

English *-ing*-clauses and their problems¹

The structure of grammatical categories

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This paper addresses the analysis of English *-ing*-clauses and discusses its theoretical significance with respect to the architecture of grammatical categories. English *-ing*-clauses pose two major descriptive issues: first, whether the two historically distinct clause-types of gerunds and participles can be collapsed into a single category, and second, whether *-ing*-clauses still relate to their phrasal origins as (historical) noun phrases and adjectival/adverbial phrases. It is argued that neither question can receive a straightforward answer, as the existing evidence is simply contradictory. This, in turn, has theoretical consequences. English *-ing*-clauses show that language users can operate with different grammatical generalizations at once. The representation of grammatical categories must therefore be internally complex, allowing grammatical categories to be simultaneously unified and distinct, interrelated and autonomous.

1. Introduction

As the English gerund has never been absent from the stage of theoretical debate in syntax for any long time, it should come as no surprise that it has recently made another marked entrance as the subject of some controversy, and this time has dragged into the debate the whole domain of English *-ing*-clauses. Gerunds are traditionally seen as nominalizations, meaning that while their internal syntax may be clausal, their external syntax is that of a noun phrase (Jespersen 1940; Lees 1966; Ross 1973; Declerck 1991; Heyvaert 2003; Hudson 2007: ch.4). For example, *saying sorry* in (1a) is a clause but outwardly behaves like a noun phrase in occurring in a nominal position as subject to *fixes*—therefore, it is a gerund. The trouble with gerunds is that they look suspiciously like another type of English *-ing*-clause, which occurs outside nominal positions and which traditionally goes by the name of present participle. This participial *-ing*-clause, illustrated in (1b), is internally clausal like the gerund, but occupies adverbial and adjectival positions—for example, as adjunct to *ran away* in (1b) (cf. Jespersen 1940; Declerck 1991; Haspelmath and König 1995).

- (1) a. he thinks that just saying sorry fixes the problem. (YQA)²
b. But at least he ran away crying out loud and holding his stomach. (YQA)

The questions prompted by the examples in (1) are at once straightforward and elusive. First, does English have one *-ing*-clause or two? Second, what exactly is the relation between these *-ing*-clauses and the phrasal categories?

These questions are at the centre of a recent conflict over the correct analysis of the English gerund, which arose as two influential works on syntax put forward two radically opposed analyses of the gerund's syntactic structure. Interestingly, the conflict between these analyses goes beyond the syntactic status of the English gerund, touching also on an underlying disagreement that has considerable relevance to syntactic theory and our understanding of the architecture of grammatical categories in general.

The first of the opposing analyses is that advanced by Huddleston and Pullum (2002) in their *Cambridge grammar of the English language*. They argue that English gerunds can be conflated with English present participles into a single category of "gerund-participials". With this analysis Huddleston and Pullum (2002) oppose the position taken by traditional grammars, which have generally kept gerunds and participles apart as being akin to noun phrases and adjectival or adverbial phrases respectively. In the tradition of English grammar, Huddleston and Pullum's new category is thus something of a revolution.³ Simultaneously, however, the authors of the *Cambridge grammar* also address a more broadly relevant issue by reacting against the "general practice in traditional grammar of describing subordinate clause constructions in terms of functional analogies with the parts of speech" (2002: 1221). In other words, they mistrust any supposed parallelism between clause-types and phrase-types.

The second analysis is found in Bas Aarts' (2006) book *Syntactic gradience*, where the English gerund is treated as an instance of 'intersective gradience', combining features of two major categories, namely verbs and nouns.⁴ At first glance, this treatment leans closer to the traditional analysis of the English gerund as a mixed structure. For instance, in accordance with Aarts' description, it is well-known that, apart from externally behaving like noun phrases, gerunds allow the use of a possessive form—looking very much like a nominal feature—to express their own agent argument, as in (2).

- (2) Now, Lady Davers, see you not a difference between my marrying my mother's beloved and deserving waiting maid and your marrying a sordid groom? (BNC)

What is immediately clear from this is that, against Huddleston and Pullum (2002), Aarts (2006) restores the assumption that the syntax of the gerund can at least in part be meaningfully understood in terms of the syntax of the noun phrase. He thereby implicitly calls into question not

only Huddleston and Pullum's category of gerund-participials but also their refusal to relate the system of subordination to the system of the parts of speech.⁵

But the divide runs deeper. Fundamentally, the conflict between Aarts (2006) and Huddleston and Pullum (2002) is also one in terms of two very different types of categories. Aarts' (2006) analysis can be characterized as 'reductionist', as he believes the syntax of the gerund can be reduced to the intersection between two categories—verbs and nouns—which he suggests are "grammatical kind categories", unique to the human language faculty and separate from the general cognitive apparatus (2006: 234). Of traditional gerunds he writes:

One advantage of dealing with structures like those above [i.e. traditional gerunds] in terms of balancing of morphosyntactic properties is that we do not need to recognize a category of 'gerund' in addition to nouns and verbs. (2006: 213)

Since Huddleston and Pullum (2002) explicitly oppose this kind of reductionism, their gerund-participials can only form a self-contained and thereby thoroughly language-specific category—one among countless others—that can neither aspire to any privileged status like Aarts' "grammatical kind categories", nor be reduced to other categories that do have such unique status. The somewhat paradoxical conclusion is that, against traditional grammar, both Aarts (2006) and Huddleston and Pullum (2002) eventually abandon the category of gerund, but do so on entirely different grounds and in a completely different way. For the latter it is absorbed in the larger class of gerund-participials, for the former it is reduced to a mixture of nominal and verbal features.

In this light it is worth pointing out that both Huddleston and Pullum (2002) and Aarts (2006) actually attempt to bridge the gap between formal and cognitive-functional approaches to language—the former by describing English as open-mindedly and independently from theory as possible (2002: 19), the latter by explicitly seeking a compromise between the two major linguistic paradigms (2006: 4). This common purpose only reinforces the significance of the opposition. Clearly, the syntactic problems posed by the gerund are as yet far from resolved, as is the more general question of how syntactic categories are structured and represented.

The purpose of this paper is to carefully reconsider the actual evidence regarding the syntactic status of gerunds, the relation of gerunds to participles, and the status of *-ing*-clauses as a category in English grammar, in order to formulate a descriptive and theoretical alternative both to Huddleston and Pullum (2002) and to Aarts (2006). Specifically, from the examination of the evidence the argument builds up to two main claims, one relating to the analysis of English *-ing*-clauses, the other to its theoretical implications.

First, the incompatible approaches in Huddleston and Pullum (2002) and Aarts (2006) are each partly justified but too radical. Specifically, in the spirit of Aarts (2006), the analysis of

gerunds and participles offered here recognizes the traditional ties between gerunds and nouns and between participles and adjectives/adverbs. Yet at the same time Huddleston and Pullum's (2002) super-category of gerund-participials is not completely dismissed, nor are its implications with respect to the language-specific character of syntactic categories.

Second, the conflicting views of Huddleston and Pullum (2002) and Aarts (2006) signal that the linguistic evidence is essentially ambiguous. Therefore, the analytical compromise proposed here also advances a particular conception of syntactic categories that can maximally embrace the inherent contradictoriness of the evidence. Specifically, the contradictions in the data are dealt with by assuming that syntactic categories are internally layered and multifocal, in that they are organized around clusters of interrelated uses that occasion generalization at several possible levels. Traditional gerunds and participles are two such clusters within the category of *-ing*-clauses (though, as will be argued, not the only ones).

In the spirit of Aarts (2006) and Huddleston and Pullum (2002), the argumentation for both claims is meant to be as theory-neutral as possible. At the same time, the eventual conclusions fit well with cognitive approaches to language. The complex internal category structure attributed to *-ing*-clauses can be envisaged in terms of a constructional hierarchy, as inspired by Construction Grammar (Langacker 1987, 1991; Goldberg 1995, 2006; Croft 2001). Constructional hierarchies accommodate different levels of abstraction or schematicity, recognizing each as a valid, psychologically 'real' level of representation. In this way, different linguistic analyses may in fact coexist in the grammar of the language user without ruling each other out. Further, the conclusions corroborate the idea that language users can operate with fuzzy categories, the boundaries of which may be ill-defined. This is in line with Prototype Theory (Berlin and Kay 1969; Labov 1973; Rosch 1973; Lakoff 1987; Langacker 1987; Geeraerts 1989), albeit that the application of Prototype Theory to grammar is more controversial than its application to lexical semantics (cf. Newmeyer 1998; Taylor 1998; Denison 2001; Aarts *et al.* 2004).

The structure of this paper is as follows. Section 2 deals with the distributional evidence that constitutes the main argument underlying the distinction between gerunds and participles and argues that the distributional evidence is, paradoxically, at once valid and inconclusive. The distributional evidence reveals that language users must be aware of the connections between *-ing*-clauses and the phrasal categories (as Aarts' 2006 analysis of the gerund implies), but this still offers insufficient grounds for dividing *-ing*-clauses into gerunds and participles. Section 3 approaches *-ing*-clauses from the opposite perspective and evaluates the arguments for regarding *-ing*-clauses as a single category along the lines of Huddleston and Pullum's (2002) gerund-participials. It turns out that the evidence points in different directions. Some evidence (esp. formal and internal syntactic) shows gerunds and participles behaving differently, confirming the traditional division of English *-ing*-clauses, while other evidence (esp. semantic and historical) shows convergence between the categories or else category-internal divisions that do not

align with the gerund/participle distinction. Section 4 evaluates the evidence in terms of the theoretical issues of reductionism, the internal structure of grammatical categories and the language-specific character of grammatical categories.

Before I present the analysis, a terminological note and a methodological one are in place. Regarding terminology, the term ‘*-ing*-clause’ is here used to refer as neutrally as possible to any non-finite clause whose main verb ends in *-ing*. I will not use the term ‘gerund-participial’ introduced by Huddleston and Pullum (2002), except when referring to their work, because this term is already laden with descriptive and theoretical claims which I partly reject. By contrast, I will use the terms ‘gerund’ and ‘participle’, albeit on the understanding that this use is (at least initially) detached from any psychological or ontological claim regarding the status of gerunds and participles as categories somehow represented in the grammars of speakers of English. The terms are used instead as convenient shorthands for ‘*-ing*-clause in the syntactic position of a noun phrase’ or ‘*-ing*-clause in the syntactic position of an adjectival/adverbial phrase’.

