* never occurs in the corpus before a progressive VP, i.e. with *be* as the progressive auxiliary;[16] in other words, there are no examples like (38):

(38)   *The child fails to be impressing the teacher.

This is understandable because the progressive aspect, when applied to a telic state-of-affairs, "signals the non-achievement of the Action" (Dik 1997:110); both lexical and grammatical *fail*, as we have seen, require an endpoint. In the grammatical sense, the progressive aspect is expressed on the verb *fail*, so that the equivalent of the negative progressive (39a) is (39b):

(39) a The child is not impressing the teacher.
     b The child is failing to impress the teacher.

Why this might be is one of the matters to be explored in the next section.

7   Scope of negation

In order to understand various facts about *fail* as a grammatical item, let us consider its analysis in Functional Discourse Grammar (FDG; Hengeveld & Mackenzie 2008). FDG recognizes four levels of analysis, the Interpersonal, the Representational, the Morphosyntactic, and the Phonological Levels. For our purposes here, we may focus on the Representational Level, where the semantic relationships that hold within the propositional content are shown. This level is layered (in the sense first introduced by Hengeveld 1989) as follows:

(40) $(p_1: [(ep_1: [(e_1: [(f_1: [(f_2)^n (x_1)_\Phi ... (x_{1+n})_\Phi] (f_1)) ... (f_{1+n})] (e_1)_\Phi]) ... (e_{1+n})_{\{\Phi\}}] (ep_1))$
        $... (ep_{1+n})_{\{\Phi\}}] (p_1))$

(40) is to be understood as chiefly stating that the PROPOSITIONAL CONTENT (p_1) consists of a number of EPISODES ($ep_{1...n}$), each of which consists of a number of STATES-OF-AFFAIRS ($e_{1...n}$), which in turn consist of one or more CONFIGURATIONAL PROPERTIES ($f_{1...n}$: [...] ($f_{1...n}$)), each of which is a configuration of LEXICAL PROPERTIES ($f_{2...n}$: ♦ ($f_{2...n}$)) (where ♦ is a variable over lexical predicates) and INDIVIDUALS ($x_{1...n}$). For the purposes of the argument here, we can concentrate on the Episode, the State-of-Affairs and the Configurational Property, as shown in (41):

(41) $(ep_1: [(e_1: [(f_1: [(f_2)^n (x_1)_\Phi ... (x_{1+n})_\Phi] (f_1)) ... (f_{1+n})] (e_1)_\Phi]) ... (e_{1+n})_{\{\Phi\}}] (ep_1)) ...$
        $(ep_{1+n}))$

Operators, i.e. semantic notions that correspond to a grammatical rather than lexical element at the Morphosyntactic Level of FDG, apply to each layer. The operators at each layer have scope over that layer and all lower layers. Polarity operators are assumed to apply at the (e_1) layer (Hengeveld & Mackenzie 2008:178–179), yielding the following analysis for the Episode in (39a), with *not* uncontroversially analysed as an operator on the State-of-Affairs (e_i):

(42) $(Pres\ ep_i: [Neg\ e_i: [(Prog\ f_i: [(f_j: impress\ (f_j))\ (x_i:$ —child— $(x_i))_A\ (x_j:$ — teacher— $(x_j))_U]\ (f_i))]\ (e_i))]\ (ep_i))$

Here the Progressive operator applies to the Configurational Property (f_i), which is in the scope of the negated State-of-Affairs (e_i), which itself is in the scope of the present-tense Episode (ep_i).

Complement-taking verbs are classified in FDG according to the highest layer their complement displays: thus the complement of *believe* is a Propositional Content, of *happen* an Episode, of *want* a State-of-Affairs, and of *start* a Configurational Property. What of the lexical verb *fail*? Its complement is an infinitive (i.e. without

tense), which rules out its analysis as an Episode, since Episodes indicate absolute tense. One indication that the complement may correspond with a Configurational Property rather than a State-of-Affairs is that the complement of *fail* may not be negated, a fact that is consistent with its strong preference for positive semantic prosody observed in Section 5 above. No examples were found in the corpus of the type shown in (43a), although – as will become apparent in Section 8 on litotes – examples such as (43b) are fairly common, equivalent to *The clown always amused the audience*:

(43) a *The clown failed to never amuse the audience.
     b   The clown never failed to amuse the audience.

