

More on *horror aequi*: evidence from large corpora

Juhani Rudanko

1. Introduction

I have argued that there has been a major change affecting factors bearing on complement selection in recent centuries:

... it appears that there has been a general process of change in principles affecting complement selection over the last three centuries. As has been shown repeatedly, in the eighteenth century the form of the complement often depended on the grammatical or even the morphological environment of the complement. ... To facilitate discussion, the kind of complement selection in question might be called “context-dependent.” ...

By contrast with eighteenth century English, in present-day English there is less emphasis on the environment of a complement clause and matrix verbs themselves tend to select their complements or alternatively, particular senses of matrix verbs can be linked to particular types of complements. This means that matrix verbs, or particular senses of matrix verbs, are subcategorized for particular types of syntactic complement. ... This kind of complement selection, where the form of a complement clause is directly linked to the matrix verb or its specific sense, might be termed “inherent” or “context-independent” or “lexically driven.” (Rudanko (2000, 141 f.))

Adopting the terms suggested, the change of complement selection principles is from context-dependent selection to lexical selection. The change is gradual in nature, and even in present-day English there are some traces of context-dependent selection.

The hypothesis outlined regarding general principles of complement selection is sweeping and subject to being challenged. It may turn out to be wrong. The purpose of this paper is to illustrate and examine the operation of one particular principle that bears on the issue, in that it is typical of context-dependent selection, the *horror aequi* principle. This principle is simple. It “concerns the universal tendency to avoid the (near-)adjacency of identical grammatical structures” (Rohdenburg (2001)).

A first example may clarify the principle. Consider the verb *evade*, which has the prototypical sense ‘to contrive to avoid (doing something); to get out of performing (a duty), making (a payment) etc.’ (OED, sense 3a).

This verb selects sentential complements in present-day English, and as noted in the OED, they are of the *-ing* type, as in this example from the same source:

1. The sheykh evaded traslating them (OED, 1867, Lady Herbert, *Cradle L.*)

In the eighteenth century the verb likewise selected sentential complements and they were similarly of the *-ing* type for the most part, as in (2):

2. ... the ladies smiled on each other, but evaded answering my question, which only encreased my curiosity. (1762, Sarah Scott, *Millennium Hall*, 22))

However, the following example is worth noting:

3. She is so penetrating, that there is no possibility of evading to give her satisfaction. (1778-1788, Francis Burney, *Evelina*, 3, 98))

In (3) the complement of *evade* is not an *-ing* clause. The sense of the verb appears to be the same as that quoted above from the OED for sentence (1). Instead it is a *to* infinitival clause. What is interesting about the example is that the *to* infinitival complement occurs in a context where the matrix verb is in the form *evading*. That is, an *-ing* complement here would be a violation of the *horror aequi* principle. This suggests itself as evidence for context-dependent selection.

The discussion in this paper concerns the verb *neglect* and its complement selection properties in the eighteenth, nineteenth and twentieth centuries. The data come from three large electronic corpora. For the eighteenth century, the source is the Chadwyck-Healey Corpus of Eighteenth-Century Fiction, which is a

corpus of some 12 million words. For the nineteenth century the material comes from the Chadwyck-Healey Corpus of Nineteenth Century Fiction. For the twentieth century the Bank of English Corpus is used. It is used either in its impressive entirety, comprising some 500 million words, or else the search is limited to the British Books segment of the corpus. The focus is thus on British English to some extent, but sometimes it is of interest to relax the focus, in the interests of getting sufficient amounts of data.

As regards earlier work on the horror aequi principle, Rudanko (2000) and Rudanko (2002), in considering a number of matrix verbs, draw on the Chadwyck-Healey Corpus of Eighteenth-Century Fiction and on the BNC. The present study thus contributes a new angle in also drawing on the Chadwyck-Healey Corpus of Nineteenth Century Fiction, and on the large Bank of English Corpus. The verb *neglect* was not among the verbs systematically studied in relation to the horror aequi principle in Rudanko (2002), and the present investigation is designed to redress this omission.