On the methodological front, this paper makes recurrent use of historical arguments to justify certain synchronic analyses, especially in Section 3. The use of such arguments is generally not admitted on the grounds that a synchronic system should be analysed in its own terms. I believe the exclusion of historical arguments is ill-founded, however. Most importantly, it is highly instructive to see how grammars with slightly different options but which are overall very similar to Present-day English have dealt with the patterns investigated for Present-day English. In addition, historical phases in the use of *-ing*-clauses are in many ways just as problematic to linguistic theorizing as present-day usage, and there is no reason why a grammatical theory should be able to accommodate only the current stage of a historical development. Finally, regarding the particular case of gerunds and participles, there are historical trends that can inform our synchronic analysis. One trend is from categorial discreteness to convergence between gerunds and participles; another is towards dissociation between *-ing*-clauses and the phrasal categories. The very gradualness of these trends, seen from a historical point of view, implicitly supports both the descriptive and the theoretical claims put forward here. Diachronic gradualness makes more acceptable the idea that the categorial status of English *-ing*-clauses is ambiguous or undecided, and underscores the notion that such undecided categories must fit naturally into language users’ grammars.

2. Gerunds and participles?

The primary motivation for positing the categories of gerunds and participles is that they capture significant distributional regularities in usage. Various exceptions notwithstanding, it is undeniably true that *-ing*-clauses tend very strongly to pattern with phrasal categories, either noun phrases or adjectival/adverbial phrases and past participles. This is the major regularity that dic-

tates the use of *-ing*-clauses and by its nature it is also the major criterion that is thought to divide *-ing*-clauses into gerunds and participles. In this section I will first illustrate the strength of the distributional evidence and discuss some potential counterevidence (Section 2.1), and then turn to a first estimation of the overall value of the evidence with respect to the gerund/participle divide in English, arguing that while the distributional evidence is in fact strong, by itself it is insufficient to warrant the categorial distinction between gerunds and participles (Section 2.2).

2.1. *Distributional evidence*

The alignment of *-ing*-clauses with the phrasal categories makes important predictions about where *-ing*-clauses can and cannot occur and it is very unlikely that language users should be unaware of these. In general, *-ing*-clauses occur in nominal slots (subject, subject complement, direct object, prepositional complement) and adjectival/adverbial slots (adjunct, disjunct, secondary complement, relative postmodifier). This section analyzes two examples in greater detail to show the pervasiveness of the distributional match between *-ing*-clauses and the phrasal categories.

A first example comes from the use of participles with subordinators. The set of subordinators combining with present participles closely matches the set of subordinators taking past participles and adjective phrases. Subordinators thus split into one bigger group of subordinators selecting both present participles and past participles or adjective phrases (e.g. *as if, as though, if, once, though, until, when, while*) and another smaller and somewhat peripheral group selecting neither (e.g. *in case, lest, now, whereas*). This ‘all-or-nothing’ distributional parallelism is illustrated for *while* in (3) and for *in case* in (4).⁶

- (3) a. she is often depicted with a cat’s head while carrying a shield and rattle, to frighten away thunder-storms (BNC)
- b. It was beyond her mother’s skill to put the car in the garage while distressed. (BNC)
- c. The inquiry while useful in many ways, was in effect a propaganda event besmirching the overseas reputation of the nation (CB)
- (4) a. *In case using a Direction Indicator, make sure that it is synchronised with the Magnetic Compass.
- b. *In case discovered, treat the whole family with the CORRECT lotion at the same time.
- c. *the sight of a strange dog [...] can be enough to make sheep run and in case pregnant they can miscarry.

Violations—i.e. subordinators that select for one phrase/clause type only—are very few. Quirk *et al.* (1985: 1004–1006) explicitly compare which subordinators go with past and present participles and the only discrepancies they find are *where*, *wherever*, *as* (expressing manner) and *as soon as*, which they say combine only with past participles, and *after*, *before* and *since*, which only take *-ing*-clauses. However, of the first set of exceptions *where*, *wherever* and *as soon as* are actually attested with present participles, as shown in (5a–c), so only *as* expressing manner still stands as a counterexample (cf. *do as told* vs. **do as being told*); but note further that manner-*as* did accept present participles in earlier stages of the language, as shown by (5d), suggesting that the present-day irregularity may have more to do with the semantic development of *as* than with the syntax of participles per se. The second set of exceptions—*after*, *before* and *since*—can be accounted for by the fact that the subordinators in question are also prepositions, so the *-ing*-clauses with which they combine may actually be gerunds (as Quirk *et al.* 1985: 1005–1006 point out as well). Evidence that such uses belong in a separate category is the observation that, unlike the other *-ing*-clauses with a subordinator, *-ing*-clauses introduced by *after*, *before* and *since* marginally permit an explicit subject—witness (6).

- (5) a. Make sure to articulate these clearly, alternating your plucking fingers except where raking from the 1st to 2nd strings (notes E to A and D to A). (BNC)
- b. Report to the ISSC (405 Main Building) as soon as arriving on campus. (Google)
- c. for the words “United Kingdom”, wherever occurring except in the expression “the United Kingdom’s obligations”, substitute “Isle of Man” (Google)
- d. You speak as having power to do wrong: but answer in the effect of your reputation, and satisfy the poor woman. (1596–1599, Shakespeare, *Henry IV*)
- (6) But he’d actually come out of a police wagon after them beating him up. (CB)

In sum then, the match between subordinators taking present participles on the one hand and those taking past participles and adjective phrases on the other is certainly strong enough to count as a grammatical generalization.

As a more complex illustration of the match between *-ing*-clauses and the different phrasal categories, let us take the area of verbal complementation. It is well-known that in English certain verbs select *-ing*-clauses as complements whereas others do not, preferring a *to*-infinitive or some other complement type instead, as illustrated in (7).

- (7) a. the majority of the nasties now enjoy headbutting [/*to headbutt] people all around them (BNC)
- b. you do so love playing [/to play] tricks don’t you Alicia? (BNC)

- c. aim to give [/*giving] your child a good range of foods over the course of a week
(BNC)

Various authors have attempted to explain the selectional restrictions in the area of verb complementation by invoking the semantics of verbs and complement types (Wood 1956; Bolinger 1968; Wierzbicka 1988; Smith and Escobedo 2002). But, as far as *-ing*-clause complements are concerned, the distributional problem can to a large extent be solved more easily by the general rule that *-ing*-clauses are licensed as complements with those verbs that also allow one of their phrasal category counterparts in a complement position.⁷ For example, we can safely assume that part of the reason why *aim* or *long* cannot take an *-ing*-clause as complement is simply that they are not transitive verbs and take no adjectival complements either, as a consequence of which they have no nominal object slot to be filled by a gerund, nor an adjectival slot to attract a participle.

It is true that the match between *-ing*-clause complements and the phrasal categories is incomplete, as pointed out by Huddleston and Pullum (2002). This constitutes counterevidence, but as long as one realizes that the distribution of complement types is determined by more than one factor, the counterevidence is not insurmountable. More specifically, distributional alignment with the phrasal categories both over- and underspecifies the actual distribution of *-ing*-clauses. Overspecification (i.e. the occurrence of *-ing*-clauses where they are predicted not to occur) is the phenomenon which is most problematic to the notion of distributional alignment, but is also the less common form of mismatch. I will discuss cases of overspecification below (see Section 3.4.3). Underspecification (i.e. the non-occurrence of *-ing*-clauses in slots where we should expect them), by contrast, is more common but can often be shown to be functionally motivated.

For example, considering the distribution of gerundial complements, verbs such as *promise* and *know* do not select gerundial complements, despite being transitive. Here the distributional rule underspecifies actual usage. But the discrepancies can be accounted for on historical and functional grounds. First, in an environment where gerunds compete or have had to compete with *to*-infinitives (which are invariably the older pattern), their success has partly depended on the frequency of the *to*-infinitive (De Smet and Cuyckens 2007; De Smet 2008a). With *promise*, as with other verbs of intention and volition, the *to*-infinitive by virtue of its frequency stands very strong, which is probably one reason why gerunds have not encroached on this particular transitive complement position. Second, as non-finite clauses, gerunds semantically underspecify the event they refer to, which means that in order to temporally and modally situate the event in the complement clause, an interpreter must maximally draw on the semantics of the complement-taking predicate (cf. Noonan 1985 on dependent and independent time reference). Unlike verbs such as *remember*, *avoid*, *enjoy* etc., verbs like *know* themselves very

much underspecify the temporal and modal orientation of their complement clause and are therefore inappropriate with gerunds (De Smet 2008a). For example, *opening the drawing-room door* in (8) is sufficiently grounded by *imagine*, which situates the complement event in a modal space of unreality, but not by *know*, which is entirely neutral in this respect.

- (8) a. He imagined opening the drawing-room door. (BNC)
b. *He knew opening the drawing-room door.

Because a full bearing out of the distributional parallelism between gerunds and noun phrases is pre-empted by the presence of other complement types in the system as well as by the functional limitations of *-ing*-clauses themselves, complete correspondence between gerundial complements and the object positions of transitive verbs is unreasonable to expect.

Accepting the inevitable mismatches, there is still much to gain from recognizing the close relationships between *-ing*-clauses and their associate phrasal categories in the domain of complementation. For example, the tie between gerundial complements and ordinary direct objects allows us to solve certain semantic difficulties. Much has been made of the interpretative differences between gerunds and *to*-infinitives in specific environments. In (9), for instance, the *to*-infinitive with *regret* is prospective in marking a posterior intention, whereas the gerund is retrospective and marks an anterior event.

- (9) a. I regret to report there is no progress in the investigation (CB)
b. She regretted asking the question as soon as the words were out. (BNC)

The prospective orientation associated with the *to*-infinitive in all likelihood comes from the *to*-infinitive itself, which is typically used to mark potentiality, posteriority, purpose, etc. (e.g. Curme 1931; Jespersen 1940; Bolinger 1968; Bresnan 1979; Rudanko 1989). But the retrospective orientation of the gerund can hardly come from the gerund, as should be clear from the examples in (10) where the event denoted by the gerund is anything but anterior to that in the matrix clause.

