The Role of Temporal Expressions in Word Sense Disambiguation [*]

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Abstract. This paper presents an exhaustive study about the Temporal Expression (TE) influence in the task of Word Sense Disambiguation (WSD). The hypothesis was that previous identification of some words or word groups could improved the efficiency of WSD systems. In this case, the experiments carried out show that the identification of temporal expressions made up of one or more words (i.e. *today* or *the following day*) improves around 10% precision of the Word Domain Disambiguation Framework. The improvement of the WSD task is achieved by extracting temporal expressions from the corpus which allows us to limit the spread of a search across the EuroWordNet hierarchy. The corpus used to this research was the Spanish lexical sample task from Senseval-2[1].

1 Introduction

This paper has been focused on how temporal expressions could help to the resolution of the lexical ambiguity. The main goal was to investigate the hypothesis that getting out of the temporal expressions from the context of the sentence to be disambiguated could improve the resolution of the lexical ambiguity.

Temporal Expressions. Temporal expressions are a kind of linguistic coreference. There are two types of temporal expressions, explicit temporal expressions and implicit temporal expressions. An explicit temporal expressions is a complete date whereas an implicit temporal expression is an expression that refers to a date named before in the text. Every temporal expression is identified and tagged in the text. Thus, some examples of explicit and implicit temporal expressions are listed below:

- *Explicit:*Complete Dates or dates of Events:"11/01/2002" (01/11/2002), "Navidad" (Christmas),...
- *Implicit:*Expressions that refer to the document date or another date: "ayer" (yesterday), "un día antes" (a day before),...

[1] http://www.senseval.org/