2. A case study: *neglect*

The method of studying the possible operation of the horror aequi principle is the same here as it was in Rudanko (2000) and Rudanko (2002). It consists in identifying a matrix verb that selects complements of two different syntactic types without there appearing to be a significant difference in the sense of the verb when it combines with either type of complement. A decision about an absence of a significant difference in meaning is a matter of judgment and subject to challenge in the light of further work. Each case study to be presented therefore has a provisional status, pending further research.

When a potential matrix verb has been identified, the alternate types of complements are identified next. In this paper only verbs with two variant complements are considered and the alternation considered in each case is between *to* infinitival and *-ing* complements.

With the alternation being between *to* infinitival and *-ing* complements, it is easy to identify the environments where the horror aequi principle may be expected to be operative. There are two such environments, with the following predictions:

4.
 - a. In the environment of a *to* infinitive, an *-ing* complement is expected to be favored over a *to* infinitive complement.
 - b. In the environment of an *-ing* form, a *to* infinitive is expected to be favored over an *-ing* complement.

An important step in any discussion of the horror aequi principle is the identification of a *tertium comparationis*, that is, of a neutral environment, where the horror aequi principle can be expected not to operate. The past tense form of the matrix verb is used here as one such neutral environment. Another form to be used is the past perfect form of the matrix verb. These choices are not necessarily perfect and are subject to further investigation, but it does mean that the influence of modal verbs, which has been argued to be a potent source of context dependent impact on complement selection (see Rudanko (2000, 119 f.)), can be neutralized, and there is thus some reason for it, beyond the obvious point that the environment is neutral from the point of view of the contexts identified in (4a) and (4b).

Turning to the verb *neglect*, we may start by consulting the OED for an analysis of the sense or senses of the verb. Senses 4.a and 4.b in the OED are relevant:

4.
 - a. With *inf.* To omit through carelessness, to fail through negligence, *to* do something.
 - b. To omit doing something.

The most recent illustration of sense 4.a is the example reproduced in (5a), while that of sense 4.b is the example given in (5b):

5.
 - a. If they neglect To punish crime. (1819, Shelley, *Cenci*)
 - b. It is not uncommon for persons .. entirely to neglect looking into the state of their affairs. (1729, Butler, *Serm.*)

To consider the senses of the two types of complements with *neglect* in present-day English further, one or two additional sentences may be worth thinking about. Of the following, (6a) is an authentic

sentence from the Bank of English Corpus, and (6b) is a sentence modeled on it. Sentences (7a-b) and (a-b) are invented examples, devised by Ian Gurney (p.c.).

6.
 - a. Having taken the European Community for granted for so long, politicians had neglected to rally their publics to the European cause.
 - b. Having taken the European Community for granted for so long, politicians had neglected rallying their publics to the European cause.
7.
 - a. It has been our policy to collect a fee from students for xeroxing every autumn, but this autumn we neglected to collect the money.
 - b. It has been our policy to collect a fee from students for xeroxing every autumn, but this autumn we neglected collecting the money.
8.
 - a. I have neglected to water my flowers.
 - b. I have neglected watering my flowers.

As is predicted by Dwight Bolinger's (1968) principle, the senses of the two types of complements of the verb are not entirely equivalent in present-day English. There is a more nominal feel to the *-ing* complement. It brings to mind an interpretation with a suitable NP — of the type *the practice* or *the habit* — preceding the complement clause, and the construction may often imply a lapsed habit. For its part, a *to* infinitive complement may have more of a focus on the failure to do something and may be more apt to suggest a mistake.

Even so, the difference in meaning between the two types of complements seems to be a matter of nuance today and should not be exaggerated. It is worth noting that the glosses of the two subsenses identified in the OED and linked to the two two types of complements both make use of the verb 'omit'. The senses are so close to each other that it may be possible to consider the operation of the horror aequi principle in relation to this verb.