- (10) a. For a moment she considered saying nothing at all (BNC)
b. I didn't anticipate spending days mucking out some of the dirtiest piggeries I had ever seen. (BNC)

Rather, the gerund is retrospective with verbs that are themselves canonically retrospective, essentially copying the (implied) temporal orientation of a noun phrase with the same verb. A

gerund thus semantically fits neatly into the mould of the transitive construction associated with the complement-taking verb. I believe this is what Visser means when he writes:

Broadly speaking it might perhaps be said that the form in *-ing* seems sometimes to be preferred when the finite verb is distinctly meant to be apprehended as transitive for which an object in the form of *-ing* is more suitable than one in the form of an infinitive, since the former is nearer to a real noun than the latter. (1963–1973: 1861)

Likewise, this is no doubt what Duffley has in mind when he states that a gerundial complement evokes its event “as that which is [verb]ed in the event expressed by the matrix” (1999: 10). The message is: to interpret a gerundial complement, treat it like a noun phrase. Again, then, the use of *-ing*-clauses associates them with the phrasal categories.

2.2. *Interpreting the evidence (1)*

It is hard to imagine that speakers should be unaware of the ties between *-ing*-clauses and the phrasal categories, but does this also divide the set of *-ing*-clauses? Do the distributional relations justify the distinction between gerunds and participles? In an important sense, they do not. More precisely, in view of the above evidence, we can conclude, first, that the relations to phrasal categories constitute significant grammatical generalizations, giving important information on where *-ing*-clauses can and cannot be used; and, second, that since language users must somehow represent these generalizations they can take them as a basis for a further categorial distinction between two types of *-ing*-clauses. So far, however, nothing forces language users to take this second step. To use an analogy, we do not divide the category of ‘noun phrase’ in two just because noun phrases can occur in verbal argument position and as prepositional complement. Thus, even in light of the distributional evidence, it can still be argued that English has a single clause-type that can be used to fill two kinds of phrasal positions. On this interpretation, the distinction that exists at the phrasal level is simply neutralized on the level of clausal subordination. Unification of *-ing*-clauses into a single category is logically independent of the validity of distributional generalizations across *-ing*-clauses and different phrasal categories.

Two considerations underscore this point. Firstly, the category of participles itself already generalizes over a distinction at the phrasal level, namely between adjectival and adverbial phrases. Secondly and more importantly, such neutralization is known from markedness theory to occur throughout grammar, as marked categories show fewer internal distinctions than unmarked categories (Greenberg 1966; Croft 1990). For example, English verbal paradigms have (marginal) person marking in the present but not in the past; German article inflection shows gender distinctions in the singular but not in the plural; etc. In analogy to inflectional paradigms,

it could in this case be argued that the marked category is the downranked clause, whereas the unmarked category is the phrase. Consequently, a distinction that holds at the phrasal level (between nominal and adjectival/adverbial phrases) could disappear—or become much less obvious—at the clausal level (where all that is found are formally identical and fully interchangeable *-ing*-clauses).

Assuming identity between *-ing*-clauses in all further respects, this argument is always viable no matter how strong the distributional ties between the clause type and the distinct phrasal categories are. The argument comes under pressure only if other differences between *-ing*-clauses coincide with the division based on the correspondences to phrasal categories. The question is, then, is a gerund or participle a distinct type of *-ing*-clause or is it merely an *-ing*-clause in a particular type of syntactic position?

3. Gerund-participials?

If the distributional evidence alone is insufficient to support a distinction between gerunds and participles, the possibility of an encompassing category of *-ing*-clauses comes within reach after all. It is therefore worthwhile to change the perspective and look at the arguments in favour of radically dismissing the gerund/participle contrast. Huddleston and Pullum's (2002) argument that the traditional categories of gerunds and participles can be collapsed into the single category of gerund-participials hinges on the claim that there are no inflectional or semantic differences and no differences in internal syntax that still warrant the distinction. Formulated as such, Huddleston and Pullum's (2002) argument is not without its weaknesses, however, which I will start by outlining here, in order to then move on to a reappraisal of a unified category of *-ing*-clauses on what I think to be better-motivated grounds. Crucially, this reappraisal does not amount to a rejection of the alternative view that gerunds and participles are discrete categories, as the evidence simply points in different directions. In what follows, I consider formal (Section 3.1), semantic (Section 3.2), internal syntactic (Section 3.3) and historical evidence (Section 3.4), again to round off with a general evaluation of the evidence (Section 3.5).

3.1. *The -ing-form*

With respect to inflectional differences, Huddleston and Pullum (2002: 82–83) state that no verb inflectionally distinguishes between gerunds and participles, so the inflectional *-ing*-suffix added to verbal stems is the same for either grammatical category for any verb. While this looks like a strong indication that morphologically gerunds and participles are identical, the problem is that the argument only fully holds for standard non-colloquial written English. Moving beyond the formal standard variety, we are immediately confronted with extremely widespread

variation in the realisation of the *-ing*-suffix and this variation turns out to be grammatically conditioned in such a way that it largely reflects the traditional distinction between gerunds and participles. Thus, discussing the so-called (ING)-variable, illustrated in its written form in (11), Labov (1989) (based on Houston 1985) states that the /in/-realisation is “favored most in progressives and participles, less in adjectives, even less in gerunds and least of all in nouns like *ceiling* or *morning*” (1989: 87). Labov insists that “every study of (ING) for almost every speaker has shown the same result” (1989: 87).

- (11) your 17, turning 18 .. who cares if u smoke, im 14 and been smokein for like 3 years (YQA)

If language users manage to treat the (ING)-variable differently in participles and gerunds they must be able to keep track of the difference between those two categories.

In fact, considering the more detailed figures in Houston (1985) and the results from a replicational study on written data reported in De Smet and Heyvaert (2008), grammatical conditioning in the (ING)-variable is more complex than suggested by Labov (1989), but the point remains that language users do not seem to see *-ing*-clauses as a single homogeneous category. For example, it is found that among gerunds, internally nominal gerunds more strongly resist the /in/-variant than internally clausal gerunds, and that among internally clausal gerunds the syntactic position of the gerund acts as a further determining factor, with the /in/-variant being less favoured by gerunds in subject position than in object position or following a preposition. In brief, this means that for each example in (12), the use of the /in/-variant becomes increasingly unexceptional.

- (12) a. sorry for my very bad spellin! (YQA)
 b. hearin them argue gets me stressed out (YQA)
 c. i listen to whatever i feel like listenin to. (YQA)

Houston (1985) suggests that such finer-grained differences between gerund types reflect Ross’ (1973) nouniness hierarchy—i.e. the degree to which a given clause or phrase can be recognised as a nominalization and, by the same token, as a proper gerund. It is easy to see how this proposal applies to internally nominal gerunds as in (12a). As regards the difference between clausal gerunds in subject and other positions, I take it that subject positions more strongly foreground the downranked and nominalized character of the gerund clause, since the other positions, when filled by a clause, easily invite a shift in focus that tends to disguise their nominal character. For instance, we know that complement clauses tend to be promoted to main clause status, at the expense of the main verb, which develops into a modifier or auxiliary (on

the ubiquity of the tendency, see Bolinger 1980; Heine 1993), and the same applies to many of the constructions where a gerund is introduced by a preposition—consider (12c) above. When this happens, the ties between the nominalized clause and ordinary noun phrase objects gradually dissolve (see further Section 3.4.3 below).⁸ In as far as the variation in the (ING)-variable reflects nouniness, it confirms the status of the gerund as a category, except that not all gerunds appear to be equally straightforwardly recognisable as gerunds. What is certainly clear is that *-ing*-clauses are not a formally undiversified category, as Huddleston and Pullum (2002) imply.

3.2. *Internal syntax*

Huddleston and Pullum's (2002) argument that there are no internal syntactic differences to support the distinction between gerunds and participles is similarly in need of refinement. A minor problem is that traditional gerunds can still—albeit very sporadically—contain a range of determiners and quantifiers, as shown in (13) (see also Aarts 2006; Heyvaert 2006). No participle allows this syntactic option.

- (13) a. Its flat blade is useful for grooving seed drills on deep beds and the consolidating the soil afterwards (CB).
b. Well, I hope that sentence will deter you from any more writing on walls (BNC)
c. So the, with this it's the only thing I've got. with this changing the rules, about eighteen months ago (BNC)

Against the evidence of such 'hybrid' examples, it can be argued that the determiners here are actually not a feature of the gerund itself but of the syntactic environment in which the gerund is embedded. We can think of the slot following the determiner as simply another 'external' environment in which *-ing*-clauses can be used. The determiner itself, then, is not really a feature of the internal syntax of the *-ing*-clause and therefore not a distinctive feature of the gerund. I leave this analytical option unaddressed here, because even if this counterargument proves incorrect, the relevant syntactic possibility can be dismissed as a marginal remnant of earlier stages of the language that is of questionable acceptability to many present-day speakers. As is to be shown immediately, however, a very similar puzzle is central to our analysis of the gerund's possessive subject.

More precisely, Huddleston and Pullum's (2002) argument still has to deal with the difference in the form of the subject in gerunds and participles. Starting with the bare facts, Huddleston and Pullum themselves state that all *-ing*-clauses can take oblique subjects, but that traditional gerunds can take genitive subjects as well whereas traditional participles can also take

nominative subjects. This is illustrated by the pair of examples from Huddleston and Pullum (2002: 1220) in (14) and the corpus examples in (15):

- (14) a. She resented his/him/*he being invited to open the debate.
b. We appointed Max, he/him/*his being much the best qualified of the candidates.
- (15) a. The director, Brett Leonard, originally sent me the script with the idea of my *playing* the good guy (CB)
b. It was only to be expected, he being thirty-five years older than me (CB)

Huddleston and Pullum (2002: 1221) dismiss this kind of evidence for the gerund/participle distinction by claiming that genitive case is restricted to *-ing*-clauses in complement position, whereas nominative case is restricted to *-ing*-clauses in non-complement position, implying that the difference really lies between syntactic environments and not between gerunds and participles. This solution, however, makes misleading use of terminology, since the “complement” positions invoked by Huddleston and Pullum (2002) are actually the nominal positions with which gerunds are traditionally associated, viz. subject, object, subject-complement and prepositional complement. Huddleston and Pullum (2002) do not really replace the distinction between gerunds and participles; they merely rephrase it. Therefore, the form of the subject of *-ing*-clauses still deserves serious consideration as an argument supporting the gerund/participle distinction.

