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Facoltà di Lingue e Letterature Straniere  
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**Corso di Laurea Specialistica in Linguistica**  
curriculum di linguistica teorica e applicata



**EMPIRICAL CORRELATES  
OF EVENT TYPES**  
a priming study

MA thesis  
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# Introduction

Event types (ET)<sup>1</sup> have been widely addressed in linguistics literature, but have received little attention in psycholinguistics, neurolinguistics and computational linguistics research. Remarkable exceptions, which will be discussed in more detail within this text, are Finocchiaro and Miceli (2002), Gennari and Poeppel (2002, 2003), Heyde-Zybatow (2004), Bott (2007, 2008, in press), Bonnotte (2008) within the fields of psycholinguistics and neurolinguistics, Antinucci and Miller (1976), Li and Shirai (2000), Bertinetto et al. (in press) and Bertinetto et al. (2009) within the field of language acquisition, and Siegel and McKeown (1998), Siegel and McKeown (2000), Palmer et al. (2007), Lenci and Zarcone (in press) and Zarcone and Lenci (2008) within the field of computational linguistics.

This thesis dissertation explores the nature of event types from a cognitive point of view: many descriptions and diagnostics on event types are available, but few studies have dealt with the problem of how event types are represented and processed in the mental lexicon. An important prerequisite for this sort of research is the building of a corpus of stimuli that meets our needs (web-based pre-tests were run to test the reliability of the stimuli, which should be balanced to control the variables known to affect processing costs) and an analysis of pre-existing literature in experimental psycholinguistics of event types.

Our main concern was to explore new experimental settings in verb semantics psycholinguistics and to adapt them to this specific type of investigation: the choice of the method was narrowed down to the semantic priming paradigm, although the set of stimuli could also be suitable for other experimental settings, such as reading-time studies. The semantic priming paradigm was exploited to contrast processing effects on achievement verbs and activity verbs, which differ with respect to two superordinate features: durativity and resultativity. A series of priming experiments were run to explore dif-

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<sup>1</sup>In this thesis work “event type” refers to Vendler’s standard classification of predicates into *state* (STA), *activity* (ACT), *accomplishment* (ACC) and *achievement* (ACH) (Vendler, 1967).

ferences and interactions between such features and the tense morphology and to evaluate the different contribution of the experimental setting in the observation and measurement of the effect: experiment 1 and experiment 2 followed a similar design and contrasted the effects of different neutral primes; experiment 3 focused on the interaction between event types and Italian tense morphology.

## 0.1 Dissertation plan

In Chapter 1 I will provide a brief sketch of theories of event types; chapter 2 will focus on the search for empirical correlates of event types within the fields of language acquisition, computational linguistics, neurolinguistics and psycholinguistics, with particular attention paid to those studies which are most consistent with our objective, as well as to those which have inspired the experimental settings reported by this thesis dissertation. The semantic priming paradigm will be introduced in chapter 3; chapter 4 will describe three web-based pre-tests and their results and will also provide a detailed technical report on the stimuli and its reliability. The experiments will be fully reported in chapter 5, and chapter 6 will provide a final analysis of the obtained results and a discussion of open issues and further directions of research.

## 0.2 Abbreviations and further preliminary remarks

Abbreviations used within this text:

ACC	=	“accomplishment”	GCV	=	“gradual completion verb”
ACH	=	“achievement”	NW	=	“nonwords”
ACT	=	“activity”	plaus	=	“plausibility”
ET	=	“event type”	SOA	=	“stimulus onset asynchrony”
freq	=	“frequency”	STA	=	“state”

It would have been more coherent with the approach followed by this thesis work to provide examples drawn from corpora<sup>2</sup> only. This was done whenever possible, but when it was not possible to find a suitable example

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<sup>2</sup>Reference corpora are Repubblica (Baroni et al., 2004) and ColFis (Laudanna et al., 1995).

for some particular descriptive and demonstrative purposes further examples were invented by the author.

The reported experiments were conducted at the Laboratorio di Linguistica of the Scuola Normale Superiore in Pisa, which provided fundings, premises, software, hardware and technical support. The web pages for the pre-test were developed in PHP and PERL; the laboratory experiments' scripts were developed and run using Presentation software<sup>3</sup>; the data analysis was carried out using OpenOffice Calc<sup>4</sup> and R<sup>5</sup>.

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<sup>3</sup><http://www.neurobs.com/>

<sup>4</sup><http://www.openoffice.org/>

<sup>5</sup><http://www.r-project.org/>



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