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# The Choice Principle and the matrix verb *fear* in recent New Zealand English

Paul Rickman  and Juhani Rudanko 

## ABSTRACT

The present study investigates aspects of the non-finite complementation of the subject control verb *fear* using recent data from the New Zealand section of the NOW corpus. The matrix verb *fear* selects both infinitival and gerundial complements and a first objective of this article is to inquire into their incidence in the corpus selected. Another, more theoretical objective, is to test the applicability of the Choice Principle to a new set of data and a pair of competing complements not previously analysed from this angle. In earlier work, the Principle has been shown to be applicable to contexts of prepositional gerunds, and this article indicates that its scope can also be extended to contexts of bare gerunds. The article also places an emphasis on examining constructions containing a complement other than the one predicted by the Choice Principle, and the authors argue that in many such cases the principle affords a useful window for examining the difference in meaning between the two constructions.

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NOW corpus; New Zealand English; *fear*; Choice Principle; *to* infinitive; *-ing* clause

## 1. Introduction

Consider the sentences in (1a, b), both from the New Zealand part of the NOW corpus. (For the NOW corpus, see Davies 2008–.)

- (1) a. They [...] often fear to take the first step. (18-09-30 NZ)
- b. Companies [...] fear revealing too much. (21-02-18 NZ)

In both of (1a) and (1b) there is one level of sentential embedding in that the matrix verb *fear* is a head that syntactically selects a non-finite complement. In (1a) the non-finite complement is a *to* infinitive construction, and in (1b) it is a non-prepositional, or bare, gerundial complement. The verb *fear* thus selects two different types of non-finite complements.<sup>1</sup> The general purpose of this article is to shed light on certain semantic properties of the two types. The more precise objectives of this article are defined below.

It is an assumption made by major traditional grammarians (for instance, see Jespersen 1961 [1940]: 140) and by many current syntacticians that both these types of constructions are sentential, with their own understood subjects (see, for instance, Chomsky 1981: 20–26; Chomsky 1986: 119–132). Such understood subjects may also be called covert or

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<sup>1</sup>*Fear* also selects other complement types, e.g. the finite *that* clause – cf. (8b) below – but the focus of the present article is on the variation between the two non-finite types.

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implicit. The postulation of understood subjects is not accepted by all linguists, but it is motivated for instance by the consideration that such an understood subject makes it possible to represent the argument structure of the lower verb in a simple fashion, to saturate its theta grid. The lower verbs (and predicates) are different, of course, but in both (1a) and (1b) the theta role of the lower (implicit) subject is that of Agent. A further similarity shared by the two types of complement constructions is that in both (1a) and (1b) the matrix verb *fear* assigns a theta role to the higher subject, with that theta role being an Experiencer. The postulation of an understood subject therefore also makes it possible to represent the difference in theta roles assigned by the lower and higher predicates in an intuitively clear fashion.

The fact that the matrix verb *fear* assigns a theta role to its subject argument in the absence of the movement that is associated with raising structures (see e.g. Davies and Dubinsky 2004; Carnie 2013) in both (1a) and (1b), means that both (1a) and (1b) are control constructions. More precisely, they are subject control constructions, since in each case the higher subject controlling the reference of the understood subject receives a theta role from the matrix verb in its original position. In other words, neither construction involves subject to subject raising, which is a rule that is also sometimes involved in the derivation of sentential complements with covert subjects. Following Chomsky (1986: 119–132) the symbol PRO is used to represent understood subjects in control constructions, representing an abstract pronominal NP that is not pronounced. With these analytic assumptions in place, the sentences in (1a) and (1b) may be assigned the basic bracketed structures given in (1a') and (1b').

- (1) a.' [[they]<sub>NP1</sub> often [[fear]<sub>Verb1</sub> [[PRO]<sub>NP2</sub> [to]<sub>Aux</sub> [[take]<sub>Verb2</sub> the first step]<sub>VP</sub>]<sub>S2</sub>]<sub>VP</sub>]<sub>S1</sub>  
 b.' [[companies]<sub>NP1</sub> [[fear]<sub>Verb1</sub> [[PRO]<sub>NP2</sub> [revealing]<sub>Verb2</sub> too much]<sub>S2</sub>]<sub>NP</sub>]<sub>VP</sub>]<sub>S1</sub>

The representation in (1a') also incorporates the assumption that infinitival *to* is analyzed as an Aux in present-day English (see Warner 1993: 64 for justification). As for the representation in (1b'), it incorporates the traditional insight that a gerundial clause can be viewed as a nominal clause. (For a comprehensive discussion of the various ways in which gerundial clauses are at the nominal end of sentential complements, see Ross 2004.)