Where *fail* is being used in its lexical sense (i.e. trying and not succeeding), the Episode underlying (43b) will thus be analysed as (44), with *fail* being shown as a Lexical Property (f_j: fail (f_j)), with its second argument being the Configurational Property (f_k); *never* is indicated as a zero-quantified time modifier ('at no time'):

(44)   (Past ep_i: [e_i: [(f_i: [(f_j: fail (f_j)) (x_i: —clown— (x_i))$_A$ [(f_k: [(f_l: amuse (f_l)) (x_i)$_A$ (x_k: —audience— (x_k))$_U$] (f_k))$_U$] (e_i): ($Øt_i$)$_L$ (e_i)] (ep_i))

    In the grammaticalized uses of *fail*, too, I claim that it is a Configurational Property that is negated. Given its grammatical status, we may propose that it is to be analysed not as a Lexical Property but as a Negative operator on a Configurational Property, corresponding to a periphrasis with *fail to* at the Morphosyntactic Level. This is supported by two observations. Firstly, *fail* is found after a number of verbs which are independently known (cf. Bastos et al. 2007:196, 198) to take a Configurational Property complement, such as *continue*:

(45)   His sperm count appeared normal but his wife *continued to fail to* conceive. (BNC, ED3)

or *begin*:

(46)   … continue delegating up to the point where subordinates … *begin to fail to* deliver successful results. (BNC, AYJ)

    The second observation concerns negation in clauses containing SECONDARY PREDICATIONS. Consider a clause such as (47), in which the secondary predication *angry* applies to *the teacher*:

(47)   The teacher left the room angry.

In FDG, the State-of-Affairs underlying (47) will be analysed as (48):

(48)   (e_i: [(f_i: [(f_j: leave$_V$ (f_j)) (x_i: teacher (x_i))$_A$ (l_i: room$_N$ (l_i))$_U$] (f_i))] (e_i): [(f_k: [(f_l: angry$_A$ (f_l)) (x_i)$_U$] (f_k))] (e_i))

Now, if we wish to negate (47), the use of *not* is the only option (as in (49a)), although *leave the room* is a possible complement of *fail* (cf. *He failed to leave the room*):

(49) a He did not leave the room angry.
   b *He failed to leave the room angry.

A Negative operator must take the Focus element (here *angry*) in its scope. We can explain this by observing that if a Negative operator were applied to (e_i) in (48), it would take both configurational properties (f_i) and (f_k) in its scope, while a Negative operator on (f_i) would not take (f_k) in its scope. This supports the notion that *not* corresponds to a Negative operator on (e_1) and *fail* to a Negative operator on (f_1).

   On this basis we can propose different representations for the Episodes underlying (50a) and (50b), where *fail* in (50b) is to be understood as exemplifying its grammatical use, namely as (51a) and (51b) respectively:

(50) a The clown's tomfoolery did not amuse the audience.
   b The clown's tomfoolery failed to amuse the audience.

(51) a (Past ep_i: [Neg e_i: [(f_i: [(f_j: amuse (f_j)) (e_j: —clown's tomfoolery— (e_j))$_A$
      (x_i: —audience— (x_i))$_U$] (f_k))] (e_i)] (ep_i))

   b (Past ep_i: [e_i: [(Neg f_i: [(f_j: amuse (f_j)) (e_j: —clown's tomfoolery — (e_j))$_A$
      (x_i: —audience— (x_i))$_U$] (f_k))] (e_i)] (ep_i))

In many cases, the difference between (51a) and (51b), with negated State-of-Affairs and negated Configurational Property respectively, is not immediately noticeable. There is no appreciable distinction between a non-event of amusing the audience and an event of not-amusing the audience – in both cases, the audience is not amused![17] Hence the claims by Givón, Halliday & Matthiessen and Rudanko discussed in Section 3 above that such examples as (50a) and (50b) are equivalent. However, the observations that *fail to* embeds within configurational properties (cf. (45) and (46) above) and that *fail to* cannot accept a secondary predication within its scope (cf. (47) to (49) above) argue for different representations of negation with *not* and negation with *fail to*.

