Chapter 9

PREPOSITIONAL ARGUMENTS IN A MULTILINGUAL CONTEXT

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Abstract This paper focuses on indirect prepositional arguments in a multilingual context. We show that the theoretical framework of HPSG (Pollard and Sag, 1994) with semantic representations in Minimal Recursion Semantics (MRS; Copestake et al., 1999; Copestake et al., 2001) constitutes the appropriate theoretical basis for a robust, linguistically-motivated account of indirect prepositional arguments. The case study here is indirect prepositional arguments in Modern Greek and English.

Keywords: HPSG, MRS, robust deep analysis of indirect prepositional arguments, multilingual grammar development.

1. Introduction

This paper focuses on the key role of semantics in a robust deep analysis of indirect prepositional arguments in a multilingual context.

The aim here is to show that the theoretical framework of Head-Driven Phrase Structure Grammar (HPSG; Pollard and Sag, 1994) with semantic representations in Minimal Recursion Semantics (MRS; Copestake et al., 1999; Copestake et al., 2001) constitutes the appropriate theoretical basis for a robust, linguistically-motivated account of indirect prepositional arguments, which does not only overcome the natural limitations of previous syntactic and semantic analyses of these arguments (see, among others, Rappaport and Levin, 1988), (Pinker, 1989), (Markantonatou and Sadler, 1996)), but also provides the necessary formal generalizations for the analysis of such arguments.
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in a multilingual context, since MRS structures are easily comparable across languages. Our case study here is indirect prepositional arguments in Modern Greek and English (see Section 1.2).

The rest of the paper is organized as follows. In the next section (Section 1.2) we give an overview of the relevant data in Modern Greek and English. In Section 1.3 we present briefly previous analyses of indirect arguments. In Section 1.4 we present the robust analysis of indirect prepositional arguments that we propose. Finally, in Section 1.5 we are highlighting the advantages the proposed analysis presented in Section 1.4 might bring to the task of (multilingual) development of broad coverage grammars of natural language.

2. The Data

In this section we turn to the data. The given English data is extensively discussed in the existing literature on valency patterns and valency alternations, while the Modern Greek is not. Our overview focuses on whether the optional arguments of a verbal predicate are existentially quantified in their absence. From this point of view, a three-way classification emerges as syntactically obligatory arguments are distinguished from those which are syntactically optional and amongst the latter, those which are existentially quantified are distinguished from those which are not.

2.1 Indirect Prepositional Arguments in Contact Predicates

Consider the following sentences:

(1) O georgos fortose to ahiro sto karo.
the farmer.N load.PAST.3S the hay.A onto-the wagon
“The farmer loaded the hay on the wagon”.

(2) O georgos fortose to karo me ahiro.
the farmer.N load.PAST.3S the wagon.A with hay
“The farmer loaded the wagon with hay”.

(3) I diadilotes psekasan tin mpogia sto agalma.
the demonstrators.N.PL spray.PAST.3PL the paint.A onto-the statue
“The demonstrators sprayed the paint onto the statue”.

(4) I diadilotes psekasan to agalma me mpogia.
the demonstrators.N.PL spray.PAST.3PL the statue.A with paint
“The demonstrators sprayed the statue with paint”.

(5) The farmer loaded the hay on the wagon.
(6) The farmer loaded the wagon with hay.
(7) The demonstrators sprayed the paint onto the statue.