There are many matrix verbs and adjectives in English selecting subject control constructions that only permit one of the two types of complement illustrated in (1a, b). However, there are also verbs and adjectives that can select both types. As shown by (1a, b), *fear* is a verb of this latter type. An initial, descriptive objective of this study is therefore to shed light on the incidence of the two types of complements of the matrix verb *fear* in a sample of recent New Zealand English (henceforth NZE). NZE was selected as a native variety of English that has often been neglected in studies of English sentential complementation. It is also a suitable selection as a follow-up to a recent study on *fear* (Duffley & Fisher 2021), which drew on current American English for its authentic data.

Beyond the descriptive objective, this article seeks to shed light on the two types of complement selected by the matrix verb *fear* by using a semantic principle. It is observed that in the *Oxford English Dictionary* both variants are accommodated under sense 5.b of the verb, without being differentiated: 'with *infinitive* (*vbl. n.*, etc.) as object: To hesitate (*to do something*) through fear of the consequences.' (The sense in question is under the general sense of II 'To feel fear; to regard with fear,' of the verb.) One illustration of each construction is given in the *OED*. Both are from the 1790s, and they are reproduced in (2a, b).

- (2) a. Dorothée..feared to obey. (1794, Radcliffe, *Myst. of Udolpho*)  
 b. You feared disturbing our tranquillity. (1799, tr. D. Diderot, *Nat. Son*)

That the two variants are placed side by side in the *OED* testifies to their semantic similarity and to the difficulty of teasing them apart from the point of view of their meanings. However, the similarity in meaning is also an invitation to probe the semantic ground occupied by the two forms. Such work is in the spirit of what is often termed Bolinger's Principle. This says that a 'difference in syntactic form always spells a difference in meaning' (Bolinger 1968: 127). In the spirit of Bolinger's Principle, it has been proposed in very recent work that the analysis of semantic roles, or theta roles, may provide an angle to examine the uses and meanings of *to* infinitive and gerundial complements, and the alternation between them on the basis of what has been labelled the Choice Principle (Rickman & Rudanko 2018; Ruohonen & Rudanko 2021). A more precise definition of the principle is given in section 3, but its essence is that the presence of an agentive lower subject favors a *to* infinitive complement, whereas a non-agentive lower subject favors a gerundial complement.

In earlier work, the Choice Principle has been found to be applicable to the comparison of *to* infinitive complements and gerundial complements introduced by prepositions selected by the same head (see Rudanko 2011; 2012; 2014; Ruohonen and Rudanko 2019; 2021). In the present instance the gerundial complement is what may be called a bare gerundial complement, since there is no preposition introducing the complement. A major research task of this article, significant from a theoretical point of view, is therefore to inquire into the question whether the Choice Principle also applies to the comparison of *to* infinitives and gerundial complements that are not introduced by a preposition.

A further major research task of the present article is to compare the meanings and usages of the two types of non-finite complements in the context of the Choice Principle. The goal in this part of the article is to identify the shades of meanings that inhere in each of the two variants, which has been the theme of some other recent work, including Duffley and Fisher (2021). The Choice Principle expresses a tendency that makes predictions about expected usages, but it also provides a principled basis for comparing the expected variants with unexpected variants. The comparison of the two variants in such cases then provides a new window to identifying nuances of meaning that are inherent in each variant, irrespective of how frequently or how rarely each variant is used in a particular dataset or text type. The nuances of meaning represent communicative resources that are at the disposal of speakers. The qualitative research task in question, lying at the intersection of syntax and semantics, is undertaken in the spirit of Bolinger's Principle. It is this research task that the early part of the article leads to and where the present authors place an emphasis in the present article.

## 2. Data and methodology

The corpus selected as the source of data is the News on the Web (NOW) corpus. It consists of large amounts of recent material from online newspapers and magazines starting from 2010 and is updated regularly. It contains texts from 20 countries where

English is an official language or spoken natively by a segment of the population. For this study, the NZE datasets were taken from the entire period of 2010 to 17 December 2021. As of August 2023, this section of NOW stood at just over 665 million words.<sup>2</sup>

NZE is now approximately 170 years old (Gordon et al. 2004), making it the world's youngest major native variety of English. Its phonological and lexical properties are by now well understood and continue to be well researched, but there remains a good deal to be explored in the area of grammatical variation (Quinn 2000).

For the purposes of this study, the present authors chose not to make use of the part-of-speech tagging on the word *fear* itself, to avoid tagging errors, and instead adopted two search strings designed to retrieve relevant instances of *fear* even if erroneously tagged. The search strings used were '[fear] to' for *to* infinitive complements, and '[fear] \_v?g' for gerundial complements (the \_v?g tag was used to retrieve *-ing* forms of verbs after *fear*). At the time the searches were carried out, the '[fear] to' search string retrieved 388 tokens and the '[fear] \_v?g' string 977 tokens. Clearly irrelevant tokens, for instance, tokens where *fear* is obviously a noun, were removed manually, and in this way, the samples were reduced to 165 tokens for *to* infinitives and 639 for gerundial complements. However, some tokens in these sets still need to be set aside, even if the reason for excluding them may be slightly less obvious. One type of construction involving a *to* infinitive complement selected by *fear*, but irrelevant to the study of subject control, may be illustrated with the sentences in (3a, b).