Proceeding to do so, we may start by considering the past tense verb form *neglected* as a neutral environment. There are altogether 327 instances of the verb form *neglected* in the Chadwyck-Healey Corpus of Eighteenth Century Fiction. The verb form *neglected* is of course also a past participle, and when the form is examined in the material, it turns out that a large majority of the instances of the verb form are past participles, especially passives, as in (9):

9. ... thanked the president for his wholesome counsel, which he assured him should not be neglected; ... (1751, Tobias Smollett, *Peregrine Pickle*)

Among the remaining instances there are also numerous instances where the verb form *neglected*, while a past tense form, selects an NP complement, as in (10):

10. ... his grief was so wild, and his passion so impetuous. He refused all sustenance, neglected his person, renounced his amusements, ... (1762, Tobias Smollett, *Sir Launcelot Greaves*)

When irrelevant instances are excluded, there do still remain a fair number of relevant examples of the past tense verb form, 27 to be exact. Here is their breakdown, with three examples of each in (11):

to infinitive complements: 21

-ing complements: 5

TABLE 1

11.
 - a. ... immediately concerns the Hero of it; whose Pardon I beg for having so long neglected to mention his Name. (1751, Francis Coventry, *Pompey the Little*)
 - b. ... methinks I would now gladly return to the state of harmless infancy I then neglected to value. (177?, Henry Mackenzie, *The Man of Feeling*)
 - c. ... they never went into the Town, but Don Sancho neglected not to go frequently to sell his Straw Baskets and Hats, ... (1739, Penelope Aubin, *Charlotta Du Pont*)
 - d. I hastily asked for her; they told me Dinner waited: But I neglected eating, and entering the Chamber, found the charming Maria, ... (1739, Penelope Aubin, *The Noble Slaves*)

- e. Once or twice I ask'd what was the matter, but the People neglected answering me, and I was not very importunate; ... (1722, Daniel Defoe, *Moll Flanders*)
- f. ... if she appeared slatternly in her dress, was remiss in her business, or neglected going to church, ... (1766, Sarah Scott, *Sir George Ellison*)

Such authentic data are of interest from the point of view of the interpretation of the two complements in the eighteenth century. It would seem that a semantic explanation necessarily linking an *-ing* complement to habitual activity or practice is reductive and too simple. While the *-ing* form in (8f) would be compatible with this explanation, the *-ing* form in (8d) seems linked to a single event, and the *to* infinitive in (8b), for instance, seems linked to a pattern of behavior. The lack of clear-cut semantic differentiation emphasizes the need to investigate the potential influence of the horror aequi principle.

Proceeding now to an examination of the two marked environments identified in (4), we may start with the context where the matrix verb is in the form of *to neglect*. There are 52 examples of this combination in the material. The majority of them are irrelevant here because the complement of the verb is a nonsentential NP. In general these are easy enough to identify and to exclude. Perhaps the only example over which there may dangle question mark is the one given in (12):

12. We discovered no land all that day, and Crampley was still so infatuated as to neglect sounding; But at three o'clock in the morning, the ship struck, ... (1748, Tobias Smollett, *Roderick Random*)

It may be that if *sounding* were a noun, an indefinite article might be appropriate (Heidi Harley, p.c.), and the example is therefore included:

to infinitive complements: 0
-ing complements: 3

TABLE 2

Here are the other two examples encountered:

13. a. ... she thought it would be no other than running wilfully into a Misfortune, to neglect making use of the smallest Means that should offer to take her from it. (1725, Eliza Haywood, *Idalia*)
 b. ... he had too much Complaisance to neglect endeavouring to overtake the Lady, and prevent the Pain he imagin'd she wou'd ... (1725, Eliza Haywood, *Love in Excess*)

The second example is particularly interesting in that the sentential complement of *neglect* is introduced by *endeavouring*, which itself selects a *to* infinitive complement. This opens up the possibility of a further factor favoring an *-ing* complement for *neglect* in this environment.

Setting aside this further refinement, the figures in table 2 speak for themselves. The low number of *to* infinitival complements is striking, and provides some confirmation for the relevance of the horror aequi principle.

