VERBAL GERUNDS AS MIXED CATEGORIES IN HEAD-DRIVEN PHRASE STRUCTURE GRAMMAR

ROBERT MALOUF

Stanford University
Stanford, California
and University of California, Berkeley

1. INTRODUCTION

Grammatical categories are central to generative theories of grammar. In many ways, the study of syntax really is just the study of grammatical categories. It is typically assumed that there is a small number of primitive, probably universal, probably innate, grammatical categories N, V, A, and P, (noun, verb, adjective, preposition) and that furthermore the properties of a phrase are primarily determined by the category of its head. That is, a verb phrase has the properties of a verb phrase by virtue of its being headed by a verb.

This view of parts of speech is in large part a legacy of traditional grammar. Since the advent of generative grammar, linguists have made considerable progress in the understanding of language. Not surprisingly, the traditional inventory of parts of speech has proven to be sufficient for the analysis of most constructions in English and for a broad range of other languages. Problems that have cropped up with the originally proposed parts of speech have been solved by decomposing them into bundles of binary features ±N and ±V, allowing categories to be divided into subcategories and to be grouped into natural classes (Chomsky, 1970).

Despite this success, there remains a class of constructions, known as transcategorial or simply mixed category constructions, which do not fit well with any refinement of the four basic categories. These constructions involve lexical items that seem to be core members of more than one category simultaneously. In this
chapter I will look at a family of constructions, demonstrated in (1), which raises serious problems for this kind of approach to grammatical categories.

(1) a. Everyone was impressed by Pat’s artful folding of the napkins.
   b. Everyone was impressed by Pat’s artfully folding the napkins.
   c. Everyone was impressed by Pat artfully folding the napkins.

Each of these examples involves a slightly different use of the nominal verb form folding. The nominal gerund use in (1a) is fully nominal and behaves like any other English common noun. The verbal gerund uses in (1b) and (1c), however, retain some of their verbal nature. These intermediate uses fall between the two categorial poles and show a mix of nominal and verbal properties that provide a challenge to any syntactic framework that assumes a strict version of X' theory.

Several alternatives to the traditional system of parts of speech have been proposed. McCawley (1982) argues for an approach that avoids the notion of syntactic category as such, operating instead directly in terms of a number of distinct factors that syntactic phenomena can be sensitive to; in this view, syntactic category names will merely be informal abbreviations for combinations of these factors. (185)

A similar approach to categories was taken by Pollard and Sag (1987). In the course of describing Head-driven Phrase Structure Grammar (HPSG), an elaborated theory of syntactic information in terms of feature structures, they observe: “equipped with the notions of head features and subcategorization, we are now in a position to define conventional grammatical symbols such as NP [noun phrase], VP [verb phrase], etc. in terms of feature structures of type sign” (68). They offer the following definition for VP:

\[(2) \begin{array}{l}
\text{SYN} | \text{LOC} | \text{HEAD} | \text{MAJ} \\
\text{SUBCAT} \quad \text{(NP)}
\end{array} \]

This decomposition of a syntactic category into features is quite different from the kind found in most statements of X' theory. Rather than making a more fine-grained distinction between categories in a single dimension (say, by adding more head features), (2) defines VP in terms of two independently varying dimensions of syntactic information. VP is distinguished from V directly in terms of selectional saturation rather than indirectly via the interaction of subcategorization, phrase structure rules, and a categorial notion of bar level. And VP is distinguished from NP in terms of lexical category (represented by the feature HEAD).

The structure of this chapter is as follows. In the first section, I will discuss the properties of verbal gerunds, with particular attention paid to their status as mixed categories. Next, I will review some of the previous proposals offered to account for verbal gerunds. Finally, I will present an analysis of mixed categories as non-canonical combinations of properties from independent grammatical dimensions.