

Relative constructions have received attention from linguists throughout the years, and not without reason. They are interesting from a syntactic, typological and semantic point of view. Consider (1), for instance, where *pretzels his mother bakes for him* is a relative construction; *pretzels* is called the antecedent and *his mother bakes for him* the relative clause.

- (1) Bush always eats **pretzels** *his mother bakes \_ for him*.

As you can see, the relative contains a gap: the direct object is missing. This is indicated by an underscore. Somehow, the antecedent (the “head”) is related to the gap. On a pretheoretical level the head noun seems to have two functions: one in the main clause and one in the subordinate clause. In other words, it acts as a pivot. Obviously, this situation is problematic; therefore I have dubbed it “the problem of the pivot”.

Languages have found various ways to deal with the pivotal function of the head. A typological survey reveals that there are four syntactic main strategies to be distinguished. These are illustrated in English words in (2).

- (2) a. Bush always eats **pretzels** (*which*) *his mother bakes \_for him*. [postnominal]  
b. < Bush always eats *his mother bakes \_for him* **pretzels**. > [prenominal]  
c. < Bush always eats *his mother bakes pretzels for him*. > [circumnominal]  
d. < *Which pretzels his mother bakes for him*, Bush always eats them. > [correlative]

The **postnominal** strategy (as in English or Macedonian) often uses a relative pronoun. It originates in the gap and it is *wh*-moved to the left edge of the relative clause. If there is only a relative conjunction or nothing at all, it can still be argued that there is an empty operator that acts as the equivalent of a relative pronoun (cf. Chomsky 1977). In the **prenominal** strategy (e.g. in Basque or Chinese) the relative clause precedes the head noun. There is no overt relative pronoun. The **circumnominal** strategy (Quechua, Dogon, Tibetan) is quite different: the head occupies the position of what is the gap in English. The relative clause as a whole is nominalized. Often, this is evident from a clause-final Case ending and/or determiner, as will be illustrated below. Finally, the **correlative** strategy (Hindi, Maninka, Farsi) is “head-internal”, too; but here the (non-nominalized) relative is sentence-initial and the gap in the matrix (!) is filled by a pronominal correlate. Moreover, the head is often accompanied by a relative pronoun and moved leftwards.

It can be shown – on the basis of simple principles such as “generalize maximally” and “Ockham’s razor”, as well as more intricate ways of comparison – that the most convenient way to treat relativization in syntax is by means of **promotion** (following to a certain extent Vergnaud 1985, Kayne 1994, Bianchi 1999 and others – independently of considerations of Antisymmetry, I must stress). Notably, this concept must be understood as the name of a complex theory, rather than a kind of transformation. In what follows I will try to highlight some of the main aspects of this theory.

### *I. The head is generated within the relative clause.*

The head noun is generated in the lowest of the two related positions, i.e. within the relative clause. In the circumnominal strategy it stays *in situ* (apart from possible scrambling), in the adnominal strategies it must be raised subsequently. Thus the semantic parallel between the different strategies is reflected in the syntactic selection

structure. Notice that the circumnominal strategy is a complete mystery from the perspective of the traditional analysis, in which a relative is adjoined to the antecedent.

Assumption I. is also supported for the postnominal strategy without reference to the circumnominal one. Consider the Dutch example in (3), for instance, where the anaphor *zichzelf* is bound by the lower subject *Joop*.

- (3) De [(PRO?)<sub>m</sub> verhalen over zichzelf]<sub>k</sub> die<sup>k</sup> Joop<sub>i</sub> <sub>—<sub>k</sub></sub> gisteren hoorde, waren pure leugens.  
 the stories about SE-SELF which Joop yesterday heard, were mere lies  
 ‘The stories about himself that Joop heard yesterday were mere lies.’

As shown by the indices, the binding could only be established if the head NP itself (not only the relative pronoun) is present at the position of the gap at some level.

## II. A relative clause is the complement of D (except in correlatives).

A relative can be argued to be the complement of the matrix determiner. In English this looks like [<sub>DP</sub> the [<sub>CP</sub> man<sub>i</sub> that I saw t<sub>i</sub> ]]. A well-known suggestive pair of examples is (4):

- (4) a. We made (\*the) headway.  
 b. [The [headway we made \_ ]] was great.

However, the most direct evidence comes from circumnominal relatives such as the following Mohave example, taken from Lehmann (1984, 111). (The fact that D is cliticized onto the verb is not relevant here.)

- (5) [ [ Hatčooq ʔavi:-m ʔ-u:ta:v ]-n<sup>y</sup>-č ] n<sup>y</sup>əʔi:l<sup>y</sup>-pč.  
 [<sub>DP</sub> [<sub>CP</sub> dog stone-INST SBJ.1-hit]-DEF-NOM] black-REAL  
 ‘The stone with which I hit the dog was black.’ *or*  
 ‘The dog which I hit with the stone is black.’