   The distinction allows us to understand, against the background of the FDG assumption of maximum iconicity between Levels, why we find pairs such as (39a) and (39b) above, repeated here for convenience, and to which we have added the ungrammatical (39c):

(39) a The child is not impressing the teacher.
   b The child is failing to impress the teacher.
   c *The child fails to be impressing the teacher.

(39a) and (39b) will now be represented as (52a) and (52b) respectively:

(52) a (Pres ep_i: [Neg e_i: [(Prog f_i: [(f_j: impress (f_j)) (x_i: —child— (x_i))$_A$
      (x_j: —teacher— (x_j))$_U$] (f_k))] (e_i)] (ep_i))

   b (Pres ep_i: [e_i: [(Neg Prog f_i: [(f_j: impress (f_j)) (x_i: —child— (x_i))$_A$
      (x_j: —teacher— (x_j))$_U$] (f_k))] (e_i)] (ep_i))

In (52a) a progressive Configurational property is placed within a negative State-of-Affairs, which is located in a present Episode, while in (52b) we have an affirmative State-of-Affairs characterized by a negative and progressive Configurational Property, also all located in a present Episode. Representation (52b) correlates both with the absence of the negative marker *not* in (39b) and the union of Neg and Prog through the application of the Progressive morphosyntax *be + -ing* to grammatical *fail to,* whereas the unacceptable form (39c) separates Neg and Prog that belong together in the representation (52b).

We now have two loci for the operator Neg, as applied to a State-of-Affairs (e_1) and to a Configurational Property (f_1: […] (f_1)) respectively. A further advantage of this proposal emerges from a consideration of the use of *fail to* in litotes, which will be the subject of the following section.

8   Litotes

Litotes is defined as a rhetorical figure in which an affirmative intention is formulated and encoded by means of a double use of negative expressions: *duplex negatio affirmat.* It is well-known (cf. Horn 1981) that this dictum does not apply to many cases of litotes: thus (53a) is not equivalent to (53b):

(53) a   That course of action is not unwise.
     b   The course of action is wise.

The speaker of (53a) could continue with *… but it is not wise either,* whereas (53b) cannot consistently be continued with *… but it is not wise.* However, there are other cases of litotes where the dictum does apply: (54a) and (54b) are logically equivalent:

(54) a   Roberta is not unmarried.
     b   Roberta is married.

As Horn (1989:304) remarks, the two may be semantically equivalent but they are not pragmatically identical, since the "use of a longer, marked expression in lieu of a shorter expression … tends to signal that the speaker was not in a position to employ the simpler version felicitously". Thus (54a) might be used when the speaker wishes to impart more than the semantic content of (54b), for example to encourage the listener to correct his/her presupposition that Roberta is not married.

Fail is fairly often used in litotes: examination of a representative 10% of the corpus revealed 47 cases, which, extrapolated to the entire corpus, represent an incidence of 3.7%. A typical example is (55):

(55)   …   a project that … cannot fail to leave its mark on a remarkable stretch of untamed countryside. (BNC, A7D)

In this usage, *fail* combines with *not* (19 times), *never* (11), *no-one/nobody/none* (8), but also with *nor*, *no longer*, [*no* …]$_{NP}$, and the 'weak negatives' *only* and *hardly*. In the analysis of such examples, we can profit from the two positions available for the Neg operator:

(56) a   Pucci clothing cannot fail to attract attention (BNC, A7N)

      b   (Pres ep$_i$: [Neg Poss e$_i$: [(Neg f$_i$: [(f$_j$: attract (f$_j$)) (x$_i$: —Pucci clothing— (x$_i$))$_A$ (e$_j$: —attention— (e$_j$))$_U$] (f$_i$))] (e$_i$)] (ep$_i$))

English does of course offer an alternative encoding for (56b), namely (57):

(57)   Pucci clothing cannot not attract attention.