- (3) a. Australian Prime Minister Scott Morrison said three Australians were feared to be among the confirmed fatalities, with 13 among the injured. (19-12-27 NZ)  
 b. Foreign interest in residential property was feared to be most acute in Auckland, [...] (19-02-07 NZ)

Constructions of the type of (3a, b) are excluded because they do not involve subject control. It is also worth noting that the alternation between the two types of complements, observed in (1a, b) and in (2a, b), does not extend to sentences of the type of (3a, b). Thus, for instance, a sentence such as *\*Three Australians were feared being among the confirmed fatalities*, modeled on (3a), is ill formed.

With respect to the analysis of sentences of the type of (3a, b) it is pertinent to note that the subjects in question in them – *three Australians* in (3a) and *Foreign interest in residential property* in (3b) – are not generated in the matrix subject positions of their sentences. Instead, the subjects in these are generated and assigned their theta roles in the lower sentence, then moved by subject to object raising into the object position in the higher sentences and then in the matrix sentence, they are moved by NP Movement (passivization) into the matrix subject position. In such raising constructions the lower subject is covert, but it is not PRO; instead, it is an NP trace. Sentences of this type often feature NP Movement in the higher sentence, as is likewise the case with some of the other types of matrix verbs that trigger subject to object raising (see Postal 1974). However, while passivization often occurs in the higher sentence, tokens can be found in other parts of the NOW corpus where it has not applied, as for instance in (4).

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<sup>2</sup>NOW is primarily made up of newspaper/magazine material, so the caveat that applies to any study drawing conclusions from data representing only one genre must apply here too.

- (4) Others feared it [the drafting of the constitution to completion] to be another grab for power. (12-12-06 US)

As far as *to* infinitive complements of *fear* are concerned, there is also another type of construction that deserves attention at this point. Consider (5) from the New Zealand part of the NOW corpus.

- (5) These guys go where angels fear to tread and that's not an exaggeration. (18-01-08 NZ)

The construction harks back to a well-known line in a poem by Alexander Pope (1709), which runs in part 'Fools rush in where Angels fear to tread.' There is some variation in the construction in the present corpus, as for instance in (6a, b).

- (6) a. [...] four wheels are constantly in contact with the ground over terrain where other vehicles would fear to tread. (20-10-30 NZ)  
 b. Where US presidents have feared to tread I can imagine our Winston happily popping over to Pyongyang. (17-11-18 NZ)

The construction, as used in (5) and (6a, b), does involve subject control, but it has entrenched itself as a fixed combination and it is therefore set aside in the present article, along with such variants as play on the construction, including those in (6a, b).<sup>3</sup>

Among the tokens retrieved with the '[fear] to' search string, there is also the token in (7).

- (7) There are definitely many parents who fear to admitting that parenthood is not like the adverts would have us believe. (16-02-12 NZ)

Sentence (7) contains an instance of what may be called a *to -ing* complement. It has been observed in the literature that that type of complement, which does involve subject control in (7), has been spreading (Denison 1998; Rudanko 1998; 2006), but caution needs to be exercised when coming across a single token of what appears to be a new construction, and the present authors were unable to find other tokens of the pattern in the NOW corpus. Under these circumstances, it would be too bold to regard the finding as representing an established pattern.

As regards gerundial complements, there are also exclusions. Illustrations are given in (8a, b).

- (8) a. Kids should be able to do these things without this fear hanging over their heads. (21-09-08 NZ)  
 b. But he feared doing it now would see it bogged down in political posturing [...]. (19-08-21 NZ)

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<sup>3</sup>The status of the *to* infinitive as the established non-finite complement in constructions of the type of the patterns in (5) and (6a, b) is confirmed when the numbers of *to* infinitive and gerundial tokens retrieved by the search strings used in the NZE part of the NOW corpus are considered. The numbers of tokens are 43 for *to* infinitives as compared to 0 for gerundial complements. This relatively clear finding motivated the decision of the present authors to exclude the *to* infinitive complement containing the verb *tread* in constructions of the type of (5) and (6a, b) from further analysis. For their part, Duffley and Fisher (2021: 77, footnote 4, and 86: example 59) did not exclude them and therefore there is a difference in perspective between the two approaches. (A search of the entire NOW corpus turns up no instances of *fear treading* that could be seen as being of the same type as (5) and (6a, b), so the lack of these in the NZE data is not due to a peculiarity of that variety.)

In (8a) the word *fear* is a noun. As for (8b), it illustrates *fear* selecting a *that* clause complement, with the complementizer omitted, which obviously also is to be excluded in this study.