Now, the restriction of nominative subjects to participles may not be entirely watertight (see 3.4.1 below), but the association of possessive subjects with gerunds is solid and remains hard to argue away as a manifestation of the distinct categorial status of the gerund. The only way out is to analyze possessive subjects not as subjects at all, which can be done by treating gerunds with a possessive as subjectless *-ing*-clauses embedded within a noun phrase with possessive determiner (in analogy to the analysis briefly suggested for the examples in (13) above). Because on such an analysis the *-ing*-clause lacks an internal subject, the exceptional possessive subjects are worked out of the system and no longer separate different types of *-ing*-clauses. Historically, this may at some point have been the right analysis, but Huddleston and Pullum (2002: 1189–1190) themselves argue against it for present-day English, although they accept a parallel analysis for the determiner in hybrid gerunds as in (13) above.

In actual fact, closer investigation of the possessive form accompanying the gerund suggests that it is neither a proper determiner nor a proper subject. In favour of the determiner analysis is, first, the analogy to examples as in (13); and, second, the tendency illustrated in (16) for possessives to associate more strongly than oblique subjects with a factive interpretation for the gerund. The latter interpretative effect is very much reminiscent of the existential presuppo-

sition triggered by a definite determiner—i.e. the gerund in (16a) with possessive *his* is factive, while the gerund in (16b) with oblique *him* is not.

- (16) a. She swerved to avoid hitting the guardrail on First Bridge, swung the wheel angrily at the thought of his refusing to discuss even the selling price. (CB)
- b. at least his problem had been caught early. I just couldn't bear the thought of him going through what I did as a child (CB)

But the distinction illustrated in (16) is not observed consistently (witness (15a) above, which has possessive *my* but is non-factive). Further evidence against a determiner analysis of the possessive subject is represented by the fact that such an analysis implies a highly defective and non-obligatory determiner slot, which certainly stands out as exceptional; that no other nominalized clause occurs with determiners in English; that the supposed determiner has to be interpreted as co-referential with the subject of the *-ing*-form⁹ and so cannot be followed by an oblique subject; and that, as Pullum (1991) points out, unlike a true possessive determiner, the possessives that come with the gerund cannot be used elliptically, as (17) (from Pullum 1991: 770) demonstrates, showing that it lacks the full force of a determiner as grounding element.

- (17) a. I was amazed at Stacy's eagerness, and at Morgan's too.
- b. *I was amazed at Stacy's being so eager, and at Morgan's too.

The subject analysis is no less problematic. The two arguments given above in support of the determiner analysis already cast doubt on the subject analysis. In addition, possessive subjects are just as exceptional as non-obligatory determiners; possessives can absolutely not be coordinated with oblique subjects, indicating a fundamental non-equivalence; and possessives, unlike oblique subjects, cannot fall in the scope of focal adverbials within the gerund clause, as shown by (18).

- (18) the chance of him [/*his] in particular being hit by a meteorite remains constant (Google)

From this it may be concluded that the possessive of the gerund is a hybrid of sorts between determiner and subject, perhaps best referred to as a 'subjectoid' (as in fact Pullum 1991 does). The interesting consequence, for present purposes, is that these possessive subjectoids cannot be straightforwardly relegated to the syntax of the noun phrase, so that analyzing a gerund with possessive as an *-ing*-clause planted in a noun phrase slot with overt determiner would be somewhat simplistic. Indeed, possessive subjectoids are a syntactic option that seems to

come specifically with the *-ing*-clauses in nominal positions. So, regardless of whether they are subjects proper or not, given that possessive subjectoids cannot be reduced to determiners—and thereby to a feature of the *-ing*-clause's external syntactic environment—and given that they are unique to *-ing*-clauses in a nominal position, they form a distinctive feature of gerunds as a category.

3.3. *The semantics of -ing*

Whereas formal and internal syntactic arguments are to different degrees problematic, semantics provide better evidence for the unity (or at least lack of discreteness) between gerunds and participles. We must here distinguish between the semantics that come with being in a nominal or adjectival/adverbial position and that are imposed by the syntactic environment (as discussed briefly under 2.1) and the question of the semantics inherent in the *-ing*-clause itself. Especially the cognitive literature has addressed the latter issue and has attempted to provide a unified semantic characterisation of the *-ing*-form of the verb, tending towards a unification of the categories of gerunds and participles. This has led to two main proposals, sometimes formulated together as two aspects of the meaning of the *-ing*-form.

One is that *-ing* is a so-called atemporalizing suffix (Langacker 1991; Heyvaert 2003), which means that when it is attached to a verbal stem the verbal process is depicted as a single gestalt without profiling the temporal sequentiality of its component states and without relating it to the time of speaking. The validity of atemporalization, as Langacker (1987: 253) admits, is hard to demonstrate empirically and the notion remains to some extent a theory-internal construct. In non-cognitive terminology, however, I would paraphrase it as temporal and aspectual neutralization, with the effect of lifting a clausal event to the level of type-space and of forcing its specificities as an event token to be derived exclusively from the lexico-grammatical context in which it is used (e.g. through inferred relations of control, temporal relatedness to the matrix clause, etc.).¹⁰ To illustrate notion of atemporalization, it is instructive to compare an isolated to a contextualized *-ing*-clause, as in (19)–(20), as this shows what aspects of clause semantics are lost under atemporalization and how they are reintroduced contextually. Significantly, the atemporalizing effect illustrated artificially in (19a) and (20a) also surfaces in actual discourse. When an *-ing*-clause is constructionally isolated, as in (21), the semantic effect of atemporalization comes to the fore while simultaneously the distinction between gerunds and participles loses its tangibility.

- (19) a. falling in love with the tragic Cardinal Newman (CB)
b. I can still remember falling in love with the tragic Cardinal Newman (CB)
- (20) a. taking out a Fanta bottle (CB)

- b. Wali turned and rummaged in the saddlebag of his battered bike, taking out a Fanta bottle. (CB)
- (21) Pragmatics in linguistics is all about suiting the way you speak to the situation you are in. You do this naturally in some situations, of course: for example, not swearing in front of your parents. (YQA)

The other proposal is that *-ing* is not only atemporalizing but also imperfectivizing (Lan-gacker 1991; Smith and Escobedo 2002; Egan 2003), meaning that it profiles only the inner phase of a process, not its onset or completion. This imperfectivizing character obviously applies to the progressive, as in (22a), and can be tentatively extended to certain other constructions as in (22b–c).¹¹

- (22) a. We had been having such a good time and now it's been ruined. (CB)
- b. Mother, he was old and tough; you would not have enjoyed eating him. (BNC)
- c. she'd seen the witch's cat riding through the air on a broomstick (BNC)

Despite its straightforward applicability to some uses, the claim that *-ing* is an imperfectivizing suffix has been criticized (Duffley 1999, 2003; De Smet 2008a; De Smet and Heyvaert 2008). The main reason is that imperfectivity evidently cannot apply to examples as in (23)—and note that this criticism extends to gerunds as well as to participles (against Duffley 1999, 2003).

- (23) a. If you were my parents would you forgive me for piercing my lip (YQA)
- b. But as the trial opened, she changed her plea and admitted shooting Staudinger last December, at his Manhattan apartment. (BNC)
- c. During his 23rd bombing mission on October 26, 1967, a missile struck John's plane and forced him to eject, knocking him unconscious and breaking both his arms and his leg. (John McCain's presidential campaign website)
- d. The governor shall certify to the department of administration the name of the person giving the information leading to the arrest, immediately upon conviction of the person arrested. (Google)

This indicates that the *-ing*-form has a baseline semantics of atemporalization that applies across gerunds and participles and that receives an additional layer of imperfectivization in some uses, most notably the progressive (for a more detailed discussion and explanation of the semantic effects, see De Smet and Heyvaert 2008). Semantically, then, it is possible that some *-ing*-forms contribute more meaning than others, some being just atemporalizing, others imperfectivizing on top, but as far as I can see there is no obvious semantic division that aligns with

the traditional distinction between gerunds and participles. Incidentally, the somewhat unique status of the progressive gets confirmation from the fact that progressive *-ing* actually seems to be losing its atemporalizing character, as is apparent from highly informal uses where, in the absence of a verb form of *be*, *-ing* is the only element left to mark present tense reference.

- (24) a. say your cousin she going to stay the night (COLT)
b. Why you bugging her? (COLT)

In conclusion, it is probably too much to deny any semantic differences between *-ing*-clauses, but the weaker claim that gerunds and participles cannot be distinguished on semantic grounds is justifiable, as the semantic divisions that can be drawn follow other lines.

3.4. *Historical evidence*

The most intriguing evidence for the status of *-ing*-clauses as a unified linguistic category comes from the kind of changes gerunds and participles have been undergoing historically. For one thing, it is well-known that if a diachronic trend can be discerned in the historical material, it is for gerunds and participles to become less distinctive. Moreover, a variety of historical changes can be accounted for only on the assumption that language users indeed occasionally collapse or confuse the categories of gerunds and participles. In what follows, I discuss three types of historical development that can count as evidence to this effect.

