

NAACL HLT 2010

**Workshop on
Extracting and Using
Constructions in
Computational Linguistics**

Proceedings of the Workshop

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Introduction

A construction can be defined as a form-meaning pairing in which the components cannot entirely explain the meaning of the whole. Constructional phenomena range from morphemes to argument structure, and include obvious examples like collocations (“hermetically sealed”), (idiomatic) expressions with fixed constituents (“kick the bucket”), expressions with (semi-)optional constituents (“hungry as a X”), and sequences of grammatical categories ([det][adj][noun]), as well as more complex constructions involving, e.g., the occurrence of sentence composition features (e.g. transitivity) or adverbial types (e.g. spatial adverbials). As these examples demonstrate, constructions are a diverse breed, and constructionist theories do not give a government to any specific level of language. On the contrary, all levels are viewed as equally important.

Constructions are currently enjoying considerable attention in linguistic research, and are now widely considered as being much more frequent and central to language than what has traditionally been acknowledged. Constructionist theories emphasize that the human mind seems to prefer to use prefabricated chunks of linguistic elements (i.e. constructions) when possible, instead of generating sentences from scratch as in the generative grammar approach. Constructions are also gaining a central place in different kinds of computational linguistics applications; examples include machine translation, information retrieval and extraction, tools for language learning, etc. Constructions are an interesting and important phenomenon because they constitute a middle way in the syntax-lexicon continuum, and because they show great potential in tackling famously difficult computational linguistics tasks like sentiment analysis and language acquisition.

This workshop encouraged submissions in all aspects of constructions-based research, including:

- Theoretical discussions on the nature and place within (computational) linguistic theory of the concept of linguistic constructions.
- Methods and algorithms for identifying and extracting linguistic constructions (collocations, idioms, multi-word expressions, grammatical constructions, etc.).
- Uses and applications of linguistic constructions (machine translation, information access, sentiment analysis, tools for language learning etc.).

The program committee accepted 6 papers that cover topics such as resources for constructions-related research, machine learning techniques for identifying constructions, using constructions to improve natural language processing applications, as well as studies of more specific constructional phenomena (e.g. verb-argument constructions, and presentational relative clauses). Each submission was reviewed by two members of the program committee.

We would like to thank the members of the program committee for their efforts, and the authors and presenters of the accepted papers for their high-quality contributions.

Magnus Sahlgren and Ola Knutsson

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Workshop Program

Sunday, June 6, 2010

08:45–09:00 **Introduction**

09:00–09:30 *Towards a Domain Independent Semantics: Enhancing Semantic Representation with Construction Grammar*

Jena D. Hwang, Rodney D. Nielsen and Martha Palmer

09:30–10:00 *Towards an Inventory of English Verb Argument Constructions*

Matthew O'Donnell and Nick Ellis

10:00–10:30 *Identifying Assertions in Text and Discourse: The Presentational Relative Clause Construction*

Cecily Jill Duffield, Jena D. Hwang and Laura A. Michaelis

10:30–11:00 **Break**

11:00–11:30 *StringNet as a Computational Resource for Discovering and Investigating Linguistic Constructions*

David Wible and Nai-Lung Tsao

11:30–12:00 *Syntactic Construct : An Aid for translating English Nominal Compound into Hindi*

Soma Paul, Prashant Mathur and Sushant Kishore

12:00–12:30 *Automatic Extraction of Constructional Schemas*

Gerhard van Huyssteen and Marelle Davel