When the exclusions of the types of tokens described are carried out and when obvious duplicates are omitted, there remain 35 *to* infinitive complements and 548 *-ing* complements of *fear* in the database. The totals of the two types of complement are therefore still very unequal in size, with the gerundial complement being the more frequent by a very long way.

Given the main research questions of this study, described at the end of [section 1](#), it is also appropriate at this point to exclude sentences where complement choice has been influenced by one of two syntactic factors. The first of these is the Extraction Principle. The principle says that the infinitive is favored ‘in environments where a complement of the subordinate clause is extracted [...] from its original position and crosses clause boundaries’ (Vosberg 2003a; see also Vosberg 2006). The data turned up as many as 10 *to* infinitive tokens showing the extraction of material from the complement clause. By contrast, there are only eight extractions among the hugely larger set – 548 – of *-ing* complements. There is therefore a clear disparity in the proportions of extractions, with extraction contexts favoring *to* infinitives, which is as predicted by the Extraction Principle. Illustrations of two such tokens are provided in (9a, b).

- (9) a. [...] there will be plenty of driveways and ramps you’ll fear to point the Aventador toward. (21-10-04 NZ)  
 b. They’re striving to turn Twickenham into a fortress and make it the place everyone fears to play at, [...] (13-11-14 NZ)

The application of the Fisher exact test confirms the bias towards *to* infinitives when extractions have been made, with the results significant at the 0.01% level ( $p < 0.0001$  ( $df = 1$ ), Phi coefficient = 0.3209). Given that the status of the Extraction Principle is by now well established in the literature on sentential complementation (Vosberg 2003a; 2003b; 2006; Rohdenburg 2006; 2016; Ruohonen and Rudanko 2019; 2021) and that it is confirmed by the present data, the 10 *to* infinitive extraction tokens are disregarded in the further analysis.

The second factor known to exert an influence on complement choice that we take into account here is the *horror aequi* constraint (Rohdenburg 2003; Vosberg 2003a). This constraint is based on ‘the widespread (and presumably universal) tendency to avoid the use of formally (near-) identical and (near-)adjacent (non-coordinate) grammatical elements or structures’ (Rohdenburg 2003: 236). In other words, from the dataset of *to* infinitive complements, we separate and exclude any tokens in which the matrix verb is an *-ing* form, and from the gerundial complement dataset we exclude all tokens in which the matrix verb is in the *to* infinitive form, as the selection of these complements is likely to have been based on the need to avoid identical consecutive structures. Tokens showing violations of the constraint, on the other hand, are not accounted for by the principle and they are left in the datasets. Nine tokens showing the effects of *horror aequi* were found in the relatively small *to* infinitive dataset, and 30 in the larger dataset of gerunds. One example of each is given in (10a, b).

- (10) a. Wilkshire stopped short of calling on the major Australian banks to join Kiwibank's embargo on third tier lenders, fearing to be accused of organising a cartel-style operation. (18-06-23 NZ)  
 b. Also, we're a business and we don't want our members to fear coming back to the club. (20-10-29 NZ)

The Fisher exact test was then applied to the numbers, with the results significant at the 0.01% level ( $p < 0.0001$  ( $df = 1$ ), Phi coefficient = 0.1996). This indicates that the horror *aequi* constraint has a significant effect on complement selection in the present data.

After the exclusion of tokens showing the influence of the Extraction Principle and *horror aequi*, we are left with 16 *to* infinitive tokens, and 518 gerundial tokens.

### 3. The Choice Principle and the matrix verb *fear*

The Choice Principle has been defined as in (11).

- (11) In the case of infinitival and gerundial complement options at a time of considerable variation between the two patterns, the infinitive tends to be associated with [+Choice] contexts and the gerund with [-Choice] contexts. (Rudanko 2017; Ruohonen & Rudanko 2021)

The two types of context are then defined on the basis of theta theory: a context is [+Choice] if the understood subordinate subject has the theta role of Agent. When this is not the case, the context is [-Choice].

As seen in (11), the definition is stated as applying to all gerundial clauses, whether or not they are introduced by a preposition. However, as noted above, earlier work on the principle has concerned gerundial clauses introduced by a preposition, and this study of *fear* is undertaken in part in order to find out if the principle can also be relevant to gerundial complements that are not preceded by a preposition and if the general formulation of the principle can stand as stated.

The Choice Principle is thus predicated on the notion of Agent. Defining the notion of Agent, and the associated notion of agency or agentivity, is far from being a trivial task, and it is probably impossible to offer a definition that would satisfy every linguist. However, the general outline of what constitutes an Agent seems fairly clear. Valuable work on this notion was done in the 1960s, for instance, by Jeffrey Gruber, whose approach can be an appropriate point of departure here. He was concerned with the notion of an agentive verb, and made the statement in (12) on the notion.

