

Chapter 1

Introduction

1.1 The Phenomenon

The syntax of complex verb formation (also known as verb raising, verb projection raising, or the “third” construction) constitutes one of the most difficult areas of syntax. It involves different types of complementation, restructuring phenomena, and the formation of strings of adjacent verbs in particular orders. To linguists working on the West Germanic languages (Dutch, West Flemish, German, etc.), this topic is extremely familiar, since it occupies a prominent position on the research agenda, in many respects comparable to that of clitics in Romance languages. Outside West Germanic it has received little attention, partly because the phenomenon is less visible (though it ties in with restructuring phenomena familiar from Romance languages), and partly because its properties have so far escaped real understanding. In this book we try to gain new insights into the properties of verbal complex formation and into the structure of the theory of Universal Grammar by presenting a simple analysis for a complex set of data in Hungarian, which in this respect bears uncanny similarities to West Germanic. We extend the analysis to Dutch and to a lesser extent to German, and we show how crosslinguistic variation is captured in the theory we adopt.

A small sample of the Hungarian data follows. The patterns are highlighted by numerical schemas, where *fogok* = 1, *akarni* = 2, *kezdeni* = 3, *menni* = 4, and *haza* = 5.

- (1) Nem fogok akarni kezdeni haza menni. 1 2 3 5 4
not will-1sg want-inf begin-inf home go-inf
'I will not want to begin to go home.'
- (2) a. Nem fogok akarni haza menni kezdeni. 1 2 5 4 3
not will-1sg want-inf home go-inf begin-inf
b. Nem fogok haza menni kezdeni akarni. 1 5 4 3 2
not will-1sg home go-inf begin-inf want-inf

- (3) Haza fogok akarni kezdeni menni. 5 1 2 3 4
 home will-1sg want-inf begin-inf go-inf
 ‘I will want to begin to go home.’

The order of the infinitives in (1) is similar to the English or Dutch order (4). In addition, the inverted orders (2a) and (2b), which are reminiscent of German (5)–(6), are also available.

- (4) omdat ik Marie zal moeten beginnen op te bellen 1 2 3 5 4
 because I Marie will must-inf start-inf up to call-inf
 ‘because I will have to start to call up Marie’
- (5) weil Peter Maria anrufen können will 3 2 1
 because Peter Maria up-call-inf can-inf want
 ‘because Peter wants to be able to call up Maria’
- (6) weil ich die Maria habe anrufen können müssen 1 5 4 3 2
 because I the Maria have up-call-inf can-inf must-inf
 ‘because I had to be able to call up Maria’

Finally, in contexts like (3) the particle *haza* associated with the lowest infinitive procliticizes to the finite verb. The resulting string is also familiar from Dutch (7).

- (7) omdat ik Marie op zal willen beginnen te bellen 5 1 2 3 4
 because I Marie up will want-inf start-inf to call-inf
 ‘because I will want to start to call up Marie’

Such patterns have typically been analyzed as constituting three different phenomena. The English order is not thought to involve any kind of complex verb formation; the German order is thought to involve head movement; and prefix climbing is analyzed as XP-movement. Not only are the latter two handled differently, but the identity of the participating verbs is overlooked. We are going to present a highly uniform and mechanical analysis, using a restrictive set of theoretical assumptions, to be discussed in section 1.2.

Two features of the analysis are of more general interest. First, we analyze complex verb formation exclusively in terms of XP-movement. This eliminates one major motivation for the existence of head movement in grammar. Importantly, this simplification is not achieved by excluding inversion phenomena from the scope of syntactic rules and relegating them to the unknown territories of PF. Instead, we show that on the XP-movement analysis complex verb formation obeys standard syntactic constraints.

Second, we make do with unusually restrictive assumptions about syntax. We show that a comprehensive account of the data is possible using nothing but overt movement (strong features). It is not necessary to appeal either to covert movement (LF

movement or feature movement) or to economy/optimality considerations to account for the fact that inversion appears to be optional in some constructions and either obligatory or excluded in others.

1.2 Theoretical Assumptions

In some respects the particular theoretical assumptions underlying this book continue the direction in which research was headed in the late 1980s. In other respects they exploit some basic results of research in the 1990s—in particular, extensive use of heavy pied-piping and remnant movement.

