## Testing Two Processing Principles with Respect to the Extraction of Elements out of Complement Clauses in English

Günter Rohdenburg, University of Paderborn

This paper sets out to contrast two processing principles, the Complexity Principle (e.g. Rohdenburg 1996, 2007) and the Domain Minimization Principle (e.g. Hawkins 1999, 2004) in cognitively demanding environments such as (1).

(1) a. This is a task we don't know how to deal with.

b. \* This is a task we don't know how we should/could deal with.

Examples (1a-b) illustrate the structure produced by the extraction of (mostly postverbal) elements out of competing complement clauses.

The Complexity Principle represents a correlation between two dimensions, cognitive complexity and grammatical explicitness, and it has been described as follows:

In the case of more or less explicit constructional options the more explicit one(s) will tend to be preferred in cognitively more complex environments.

The principle covers a great variety of grammatical manifestations of cognitive complexity including those in (2).

(2) a. discontinuous structures involving various kinds of insertions

- b. voice contrasts
- c. complement negation
- d. the length of the complement clause
- e./f. gapping and right node raising

The Domain Minimization Principle may be described as a processing tendency which consists in minimizing the size and complexity of various domains including the filler-gap domain in cases like (1). For our purposes, Hawkin's most important insight is expressed in terms of an implicational scale for gaps in clause embeddings:

It appears that infinitival phrases are most hospitable to gaps, while finite subordinate clauses are more resistant, while complex NP environments are most resistant of all. (Hawkins 1999:263; cf. also Hawkins 2004:193)

Unlike the Complexity Principle, which makes the wrong prediction in (1), the Domain Minimization Principle accounts for the acceptability contrast in a natural way.

Going beyond the three kinds of subordinate clauses discussed by Hawkins, this paper investigates two novel sets of competing complements. The behaviour of the first group of clausal alternatives is well in line with Hawkin's prediction, though again incompatible with the Complexity Principle. The group is exemplified in (3).

(3) a. We would like the event (to be) rescheduled.

b. This is the event we would like (to be) rescheduled.

In (3) the textual frequency of the shorter and less explicit variant is found to be increased in the extraction context provided in the b-example.

However, there is also a sizeable range of complement pairs whose distribution inside and outside of extraction contexts is predicted by the Complexity Principle but unaccounted for by the Domain Minimization Principle. Some relevant phenomena include the following: (4) a marked infinitives vs unmarked ones ( after *halp*)

(4) a. marked infinitives vs unmarked ones (after *help*)

b. perfective gerunds vs non-perfective gerunds (e.g. after recall, remember and admit)

c. should + infinitive vs subjunctive after mandative predicates like recommend

Corpus analyses leave no doubt that in all of these cases it is the more explicit and typically more complex option that shows a special affinity with extraction contexts. Thus the visible effects of the two antagonistic principles are found with largely complementary ranges of complement types. It follows that we cannot dispense with the basic insights afforded by either principle.

The paper concludes by attempting to account for the kind of division of labour observed between the two principles under scrutiny. It will be suggested that the marked infinitive (on its own or with an associated NP) enjoys a privileged or target status in extraction contexts. For instance, with the verbs of knowing, thinking and saying the marked infinitive in so-called raising structures is preferred over both the finite clause, which is too complex, and the object predicative (produced by *to be*-deletion), which is less explicit.

## References

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