However, the double occurrence of *not* appears to be avoided in practice, perhaps for stylistic reasons: BNC contains only 2 genuine instances of *cannot not* (transcribed there as *can not not*), but 62 of *cannot fail to* (transcribed as *can not fail to*). Here is, thus, another possible field in which the grammaticalized use of *fail to* can flourish.

      The same appears to apply *mutatis mutandis* to the nominalized form *failure*. Nominalizations can be made negative through the addition of the prefix *non-*. This may be seen as realizing the Neg operator, now applied to the Lexical Property in question, as in (58):

(58) a   The effect of non-compliance on company results is unquantifiable (CBV, BNC)

      b   … (e$_i$: (Neg f$_i$: compliance$_N$ (f$_i$)) (e$_i$)) …

The most frequent nominalizations with the prefix *non-* in the BNC corpus are shown in Table 7.

non-payment	171
non-proliferation	134
non-compliance	93
non-intervention	91
non-alignment	79
non-attendance	50
non-completion	45
non-performance	43

Table 7. All nominalizations in *non-* with more than 40 occurrences in the BNC

Interestingly, many of these nominalizations correspond to the highest-ranking verbs that combine with *failure to,* namely *failure to pay* (34 occurrences; 9th rank), *failure to comply* (110; 1st), *failure to complete* (9; 64th), and *failure to perform* (36; 8th); this suggests a relation of paradigmatic choice between the *failure to* V and *non-*N constructions. Where *failure to* comes into its own, as against its rival *non-*, is with frequent verbs that lack lexical nominalizations: *failure to do* (108 occurrences; 2nd rank): ?*non-doing*; *failure to take* (63; 3rd rank): ?*non-taking*; *failure to make* (49; 5th) : ?*non-making*. There is thus sufficient basis for viewing *failure to*, in its grammaticalized usage, as a periphrastic alternative to the prefix *non-*, realizing Neg as an operator on Lexical Properties. Consider (59):

(59)   Russian failure to comply was regarded as unwarranted intrusion into their internal affairs. (BNC, FB4).

where *Russian failure to comply* will be analysed as follows:

(60)   (e$_i$: (Neg f$_i$: comply$_V$ (f$_i$)) (e$_i$): (f$_j$: Russian (f$_i$)) (e$_i$))

The structure is effectively the same as in (58b), the difference lying only in the part-of-speech of the Lexical Property (as indicated by the subscripts N and V respectively).
        We have seen in this section that the Neg operator can apply to States-of-Affairs (e$_1$), Configurational Properties (f$_1$: […] (f$_1$)) and nominal Lexical Properties (f$_1$: ♦$_N$ (f$_1$)). Table 8 summarizes their realizations.

Representation	Particle or prefix	Periphrasis
(Neg e$_1$)	*not*	–
(Neg f$_1$: […] (f$_1$))	*not*	*fail to*
(Neg f$_1$: ♦$_N$ (f$_1$))	*non-*	*failure to*

Table 8. Realizations of the negation operator at three layers

9   Discussion and conclusion

We have seen various types of evidence for the claim that the lexical verb *fail* has undergone a degree of grammaticalization such that the sequence *fail to* can be used as a periphrastic negative. This grammaticalized use is recognizable where there is no sense of (unsuccessful) attempt on the part of an agent to achieve some goal. The following criteria have been used to distinguish it from lexical *fail*: (a) occurrence with an expletive subject; (b) occurrence with a Subject idiom chunk; (c) lack of an interpretive effect on passivization; (d) inability to be independently modified; (e) requirement of NPI, rejection of PPI; (f) occasional acceptance of a complement with negative semantic prosody; (g) occurrence with *be* and a non-dynamic AdjP or NP; (h) occurrence in litotes as an alternative to *duplex negatio*; and (i) occurrence as an alternative to the prefixation of *non-* to a nominalization.
        Notice that although the distinctive sense of lexical *fail*, the presupposition of attempt, is characteristic of human (or other purposeful) agents, the claim is not being made that grammaticalized *fail to* is restricted to use with non-human subjects. In other words, examples such as (61) will be regarded as ambiguous between the lexical and grammatical uses of *fail* (with two quite distinct analyses at the Representational Level):

        (61)   The mountaineers failed to reach the summit.

