Structural Theory

According to this approach, notions like “subject” are not really part of syntactic description. Syntactic structure is arranged in a hierarchical immediate constituency structure. Distinct properties of subjects and objects are a result of different properties stipulated for different structural configurations: “subject” in an external position, “object” under the projection of the verb, etc. Roughly:

```
S
 /   \
NP   VP
   /   \nthe dinosaur V NP
   
V NP
fixed a computer
```

The exact implementation depends on the theory (this diagram is a rather old non-\(\overline{X}\) version), but the idea is that, for example, the external position is associated with its own unique properties.

A version of this approach is the stated position of Government/Binding (GB) theory and the Minimalist Program (MP). For example, in GB, the special properties of subjects are due to their being outside of the “government” domain of the verb.

An approach like this cannot explain the properties of subjects, because it denies that there is such a thing as a “subject.” Instead, it picks one property (the “external” position) and stipulates it. (The external position of the subject thus cannot be explained in principle in a theory like this.) Other stipulated properties of the structural position, motivated by nothing other than the need to “explain” other properties of subjects, force all languages to be analyzed as having this kind of configurational structure, even languages where there is reason to believe that there is no “VP” constituent.


Grammatical relations

This approach sees syntactic structure as a network of relations between items, rather than as a structure. Our sample sentence could be characterized under such an approach as:
The relations are recognized by properties they display. Under one implementation, it is possible for two elements to bear the same relation; for example, in the passive sentence *The computer was put on the desk by the dinosaur* the NP [the computer] is both an object and a subject, and [the dinosaur] is both a subject and a kind of oblique/adjunct (sometimes called “chômeur”). *The computer* and *the dinosaur* are both “subjects.” There are thus multiple strata (or levels) of relations in a relational network:

<table>
<thead>
<tr>
<th>Stratum 1</th>
<th>OBJECT</th>
<th>PREDICATE</th>
<th>SUBJECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stratum 2</td>
<td>SUBJECT</td>
<td>PREDICATE</td>
<td>CHÔMEUR</td>
</tr>
<tr>
<td>the computer</td>
<td>was fixed</td>
<td>by the dinosaur</td>
<td></td>
</tr>
</tbody>
</table>

This is the approach taken by various versions of Relational Grammar (RG). A representation of the relational network above would be the “stratal diagram”:

![Stratal Diagram]

The notion of relation is vague; anything can be a relation. (For example “c-command” is a relation in the grammar, and thus a grammatical relation.) It is hard to see what can follow from it, without a fleshing out of the notion of “relation.” Interestingly, Johnson and Postal (1980) include “linear precedence” and “labels” among the relations. They also make the point that GRs are primitive. This emphasizes the point that calling “subject” (or “1”) a grammatical relation is vacuous. (The notion of grammatical relation in HPSG is probably similar to that of RG, although the HPSG literature is much less explicit.)

A related concept of grammatical relation is assumed by many researchers in “functionalist” approaches to grammar, such as Van Valin’s Role and Reference Grammar (RRG). In such approaches, it is often assumed that a particular grammatical relation “exists” in a particular
language only if it has demonstrable properties in that language which cannot be accounted for through a semantic or pragmatic class. Here, too, it is the properties that define the grammatical relation, and there is no sense that they have any real independent status, or content.


**Grammatical functions**

Finally, one can look at syntactic structure as having constituents which are there for a reason: they have functions. For example, in a sentence like:

```
This computer the dinosaur didn’t fix.
```

the fronted nominal serves some discourse-related function (perhaps contrast). In different languages, the same function may be expressed in different ways. We can thus distinguish between form (or constituent structure) and function.

One element might have two different functions. For example, *this computer*, in addition to having the discourse-related function mentioned earlier (which I will refer to as FOCUS), also has the function of expressing one of the arguments of the predicate fix, a function I will call OBJ. A rough constituent structure and functional structure for the above sentence would be:
However (aside from adjuncts) two different elements won’t bear the same function. In the passive, for example, *the computer* and *(by) the dinosaur* don’t serve the same function. Therefore, assuming that “subject” is a grammatical function, they cannot both bear the function “subject.” The grammatical function approach will therefore be monostratal.

This approach is implicit in Lexical-Functional Grammar, although not much work has been done on determining what the functions of the grammatical functions are. It holds the promise that, if we discover what functions are served by the various entities in the syntactic structure, we will be able to explain the properties of, for example, subjects.