

## Talks of SFB632--Project: D1

### **Speaker:**

Massimo Poesio, Univ. of Essex (joint work with Amrita Patel and Barbara di Eugenio)

**Time:** Friday 14.10.2005, 11.15am,

### **Place:**

University of Potsdam, Golm, Haus 24 Raum 154

### **Title:**

Discourse Structure and Anaphora in Tutorial Dialogues: an Empirical Analysis of Two Theories of the Global Focus

### **Abstract:**

The recent development of reliable guidelines for discourse structure annotation, and the resulting availability of corpora annotated for discourse structure, have made it possible to subject to rigorous empirical testing the claims of seminal theories about the impact of discourse structure on anaphora. We carried out an empirical investigation of the claims made in two models of the Global Focus--Grosz and Sidner's stack model and Walker's cache model--using a corpus of tutorial dialogues annotated according to Relational Discourse Analysis. We studied how these two models affect both the accessibility of the antecedents and the ambiguity of both pronouns and definite descriptions, examining a variety of stack and cache update strategies and of cache sizes, and paying special attention to the problem of antecedents contained in embedded segments.

The best results for the stack model were obtained when DPSs were only associated with intentional relations (i.e., excluding informational relations) and allowing embedded segments to remain on the stack as long as the superordinate segment was open. With the cache model, we found that cache size matters (if the size is less than 10, the model is too restrictive) and that the cache replacement strategy matters even more.