

Einladung zu einem Gastvortrag des Sonderforschungsbereichs 441

**Am Montag, den 15. Dezember 2003, 16 Uhr c.t.  
im Raum 215, Neuphilologie, Wilhelmstr. 50**

spricht

**Gerald Penn**

(University of Toronto)

zum Thema

**“Describing Semantics: a Constraint  
Language for Lexical Resource  
Semantics and its Implementation in the  
TRALE Grammar Development  
System”**

Underspecified semantical representations have their origins in computation. One price of distinguishing a literal semantic (some would say syntactic) module from other more context-dependent aspects of interpretation in large-scale NLP applications is the massive number of potential readings that such a module may deliver. Underspecified representations allow us to tractably convey those readings in a compact form that can either be restricted by context or be enumerated as necessary according to the demands of the application in a later stage of processing. This model of processing was a good idea, and since its emergence in work from SRI Cambridge over ten years ago [Alshawi & Crouch, 1992; van Deemter & Peters, 1996], it has become a staple of the computational semantics community.

More recently, particularly within HPSG, underspecified semantics have taken on a life of their own as the subject of genuinely linguistic speculation in semantics, initially within the Verbmobil project, but increasingly as a more theoretical framework for exploring both compositional and lexical semantics in various languages. This may not have been such a good idea. HPSG has conflated tractable description and formal denotation on several previous occasions. In every instance, both theory and application have ultimately suffered, as considerations of tractability obscure the statement of the problem before it can be adequately studied (and only then approximated, if necessary), and aesthetic principles are invoked in the construction of practical implementations in which efficiency should clearly be superordinate to armchair-empirical perspectives on how humans interpret language.

In several recent papers and presentations [Richter & Sailer, 2001; Richter, 2003; Richter & Sailer, 2004], the A5 project of the SFB 441 have presented a range of more theoretical arguments for upholding the traditional view that semantic representations should have completely resolved denotations. This talk describes complementary work in progress on making the descriptions of LRS representations as transparent as possible in grammar design. This is accomplished with a declarative, language-independent system of constraint primitives that are consistent with this view, and a constraint solver that nevertheless employs underspecification and three discrete stages of constraint resolution during and after parsing.

Alshawi & Crouch, 1992 Monotonic semantic interpretation. In Proceedings of the 30th Annual Meeting of the Association for Computational Linguistics, pp. 32-38.

Richter & Sailer, 2004 Basic Concepts of Lexical Resource Semantics. Kurt Gdel Society series Collegium Logicum.

Richter, 2003 Überlegungen zu einer beschreibungsadquaten kompositionellen Semantik in einem constraintbasierten Grammatikformalismus. Oberseminar "Neuere Literatur zu Semantik und Syntax," SFS Tbingen.

Richter & Sailer, 2001 Polish Negation and Lexical Resource Semantics. In: Geert-Jan M. Kruijff, Lawrence S. Moss, and Richard T. Oehrle (eds): Proceedings of FGMOL 2001. Electronic Notes in Theoretical Computer Science, Volume 53, Elsevier.

van Deemter & Peters, 1996 Semantic ambiguity and underspecification. Palo Alto: CSLI Publications.

Zu diesem Vortrag laden herzlich ein,  
SFB 441, Projekt A5, Frank Richter, Manfred Sailer