

### Italian FrameNet: Verbs of Visual Perception and their Polysemy

This paper presents a frame semantic analysis of a sample of thirteen Italian verbs expressing visual perception, as the first stage of a long-term project whose ultimate goal is the development of Italian FrameNet, a frame-based lexical resource for Italian analogous to the original English FrameNet (<http://framenet.icsi.berkeley.edu>). Given this goal, the work follows as closely as possible the methodology used for developing English FrameNet, with example sentences annotated semantically and syntactically using the FrameNet Desktop. The analysis is based on data from the *la Repubblica* corpus (<http://dev.sslmit.unibo.it/corpora>).

Generally, existing English frames can describe the behavior of Italian lexical units, but sometimes changes in the frame structure are necessary. For instance, the verbs related to the *Perception\_active* frame (*contemplare*, *guardare*, *osservare*, *sbirciare*, *scrutare*) can be divided into two subframes based on the syntactic realization of the Frame Elements (FEs) DIRECTION and PHENOMENON. *Guardare*, *sbirciare*, and *scrutare* can occur either with DIRECTION (1) or PHENOMENON alone, or with both (2).

- (1) I bambini **sbirciarono** [nella scatola DIRECTION].  
The children peeked in the box.
- (2) **Sbirciai** [il pettirosso PHENOMENON] [attraverso i rami DIRECTION].  
I peeked at the robin through the branches.

In the English *Perception\_active* frame, both DIRECTION and PHENOMENON are core FEs. But *osservare* and *contemplare* almost never occur with DIRECTION alone (3), and if so there must be an implicit PHENOMENON understood from context for the sentence to be grammatical (4).

- (3) **Osservai** [il gorilla PHENOMENON] [attraverso le sbarre della sua gabbia DIRECTION]  
I observed the gorilla through the bars of his cage.
- (4) \***Osservai** [attraverso le sbarre della gabbia DIRECTION] (no PHENOMENON)  
\*I observed through the bars of the cage.

Thus, for Italian DIRECTION is best defined as a peripheral FE. This difference in syntactic patterns sheds light on a semantic difference between the two groups of verbs: whereas *guardare*, *scrutare*, and *sbirciare* involve an act of directing one's gaze, *osservare* and *contemplare* describe a more general act of directing attention to an object.

Many of the analyzed verbs also have metaphorical usages in the area of mental activity. Like *see*, *vedere* evokes the *Categorization* frame using a prepositional phrase with *come* – 'as'. English and Italian visual perception verbs share many patterns of polysemy (5), but the Italian verbs tend to show greater semantic versatility. In (6), *intravedono* is a mental activity verb translated as *see*, since neither *make out* nor *glimpse* can be used in such a context.

- (5) **Vedo** il suo comportamento aggressivo come un problema psicologico.  
I **see** his aggressive behavior as a psychological problem.
- (6) Le grandi compagnie **intravedono** come unica soluzione per la crisi economica le joint-ventures.  
Large companies can only **see**/\*make out/\*glimpse joint ventures as the solution for the economic crisis.

This work contributes to advancing the Frame Semantics enterprise by demonstrating the feasibility of FrameNet corpus and computational methodology and practices to characterize the valence patterns for Italian, a language which has no semantically annotated lexical resource.