In the lexical sense, the interpretation includes the semantic presupposition of attempt; in the grammatical sense, there is no such presupposition, although of course background knowledge of human motivations will tend to add a pragmatic presupposition of attempt. This pragmatic presupposition is, however, defeasible, as we see in (62):

(62)   The mountaineers failed to reach the summit, because they weren't even trying.

Inanimacy of the subject may thus be a sufficient condition for the grammatical use of *fail*, but it is not a necessary condition.

Against this background, we may progress towards an understanding why lexical *fail* should have developed into a marker of pure negation. This development may be associated with the pragmatic circumstances under which lexical *fail* is used. As just mentioned, the semantics of (61), with lexical *fail*, involves the assertion of non-success and the presupposition of active attempt. But in addition there is very often a pragmatic sense of disappointment, of things not going as had been expected, regularly expressed in the corpus as a modifier such as *unfortunately*, *sadly* or *disappointingly* (in FDG, these are modifiers from the pragmatically oriented Interpersonal Level). But these are exactly the pragmatic circumstances under which ordinary (as opposed to metalinguistic) negation with *not* is applied.

Givón (2005:167–168) has emphasized that negation is not purely semantic but also has pragmatic aspects, going as far as to claim that negative assertions are a distinct speech-act type. Be that as it may, it is clear that negative assertions are only used in contexts in which the hearer/reader is entertaining or at least is aware of the proposition underlying the corresponding affirmative (Givón 2005:151).[18] The hearer/reader's expectations will be consonant with that proposition; an assertion negating the proposition will thus disappoint those expectations. Thus, *They did not reach the summit* will occur in contexts where 'they' climbed a mountain and were making for the summit; the natural (but defeasible) expectation is that they will reach the summit and the negative assertion disappoints that expectation. Exactly the same applies to *They failed to reach the summit*, where *fail* is grammatical rather than lexical. The development of *fail* as a periphrastic negative thus preserves the pragmatics of lexical *fail*, while losing the semantics of active attempt, although, as we saw in Section 5, it retains other aspects of the semantics of lexical *fail* (application to a dynamic/telic Configurational Property of positive semantic prosody).

In Section 1, we saw that the *fail to* sequence is ten times more frequent in newspaper, academic and non-fiction registers than in speech, and is also relatively rare in fiction. Since it is unlikely that the failure of active attempts is discussed markedly less in speech than in writing, it seems plausible that it is the grammaticalized use that dominates in the written registers. On this basis the conclusion seems warranted that the periphrastic negative *fail to* is predominantly encountered in more sophisticated registers and that it differs from regular negation not only in its semantic scope (as seen in Section 7), but also in its stylistic value. This is in keeping with its occurrence in litotes (Section 8), which is a rhetorical figure more associated with higher stylistic levels.

Finally, we may speculate that *fail to* makes greater cognitive demands than the simple negator *not* in combining negative semantics with affirmative syntax. Evidence for greater processing difficulty comes from a couple of instances in the corpus in which the language user appears to have been confused about polarity (for some discussion of such cases, see *Language Log* http://itre.cis.upenn.edu/~myl/languagelog/, February 26, 2004, under the title 'Why are negations so easy to fail to miss?'). Consider (63):

(63)   Who has not failed to notice that Emily Brontë's Heathcliff is rumoured to be the Emperor of China? (BNC, A05)

Here the author has presumably meant to say 'Who has not noticed that ...?' or the equivalent 'Who has failed to notice ... ?', as a rhetorical question equivalent to 'Everyone has noticed that ... .', but has combined the two into a litotes, where no litotes is intended. Another case is (64):

(64)   No one brought up in the Jewish faith with his sort of European connections could fail to be unaware, or convulsed, by the nightmare we call the Holocaust. (BNC, A0P)

Here the author intends litotes with *No one* and *fail* but adds a further negative, *unaware*, yielding a *triplex negatio* – with Neg(ative) operators at the State-of-Affairs, Configurational Property and Lexical Property layers – which testifies to his/her confusion.

