Some constraints on anaphoric reference to events in French

The field of anaphora resolution, especially in the NLP community, has focussed largely on individual anaphora, with nominal antecedents. Relatively little attention has been paid to abstract (phrasal antecedent) anaphora in the perspective of resolution algorithms. The aim of this paper is to present a study of certain syntactic phenomena carried out to determine what constraints exist on anaphoric reference to events (as defined by Davidson (1967)) in French.

We wished to consider the notion of reference defined by Milner (1982), where a distinction is made between actual reference (instance) and virtual reference (type).

In French, the neuter demonstratives ce, cela and its contraction ça, in their anaphoric uses, are almost exclusively used to refer to abstract entities. Only rarely do they have nominal antecedents in discourse. It is also quite rare for third-person personal pronouns to have phrasal antecedents, thus we concentrate on the first group.

The predicative context in which a neuter demonstrative anaphor occurs constrains the type of antecedent it may have. Asher (1993) employs the term container to refer to verbs which subcategorize particular types of entity. The French verbs arriver, se passer (to happen) and avoir lieu (to take place) require an event description in subject position, while rater (to miss), être témoin de (to witness) and assister à (to be present at) take an event in direct or oblique object position. An anaphor occurring in an argument position of an event container, must (in most cases) have an event as antecedent.

We examined anaphoric reference to phrasal event descriptions in certain linguistic contexts: complementiser phrases, relatives, counterfactual conditionals and coordination. Although these constructions seem not to place many rigid constraints on anaphoric reference to events, they often determine the type of reference in the anaphoric relation. In certain cases, actual reference is possible, in others, only virtual reference is apparent (e.g. in counterfactuals, which contain hypothetical events):

(1) Si Max savait lire, [on lui offrirait un livre]. C'est déjà arrivé, alors qu'il est analphabète.

If Max could read, [we'd give him a book]. That already happened although he's illiterate.

In the case of subordinate and relative clauses, one constraint, resembling those stated in Binding Theory (Chomsky (1981)), was observed, namely that an anaphoric pronoun in a subordinate or relative clause cannot have an event antecedent in the main clause:

(2) #[Le ministre affirme] que cela, s'est passé hier.

#[The minister affirms], that it, happened yesterday.

Further investigation is needed to explore the analogy of a binding theory for demonstrative anaphora. An algorithm for event anaphora resolution based on this data was formulated in Bittar (2006) and is in the process of being implemented to obtain preliminary results.