- (12) [A]n agentive verb is one whose subject refers to an animate object which is thought of as the willful source or agent of the activity described in the sentence. (Gruber 1967: 943)

In later work it has come to be recognized that when assigning the label of Agent, or indeed any semantic role label, to a subject that is generated in that position, it is often helpful to consider not only the verb of the sentence, but also the larger predicate of the sentence (see Marantz 1984: 25–26; Chomsky 1986: 59–60). Further, it has come to be realized that it is helpful to conceive of the notion of Agent as a cluster of features. Such



an approach to the concept was advocated by Lakoff (1977). His discussion was focused on what he termed ‘prototypical agent-patient sentences’ and he proposed a list of as many as 14 properties (Lakoff 1977: 244) as characterizing such sentences. In current work on the Agent role in the context of the Choice Principle three features found in Lakoff’s list have often been used (Rickman & Rudanko 2018; Ruohonen & Rudanko 2021). These three are listed in (13), slightly edited to make the formulations gender neutral. The numbers represent the numbers that the features had in Lakoff’s list.

- (13) 4. the agent’s action is volitional.  
 5. the agent is in control of what he [or she] does.  
 6. the agent is primarily responsible for what happens (his [or her] action and the resulting change).

Regarding the nature of volitionality, it is recalled how Gruber used the phrase ‘willful source or agent of the activity described’ in his approach, and it is helpful to flesh out volitionality as ‘volitional involvement in the event or state,’ which formulation goes back to Dowty (1991: 572). As regards control, it is reasonable to accept that an Agent has at least some degree of control over the action or event described by the verb phrase of the sentence in question. (For discussion of control, see also Berman 1970.)

To gain a sense of the nature of the notion of Agent adopted for this study, consider the examples in (14a, b) and (15a, b), from the corpus under consideration. Those in (14a, b) are examples of *to* infinitive complements, and those in (15a, b) examples of gerundial complements.

- (14) a. They have a lot of good qualities, but often fear to take the first step.  
 (18-09-30 NZ)  
 b. Unfortunately, backed by politicians who fear to be seen as “soft on crime,” the police continue to ignore this wise advice. (16-08-09 NZ)
- (15) a. She never feared fighting for what she believed in [. . .] (17-08-13 NZ)  
 b. [. . .] members of the crew were aware of the situation but took no action because they feared losing their jobs. (18-02-14 NZ)

The examples in (14a, b) and (15a, b) illustrate the application of the concept of the Agent adopted to authentic data. In (14a) and (15a) the covert subjects of the lower clauses dependent on the matrix verb *fear* are Agents, because the referents of the noun phrases in question are conceptualized or encoded as being volitionally involved in the actions or events described by their predicates, *to take the first step* and *fighting for what she believed in*. The referents of these understood noun phrases are also conceptualized as being in control of the actions or events and as being responsible for them. The context is therefore [+Choice] in these cases.

By contrast, in (14b) and (15b) the referents of the lower subjects are not Agents. The covert subject of (14b) represents the object of the verb *see*, with the Patient or Undergoer theta role, which has been moved from its original direct object position into the subject position by NP Movement (Passivization). In the surface sentence the predicate of the lower sentence has the form *be seen as soft on crime*, but the semantic role of the covert subject is assigned before the NP in question is moved into the subject position. When the movement takes place, an NP trace remains in the original position, and is coindexed with the NP moved. The persons referred to are not depicted as being volitionally involved in

the event nor in control of it, rather the opposite. In (15b) the lower clause is not in the passive, but the predicate *losing their jobs* still encodes an event where something happens to the referents of the subject, not something that the persons in question are volitionally involved in. Nor are they in control of the event or responsible for it.

The three features coincide in a large number of cases, including (14a, b) and (15a, b). However, there may also sometimes be a tension between volitionality and control, on the one hand, and responsibility, on the other. For instance, consider sentence (16).

- (16) I didn't feel comfortable moving around freely in the new space because I feared bashing into things. (16-06-01 NZ)

Sentence (16) encodes a situation where a person is not volitionally involved in bashing into things nor in control of (the act of) bashing into things. However, it can be held that the person is responsible for bashing into things, if it happens, because he or she is moving around too freely in the new space. In scenarios of this type, with lack of volitional involvement (and of control) of the referent of the subject in the event in question, the present authors do not regard the lower subject as an Agent, and the context is therefore [-Choice].

Another consideration that can be taken into account in a sentence in the active voice is whether a purpose clause can be added as a modifier of the complement clause. When the subject of the lower clause is an Agent, such a clause is generally possible. For instance, to build on sentence (14a), *They fear to take the first step in order to bring about better relations* is natural, but in a sentence in the active voice such an insertion seems less likely with a subject that is not an Agent.

