Introduction to the Syntax of Nonfinite Complements in English
On syntactic theory
A syntactic theory consists of two “parts” or sets.
1. **Inventory of syntactic categories:** lexical (like V, N, etc.) and phrasal (like VP, DP, etc.).
2. A set of “construction” **rules** (often called **principles**) that specify how the “complex” categories are constructed out of the “simple” (and complex) ones. Everything a phrase so constructed will contain will be a **constituent** of that phrase. Constituents of phrases will **relate** to each other (in ways specified by the syntactic rules and principles). This is known as **syntactic structure**. Representations of syntactic structure are called **syntactic representations** (e.g., in the form of phrase-structure trees). Any such syntactic representation will count as a linguistic hypothesis about the syntactic structure of an expression of language (like *speaks English*, etc.). And then, that linguistic expression will be said to have **that syntactic structure**.
If a syntactic theory can do this for all the possible expressions in language (an infinite set), then we say it **accounts for** all the expressions of language, and then it is a complete and **observationally adequate** syntactic theory.

A task of syntactic theory
An important task of syntactic theory is to determine the **syntactic category** of any expression of language. This is what we do when we say, e.g., that *the book is a DP (or NP)*, etc.

This is an important task in linguistic theory, because (a.) expressions in language appear to be syntactically structured, and (b.) the syntactic category or structure of linguistic expressions is not obvious at all, simply because the **structure** of a linguistic expression is **never physically manifest**. If there is anything that is “obvious”, at least in the sense of easily observed, about a linguistic expression, it is that it is a meaningful continuum of sound—a serious challenge for linguistic theory.

On syntactic categories: lexical and phrasal categories
In syntactic theory, every “simple” expression in language, a “word” or a morpheme (e.g., *smile, book, hard, at*, etc.), is regarded as the **realization** of a “simple” or **lexical category** (e.g., V, N, A, P, etc.), and each “complex” expression (e.g., *speaks English* (VP), *the book* (DP), *proud of her sister* (AP), *on the desk* (PP), *faster than light* (AdvP), *Mary likes chocolate* (IP), *that I love you* (CP), etc.) is taken to be the realization of one of the **phrasal categories** (VP, DP (NP), AP, PP, AdvP, or IP (S), or CP).

Therefore every expression in language (“simple” or “complex”) is (the realization) of some syntactic category (“lexical” or phrasal). I.e., there is no expression in any language that is not the realization of some syntactic category.
English Nonfinite Complements

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Issues in Syntactic Theory
First, the syntactic category of a linguistic expression is naturally in doubt. Second, a syntactic theory so understood raises such questions and requires that we answer them. Questions that are so raised by a theory and that require that they be answered, one way or another, are known as issues.

Issues in the Syntax of English Nonfinites
The syntax of English nonfinite expressions (infinitives, gerunds, and participles) raises two closely connected issues:
1. What is their syntactic category?
2. What is their constituent structure?

The Syntactic Category of Complements
Each complement of any complement-taking category (V, A, P, etc.) is either a phrase (VP or DP or PP, etc.) or a clause (CP). These are the “complex” or “phrasal” categories in the grammar. Therefore any “complex” expression (e.g., speaks English (VP), the book (DP), on the desk (PP), proud of her sister (AP), Mary likes chocolate (IP), etc.) will “count as” the realization of one of these syntactic categories.

A phrasal complement is directly dominated by one of the standard phrasal categories (VP, DP (NP), AP, AdvP, or PP); a sentential complement is immediately dominated by a sentential category (IP (S)). An IP (traditionally known as a “sentence”) may itself be dominated by a CP, otherwise known as a clause.

Therefore, complements in phrases may be one of two types: A) phrasal, or B) clausal/sentential.
The Issue of the Syntactic Category and Constituent Structure of English Nonfinites

What is the syntactic category and constituent structure of English nonfinites?

Some alternative possibilities

1. All nonfinites are phrases of some sort, maybe of different sorts.
   a. It may be, e.g., that infinitives are VPs and gerunds are DPs, or conversely. This hypothesis will not be discussed.
   b. It may be that infinitives are PPs and gerunds are VPs (or DPs). This hypothesis will not be discussed either.