3.4.1. *Formal feature exchange*. That the categorial boundaries between gerunds and participles can be violated is most immediately apparent from the exchange of formal features between the two clause types. The (ING)-variable, despite its grammatically conditioned distribution (see 3.1 above), may be a case in point. Even if the details of the developments involved are far from clear, the present-day /in/-variant seems to derive from the original participial ending in *-inde*, *-ende* or *-and* (Marsh 1868: 462; Houston 1985; Labov 1989). If this is correct, its present-day use in gerundial structures is a case of extension.¹² The /iŋ/-variant, on the other hand, is the traditional gerundial ending, and its appearance in participles is likely due to a mixture of phonological and syntactic confusion in Early Middle English involving participles, gerunds and infinitives (Mustanoja 1960: 547; Miller 2002: 367). Evidence of the confusion are examples of the type illustrated in (25) (all from Mustanoja 1960: 570–571), where the opposite extension takes place and a participial *-ende* ending is found in what should really be a gerund. Such exchanges are only possible if the boundaries between gerunds and participles are not entirely discrete.

- (25) a. þe þridde is menende his synnes bifore Gode (al225 (?al200), *Trin.Hom.65*)
 ‘the third way is bewailing his sins before God’
- b. ech man gifep his almesse eiper for Godes luve and for havende hereword and for to ben wurped fer and ner (al225 (?al200), *Trin.Hom.157*)
 ‘each man gives his alms either for God’s love or for getting praise and in order to be honoured far and near’
- c. to provy hor bachelerye Some wiþ launce and some wiþ suerd, wiþoute vileynye, Wiþ pleynde atte tables oþer atte chekere (1297, *RGlouc. 3965*)
 ‘in order to demonstrate their chivalry some with lance and some with sword, without foul play, with playing at the tables or at chess’

A more straightforward case of feature exchange is the expression of patient arguments in participles by means of an *of*-phrase. This use emerged briefly in the Early Modern period, as illustrated in (26). As the examples show, the use turns up in the whole range of participial constructions, including the progressive (26a), relative participles (26b), participial adjuncts (26c) and the catenative posture verb construction (26d).

- (26) a. And whyle the kynge there was shyppyng of his people, dyuers of his lordes [...] were there arrestyd for treason (1516, PPCEME)
 ‘And while the king was there shipping his people, several of his lords were arrested for treason’
- b. and iiij gylt candyllstykes and iiij grett tapurs and armes, [...] and xx men in frysse gownes baying of stayf-torchys, and mony vomen, and then the compeny of the Clarkes; and mony mornars (1553–1559, PPCEME)
 ‘and four gilt candlesticks and four great tapers (i.e. candles) and arms, and twenty men in clean gowns bearing staff-torches, and many women, and then the company of the clerks; and many mourners’
- c. refusing of the othe, I wolde not declare the causes why (1529–1533, PPCEME)
 ‘while refusing to take the oath, I would not declare the reasons (for my refusal)’
- d. Ga~mer Gurton, with manye a wyde styche Sat pesynge and patching of Hodg her ma~s briche (1553–1563, PPCEME)
 ‘Grandma Gurton, with many wide stitches, sat mending and patching Hodg’s man’s breeches’

The model for examples as in (26) can only be the gerundial construction illustrated in (27a), where a determinerless gerund takes a patient marked by *of*. In discourse-functional terms, such determinerless nominal gerunds were at the time almost indistinguishable from clausal gerunds

as in (27b), with which they competed for a while (De Smet 2008b), so there was little to hinder language users from generalising an alternation pattern between zero and *of* for the expression of patient arguments in gerunds, which could then be extended to participles. Tellingly, the use of *of*-marked patients in participles disappeared again with the eventual loss of determinerless nominal gerunds (cf. Fanego 2004; De Smet 2008a).

- (27) a. By eating of Garlike, a man may the safelier goe into a suspected aire, and by stinking places. (1563, OED)
- b. I haue knowen three within the space of one yere in high Germany that toke the falling sicknesse by drinking much newe Rhenishe wine (1568, PPCEME)

During the brief period of attestation, *of*-marked patients remained rare in participles, but the very fact that they could appear testifies to a certain degree of leakage between the categories of gerunds and participles, implying a blurring of the gerund/participle divide.

Formal feature exchange may also have affected the expression of the subject of gerunds and participles. Particularly, it has been proposed that oblique subjects found their way into the gerund in part under the influence of the participle (Fanego 1998). Of course, the point is extremely hard to demonstrate, especially as there is likely to have been more than one source for oblique subjects in gerunds (see Jack 1988). But notice very sporadic examples as in (28a–b). These look like a further step in the same direction, with a gerund taking a nominative subject, in all likelihood after the example of absolute adjuncts as in (28c).

- (28) a. I say bring him on, he being in NY makes it just that much more fun. (Google)
- b. About the orc, I haven't really had an orc that was a high enough level to tell me how they work for ranged classes, but it's true, the biggest disadvantage is they be-
ing melee [i.e. 'having to engage in hand-to-hand combat'] and having to run around after the target. (Google)
- c. In the old days players would take tea with the Queen in the Royal Box, she brush-
ing away stuffy protocol by pouring tea herself. (CB)

Finally, feature exchange probably partly explains the emergence of passival progressives. Judging from Denison's (1993: 389–390) discussion, passival progressives, which formally resemble active progressives but are semantically passive, appeared around the end of the Middle English period, as illustrated in (29a). The pattern survived into present-day usage, as shown in (29b) (both examples from Denison 1993: 390–391). The timing of the emergence of passival progressives points to the gerund as a possible source. After all, at the time the gerund was considerably gaining in frequency but still to some extent voice-neutral (a feature inherited

from its origins as a deverbal nominalization), as illustrated in (29c). Note that in this case the feature exchanged is not formal but semantic.

- (29) a. hym thought som treasone was ymagenyng (a1500(a1450), *Gener.* (2) 5486)
‘it seemed to him that some treason was being dreamt up’
- b. Inside the ... room more than a dozen television cameras were setting up on an elevated stand to the left of the chamber (1983, *The Guardian* 22 March p.19)
- c. the whilke, ilke man and woman þat of elde es, awe for to rescheyue anes in þe þere, [...], O payne of doynge owte of Haly Kyrke (c1440, HC)
‘which each man and woman that is of age must receive once a year, upon pain of being put out of the Holy Church’

3.4.2. *Analogical attraction.* I here understand analogical attraction to be the phenomenon whereby a development in one category is influenced by its resemblance to another category present in the grammatical system. Cases of feature exchange are in this sense examples of attraction, but attraction may also operate less overtly. The example to be discussed here involves the extraposition construction illustrated in (30), which I take to be an originally gerundial construction that has been ‘attracted’ by participial clauses. That is, extraposed *-ing*-clauses derive from gerunds but, as we will see, their behaviour has been subtly remodelled after that of adverbial participles.

- (30) a. It’s tough being a refugee (CB)
- b. I also found it a nuisance having to pay bar bills (just about the only extra) in cash, as consumed, rather than signing and settling later. (CB)
- c. I understand it’s illegal working for tips. (COCA)
- d. The planners figured it could prove useful having a few supermen to help start a colony on a new world. (COCA)
- e. If you ask me, it’s a mistake giving them any functions at all. (COCA)

Although the *-ing*-clauses in (30) stand in non-nominal positions, there are at least three reasons why they can be tentatively classified as (akin to) gerunds even synchronically. The first is that extraposed *-ing*-clauses can take possessive subjectoids, as shown in (31).¹³

- (31) a. It is no good our huffing and puffing about the veterinary evidence. (CB)
- b. “It’s odd your saying that,” Alistair said, irritated at the self-pity in Paul’s voice (CB)

The second is the cataphoric relation between anticipatory *it* and the *-ing*-clause and the implication that *it* pronominalizes the *-ing*-clause, suggesting that the *-ing*-clause itself must be a nominalization. The third is that the other two types of extraposed clauses—*to*-infinitives and *that*-clauses—alternate with a non-extraposed construction in which they function as subject, as demonstrated for the *to*-infinitive in (32). As the same alternation is found for extraposed *-ing*-clauses, and as the *-ing*-clauses in the non-extraposed sister-construction are traditional gerunds, treating the extraposed *-ing*-clauses as gerunds highlights a regularity in grammar that would otherwise go unnoticed.

- (32) a. To regret buying it is impossible. (CB)
 b. It is impossible to regret buying it.

Historically, too, extraposed *-ing*-clauses seem to be most closely related to gerunds, from which they descend. Analogy to the constructional paradigm in (32) is probably the main mechanism that led to the appearance of extraposed *-ing*-clauses. Given the availability of gerunds in subject positions and their functional analogy to *to*-infinitives and *that*-clauses in the same syntactic slot, their absence in extraposition constructions constituted a systemic gap. To be sure, analogy need not have been the only factor at work. For instance, as shown in (33), some of the early examples of the new pattern allowed both an anaphoric and a cataphoric reading for ‘anticipatory’ *it*, suggesting that the innovation was additionally furthered by syntactic surface ambiguities, in this case between extraposition and dislocation (even in Present-Day English the dislocated reading is often not excluded; cf. Quirk *et al.* 1985: 1393). But in this scenario too the source for extraposed *-ing*-clauses is gerundial, so it does not change the overall impression that extraposed *-ing*-clauses derive directly from (other) gerundial constructions.

- (33) a. Ȝyf þou grucedest, and seydyst noȝht, But to God haddyst euyl þoȝht, wete þou wel, hyt ys grete pryde, Grucchyng with God, or for to chyde. (a1400 (c1303), HC)
 ‘If you grudge, and say nothing, but have evil thoughts against God, know well, that it is great pride, grudging against God, or to rebuke (God).’
 b. And he was ryȝth glad of hir comyng hom and held it was gret miracle hir comyng and hir goyng to and fro. (a1438, HC)
 ‘And he was extremely glad of her coming home, and believed it was a great miracle her coming and her going to and fro.’

There is a further fact to be noted, however, which does suggest participial influence. In present-day corpus data, the extraposed gerund construction is found to collocate with the following adjectives: *difficult*, *great*, *strange*, *tough*, *good*, *nice*, *pointless*, *funny*, *lovely*, *wonder-*

ful, scary and *fun*.¹⁴ This happens to be a rather restricted subset of the adjectives that occur in extraposition constructions with *that*-clauses and *to*-infinitives. Extraposed *to*-infinitives, for instance, collocate with the following adjectives: *difficult, important, hard, possible, impossible, easy, necessary, better, best, safe, easier, nice, good, essential, interesting, wrong, great, vital, fair, useful, wise, wonderful, advisable, lovely, unfair, illegal, common, normal, reasonable, right, fascinating, crucial, harder, rare, true* and *sensible*.¹⁵ Comparing the two sets, the adjectives extraposed *-ing*-clauses typically combine with can be seen to be semantically biased, in that they are typically used to evaluate the experience of the main participant in the extraposed clause from that participant's perspective. This is shown in (34): *scary* in (34a) and *funny* in (34b) describe the experience of *watching it* and *walking up there* from the point of view of the implied agent of *watching* and *walking*.