The considerations mentioned are in general sufficient to make it possible to make a determination about the agentivity of a subject, but sometimes an ambiguity can occur. Perhaps the most famous example of such an ambiguity is Jackendoff's famous sentence *Max rolled down the hill*. The invented example may sound artificial, but Jackendoff makes the comment in (17) on his sentence.

- (17) On one reading Max may be asleep not even aware of his motion. On the other reading he is rolling under his own volition; for this reading he must be an Agent. (Jackendoff 1972: 34)

In such cases the analyst needs to go beyond the sentence to make a determination about the agentivity or lack of it of the NP in question. With corpus data, it is normally possible to go beyond sentence boundaries.

There is an additional point of a theoretical nature to be added. This is that the Choice Principle is sensitive to the agentivity of the lower subject. Thus, it does not refer to the agentivity of the lower predicate. It should be borne in mind that in a passive sentence the derived subject is assigned its semantic role before being moved into the subject position. That theta role is Patient or Undergoer, and when the NP is moved into the subject position, it of course retains its theta role. However, it can be argued that a verb phrase can still be agentive even with passive morphology. The most famous example to illustrate this point is Roeper's (1987) sentence *The boat was sunk in order to collect insurance*. The subject *the boat* is not an Agent, but

the predicate can still be considered agentive since it is still compatible with a purpose clause, with the sentence remaining well formed.

#### 4. Results and discussion

The Choice Principle, as defined in (11), was applied to the present data, and the results obtained are given in Table 1.

As noted above, the Choice Principle has proven to be a salient predictor of complement choice in certain environments (see also Rickman & Rudanko 2018) but is as yet untested with patterns of the type under consideration here. As a first insight into its application to the verb *fear* in NZE, the numbers in Table 1 show that there is a clear correlation between the [+Choice] context and the *to* infinitive, on the one hand, and the [-Choice] context and the *-ing* form, on the other. The Fisher exact test shows a significant result at the 0.1% level ( $p < 0.001$ ,  $df = 1$ , Phi coefficient = 0.1495). The percentages given in Table 1 show that 8.4% of all [+Choice] tokens are *to* infinitives, while the *to* infinitive accounts for only 1% of all [-Choice] tokens.

Examples (14a, b) and (15a, b) above were given as initial illustrations of *to* infinitive and *-ing* complements in [+Choice] and [-Choice] contexts and further examples from the corpus data are given here.

- (18) a. The indomitable Queenslander has never feared to ask the hard question [...]  
(21-04-02 NZ)  
b. [...] said she sometimes fears to be identified as an Uber driver. (15-08-21 NZ)
- (19) a. Gee said graduates in New Zealand feared taking on extra debt to own cars or houses [...]. (17-05-15 NZ)  
b. I'm a parent, and I still fear sitting next to babies and toddlers on planes as much as anyone. (16-12-06 NZ)

(18a) is a clear [+Choice] context, with the referent of the understood subject volitionally in control of, and responsible for, the action denoted by the lower verb *ask*. (18b), by contrast, is a clear [-Choice] example; the referent of the understood subject here having been assigned its theta role as the original object of the lower verb *identify* prior to passivization. The examples in (19a, b), from the much larger dataset of gerundial complements, show [+Choice] (19a), and [-Choice] (19b) contexts. (19b) is perhaps less obvious since *sit* is a fairly typical agentive predicate, but in this case the context makes it clear that we do not always have control over who sits next to us.

The passive construction has a strong connection to the non-volitional [-Choice] category, and requires some comment here. (20a, b) are examples of *to* infinitive and *-ing* clause passives (with (20a) a reproduction of (14b) above).

**Table 1.** Results of the application of the Choice Principle to the NOW NZ data.

	+Choice	-Choice	Totals
<i>to</i> infinitive	14 (8.4%)	2 (1%)	16
<i>ing</i>	151 (91.6%)	367 (99%)	518
Totals	165	369	534

- (20) a. Unfortunately, backed by politicians who fear to be seen as ‘soft on crime,’ the police continue to ignore this wise advice. (16-08-09 NZ)  
 b. She is one of several worried Kiwis living overseas who fear being arrested as soon as they step foot in their homeland [...] (16-06-02 NZ)

As implied above, passives are not compatible with the [+Choice] context, with the surface subject being coreferential with the moved NP object of the lower verb, and as such typically having the Patient role. No examples of [+Choice] passives are found in the data. Of the [-Choice] side of the dataset, however, passives comprise both of the two [-Choice] infinitive tokens, and just under half (178) of the 367 [-Choice] gerundial tokens in the NOW data. This is not a striking result in itself, but the fact that it correlates well with what has been observed in another dataset in recent work on gerundial-infinitival complement variation is of some interest. It was noted in connection with a study on complement patterns selected by adjectival heads – in this case the semantically related adjective *afraid* – that ‘passive complements, which are predominantly [-Choice], seem to attract the gerundial variant with the same intensity as active [-Choice] complements’ (Ruohonen & Rudanko 2021).

