The Representation of Interdependencies between Communicative Goals and Rhetorical Relations in the Framework of Multimedia Document Generation

Elisabeth A. Maier, Istituto per la Ricerca Scientifica e Tecnologica (IRST), Trento, Italy

maier@irst.it

This paper briefly outlines observations from texts made with respect to rhetorical relations and communicative goals. Then it will be shown how these observations have been encoded into knowledge resources which are part of an integrated architecture for the generation of multimedia output.

Both communicative goals and rhetorical relations are virtual constructs - surface signals hint at their existence. In the following we briefly discuss the various linguistic means by which both rhetorical relations and communicative goals are signaled in texts.

Identification of Rhetorical Relations in Text

For rhetorical relations surface signals are *cue phrases* like e.g. conjunctions. If no cue phrase exists for a relation lexical cohesion may play that role.

Example 1: (Cue Phrase)

> *When* a pathway is used several times in succession, the threshold falls.

Example 2: (Lexical Cohesion)

> Water *was* all *about* them, was *carrying* them, was *putting* them *down*, was *sinking*, was *ebbing away.*

In Example 1 the CONDITIONality in the link between the two sentences is expressed by means of the conjunction *when*. In example 2, on the contrary, the SEQUENCE in the events reported is implicit in the verbs which can be inferred as temporally linked. This example also shows how a rhetorical relation contributes to the development of the topic and the progression of theme. It can be observed, for instance, that the SEQUENCE relation preserves the theme over a chain of events (on that point see also [Matthiessen and Bateman, '91]).

Identification of Communicative Goals in Text

The phenomena for which communicative goals are responsible are quite different. The effects of a communicative goal on a text unit can best be observed when the text unit consists of various sentences. These sentences usually share a number of features which can be considered as characteristics of the goal at hand.

1. Sentences "belonging" to the same communicative goal are centered around a global (paragraph) focus, which represents the overall topic of the text unit.

2. Text units corresponding to the same communicative goal can be characterized by the use of a restricted set of rhetorical relations - this is one way how communicative goals and rhetorical relations interact.