- (34) a. It was freaky, it was scary watching it (CB)
 b. And it was funny walking up there and nobody being there (CB)

There is nothing in the semantics of *-ing*-clauses that would hinder them from occurring in extraposition constructions with adjectives marking the evaluation of an external participant (e.g. *wrong, wise, illegal, reasonable*), adjectives marking commonality (e.g. *common, normal, rare*), or even deontically coloured adjectives (*important, advisable, crucial*). In fact, these combinations are grammatically licensed and are attested (witness the examples in (30) above), but they are not the preferential combinations into which *-ing*-clauses enter.

Where do the collocational preferences come from? It is striking to observe that the collocational behaviour of extraposed *-ing*-clauses brings them closer to participial adjuncts. As demonstrated by (35), participial adjunct constructions can be used like the extraposition constructions in (34) above, with the matrix clause giving an emotive evaluation of the event referred to by the participle clause from the perspective of the main participant of the participle clause. The difference is that in (35) the subordinated clause is unambiguously adverbial and that the participant who is both the source and experiencer of evaluation is explicitly mentioned in the matrix clause and therefore syntactically (rather than pragmatically) controls the subordinate clause.

- (35) a. I feel awful doing that. (CB)
 b. we would all be happier carrying on as we are. (CB)
 c. You'll have great fun choosing a name for your duck (CB)

Taking the observed similarities to their extreme, extraposition examples as in (34) above could in fact be analysed as participial adjuncts modifying a matrix clause with a weather-*it*-like sub-

ject and with pragmatic control between the implied experiencer of the matrix clause and the implied agent of the *-ing*-clause, quite parallel to example (36).

(36) It was cold walking down the strand from The Palms (COCA)

In other words, the collocational behaviour of extraposed *-ing*-clauses blurs the boundaries between gerunds and participles. Whether one wishes to see this as full or only partial convergence between the two categories will depend on which arguments are given most weight in the analysis: the patterns of grammatical alternation still suggest gerundial status for extraposed *-ing*-clauses, whereas the canonical implementation of extraposed *-ing*-clauses in discourse is strongly reminiscent of the way participial adjuncts are employed. In order to take into account all the facts, a thorough analysis will once again have to leave room for a certain degree of leakage between gerunds and participles.

Finally, returning to the historical point of view, what is further striking is that both the collocational patterning of extraposed *-ing*-clauses as in (34) and the use of participial adjuncts as in (35) are recent and roughly simultaneous innovations. The collocational behaviour of extraposed *-ing*-clauses described here is largely a twentieth-century innovation, the preference for emotive matrix predicates being absent in earlier data. Likewise, participial adjuncts—though common with change of state predicates from the beginning of the Late Modern period onwards—only gained currency with stative emotive predicates (*be happy, feel awful, ...*) in the course of the twentieth century (De Smet to appear). It is this concurrence of developments which most strongly indicates that the participle-like behaviour of extraposed gerunds is not an independent development that just happens to bring gerunds and participles closer together. Convergence appears to be non-coincidental and so must have some underlying causality. If this is correct, the most plausible explanation is in terms of analogical attraction. An originally gerundial construction has acquired a new preferential use modelled on the example of participial adjuncts. Such analogical attraction is possible only if language users perceive links across categorial boundaries that are strong enough for them to momentarily ignore the existence of those boundaries.

3.4.3. *Vagueness*. Certain historical developments in gerunds and participles have resulted in new uses that cannot be classified under either categorial label. Not only do such developments put pressure on the boundaries between gerunds and participles, the fact that the developments are possible in the first place proves that gerunds and participles can break out of their distributional moulds to pattern independently of their phrasal models—i.e. noun phrases and adjectival or adverbial phrases. These are examples where distributional alignment to the phrasal categories overspecifies actual usage (cf. section 2.1). The emergence of extraposed *-ing*-clauses dis-

cussed under 3.4.2 is probably a case in point, but there are examples where the divergence between *-ing*-clauses and the phrasal categories is more dramatic to the point that there is a complete lack of arguments to argue for either a gerundial or a participial analysis. This state of affairs is vagueness.

A first example of vagueness involves the *-ing*-clause complements of aspectual verbs (cf. Huddleston and Pullum 2002: 1221). Historically, these derive either from gerunds or from participles (see De Smet 2008a), but grammatical changes have undermined the relations of the *-ing*-clauses with their phrasal sister categories. For example, in the case of *begin* with *-ing*-clause, incipient grammaticalization has broadened the selectional restrictions beyond what is normally allowed by the verb's transitive use. This is illustrated by the examples in (37), showing that when *begin* combines with *ing*-complements, the subject may no longer be construed as an instigator, in contrast to the ordinary transitive construction. Thus, the *-ing*-clause in (37b) can still be regarded as the clausal equivalent of the noun phrase in (37a), but the parallelism certainly does not extend to (37c).¹⁶

- (37) a. police began a special operation (CB)
b. Police yesterday began investigating the security breach (CB)
c. Twenty-six hundred state employees in Connecticut begin receiving their layoff notices today. (CB)

With *go on*, on the other hand, the syntactic function of the *-ing*-clause has changed from adjunct to complement. Consequently, while the *-ing*-clause in (38b) can still be interpreted as an adverbial clause analogous to the adverbial in (38a), the *-ing*-clause in (38c), which is an unambiguous complement, has no adverbial/adjectival alternant, nor for that matter a nominal one.

- (38) a. Back home in suburbia [sic] life goes on as usual for Jane's family and friends. (CB)
b. I kept calling the hour down Little Wild-street; I came round to an obscure place, then I saw a man moving; when I came up to him I saw three men, one of which proved to be the prisoner, stand rapping at the back door [...]: I went on crying the hour into Great Wild-street, in order to see for some assistance (1749, POB)
c. I want my buds to swell slowly, and go on swelling, so that the leaves on my tree are full and fat (CB)

Such local developments each present a slight and seemingly isolated breach of the relations between *-ing*-clauses and the phrasal categories. In particular, the interpretation of some *-ing*-clauses with *begin*, as in (37c), and *go on*, as in (38c), no longer recall a transitive nominal

object or an adverbial phrase. But what is more, the local developments have also converged in a more schematic aspectual construction. Presently, *ing*-clauses are found with all aspectual verbs in English (e.g. *begin, cease, continue, finish, go on, keep, start, stop*, etc.), so language users can be assumed to generalize a pattern from this specifying that aspectuals combine with *-ing*-clauses. Indeed, there is some further evidence of the uniform behaviour of aspectuals that supports the idea that they are treated as a sub-pattern by users of English. For example, the now consciously archaic *a*-prefix that can be added to the *-ing*-form is most typically used with progressives and with *-ing*-forms complementing members of the class of aspectual verbs, as illustrated in (39) (De Smet 2008a).

- (39) a. a jackdaw isn't to be called a religious bird because it keeps a-cawing on the steeple (1897, CLMETEV)
- b. The 36-year-old model-turned-actor greeted me in a soft American drawl and that was it my heart began a-fluttering. (CB)

That the *-ing*-clauses in this pattern have developed from diverse (i.e. gerundial as well as participial) sources only adds to the dissociation from the phrasal categories. Dissociation is in fact double: at the level of individual verbs, *-ing*-clause complements have begun to deviate from their phrasal sister categories, while at the same time they are getting associated with the *-ing*-clauses complementing other aspectual verbs whose original source may be different from their own.

A second example of vagueness comes from another more disparate group of *-ing*-clause complements which occupy neither a gerundial nor a participial position as they correspond to neither a noun phrase object nor an adjectival complement. Some examples are given in (40), showing that this type of *-ing*-clause can complement adjectives (40a–b), verbs (40c), as well as nouns (40d).

- (40) a. One English boy admitted that he was fed up walloping English kids. He wished he could bash a couple of Yanks but he didn't want to get his father into trouble. (1952, TIME)
- b. lease has been on a year-to-year basis but we are hopeful negotiating a 20-year deal with the Council. (CB)
- c. You know why bother arguing with her (CB)
- d. Martin had offered her a job editing his book, Plant Forms of Lower Burma. (COCA)

The oldest of these uses seem mostly to derive from adverbial participles, which have been reinterpreted as complements in environments such as (41) (along the lines of the reinterpretation giving rise to aspectual *go on*; see (38) above). The construction has gained some degree of independent productivity, however, so that the use of integrated participle clauses has been extending beyond the contexts of reinterpretation, as when combining with *fed up* and *hopeful* in (40) above (for a more detailed account see De Smet to appear).

- (41) Yet Reagan is far more comfortable addressing human issues than abstract interests
(1988, TIME)

This means that again dissociation from the phrasal categories is situated not only at the very local level of individual predicates but also at the level of a slightly more schematic construction. Again, the most plausible conclusion is that at this point the distinction between gerunds and participles has become irrelevant and that uses as in (39)–(40) simply have vague *-ing*-clauses.

3.5. *Interpreting the evidence (2)*

Having surveyed the evidence, we should now be in a position to return to the question of whether gerunds and participles are each a distinct type of *-ing*-clause or just *-ing*-clauses in different syntactic positions? In this regard, the main conclusion to be drawn from the above discussion is that the evidence is thoroughly ambiguous.

First, there are signs of discreteness between gerunds and participles—or, more precisely, of gerunds being distinct from other *-ing*-clauses. As shown above, the formal evidence from the realization of the *-ing*-suffix as /in/ or /ɪŋ/ reveals that the syntactic position of the *-ing*-clause occasions differing treatments, with especially nominal positions clearly disfavoured the /in/-variant. This suggests that gerunds stand out as a separate category, with the one provision that not all nominal positions seem to be equally recognizable as such, implying a shading over of gerunds into other *-ing*-clauses. Internal syntactic evidence, though complicated by the difficult analysis of possessive subjectoids, tends to confirm this picture. Possessive subjectoids clearly associate with nominal positions but, coming uniquely with *-ing*-clauses, cannot be directly reduced to a feature of those positions. In this sense, possessive subjectoids mark off gerunds as a separate class of *-ing*-clauses.