2. All nonfinites are phrases of the same sort.
   It may be that both infinitives and gerunds are VPs. It may be that both infinitives and gerunds are DPs. etc.
3. None of the nonfinites is any of the phrases so far known.
It may be that infinitives, gerunds, and the different participles cannot arguably be regarded as falling in any of the familiar syntactic categories (VP, DP, etc.), because they turn out to be so different from any of the other expression types we know.

I.e., it may be that we must introduce a new, so far unknown, syntactic category in the grammar, the “Verbal Phrase” (ValP), for example.

(But remember Occam’s Razor.)

4. Some nonfinites are phrases and some are clauses.
It may be that infinitives are sentences and gerunds are noun phrases. This is a popular hypothesis. It will not be discussed.

5. All nonfinites are clauses
It may be that all infinitives, gerunds, and participles are clauses. This hypothesis will be discussed in detail and many arguments will be presented to show that it is correct (and that therefore the other ones are not).

The Issue of the Syntactic Category and Constituent Structure of English Nonfinites

It should be clear that any of the competing conceivable alternatives raises important empirical and theoretical problems. For example, the Verbal Phrase hypothesis raises an economy problem (Occam’s Razor).

The winner in a competition of rival hypotheses is always the one that
a. raises the fewest problems, and
b. most successfully solves the empirical and theoretical problems raised.

Two Competing Hypotheses
The VP Hypothesis: Nonfinite complements are VPs.
The Clausal Hypothesis: Nonfinite complements are clauses: CPs/IPs.

Why these two? Because they are sufficiently serious, therefore interesting enough, therefore deserve serious discussion (and teaching time). (Some of the others are not serious enough, and therefore do not deserve a serious discussion or valuable teaching time.)
Nonfinite Complements are Sentences

It will be argued that English infinitives and gerunds (and participles) are sentences (and not VPs).

Arguments center around four aspects of NF complements.

1. The distribution of NF complements parallels the distribution of clauses, not VPs. (NF complements occur in positions where clauses do but VPs don’t.)
2. NF complements have parallel phrase structure with finite clauses. A number of syntactic processes that affect finite clauses also affect NF complements.
3. All infinitives and gerunds have subjects. (Even the apparently subjectless ones!)
4. Interface considerations. Certain properties of the semantic component of the grammar and of X-bar syntax provide further arguments for the proposition that infinitives and gerunds are in fact sentences.

Empirical and theoretical arguments

The first three of the arguments are empirical—they are based on empirical observations (data and empirical evidence).

The first of these three is an argument from distribution, i.e., the external syntax of expressions.

The other two are based on the internal syntax of nonfinites, i.e., their internal constituent structure.

The clausal hypothesis makes the following claim:
Nonfinite expressions have a clausal structure. In cases where the subject (and complementizer) are absent from superficial structure, they are represented by lexically empty categories. The apparently missing constituents are in fact categorically present, but devoid of terminal elements. All this must be shown to be correct! That is what makes the claim and the hypothesis interesting.

The fourth argument is a theory-internal one: it is based on theory-internal (syntax–semantics) interface considerations and metatheoretical criteria on judging grammars.
**Summary**

- Distribution
- Parallel phrase structure
- Subjects
- Syntax–Semantics interface

**Empirical**

- External syntax
- Internal syntax

**Meta(theoretical)**

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**Anticipated Conclusions of the Hypothesis**

If the hypothesis is successfully defended, then the following account of English clausal (as opposed to nominal, adjectival etc.) complements emerges. English clausal complements will fall into two **morpho-syntactic types:**

a) finite clauses,

b) nonfinite clauses.

**For example:**

1. John believes [FINITE CLAUSE that the world is round].
2. John believes [NONFINITE CLAUSE the world to be round].

And English nonfinite complements will fall into the following morphological subtypes:

1. TO-infinitival clauses,
2. bare/naked infinitival clauses,
3. -ING participial/gerundial clauses,
4. -ED participial clauses.