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Anaphora and Indefinite Noun-Phrases

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Introduction

Indefinite NPs are usually taken to introduce new referents and, thus, are not deemed capable of acting as anaphors. Recent research, however, has attested the occurrence of indefinite anaphoric expressions (Schwarz, 2000), which occur (cf. Cunha Lima, 2004) (i) when the anaphor expresses part-whole relations, including partitive and specifying relations; and (ii) when the sentence or phrase containing the indefinite NP does not enclose a finite VP expressing an event which is different from the one in relation to which the antecedent was introduced.

Consider:

(1) O gato caçou um rato na cozinha. Um rato grande e gordo. *(The cat chased a mouse in the kitchen. A big, fat mouse)*

(2) O gato caçou um rato na cozinha. Um rato saiu pela porta dos fundos. *(The cat chased a mouse in the kitchen. A mouse left by the back door)*

(3) O gato caçou um rato na cozinha. O rato saiu pela porta dos fundos. *(The cat chased a mouse in the kitchen. The mouse left by the back door)*.

In (1) there is no doubt that the second occurrence of *a mouse* refers to the very same mouse mentioned previously. In (2), however, the second occurrence of *a mouse* is not co-referential with the first – it introduces an unmentioned referent in the discourse. Contrast this with (3): now, *the mouse* is old information.

One way to explain the difference between (2) and (3) above is to postulate that the verb following an indefinite NP forces its re-interpretation as not co-referential with the previously focused entity. If this is so, we can predict that processing the verb following an indefinite NP will be costlier than processing the verb following definite NP.

Method

Thirty-six students (native speakers of Brazilian Portuguese) at the State University of Campinas took part in the experiment. Twenty-four pairs of sentences ("texts") were constructed. In a self-paced reading experiment [1], the stimulus texts were chunked as follows: "Meu gato / caçou / um rato / na cozinha. / Um rato (1) / saiu (2) / pela porta (3) / traseira (4)"; and responses were recorded in points (1)-(4).

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[1] The experiment was run using the DMDX software, developed at Monash University and at the University of Arizona by K.I.Forster and J.C.Forster

Results and Discussion

Reading times for the verb position (see Table 1) was significantly slower following indefinite than definite NPs. That is, following indefinites, verbs took longer to read.

Table 1: Mean reading times (ms) for tensed sentences

	1	2	3	4
Definite	484,13	387,86	684,08	757,20
Indefinite	519,68	445,67	723,92	795,83
Difference	-35,55	-57,81[*]	-39,84	-38,63

*F_1=(1,99)7.0379, p=0.009 and F_2=(1,123) 3.9192, p=0.049.

This result is consistent with the prediction that verbs following indefinite NPs are costlier than verbs following definite NPs. The source of such cost may be in the mechanism which bridges referring expressions to discourse (Almor, 1999). Recent data (Nadig et al., 2003) indicate that children, in a truth-value judgment test, tend to bridge indefinites to previously mentioned entities; similarly, adults also bridge indefinites to previously focused referents in a forced choice task. It seems that, at least in the case of children, bridging is driven by attention, rather than by type of referring expression. One can hypothesize that, in the present study, referring expressions, either definite or indefinite, were bridged to given/focused referents; when the verb incrementally makes its contribution, the need for re-interpretation becomes apparent – and exerts its tolls.

Acknowledgments

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