Second, there is evidence of unity between all *-ing*-clauses. For one, (nearly) all *-ing*-clauses share the semantics of atemporalization. Further, the historical evidence shows interference between gerunds and participles. Gerunds and participles have historically exchanged formal features and influenced each other's historical developments. If it is assumed that analogy is

mediated by the activation of a higher-order schema (Langacker 2000), the mutual influence is direct evidence of an abstract unified category of *-ing*-clauses. In any case, mutual influence contributes to a trend that reduces the differences between gerunds and participles and is suggestive of unification as an ongoing process. Finally, the historical evidence also shows that *-ing*-clauses can break out of the distributional mould of the phrasal categories, yielding uses that simply cannot be classified as gerund or participle, thereby undermining the historical distinction between the two clause types.

Third, there are indications of new categorial boundaries in the family of *-ing*-clauses that do not coincide with the traditional gerund/participle distinction. The most evident example is the reduced progressive construction where, in the absence of auxiliary *be*, the *-ing*-form becomes the sole tense marker, and consequently loses its atemporalizing character. Another piece of semantic evidence is that the *-ing*-clauses in some syntactic contexts have semanticized imperfectivity, again most notably the progressive construction. Finally, the innovative *-ing*-clauses occurring in positions that are neither participial nor gerundial are still subject to distributional restrictions governed by lexical selection, clustering around certain predicates (e.g. aspectual verbs, emotive adjectives). Distributionally, then, these too form subfamilies within the larger group of *-ing*-clauses.

4. Implications

To incorporate all of the above into a coherent analysis of English *-ing*-clauses requires a certain view of syntactic categories. This section outlines the descriptive and theoretical implications of the evidence surveyed in the previous sections, focusing in turn on the issues of reductionism (Section 4.1), the architecture of grammatical categories (Section 4.2), and the language-specific character of grammatical categories (Section 4.3).

4.1. Reductionism

It is useful to distinguish a strong and weak version of reductionism. The weak version (to be specified further below) holds that *-ing*-clauses maintain relationships to specific phrase types and partake of their features. The strong version holds that the syntax of *-ing*-clauses is no more than a mixture of phrasal features. Aarts (2006) defends the strong version while Huddleston and Pullum (2002) reject both the strong and the weak version. However, the evidence discussed in the previous sections argues against both Aarts (2006) and Huddleston and Pullum (2002), rejecting the strong version of reductionism but supporting the weak version.

Regarding the wholesale rejection of reductionism, the distributional evidence shows that language users can to a large extent rely on the correspondences between *-ing*-clauses and the

phrasal categories to determine where *-ing*-clauses can and cannot occur. The predictive significance of these distributional generalizations would therefore be difficult to ignore. Moreover, that language users are well-aware of the phrasal slots in which they use *-ing*-clauses is confirmed by the fact that they use this knowledge for discriminating in the formal (the realization of the (ING)-variable) and internal syntactic (the distribution of possessive subjectoids) potential of different *-ing*-clauses. This pleads in favour of a kind of reductionism, against Huddleston and Pullum (2002).

Even so, the reductionism defended by Aarts (2006) goes too far. Recall that Aarts' analysis implies that the gerund is sufficiently described as a verb with a number of nominal features and can therefore be discarded as a separate category. Such radical reductionism severely underspecifies language users' knowledge—and exaggerates their overall consistency. For a start, problems arise if we take into account the links obtaining between gerunds and other *-ing*-clauses. Aarts' (2006) notion of feature mixtures requires a framework where categories to some extent grade into each other. But given that, in addition, Aarts works with a restricted set of basic categories, it becomes very difficult to incorporate any unification of gerunds and participles. That, after all, would mean that *-ing*-forms are verbs that converge on two other basic categories simultaneously.¹⁷ Interestingly, while Aarts does not explicitly discuss the possibility of a unified analysis for *-ing*-clauses, he does address the theoretical issue. He states that “convergence can only involve two categories” (2006: 228) and substantiates this claim with negative evidence:

I cannot think of any cases where an element converges on more than one class in a particular syntactic configuration by showing characteristics of more than two classes. (2006: 228)

But what Aarts (2006) believes to be impossible does occur. For example, the *-ing*-clause catenated to *sit* in (42) (repeated from (26) above) contains a verb with nominally marked patient argument in an adverbial position.

(42) Ga~mer Gurton, with manye a wyde styche Sat pesynge and patching of Hodg her ma~s briche (1552–1563, PPCEME)

There is no room in Aarts' framework either for a unified category of *-ing*-clauses or for a specific example of feature exchange such as (42). Yet, as argued above (and as (42) illustrates), there is evidence that language users can and do generalize to the level of *-ing*-clauses as an encompassing category.

Because examples like (42) are hard to fit into a reductionist model, they are also hard to explain. It makes little sense to say that the *of*-marked patient in (42) is a nominal feature when we know the only reason why *of* turns up in a participle is because it occurs in the gerund. Unfortunately, this is the only description a reductionist account has to offer. As a result, it has to skip the crucial step that explains how *of* could find its way into a participle. Put differently, we know that the participle in (42) is not attracted by the noun phrase but by the gerund, but if we accept no gerund, the analogical extension cannot be assigned a plausible source. If gerunds are not autonomously represented as a category that can merge with the participle (on the basis of its formal and semantic similarity), the use of an *of*-marked patient in (42) becomes completely arbitrary and unpredictable.

The problem of linguistic knowledge that goes unrepresented surfaces in yet another form. It is not only relevant levels of categorization but also their features that slip through the mazes of a strictly reductionist description. The features pertaining to *-ing*-clauses really go beyond traits that can be attributed adjectival/adverbial, nominal or verbal origin.¹⁸ These features are nevertheless part of language users' grammatical knowledge and need representation in a thorough description. For example, the extraposed *-ing*-clause in (43) (repeated from (34) above) maintains links with the nominal function of subject and the collocational behaviour of participles, which is obviously underscored by the formal and semantic resemblance to more canonical gerunds and participles. Because in this case different features do not derive directly from nouns and adjectives/adverbs, they simply cannot be represented in a reductionist description that works with a limited set of basic categories, revealing the sacrifices such an approach would demand of linguistic description—strictly speaking, all a fully reductionist account could say of *walking* in (43) is that it is a verb.

(43) And it was funny walking up there and nobody being there (CB)

In a similar vein, aiming at a complete reduction of the gerund to a mixture of nominal and verbal features would also mean being forced to reduce possessive subjectoids to a mixture of a verbal functional class (subject) and a nominal formal class (possessive). But this reduction does not do justice to the rather unique functionality of subjectoids which makes them neither true subjects nor true possessives. Indeed, possessive subjectoids are exceptional form-meaning pairs, which renders them essentially exclusive to gerunds and proves in turn the irreducible character of gerundial syntax.

4.2. *The complexity of grammatical categories*

-Ing-clauses display contradictory behaviour, and the contradictory behaviour is such that it points to different possible analyses of *-ing*-clauses without favouring one particular possibility. The only way to handle the data, therefore, is to somehow accept that language users may be inconsistent, in operating with different possible analyses of a given grammatical item at the same time. For example, despite the fact that possessive subjectoids mark off gerunds from participles, language users can generalize to the level of *-ing*-clauses as an encompassing category, resulting in feature exchanges between gerunds and participles and in a certain degree of productivity for *-ing*-clauses that breaks free from the ties to the phrasal categories associated with gerundial and participial syntax. Conversely, despite language users' ability to generalize to a unified category of *-ing*-clauses with a largely homogeneous semantic representation, they also manage to keep track of differences that determine how the (ING)-variable is realized and whether or not possessive subjectoids are available as a syntactic option.

To accommodate this contradictoriness, the view of syntactic categories that falls out from the evidence of English *-ing*-clauses has at least the following characteristics:

- (i) Not all members of a grammatical category have to share the same features.
- (ii) Grammatical categories can be internally heterogeneous.
- (iii) Grammatical categories can be interconnected.
- (iv) Inclusion in a category and autonomy as a category are partly independent.

The first three characteristics, familiar from Prototype Theory, are closely linked. Because members of a grammatical category may have different features, a category can be internally divided and, as a result, heterogeneous. At the same time, the subcategories that create internal heterogeneity are related through (and to) the overarching category, which unifies them despite their distinctness. Accordingly, *-ing*-clauses form a heterogeneous category because, language users can at the same time tell gerunds and participles apart on the basis of their differences, and generalize over gerunds and participles on the basis of their similarities.

The fourth characteristic, inspired by Construction Grammar, is what underlies the first three: categories can be included in one another while still maintaining a degree of categorial autonomy. I believe the fourth characteristic is what Huddleston and Pullum (2002) do not recognize in collapsing the categories of gerunds and participles, and what Aarts (2006) denies in his reduction of the gerund to a mixture of nominal and verbal features. On the one hand, it is this characteristic that ultimately accounts for the contradictory behaviour of *-ing*-clauses. Because categorial inclusion and categorial autonomy are to some extent independent, language users can both generalize and differentiate within the same grammatical category. On the other, the fourth characteristic defines the weak reductionism defended above (Section 4.1), as it sanc-

tions one category's partaking in another category's properties without the former being completely absorbed by the latter.

4.3. *Language-specific categories*

While it is difficult to say much about the universal or language-specific character of grammatical categories on the basis of a single language, the following two considerations fall out naturally from the preceding discussion. First, it is somewhat unlikely that the intricacies of the English system of *-ing*-clauses would replicate cross-linguistically. Second, if we assume that grammatical categories in general cannot be radically reduced to a restricted set of basic categories, the consequence is a language-internal proliferation of grammatical categories, which implies that these categories either have to be considered as falling outside a core grammar, or that grammar itself has to be seen as an open-ended system. Both these considerations obviously lean closer to a view of grammatical categories as language-specific.

