SYNTACTIC THEORY AND LINGUISTIC RESEARCH

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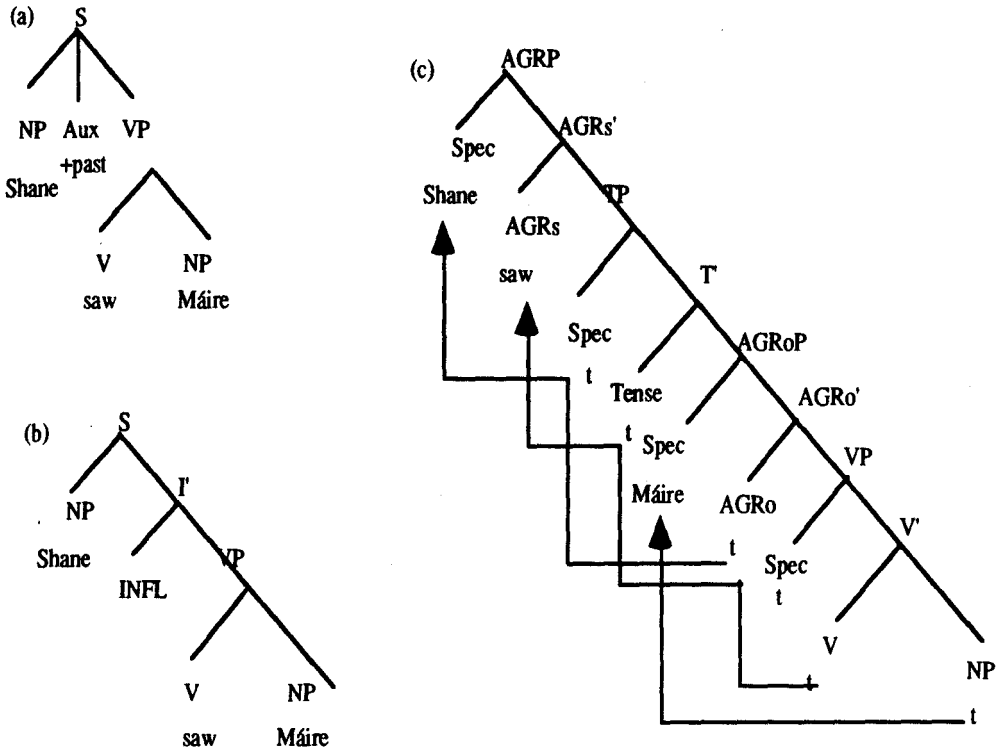
1.0 INTRODUCTION

I work on syntax within Government Binding theory, mostly on issues of phrase structure and word-order, and I have a special interest in the phrase-structure of Modern Irish, though I have also done some work on Tagalog, and other verb-initial languages. My second area of interest is the acquisition of syntax, in particular the acquisition of phrase-structure in young children, and I have recently started working with data from young language-disordered children, a population who have received very little consideration from linguistics as a whole, and almost none from those working in a generative framework. In what follows I will discuss a few issues within each of these three areas that most interest me, because they all bear on the central questions of how many syntactic categories there are in natural language, how they are combined, and how children acquire them.

2.0 SYNTAX

Up until fairly recently, a very common criticism that has been leveled at generative syntax, is that it is too English oriented; that all languages are treated as if they were some sort of "modified" English and that in an attempt to come up with a "universal" explanation, data from various languages were squashed into an analysis that was devised to account for English. Whatever the truth of those claims in the past, there is much less justification for it now. In the last ten-fifteen years or so, there have been more and more languages studied within the generative framework. This work has led to some remarkable confirmation of certain aspects of the theory, and the rethinking of other aspects. For example one of the more influential Ph.D theses to appear in the Eighties was that of Jim Huang on the syntax of Chinese (Huang 1982) which provided independent confirmation for Logical Form as a distinct level of syntax. More recently, the work of Mark Baker (1988), Peggy Speas (1990), among many others, has led us to rethink our view of phrase structure, and the relationship between morphology and syntax. Without getting into too many technical details, many of the inflectional morphemes that were formally represented in the lexicon are now viewed as having their own syntactic projections, and are classified as Functional Categories (as opposed to the lexical categories, N, V, P and A).

Thus the structure of a syntactic tree has "grown" so that what started out as the structureshown in (a) in the late Seventies, developed to that shown in (b) by the early Eighties, and now many researchers are working with a model such as that shown in (c).



Obviously a tree like (c) has many more layers of structure than either that of (a) or (b). Note the presence of the functional projections AGRs Tense, AGRo, each with its own specifier, and complement. Note also the number of movements that take place to derive the "simple" sentence "Shane saw Máire". This leads us to the troubling issue of economy: is (c) in any sense more "economical" given that this tree can account for word order in many more languages than the other two?

How do we know what is the most economical theory of clause structure? The one with fewest movements, the one with the least structure, the one that can account for the most languages, or the most learnable. This is an old issue that has recurred again and again in many guises, and is still very much with us (Chomsky 1990, 1992).