Turning to the question of the interchangeability of the two complement types, in many cases we find that the competing complements are interchangeable, and, with Bolinger’s Principle in mind, it is one of the aims of the present research to investigate this more thoroughly. We begin with the cases in which a lower verb occurs in the datasets in both its *to* infinitive and gerundial form. Illustrations are given in (21a, b) and (22a, b) with the verbs *report* and *be identified*, in [+Choice] and [-Choice] contexts, respectively (again, due to the low number of *to* infinitive tokens to choose from, (22a) is a repeat of (18b)).

- (21) a. The case has been cited [...] as a prime example of why women fear to report cases of sexual abuse. (16-09-12 NZ)  
 b. [...] they had heard about Savile’s predatory reputation but feared reporting their concerns to managers (16-01-21 NZ)
- (22) a. [...] said she sometimes fears to be identified as an Uber driver. (15-08- 21 NZ)  
 b. Many ‘disengage’ because they fear being identified as indigenous [...] (20-03-03 NZ)

In addition to these two verbs, five others were found in both the datasets, albeit at very low frequencies. These verbs are as follows: *be seen as*, *ask*, *return*, *express*, and *break*. Table 2 lists all seven verbs shared by both datasets, with frequencies.

Following Bolinger, we assume that a difference in meaning is going to be discernible to some degree whenever one constituent replaces another (see Rudanko 2014 and

**Table 2.** Frequencies of verbs shared by both datasets.

	<i>to</i> infinitive	<i>-ing</i>
<i>ask</i>	1	3
<i>be identified</i>	1	2
<i>be seen as</i>	1	3
<i>break</i>	1	1
<i>express</i>	1	1
<i>report</i>	2	1
<i>return</i>	1	6

Rudanko 2015 for discussion). Duffley & Fisher (2021) discuss the case of *fear* with *to* infinitive and *-ing* complements from several angles, and the one most relevant to the present discussion concerns the notion of volition. The *to* infinitive is thought to convey an element of volition in the potential carrying out of the event encoded by the lower predicate; the volition arising from the Goal-like aspect inherent in the *to* infinitive construction (see Rickman & Rudanko 2018: 64, 70). On the other hand, the volitional aspect is absent from the gerundial construction. In that construction the complement is NP-like. It is recalled that only in (1b') is the complement represented as an NP. It is also possible to say that the gerundial complement designates 'that which is feared' (Duffley and Fisher 2021; see also Duffley 2000), and that it has the function of naming the source of fear (Rickman and Rudanko 2018).

This view finds support in the literature. Huddleston & Pullum (2002) compare the sentences [a] *They fear to go out at night* and [b] *they fear going out at night*, and conclude that '[w]ith *fear* infinitival [a] involves an element of volition/intentionality: [a] implicates that they don't/won't go out, while the gerund-participial [b] lacks this meaning and is comparable to an NP object' (Huddleston & Pullum 2002: 1243).

With this semantic opposition in mind, in (21a), *to report cases of sexual abuse* may be interpreted as an action that the referents of the NP *women* do not/will not carry out – but the choice is theirs – and in (21b), *reporting their concerns to managers* may be interpreted as an action that the referents of *they* are afraid of carrying out, and do so unwillingly, if at all. Note that in (21a, b) the lower verb *report* requires an Agent subject, and the examples are thus [+Choice], therefore the lack of volition which is contributed by the gerund in (21b) is not entirely in harmony with the agentive reading of *report*.

In (22a, b) the examples are [-Choice], the lower verb is passivized, and in (22a) the *to* infinitive contributes the underlying suggestion that the referent of *she* may play some part in potentially being identified as an Uber driver. This contrasts with the scenario described in (22b), however, where *their* identification as indigenous is beyond their control, with the *-ing* complement NP-like and expressing the source of fear (cf. Rickman & Rudanko 2018: 64).

While it can be argued that there is some small degree of semantic incompatibility discernible in (21b) and (22a) due to the semantics of the complement clause clashing with the dominant theta role reading triggered by each verb, these examples certainly seem natural enough. It is, however, not hard to find examples where the substitution of one complement for the other results in a less natural combination. Such cases from the present dataset are shown in (23a) and (24a), and the second member of each pair is an invented version created by substituting the complement.