That said, in more general terms, the kind of situation witnessed in Present-day English is unlikely to be exceptional as it makes considerable sense from a long-term historical perspective. For a start, many non-finite clauses develop from phrases. For example, English gerunds developed from deverbal nominalizations that were still purely nominal at the beginning of the Middle English period (Jack 1989; Fanego 2004; De Smet 2008b). Likewise, participles were still largely adjectival in Old English times (Swan 2003). English bare infinitives and *to*-infinitives also derive from nominalizations, although by the beginning of the Old English period they had lost nearly all traces of their nominal origin (Los 2005). Not surprisingly, similar developments are attested in the histories of other languages as well (Disterheft 1981; Haspelmath 1989). By their nature, deverbal nominalizations and adjectivizations are atypical members of their word class, as they designate events rather than objects or properties. It is therefore understandable that they get lured into clausal syntax, but because this requires a complex re-configuration of the syntax of a phrase into that of a clause (e.g. loss of determiner slots and referential functionality, addition of verbal modification, syntacticization of control relationships, the addition of subjects), the change is inevitably gradual. Even when the phrase has become a proper clause its distribution will still be reminiscent of its phrasal origins. The history of such non-finite clauses is a long story of gradual dissociation from their phrasal origins.

The second trend observed in English—the gradual collapse of two non-finite clause-types—is likewise functionally motivated. As different clause-types get dissociated from their phrasal origins and lose their phrasal functionality, they also lose what separates them as clauses, and in developing the features that any clause is supposed to have, they gradually become more and more similar. If at this point clause-internal syntax and verbal morphology are insufficiently distinctive to keep different non-finite clause-types apart, mergers are to be ex-

pected. For example, what is happening to English gerunds and participles has already happened to the gerunds and participles of classical Latin grammar in the history of French (Buridant 2000). That is, the morphological and clausal distinctions between French gerunds and participles have disappeared and there are now few grounds left to distinguish the clause-types except for their known historical origins. The situation in French is different from that in English in that participles/gerunds fulfil a different set of functions, but the motivation for their convergence is the same. In this light, it is likely that situations such as the Present-Day English one do recur cross-linguistically, if not in the details then at least in their rough outline.

5. Conclusions

The description of English *-ing*-clauses faces two major problems: the question whether gerunds and participles are distinct categories, and the question whether *-ing*-clauses are related to specific phrasal categories. This paper has argued that the descriptive either-or-choices these questions invite are in fact misleading and insufficiently characterize the representations that language users most probably operate with. Language users can be inconsistent and can base their output on different generalizations that are synchronically available. Such inconsistency is probably neither exceptional nor temporary. This conclusion follows from distributions that largely but not entirely match those of the corresponding phrasal categories, and from partial differentiation and unification between clause-types in terms of formal realization, morphosyntactic features and semantics.

A theoretical model of grammatical categorization must be able to fit in the contradictoriness of the evidence and the inconsistency of language users' behaviour. This is possible on the assumption, inspired by Construction Grammar, that language users maintain different levels of generalization that are each cognitively real and can determine usage. A given generalization does not have to lose its autonomy in being incorporated under a higher-order generalization. Generalization is possible in spite of the evidence and without the immediate loss of particular local properties. As this conclusion allows for a proliferation of grammatical generalizations, and hence categories, it speaks in favour of language-specific rather than universal grammatical categories. At the same time, the situation described for English *-ing*-clauses falls out from functionally motivated historical developments and is in that sense unlikely to be unique. Among other things, ambiguous relations of simultaneous association and dissociation between clauses and phrase types are expected to recur cross-linguistically, as are gradual mergers between downranked clause-types.

Notes

1. This paper is a thoroughly reworked version of a chapter of my PhD dissertation. My completing the PhD as well as this paper has been possible thanks to the financial support of the *Research Foundation—Flanders*. In addition, I wish to thank a number of people from whose comments this paper has benefited. I am particularly grateful to Liesbet Heyvaert, who has generously shared her own views on the English gerund with me and has commented on an earlier version of this paper. I am also grateful to the four other members of my dissertation board, Hubert Cuyckens, Teresa Fanego, Olga Fischer and Hans Smessaert, as well as to two anonymous reviewers of *Linguistics*, for their careful remarks and helpful suggestions, which I believe have enhanced various specific analyses presented here and improved the style of presentation. Finally, this paper contributes to an interuniversity collaboration project supported by the Spanish Ministry of Education and Science (grant no. HUM2007-60706/FILO) and the European Regional Development Fund.
2. The corpora from which examples have been drawn are detailed in the list of data sources provided at the end of this article.
3. The idea of conflating gerunds and participles into a single category is not new, not even in standard grammars of English (Quirk *et al.* 1985; Biber *et al.* 1999), but Huddleston and Pullum (2002) are, to my knowledge, the first to commit themselves to it so explicitly.
4. Notice that Aarts (2006) is primarily concerned with the word class of the gerund and thus uses the term gerund to refer to the deverbal form in *-ing* that is the head of a phrase/clause, not the phrase/clause itself. I believe his conclusions are meant to extend to the phrasal/clausal level, however, because he also states that “In most cases of IG [i.e. intersective gradience] between word classes we can say that the gradience projects upwards to the phrasal expansion of the items concerned” (2006: 158).
5. Aarts’ (2006) analysis of the gerund is closely connected to another important claim in his framework, namely that “true hybridity” in language is rare and unlikely to last long diachronically. This he illustrates with the appearance and subsequent near-disappearance of hybrid gerunds in the Modern English period (2006: 228–233). Though central in Aarts’ gradience framework, the claim is less relevant to the argument in this paper. In any case, the claim seems somewhat vacuous, because in order to instantiate true hybridity, in Aarts’ understanding of the term, a syntactic configuration must share an equal number of features from each of two major categories (2006: 208). Given, however, that syntactic features might have to be weighted, as Aarts also suggests (2006: 226), and seeing that it is extremely difficult to make sure all relevant features are included in the

analysis, true hybridity is very unlikely to occur indeed, but this does not necessarily amount to a theoretically significant claim, since it follows almost automatically from the method of analysis.

6. The starred examples in (4) are based on attested examples from the BNC with the subordinator *if* instead of *in case*.
7. More formally-oriented studies of complementation, though without dealing explicitly with the distributional problems in the area of complementation, have unhesitatingly pointed to the relevance of the gerund's nominal quality to issues of their distribution as verb complements (Ross 1973; Emonds 1976: 125; Schachter 1976: 223; Pullum 1991: 764).
8. Gerunds in subject position also more strongly favour the use of a possessive (non-oblique) subject (Heyvaert et al. 2005), which can be interpreted as an indication to the same effect, namely that gerunds in subject position are more easily recognisable as nominalizations and, therefore, more strongly retain typically gerundial features.
9. The only exception is found in examples where the gerund is introduced by a genitive NP functioning as a time adverbial: *In your first year's working for the Council leave entitlement will be calculated in proportion to your completed months service* (CB).
10. To be sure, this paraphrase does not do full justice to Langacker's description, which further characterizes atemporalization in terms of 'summary' vs. 'sequential' scanning (1987: 145).
11. As an extension of its imperfectivizing semantics (although it is not clear to me on what grounds this extension is supposed to be based), *-ing* has also been described as marking simultaneity between two events (Langacker 1991; Smith and Escobedo 2002; see also Wierzbicka 1988: 60).
12. Visser (1963–1973: 1083–1084) suggests that gerundial /iŋ/ may also have changed to /in/ independently, but this fits less nicely with the grammatical conditioning observed above.
13. It should be added that explicit subjects often seem to go hand in hand with intonational patterns that are suggestive of dislocation rather than extraposition.
14. The list is the set of adjectival collocates for the empty predicate slot in the string *it BE* __ (ADJ) __ (V) *-ing* in CB, ranked according to their t-scores and mutual information scores. The use of a one-word-slot accounts for the absence of *easy* among the list of collocates: *easy* is usually negated when used in the extraposition construction, with the negator occupying an additional slot unprovided for by the search string.
15. The list is the set of relevant adjectives from the top-50 collocates for the empty slot in the string *it BE* __ (ADJ) *to* __ (V) in CB, ranked according to their t-scores and mutual information scores.

16. The grammaticalization of aspectual verbs with *-ing*-clause complements, as argued for by Brinton (1988), is certainly not the most straightforward example of auxiliation. There is no sign of formal reduction, for instance, and the first evidence of selectional restrictions being relaxed is surprisingly early to appear. One of Mair' (2003: 331) oldest instances of *begin* with *-ing*-clause already reveals the use of weather-*it* in subject position, well before the combination of *begin* and *-ing*-clause started to gain any frequency. The only explanation I can give is that the use of *-ing*-clause complements with *begin* has been modelled after that of *to*-infinitives and that (incipient) grammaticalization is not isolated to a single highly specific construction type. The change resembles the grammaticalization-through-analogy changes pointed to in recent grammaticalization literature (e.g. Noël 2006), though in this case it is not a lexical item in a grammaticalizing construction that attracts other lexical items in the same construction, but a lexical item in combination with one grammatical variant that attracts another grammatical variant.
17. The problem is particularly clear if features from a different source category specify the same aspect of an item's behaviour, e.g. the distribution of *-ing*-forms as both an adjectival and a nominal feature.
18. The type of argument used here is familiar from Goldberg (1995). If attested features cannot be derived from maximally abstract syntactic descriptions, this is indicative of independent (if partly redundant) representations at lower levels of abstraction.

Data sources

BNC = *British National Corpus*.

CB = *Collins Cobuild Corpus*.

CLMETEV = *Corpus of Late Modern English Texts*.

COCA = *Corpus of Contemporary American English*.

COLT = *Bergen Corpus of London Teenage Language*.

HC = *Helsinki Corpus of English Texts*.

OED = *Oxford English Dictionary* (2nd edition).

POB = *Proceedings of the Old Bailey*.

PPCEME = *Penn-Helsinki Parsed Corpus of Early Modern English*.

TIME = *Time Magazine Corpus*.

YQA = *Yahoo Questions Answers Corpus*.

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