There seems little doubt, then, that especially in more formal written registers of Modern English, *fail to* is available as a grammatical alternative to regular negation. Although its use is governed by various collocational restrictions it has inherited from the lexical verb *fail* and it differs minimally from *not* in taking a slightly narrower semantic scope, there are adequate reasons for regarding *fail to* as a periphrastic realization of a negation operator. The stylistic factors that favour and disfavour its occurrence remain to be examined in greater depth.

ENDNOTES

1   Throughout this paper, *fail* (*to*) will, unless there is an indication to the contrary, be used to mean both (all forms of) the verb and its nominalization *failure*.

2   See Heine & Kuteva (2004: 132) for the observation that "FAIL verbs may ... give rise to plain negation markers". They also point out that the verb *fail* shares its historical origins with the French defective verb *faillir*, which has grammaticalized as an 'avertive' (see also Herslund 2003) as in *Elle a failli disparaître* 'She almost disappeared'.

3   Identical remarks apply to *succeed*, which differs from *manage* (and *want* and *fail*) in taking a complement of the form *in* V-*ing*.

4   He observes (1973:899) that *manage* and *succeed* can also have a reading that lacks the presupposition of attempt, but that such usages are necessarily ironic: *He succeeded in botching up his affairs*, *He managed to get killed in action*. See the discussion of (29b) in Section 5 below.

5   Givón's own example (1973: 898) is (*We waited, but*) *he failed to arrive* (his (39a)), where *arrive* is to be understood as unaccusative (i.e. telic but non-agentive). However, Givón's example may also be given a reading with an agentive argument (cf. *He tried but failed to arrive on time*), I have preferred to replace Givón's example with an unequivocal case.

6   Rudanko (1998: 60) criticizes the *OED* for giving the first (and only) attestation of this usage from 1920, with *circumstance* as the subject.

7   It is fascinating that the notion of effort returns in this paraphrase, now attributed not to the subject/controller of *fail* but to the object of its complement. However, it will be clear that this is likely to be no more than a coincidence: in (9a) and countless other examples, no human effort is implied.

8   From: Neuman, Yair & Baruch Schwarz (2000). Substituting one mystery for another: the role of self-explanations in solving algebra word-problems. *Learning and Instruction* 10: 203-220, p. 214.

9   The corresponding nominalization *failure* is similarly found with adjectives such as *signal*, *utter*, *frequent*, *repeated*.

10   This applies more generally to negative implicative verbs.

11   This may be attributable to the conceptual difficulty of embedding evidentiality within negation. *Seem to fail to*, with negation embedded inside evidentiality, occurs 3 times, e.g. in *school work seems to fail to have any deep effect on life outside the classroom* (BNC, HYB).

12   These combinations do not seem to be ungrammatical, however; a Google search reveals that they have been used.

13   For a thorough explanation and exemplification of this notion, see Gabrovšek (2007).

14   The irony arises from the conflict between the expected positive semantic prosody and the inherent negativity of 'upsetting everyone'.

15   One of the few counterexamples is *However hard he tried, he somehow always failed to be the son she wanted* (BNC, ACW). Here *fail* is clearly used as a lexical verb of attempt, as the introductory clause makes clear, and *be* adopts a dynamic sense (like 'become', 'turn into'), with the entire VP taking on a telic interpretation.

16   There are two instances of *be* associated with an –*ing* form, but both are clearly adjective phrases: ... *inspiring, which, for all of us who tried it, it somehow failed to be*

(BNC, C9J); *his story of complete and shattering victory … could not fail to be pleasing to his sovereign* (BNC, HGG).

17   On the variability of the scope of negation, see Svenonius (2007: 265).

18   Hasson & Glucksberg (2006) have concluded from experimental work on metaphors that the affirmative is actually represented mentally before the negative.

References

Bastos, Sandra D. Gasparini, Vânia C. Casseb Galvão, Sebastião Carlos L. Gonçalves, Marize M. Dall'Aglio Hattnher, Kees Hengeveld, Gisele Cássia De Sousa, Valéria Vendrame. 2007. The expressibility of modality in representational complement clauses in Brazilian Portuguese. *Alfa* 51(2), 189–212.

Croft, William. 2000. *Explaining language change: An evolutionary approach*. Harlow etc.: Longman.