3.0 NORMAL ACQUISITION: CONTINUITY vs MATURATION

Many theorists (e.g. Hyams 1987, Pinker 1984) working in the framework of Generative Grammar have assumed the "Continuity Hypothesis". Under this view language acquisition is made up of a series of continuous stages. The child moves from one stage to another, and at each stage the grammar posited by the child is determined by Universal Grammar. The motivation for change from one stage to another comes from a trigger in the language environment which causes the child to restructure her grammar, and so move on to the next stage. The Continuity Hypothesis has provided an explanation for the acquisition of many linguistic structures; however, in many instances it has been difficult to explain exactly which data in the language environment act as a trigger, and why they have an effect on the child's grammar.

Recently Borer & Wexler (1987), and Felix (1984, 1988) have proposed that this movement from one stage to another is driven by 'maturational' factors rather than by environmental triggers. As the child matures physically, so do the principles which make up the grammar. When a new principle emerges the child reorganizes the grammar in accordance with the new principle. The Maturational Hypothesis has been criticized for being non-explanatory, as, in theory, any principle can mature.

In recent work Radford (1990) and Guilfoyle & Noonan (1988) suggest a more restrictive form of maturation - one that applies to phrase structure only - but does not affect other aspects of UG. We proposed that in the early stages of acquisition, only lexical categories (V, N, A and P) are present, and that functional categories emerge according to a maturational schedule. However, principles of UG are present from the earliest stages, and the grammar will never violate any principle that applies to the existing structure. Thus the child's grammar is "smaller" than the adult grammar in predictable ways. This hypothesis is compatible with much that is already known about the earlier stages of language acquisition and provides a systematic explanation for the telegraphic property of early child language.The phenomenon of telegraphic speech in early child language arises from the fact that early child grammars are based on lexical grammar, as opposed to adult language which consists of a thematic base, namely Lexical Grammar, built on a functional skeleton (Functional Grammar). Of course, this idea has been disputed, and it is certainly the case that there is a fair amount of cross-linguistic variation in the age at which the FCs emerge (as evidenced by the age at which movement and inflectional morphology first emerges). Some of this may be determined by such notions as saliency of the functional heads in the language being learned. So that for example, the stress-bearing inflectional morphemes of Italian tend to emerge earlier in child speech than the nonstress-bearing inflectional morphemes of English, because Italian children get clearer evidence for these functional heads than do English children. The role of saliency becomes particularly relevant when we look at SLI (Specific Language Impairment).

4.0 SPECIFIC LANGUAGE IMPAIRMENT

Specific Language Impairment (SLI) is a developmental language disorder which has been studied primarily by psychologists and specialists in communication disorders, but until recently received comparatively little attention from linguists. The diagnosis of SLI is primarily one of exclusion. The individual must exhibit a developmental language disorder, and at the same time have no history of hearing impairment, neurological damage, autism, mental retardation, social or emotional deprivation or any other condition that is known to be associated with language impairment. Non-verbal IQ scores must be within the normal range. SLI individuals exhibit the following broad characteristics:

a. Physically and cognitively normal yet have significant problems with language in the areas of morphology, phonology, syntax, semantics or pragmatics.
b. Onset of language is considerably later than in the normal developing child. In some cases the first words may not emerge until age four or later, and the child may be unintelligible to non-family members until much later than this.
c. Once under way, the process of language acquisition proceeds slowly. To date there has been disagreement as to whether the SLI speech is delayed or deviant.
d. The condition usually improves over time, although for many (even most) individuals the deficit remains into adulthood.

In addition to these characteristics, it should be pointed out that significantly more males than females are affected (3 boys to 1 girl), and individuals diagnosed with SLI often have strong family histories of the disorder. These facts, among others, have led some researchers to postulate that there is a genetic component in at least some forms of SLI (Tomblin, 1991), (Gopnik, in press). There is little agreement however, as to whether or not the deficit is purely linguistic, or is the result of a deficit in some other area which happens to have a linguistic consequence. Many SLI children have significant problems in the area of morphology and syntax, but remain relatively unimpaired in other areas of the grammar, and it is this subgroup that is particularly interesting from the point of view of their phrase structure. Among the questions that interest us are the following:

a. What is the grammar of SLI? What sort of clause-structure do the children work with?
b. What is the nature of the deficit? Auditory Processing or a real gap in linguistic knowledge (what do you need to make a grammar anyway).
c. What is the relevance of SLI to a theory of normal language acquisition and to linguistic theory as a whole? Can they help us understand the process of normal language acquisition?

As pointed out by Gopnik (Gopnik, 1990 & Gopnik & Crago in press) the characterization of this disorder as specific to language provides confirmation for the view that language is an autonomous cognitive system. However it also raises the question as to whether or not the grammar of SLI falls within the constraints imposed by UG. This question is in effect a reforming of the much debated

question of whether SLI grammar would be characterized as delayed or deviant (under the assumption that deviant grammars may fall outside the domain of UG).

In a recent paper (Guilfoyle et al, 1991), I argue that the grammar of SLI can only be adequately characterized if it is considered within a coherent theory of syntax and language acquisition. We suggest that the SLI child (like a young normal child), has a "small phrase-structure", and so lacks inflectional morphology and movement. Unlike normal children however, this population is cognitively mature, and therefore can produce long sentences, but like normal children, their grammar changes over time, though much more slowly.

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