2

THE DYNAMICS OF INTERPRETATION

We have a two-fold challenge ahead. The first is to set out a model of how interpretation is recovered in context. The second is to establish why this constitutes the basis for syntactic explanations. As we saw in Chapter 1, the heart of the explanation is our commitment to reflecting the way humans can manipulate partial information and systematically map one piece of partial information into another in language processing, using each piece of information provided as part of the context for processing each subsequent input. The challenge is to use these, intrinsically dynamic, concepts to replace analyses which depend on a discrete syntactic vocabulary, involving processes such as movement, feature passing, etc. It is in this respect, above all, that this formalism will depart from all other widely adopted grammar formalisms.

In this chapter, we set out the basic framework, beginning with a sketch of the process of building representations of content and subsequently developing the concepts and technical apparatus. The discussion will be kept as informal as possible, but more formal material is introduced so that readers can get a feel for the formal basis of the theory.¹

2.1. A SKETCH OF THE PROCESS

What we will be modelling is the process whereby information is built up on a left-to-right, word-by-word basis relative to some context against which choices may be made as the construction process proceeds. To do this, we take the concept of a TREE STRUCTURE familiar in syntax and use it to represent, not structure defined over words in a string, but the interpretations assigned to words uttered in context.² Thus, the tree we assign to

¹ Full details of the formal characterisation of the system can be found in Kempson et al. (2001).
² We shall use text-capitals for technical terms, in particular for rules defined in the theory.
a string like *Hilary upset Joan* is not something like those in (2.1) but like that in (2.2).

(2.1) 

```
               S
              / \  
             NP   VP
               /   
              N    V
              /   
             Hilary upset N
              /       
             Joan
```

(2.2) 

```
          (Upset' (Joan'))(Hilary')
       /      
  Hilary'   Upset' (Joan')
      /    
  Joan'   Upset'
```

So what is the difference between these trees? In the first place, the tree in (2.2) contains no information about word order. There is no claim here that English is verb final — not even with respect to some hypothetical "deep structure". Instead, the tree represents the semantic structure of the propositional content expressed by the string *Hilary upset Joan* so that what labels the nodes in the tree are compositionally derived CONCEPTS, expressed in some lambda calculus, just as in certain versions of categorial grammar (Morrill 1994; Carpenter 1998, etc.). The tree thus reflects a jigsaw view of how we can entertain complex concepts (Fodor 1998), but notably not a jigsaw view about words.\(^3\) The trees in (2.1), on the other hand, reflect putative

\(^3\)To maintain a distinction between words and the concepts they express, when we refer to words we will use italic script, and when we refer to the concept we will use non-italic script, an initial capital letter and a following prime. The proper name *John* thus expresses the concept *John'. We also use italic script occasionally for emphasis, as here, but we assume it will always be obvious in context which is intended.