Turning to the other marked environment identified in (4), there are 47 instances of the verb form *neglecting* in the material. As in the case of the combination *to neglect*, their complements are again mostly nonsentential NPs, but there are altogether 13 sentential complements. Their breakdown is as follows:

to infinitive complements: 13
-ing complements: 0

TABLE 3

The lopsided preponderance of *to* infinitive complements here in relation to *-ing* complements provides further confirmation of the applicability of the horror aequi principle.

The discussion so far has fleshed out and substantiated the suggestion made in Rudanko (2000,) that the horror aequi principle is potentially relevant to explaining the complement selection properties of

neglect in the eighteenth century. The discussion here makes it imperative that similar examination be conducted of nineteenth-century usage.

Proceeding to conduct such an investigation and turning to the verb form *neglected* as the first step, it is observed that The Chadwyck-Healey Corpus of Nineteenth Century Fiction is so large, at almost 40 million words, that there are literally hundreds and thousands of this verb form in the corpus. Most of them are probably again irrelevant, being passive past participles. To keep the investigation manageable, the procedure here was to select three frames where such participles were excluded automatically. The frames in question are *he neglected* —, *she neglected* — and *they neglected* —. These frames yield 46 instances in all, the first frame being the most frequent, with 26 instances. Most complements in the frames are nonsentential NPs, but there are also some sentential complements found. Here is their breakdown:

no. of *to* infinitive complements: 10
no. of *-ing* complements: 0

TABLE 4

Here are some examples:

14. a. ... his will a very short time, comparatively speaking, before he died, and he neglected to make another. (1889, George Gissing, *The Nether World*)
b. ... they attacked some travellers, and, as they thought, killed them. They neglected, however, to bury their victims, and one, who was not dead, revived: ... (1839, Meadows Taylor, *Confessions of a Thug*)

The figures in table 4 substantiate the preponderance of *to* infinitive complements over *-ing* complements in an environment that is neutral from the point of view of the horror aequi principle.

Another neutral environment may be worth considering, to get an additional perspective on the issue. The environment chosen is *had neglected* —. There are 68 instances of this environment. NP complements are again frequent, but the breakdown of sentential complements is as follows:

no. of *to* infinitive complements 27
no. of *-ing* complements 0

TABLE 5

Here are one or two examples:

15. a. The man having been at home ill some days had neglected to shave, and there was some mark upon his upper lip. (1885, Richard Jefferies, *After London*)
b. The admiral was aware how often he had neglected to annoy or capture the enemy when he might have done it, and by such neglect, ... (1832-3, Frederick Marryat, *Peter Simple*)

Turning now to the first of two non-neutral environments in nineteenth-century English, there are as many as 145 instances of the environment *to neglect* — in the material. In the overwhelming majority of them the complement is a nonsentential NP, and the number of sentential complements is as low as 4. This low number may in itself be of significance.

Here is the breakdown of the four instances:

no. of *to* infinitive complements 3
no. of *-ing* complements 2

TABLE 6

Here is one example of each:

15. a. ... he spent part of the day in a small boat on the water, having been mad enough to neglect to take his overcoat with him. (1892, George Grossmith, *The Diary of Nobody*)
 b. Mr. Lenville requests Mr. Johnson not to neglect making an appointment, as he has invited two or three professional friends to ... (1839, Charles Dickens, *The Life and Adventures of ... Nicholas Nickleby*)

As regards the other non-neutral environment, *neglecting* —, the number of instances is slightly higher, 175. Again, complements are generally nonsentential, but the proportion of sentential complements is noticeably higher than in the previous environment. Here is the breakdown:

no. of <i>to</i> infinitive complements	25
no. of <i>-ing</i> complements	0

TABLE 7

Here is one example:

16. ... for the admonition or benefit of others, even while constantly neglecting to exert it for themselves. (1828, Edward Bulwer Lytton, *Pelham*)

Turning to present-day English, it is not feasible to consider the simple frame *neglected* — as a neutral environment, because of its high frequency and because of the high incidence of irrelevant examples. To exclude irrelevant examples and to keep the investigation manageable, the frame *had neglected* — was used as a neutral frame instead. There are 135 instances of this frame in the Bank of English Corpus. In a large number of cases the complement is sentential. However, there is also a sizeable number of instances where the complement is sentential. Here is their breakdown:

no. of <i>to</i> infinitive complements	62
no. of <i>-ing</i> complements	0

TABLE 8

17. a. ... both former justice ministers had neglected to implement the law fully, ...
 b. ... what hurt him most was the prosecution's allegation that he had neglected to provide for his children.