Here it is evident that D takes scope over the whole relative CP, and that the head NP is not the sister of D.

If we analyse arguments as DPs, the combination of the assumptions I. and II. predicts that there is a potential DP shell surrounding the head NP, of which the function is still to be determined. And this is exactly what is needed; see III.

## III. A relative operator is always present, whether overt or covert.

A relative pronoun or operator is generated as the ‘relative determiner’ (D<sub>rel</sub>) of the head NP (see also Bianchi 1999). In X’ terms: the head argument is [<sub>DP</sub> [<sub>D’</sub> D<sub>rel</sub> NP]]. If D<sub>rel</sub> is overt, it is a relative pronoun. If not, it still has a function as a relative operator. D<sub>rel</sub> carries Case and φ-features, and a *wh*-feature (unless it is used as a resumptive pronoun); therefore, it triggers movement to SpecCP, hence raising of the antecedent. If *wh* is weak, there is no overt raising. This leads to a circumnominal relative. Note that, most probably, there is *wh*-movement in all types of relatives.

I cannot go into details here, but, as an example, consider the Swedish phrase in (6a), of which a Minimalist type of derivation is sketched in (6b).

- (6) a. mann-en vilken känner dig  
 man-the who knows you  
 b. [<sub>DP</sub> [<sub>D+Nj</sub> mann-en] [<sub>CP</sub> [<sub>DPrel</sub> [<sub>NP</sub> t<sub>j</sub>]<sub>i</sub>] [<sub>DPrel</sub> vilken] t<sub>i</sub>]] (C) t<sub>i</sub> känner dig ]]

Internally, D(P)<sub>rel</sub> checks subordinate clause Case; and the φ-feature agreement between the head NP and D<sub>rel</sub> is checked in spec-head configuration. The *wh*-feature

of  $D_{rel}$  triggers movement to SpecCP. Subsequently, N incorporates into the matrix determiner, so they have to agree in Case and  $\phi$ -features. In English, this last move would be covert. The relative pronoun could also be phonetically empty, and C could be visible (Eng. *that*, Sw. *som* ‘that’); this does not affect the grammatical analysis.

Thus we can relate the different strategies of relativization and still analyse individual patterns with the use of simple and undisputed elements of the grammar.

As mentioned before, there is a wealth of typological information and (syntactic) analyses on relative constructions available. I have tried to compile a coherent and complete classification, to integrate the best ideas after a systematic evaluation, to develop the ‘promotion theory’ thus acquired in detail (within a derivational framework where movement is based on feature checking), and to provide syntactic analyses of the major types of relative constructions. However, there are additional factors that (seem to) complicate the syntax of relativization. Described in one word, these are **apposition**, **extraposition** and **possession**. In fact, it has been claimed that the existence of appositive relatives, extraposed relatives and possessive relatives is especially problematic for the promotion theory. I believe this is not true. Therefore I have dedicated a substantial part of my book to discuss these subjects.

One of the main insights is that the concept of **specifying coordination** underlies apposition (and extraposition as well). If one acknowledges – next to conjunction and disjunction – a third type of coordination, which designates specification (e.g. ‘the White House, or/namely the house with the Oval Office’), one may see an appositive relative as an extended apposition that is coordinated to the antecedent. Since conjuncts must be functionally equivalent, this leads to the (perhaps surprising) conclusion that an appositive relative is a semi-free relative. An example is (7), where the paraphrase that reveals the analysis is between brackets.

(7) Joop, (‘namely, he/the\_one’) who is our manager, ...

Evidently, the theory of relativization as such must be applied to the second conjunct, which is a full DP relative construction, and therefore open to any analysis in principle. Note that promotion in a semi-free relative boils down to raising of a (usually empty) pronoun, instead of a full antecedent. This pronoun is then anaphorically related to the ‘antecedent’ in the first conjunct.

Thus the syntax of relativization as such is constant. As expected, it can be used in special contexts, such as an appositive environment – viz. by means of the independent theory of specifying coordination.

## References

- Bianchi, V. (1999). *Consequences of Antisymmetry: Headed Relative Clauses*. Berlin: Mouton de Gruyter.
- Chomsky, N. (1977). On *Wh*-Movement. *Formal Syntax*, edited by P. Culicover et al., 71-132. New York: Academic Press.
- Kayne, R. (1994). *The Antisymmetry of Syntax*. Cambridge, Mass: The MIT Press.
- Lehmann, C. (1984). *Der Relativsatz*. Tübingen: Gunter Narr Verlag.
- Vergnaud, J.-R. (1985). *Dépendances et niveaux de représentation en syntaxe*. Amsterdam: John Benjamins.