Chapter 4

FIRST-PASS PREFERENCES IN SYNTACTIC-FUNCTION AMBIGUITIES

1. Introduction

In the introduction to this book we gave a general outline of our theory in form of the diagram shown in Figure 4.1 (repeated from Chapter 1).

Beginning with this chapter, we will give content to the three boxes labeled “structure assembly”, “linking”, and “checking” in Figure 4.1. Since the linking and checking processes operate on the products of the structure assembly processes, the latter are the natural starting point for our endeavor.

Our primary goal is to provide a comprehensive account of how the HSPM assigns syntactic functions during language comprehension. As with models of the HSPM in general, two kinds of data will be of prime importance in pursuing this goal. First, data concerning the first-pass preferences of the HSPM, and, second, data concerning garden-path strength in case a preferred analysis is contradicted at some point during the ongoing analysis. In this chapter we will first review what is already known about first-pass preferences in the processing of German syntactic function ambiguities, and then specify the structure assembly processes of the HSPM as far as necessary in order to derive the preferences that will emerge from our review. In addition, we will summarize the basic differences in garden-path strength that have been reported in the literature on parsing German.
Early experimental work on German syntactic function ambiguities was inspired by the question as to how the HSPM copes with ambiguous filler-gap dependencies. For subject-object ambiguities in Dutch, this question had already been tackled by Frazier (1987). Dutch is like German in that it is both a SOV-language and a general verb-second language. Dutch therefore exhibits some of the same subject-object ambiguities that are found in German, although their range is more restricted because Dutch does not allow scrambling of the object in front of the subject, probably because it has lost almost all of its Case morphology (cf. den Besten, 1989; Neeleman, 1994). The particular type of subject-object ambiguity in Dutch investigated by Frazier (1987) is shown in (1).

(1) Jan houdt niet van de Amerikaanse die de Nederlander will uitnodigen.

'Jan does not like the American ...' 
'... who wants to invite the Dutchperson' 
or '...who the Dutchperson wants to invite'

Sentence (1) contains a globally ambiguous relative clause. The relative pronoun *die*, which is assumed to be located in SpecCP, can be linked either to a trace in SpecIP (cf. (2-a)) or to a trace within VP (cf. (2-b)). In the former case, the relative pronoun functions as a subject, in the latter case as an object.

(2) a. ... de Amerikaanse [CP die, [IP t, [VP de Nederlander will uitnodigen]]]
   b. ... de Amerikaanse [CP die, [IP de Nederlander [IP t, will uitnodigen]]]

When participants read sentences like (1) and then had to answer a question of the form “Who will invite whom”, the head DP of the relative pronoun was chosen as subject with 74%. In other words, participants interpreted the relative clause preferentially with the subject preceding the object. To account for this SO-preference, Frazier (1987) postulated the Active Filler Hypothesis which is given in (3) in the formulation of Clifton and Frazier (1989).

(3) Active Filler Hypothesis (AFH) 
When a filler of category XP has been identified in a non-argument position, such as COMP, rank the option of assigning its corresponding gap to the sentence over the option of identifying a lexical phrase of category XP.  
(Cliffton and Frazier, 1989:292)