An important line of research in the 1980s led to the conclusion that syntactic representations are large structures, much larger than previously thought on the basis of the actual lexical material in a particular sentence. Syntactic structures themselves became quite simple, binary-branching structures, obeying the X-bar schema, with both lexical heads and functional heads projecting.¹ The specifier-head configuration emerged as “the” syntactic licensing configuration: particular constituents (DPs, *wh*-phrases, etc.) must appear in a specifier-head relation with a designated head, and they get into this configuration by movement, either overt or covert. The Case module of the Government-Binding Theory (Rouveret and Vergnaud 1980, Chomsky 1981) thus became a particular instance of a more general theory of specifier-head licensing.² Continuing this line of research, we assume a quite general theory of licensing: there are many types of constituents that need to appear in the specifier of some designated projection. For convenience, we call these projections *L(anding)Ps*. In particular, we are forced to account for the different distribution of complement clauses (CPs) and small clause complements in this way.³ CPs are licensed in the specifier of *LP(cp)* (= the landing site for CP). Small clauses are licensed in a position slightly higher than VP, for which we adopt Zwart’s (1993) and Koster’s (1994) label *PredP*.⁴

Thus, we continue the trend begun in the 1980s: there is actually more movement than previously thought, but movement itself is highly constrained and takes place for licensing purposes only.⁵ In particular, movement can take place for morphological reasons, for semantic reasons, or to make a projection interpretable. We adopt the following principle from Koopman 1996:

(8) *Principle of Projection Activation* (PPA)

A projection is interpretable iff it has lexical material at some stage in the derivation.

The PPA prohibits representations in which neither the specifier nor the head position is associated with lexical material at any stage of the derivation. Another well-formedness condition assumed in Koopman 1996 is as follows:

(9) *Generalized “Doubly Filled Comp Filter”* (modified Linear Correspondence Axiom)

No projection has both an overt specifier and an overt head at the end of the derivation.

The modified LCA also implies the following in the domain of head movement:

(10) An overt head cannot adjoin to an overt head.

Our analyses will abide by this principle, although it will play a very limited role in forcing particular analytical choices.

Analytical work in the 1990s (Nkemnji 1992, 1995, Sportiche 1993, Koopman 1993, 1996) and work inspired by Kayne (1994) has changed our understanding of empirical phenomena. In particular, it has become clear that languages make use of heavy pied-piping (movement of large chunks of structure) and remnant movement (movement of a constituent containing the trace of previously extracted material; see Den Besten and Webelhuth 1990), with the concomitant assumption that movement always takes place to the left (Kayne 1994). We fully exploit large structures in conjunction with these types of processes. As a result, we are able to present an analysis that relies on overt movement of lexical material only, that is local, and that works mechanically identically in all contexts. Different distributional properties follow naturally from whether subextraction or pied-piping takes place in a particular context. (The choice between these is not free but is determined by a type of filter that specifies the maximum size of a structure in a particular position at the end of the derivation. We refer to this type of filter as a *complexity filter*.) Our analysis does not need to appeal to economy conditions; in particular, there is no need to assume Procrastinate for the type of data that we are considering.

What becomes the focus of theoretical inquiry, then, are conditions on subextraction, pied-piping, and remnant movement. The preliminary assumptions that we make in this book are as follows (see a detailed discussion in section 4.2):

(11) *Extraction*

Only (full) specifiers and (full) complements on their own projection line are extractable.

(12) *Pied-piping*

A category XP can pied-pipe YP iff XP is in the specifier of YP or X adjoins to Y.

(13) *Remnant movement*

A category XP containing the trace of an extracted element can move to a position that c-commands the extracted element.

We assume that head movement is available in Universal Grammar, although it is constrained by the modified LCA and by strict locality, as in Koopman's (1994, 1995b) theory.

(14) *Head movement*

Head movement is strictly local. Feature checking involves two steps:
adjunction and receptor binding.

We argue that the formation of verbal complexes is best analyzed as XP-movement. Furthermore, in the spirit of Sportiche (1997), Hallman (1998), and Lee (1999), we assume that it is at least possible to form morphological words by XP-movement as well. Thus, although head movement is retained, it is eventually restricted to an ancillary role, to aid pied-piping by a complement and to derive the right word order in certain restricted cases (as in Kayne 1998b).