- (23) a. Anyone fearing falling should visit their doctor. (18-03-28 NZ)  
 b. ? Anyone fearing to fall should visit their doctor.
- (24) a. Nevertheless, almost 50% of these people fear to unveil their sexual orientation or gender, to avoid discrimination and inequalities. (12-09-05 NZ)  
 b. ? almost 50% of these people fear unveiling their sexual orientation or gender

Here, the notions of volition, control, and responsibility lie much more clearly behind the unnaturalness of (23b) and (24b). (23a) illustrates a [-Choice] context with the *-ing* complement, while (23b), with the verb *fall* in the *to* infinitive form, leads the reader towards a clearly less acceptable [+Choice], agentive interpretation (such an interpretation might be suitable for a deliberate falling scenario, however, like sky-diving). A search of the entire NOW corpus for ‘fear\* to fall’ shows that it is an infrequent combination, with very few relevant examples coming to light, and non-native use evident in some of them. The search string ‘fear\* falling’, on the other hand, returns numerous examples comparable to (23a), confirming that the gerund is by far the more common option. This goes some way towards supporting the present authors’ judgment that (23b) is not as acceptable as (23a). It is also worth noting that the structure of (23a) runs counter to the *horror aequi* constraint, and the desire to avoid using *fall* in its *to* infinitive form seems to have overridden the tendency to avoid consecutive gerunds in this case.

As for (24a), a search of the entire NOW corpus is less helpful than it was in the case of (23a, b) above, showing that (24a) is the sole combination of the verbs *fear* and *unveil*. However, it is observed that the lower verb *unveil* seems less conspicuous in the *to* infinitive form than it does with the substituted *-ing* form in (24b), where it suggests a Patient-like subject reading incongruous with the agentive meaning encoded by the verb *unveil*. The adjunct *to avoid discrimination and inequalities* goes with *fear* in the example, but the adjunct conveys purpose, which links well with the agentive and Goal-like meaning of the *to* infinitive. The sentence conveys the idea that if they do not unveil their sexual orientation, they may avoid discrimination. On the other hand, a gerundial complement would be more in line with lack of choice, as in *these people fear having to unveil their sexual orientation*, with the complement identifying the source of fear. An adjunct of purpose would be less likely in such a sentence.

This discussion suggests that certain lower verbs are more flexible than others in terms of their compatibility with both complement types; indeed, as noted by Duffley & Fisher, a great deal depends on ‘contextual factors and the nature of the verb itself’ (Duffley & Fisher 2021: 93). In the case of *fear*, we can say that lower verbs denoting random or inevitable events or processes that most of us do not look forward to or would want to avoid, and which most clearly assign a Patient theta role and resist an Agent reading, are the verbs that are found most commonly with the gerund – verbs such as *go bald*, *age*, *die*, *fall*, *become ill* etc. This finding is in line with the Choice Principle. At the other end of the spectrum are those verbs which are more open to the alternative Agent or Patient interpretations; such verbs can be used more or less interchangeably, perhaps with some semantic discordance or difference to a greater or lesser degree. It is, after all, often the aim of a writer to catch the reader’s attention with unexpected combinations.

## 5. Conclusion

The present study has used recent data from the New Zealand section of the News on the Web corpus to investigate aspects of the sentential complementation of the matrix verb *fear*, a predicate which, until recently, has not attracted a great deal of attention in this

field. The verb *fear* selects both *to* infinitive and gerundial complements involving subject control, and one aim of the present study has been to investigate a well-defined body of corpus data systematically in order to obtain information on the incidence of the two variants in recent English. Our study indicates that the gerundial variant is clearly predominant in the body of data examined. The finding naturally invites further work in other varieties of current English, in particular, British, American, and Australian English, to give a comparison with the NZE data and help to provide a fuller picture of the relationship between the younger postcolonial varieties, the 'mother' variety of BrE, and the globally influential AmE.

From a theoretical perspective, the aim of the study has been to test the applicability of the Choice Principle to a new set of data and a pair of competing complements which have not previously been analysed from this particular angle. The Choice Principle has its roots in the theoretical framework of semantic roles, with the notions of agency, volition, and choice assumed to be contributing factors in complement selection, and here, with the application of the theory to a previously untested pair of complements and verbal predicate, we have offered a contribution to clarifying the scope of the Choice Principle. In earlier work, it has been shown to be applicable to contexts of prepositional gerunds, and this article indicates that its scope can also extend to contexts of bare gerunds. This finding naturally also invites further work on the complementation of other matrix verbs selecting *to* infinitive and bare gerundial complements, to determine the scope of the principle in such other contexts.

A further benefit of the Choice Principle pointed out in the article is that it draws attention to authentic examples where a *to* infinitive is encountered instead of the expected gerundial variant, or vice-versa. Studying such examples, the degree to which the complements are interchangeable, and the classes of lower verbs that allow both complement types is shown in the article to lead to a more nuanced analysis of the meaning of each construction. Further, this article brings to light a class of predicates, including *go bald* and *become ill*, that typically involve non-agentive or Patient-like interpretations of their subjects and such predicates are quite unlikely to be found in the infinitival form when selected by *fear*. It is suggested here that these findings receive an explanation from the agentive and Goal-like associations of the *to* infinitive, in line with the content of the Choice Principle.

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No potential conflict of interest was reported by the author(s).

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