There is thus a huge preponderance of *to* infinitives in this environment, which is presumably neutral.

Regarding the non-neutral environment of *to neglect* —, there are plentiful examples of it in the Bank of English Corpus, 267 in all. One or two of them are irrelevant because the combination is of a preposition and NP, especially in the phrase *due to neglect*. Such examples must of course be set aside.

In the huge majority of cases the word *neglect* is a verb with a complement. However, in the overwhelming majority of the instances the complement is a NP. Sentential complements are remarkably rare. Here is the breakdown of the cases that are found, with illustrations:

no. of <i>to</i> infinitive complements:	1
no. of <i>-ing</i> complements:	2

TABLE 9

Here are all the examples found:

18. a. We might be tempted to neglect to tell people of the risks and let a few hundred die so we can develop a vaccine quickly, ...
 b. The pring empties into a well dug sometime around 1770. Around ten feet deep, it is lined with field stones and loosely covered with aging timbers. It is easy to neglect checking it because you would rather not know what has fallen or crawled into it, ...

- c. Many employers have contributed sites that include self assessment material for potential applicants. To neglect using these is to put yourself at grave disadvantage, ...

3. Conclusion

This investigation suggests a number of conclusions about the complement selection properties of the matrix verb *neglect*. At the most basic level, this study shows that the verb has displayed variation between *to* infinitive and *-ing* complements in each of the last three centuries. At the same time, a comparison of the neutral environments suggests that the incidence of the variation has not remained constant. Instead, there appears to have been a clear rise in the proportion of *to* infinitive complements in relation to *-ing* complements during this period, or indeed even by the beginning of the nineteenth century. In the eighteenth century the ratio of the two types of complements was 21/5, thus heavily in favor of *to* infinitives, but in subsequent centuries it has become even more lopsided.

Regarding the environments that are marked from the point of view of the horror aequi principle, there appears to be a qualitative difference between them with respect to the ease with which the verb combines with sentential complements. The verb form *neglecting* is seen to combine with sentential complements with ease, and these complements are *to* infinitives with great regularity. This is consistent with the operation of the horror aequi principle. However, because of the strong overall prevalence of *to* infinitive complements, this evidence is not very persuasive by itself.

For its part, the combination *to neglect* is surprisingly rare with sentential complements in each of the three centuries. It may be worth bringing together the relevant figures here. In the eighteenth century material only in two sentences out of 52 potential examples is the complement sentential. In the nineteenth century material the corresponding figures are 5 out of 145 potential examples. In the Bank of English Corpus the figures are 3 out of 267 potential examples.

The examples that are found in the environment of *to neglect* do suggest that the horror aequi principle is relevant. In the material for two of the centuries, it is actually the case that *-ing* complements are more frequent in this particular environment, while in the nineteenth century material the figures are three to two. In view of the overwhelming overall predominance of *to* infinitive complements with *neglect*, the high proportion of *-ing* complements in this environment does serve to motivate the postulation of a horror aequi principle in the analysis of the complement selection properties of the matrix verb *neglect*.

References

- Bolinger, D 1968 Entailment and the Meaning of Structures. *Glossa* 2, 119-127.
Rondenburg, G 2001 Mechanisms of Syntactic Change: the Rise and Fall of Prepositional Constructions in Late Modern English. Abstracts Booklet of the Late Modern English Conference, Department of English, University of Edinburgh.
Rudanko, J 2000 *Corpora and Complementation*. Lanham, MD: University Press of America.
Rudanko, J 2002 *Complements and Constructions*. Lanham, MD: University Press of America.