Dik, Simon C. 1997. *The theory of Functional Grammar,* Part 1. Ed. by Kees Hengeveld. Berlin & New York: Mouton de Gruyter.

Fanego, Teresa. 1996. The development of gerunds as objects of subject-control verbs in English (1400–1760). *Diachronica* 13, 29–62.

Fanego, Teresa. 2007. Drift and the development of sentential complements in British and American English from 1700 to the present day. In Javier Pérez-Guerra, Dolores González-Álvarez, Jorge L. Bueno-Alonso & Esperanza Rama-Martínez (eds.), '*Of varying language and opposing creed': New insights into Late Modern English* (Linguistic Insights Series 28), 161–235. Bern, etc.: Peter Lang.

Gabrovšek, Dušan. 2007. Connotation, semantic prosody, syntagmatic associative meaning: Three levels of meaning? *ELOPE* 4, 9–28.

Givón, Talmy. 1973. The time-axis phenomenon. *Language* 49, 891–926.

Givón, Talmy. 2005. *Context as other minds: The pragmatics of sociality, cognition and communication*. Amsterdam & Philadelphia, PA: Benjamins.

Halliday, M.A.K. & Christian M.I.M. Matthiessen. 2004. *An introduction to functional grammar*. London: Arnold.

Hasson, Uri & Sam Glucksberg. 2006. Does understanding negation entail affirmation? An examination of negated metaphors. *Journal of Pragmatics* 38, 1015–1032.

Heine, Bernd & Tania Kuteva. 2004. *World lexicon of grammaticalization*. Cambridge: Cambridge University Press.

Hengeveld, Kees. 1989. Layers and operators in Functional Grammar. *Journal of Linguistics* 25, 127–157.

Hengeveld, Kees & J. Lachlan Mackenzie. 2008. *Functional Discourse Grammar: A typologically-based theory of language structure.* Oxford: Oxford University Press.

Herslund, Michael. 2003. *Faillir* et *falloir* : la création d'opérateurs modaux. In Merete Birklund, Gerhard Boysen & Poul Søren Kjærsgaard (eds.), *Aspects de la modalité*, 67–73. Tübingen: Niemeyer.

Horn, Laurence R. 1981. *Duplex negatio affirmat*: The economy of double negation. *Chicago Linguistics Society* 27(2). 80–106.

Horn, Laurence R. 1989. *A natural history of negation*. Chicago: Chicago University Press.

Karttunen, Lauri. 1971a. The logic of English predicate complement constructions. Bloomington, IN: Indiana University Linguistics Club.

Karttunen, Lauri. 1971b. Implicative verbs. *Language* 47. 340–358.

Louw, Bill. 1993. Irony in the text or insincerity in the writer. In Mona Baker, Gill Francis & Elena Tognini-Bonelli (eds.), *Text and technology: In honour of John Sinclair*, 157–174. Amsterdam & Philadelphia, PA: Benjamins.

Radford, Andrew. 1988. *Transformational Grammar*. Cambridge: Cambridge University Press.

Rudanko, Juhani. 1996. *Prepositions and complement clauses: A syntactic and semantic study of verbs governing prepositions and complement clauses in present-day English*. New York, NY: State University of New York Press.

Rudanko, Juhani. 1998. *Change and continuity in the English language: Studies on complementation over the past three hundred years*. Lanham, NJ, New York, NY & Oxford: University Press of America.

Sinclair, John. 1991. *Corpus, concordance, collocation*. Oxford: Oxford University Press.

Stubbs, Michael. 1995. Collocations and semantic profiles: On the cause of the trouble with quantitative studies. *Functions of Language* 2, 23–55.

Svenonius, Peter. 2007. 1 … 3 2. In Ramchand, Gillian & Charles Reiss (eds.), *The Oxford handbook of linguistic interfaces,* 239–288. Oxford: Oxford University Press.

Szabolcsi, Anna. 2004. Positive polarity – negative polarity. *Natural Language and Linguistic Theory* 22. 409–452.

Tottie, Gunnel. 1982. Where do negative sentences come from? *Studia Linguistica* 36. 88–105.