

AN APPROACH TO ENGLISH COMPARATIVE CORRELATIVES

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1. Introduction

Culicover (1999) argues that what some would see as the periphery of language is large and that there is no break between the core and the periphery. Among other matters, he discusses the comparative correlative (CC) construction, exemplified by (1), which is discussed more fully in Culicover and Jackendoff (1999) (henceforth C&J).

(1) The more books I read, the more I understand.

There is a complex array of data here, which poses a challenge to any theory which does not confine itself to a narrowly defined set of core phenomena. Recent HPSG seems well equipped to handle the data.

2. The data

C&J show that the CC construction contains two head-filler clauses, where the filler contains *the* and a comparative word. It is convenient to call the fillers *the*-phrases and the clauses *the*-clauses. There are a variety of facts that any analysis needs to accommodate. First, *the* must be in initial position in the *the*-phrase (C&J: 559).

(2)a. The more people Kim talks to, ...

b. *To the more people Kim talks, ...

Second, unlike other fillers, a *the*-phrase can be followed by *that* for many speakers, as in (3).

(3) The more that I read, the more that I understand

Third, the copula can be omitted provided that (a) its complement is fronted, (b) it is the main verb of the construction, and (c) *that* is not present.

(4)a. The more intelligent the students (are), the better the marks (are).

b. The more intelligent the students (are), the more marks *(are) given.

c. The more intelligent the students (are), the better it seems that the marks *(are).

d. The more intelligent that the students (are), the better that the marks *(are).

Fourth, there is evidence that the first clause is a subordinate clause and the second a main clause. For example, it is possible to have a tag question which reflects the second clause but not one which reflects the first clause (C&J: 559).

(5)a. The more we eat, the angrier you get, don't you?

b. *The more we eat, the angrier you get, don't we?...

Finally, the CC construction is similar in certain ways to what McCawley (1988) calls the reversed CC construction and the conditional construction. The reversed CC construction is exemplified by (6).

(6) I understand more, the more books I read.

Here the second clause is a *the*-clause and the first clause, which we can call a null-clause, contains a bare in-situ comparative element. This clause can vary in form in ways that show clearly that it is a main clause, as shown in (7).

- (7)a. I expect him to understand more, the more books he reads.
 b. I am impressed by his understanding more, the more books he reads.
 c. Does he understand more, the more books he reads?
 d. How much more does he understand, the more books he reads?

The conditional construction is exemplified by (8).

(8) If I read more books, (then) I understand more.

In all three constructions, *will* is impossible in the subordinate clause, as (9)-(11) illustrate:

(9) If I (*will) see him, then I will talk to him.

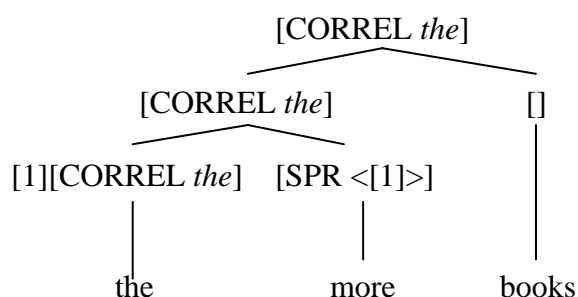
(10) The more I (*will) see him, the more I will talk to him.

(11) I will talk to him more, the more I (*will) see him.

3. The component clauses

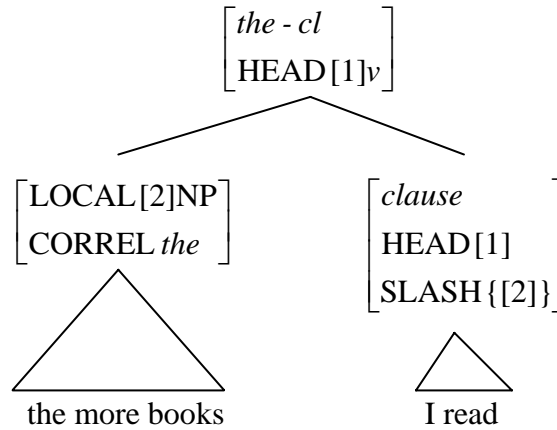
An account of the two CC constructions requires an account of *the*-clauses and null-clauses. An account of *the*-clauses requires an account of *the*-phrases. We can propose a NONLOCAL feature CORREL with the values *the*, *null* and *none* here. Correlative *the* and constituents that contain it will be [CORREL *the*] and a bare in-situ comparative in a null-clause and constituents that contain it will be [CORREL *null*]. All other constituents will be [CORREL *none*]. Given this feature, we can ensure that a *the*-phrase contains correlative *the*. We can ensure that it also contains a comparative word by stipulating that correlative *the* only appears as a specifier of a comparative word. Thus, the first *the*-phrase in (1) will have the following schematic structure:

(12)



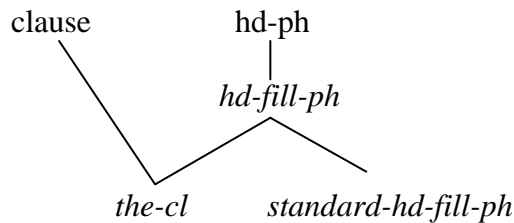
Assuming this view of *the*-phrases, we can propose that *the*-clauses are instances of a type *the-cl(ause)* and that the *the*-clause in (1) has the following schematic structure (ignoring unimportant features):

(13)



(3) will have a similar structure but with [HEAD *c*] instead of [HEAD *v*]. We can assume the following types:

(14)



Clauses and headed phrases will be subject to standard constraints. For head-filler-phrases, we can propose the following, slightly simplified constraint:

(15)

$$head-fill-ph \rightarrow \left[\begin{array}{l} SLASH \{ \} \\ DTRS < [LOC [1]], [2] \left[\begin{array}{l} phrase \\ SLASH \{ [1] \} \end{array} \right] > \\ HD - DTR [2] \end{array} \right]$$

Unlike standard constraints on head-filler phrases, this does not impose a [HEAD *v*] requirement. We can associate this with standard-head-filler phrases, as follows:

(16) *standard-head-fill-ph* \rightarrow [HD-DTR [HEAD *v*]]

Since *the-cl* is a subtype of *head-fill-ph* and not *standard-head-fill-ph*, *the*-clauses are not required to be headed by a verb and hence may be headed by a complementizer, as in (3). To ensure that a *the*-clause has a *the*-phrase as its filler (and also that it is finite) we can propose the following constraint:

(17)

$$the-cl \rightarrow \left[\begin{array}{l} HEAD [VFORM *fin*] \\ DTRS < [CORREL *the*], [] > \end{array} \right]$$

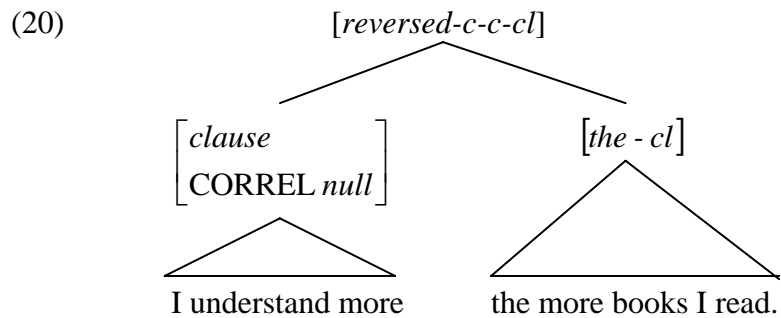
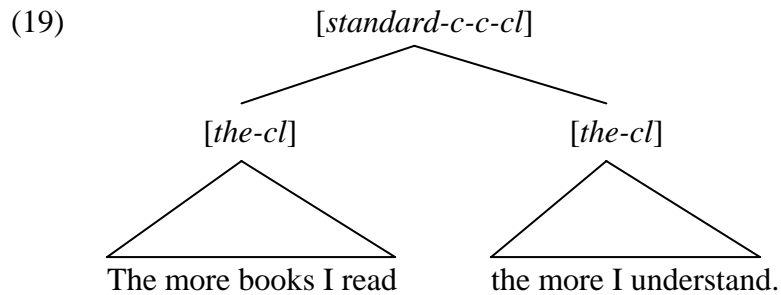
We need one further constraint to ensure that *the* is in initial position in the *the*-phrase. We can propose the following:

(18) [CORREL *the*] < [CORREL *none*]

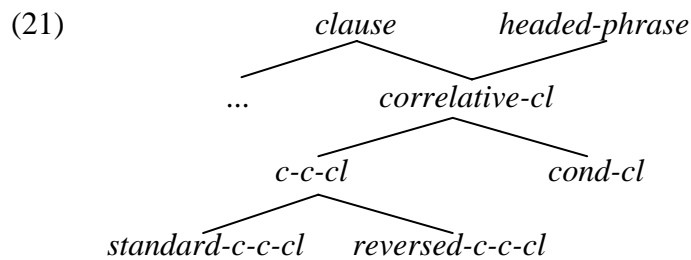
Turning to null-clauses, no special type is needed. Rather, they can simply be analyzed as clauses (of some kind) with the feature [CORREL *null*]. This will ensure that they contain a bare in-situ comparative.

4. The constructions

Turning to the constructions as a whole, we can propose the following schematic structures for (1) and (6):



We can assume the following types:



For correlative clauses, we need a constraint of the following form, where 'F' is a feature encoding the impossibility of 'will':

(22)

$$\text{correlative-cl} \rightarrow \left[\begin{array}{l} \text{DTRS} < \left[\begin{array}{l} \text{clause} \\ \text{HEAD} \left[\begin{array}{l} \text{VFORM } \textit{fin} \\ \text{'F'} \end{array} \right] \end{array} \right], [1][\textit{clause}] > \\ \text{HD - DTR [1]} \end{array} \right]$$

For c-c-clauses, we can propose the following constraint:

$$(23) \quad \text{c-c-cl} \rightarrow [\text{DTRS} <[\textit{the-cl}], []>]$$

This ensures that the subordinate clause in both types of c-c-clause is a *the*-clause. For standard-c-c-clauses, we need the following constraint:

$$(24) \quad \text{standard-c-c-cl} \rightarrow [\text{DTRS} <[], [\textit{the-cl}] >]$$

For reversed-c-c-clauses we can need the following:

$$(25) \quad \text{reversed-c-c-cl} \rightarrow [\text{DTRS} <[], \left[\begin{array}{l} \text{HEAD } \textit{verb} \\ \text{CORREL } \textit{null} \end{array} \right] >]$$

Following Ginzburg and Sag (2000: 24), *verb* is a type with the subtypes *v* (pure verb) and *g* (gerund). Hence, the constraint allows a null clause headed by a pure verb or a gerund, as in (7b), but excludes a null-clause headed by a complementizer, as in (26).
(26) *That I understand more, the more books I read.

Finally we need LP rules to ensure that the main clause comes second in the standard construction and first in the reversed construction. We can propose the following:

$$(27)\text{a. } [\text{DTRS} <[1][\textit{the-cl}], [2][\textit{the-cl}]>] \rightarrow [1] < [2] \\ \text{b. } [\text{DTRS} <[1][\textit{the-cl}], [2][\text{CORREL } \textit{null}]>] \rightarrow [2] < [1]$$

We will not try to account for the special properties of conditional clauses.

5. Copula omission

To complete this analysis, we need an account of copula omission. We can propose that the copula has a phonologically null form, which requires its complement to be fronted. This will have the following category:

(28)

$$\left[\begin{array}{l} \text{HEAD } \nu[\text{VFORM } \textit{fin}, \text{NULL } +] \\ \text{SUBJ} < [1]\text{NP} > \\ \text{COMPS} < \diamond > \\ \text{SLASH} \{ \text{AP}[\text{SUBJ} < [1] >] \} \end{array} \right]$$

The [COMPS <◇>] requirement excludes (4b). Any clause that is headed by this form of the copula will be [NULL +]. We can assume that a *the*-clause is unspecified for

NULL, and hence can be headed by this form. However, most clause types will be [NULL -] and hence will not allow this form. This will exclude (4c) and (4d).

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