Sentences like (1) *The small square is the only one that is a policeman* are ambiguous depending on what referent is considered for *one*. To illustrate, in Fig 1 we can evaluate (1) against the set of all geometrical figures (the only geometrical figure that...) or alternatively against the set of squares (the only square that...) .

Following Crain et.al., (1994) we call the former “Maximal Commitment” strategy (i.e., select the strongest interpretation) and the latter “Minimal Commitment” strategy (i.e., choose the interpretation that has more chances of being true). Previous studies concluded that in interpreting (1) adults adopt the Minimal commitment strategy to avoid costly and unnecessary commitments .

Our goal was to investigate whether adults ever consider the 'Maximal commitment' strategy. We conducted an eye-tracker experiment with Italian sentences like (1) in situations in which the sentence is true under a “Minimal commitment strategy” and false under a “Maximal commitment strategy”. A Visual World Paradigm on an Eye Link 1000 has been used. Participants heard sentences and had to evaluate them relative to a scenario on the display screen. For example, the critical sentence (1) *The small square is the only one that is a policeman* was heard relative to a scenario in which among the squares, the small one was the only being a policeman but there were other figures (a circle, a triangle) that were also policemen. Thus, the interpretation *the small square is the only square that is a policeman* (maximal commitment) is true, but *the small square is the only thing that is a policeman* (minimal commitment) is false. Besides, we compared critical trials with unambiguous control trials. Crucially the unambiguous controls varied relatively to the 'exploration strategy' required to evaluate the sentence, some requiring the exploration of the whole scenario in order to be properly evaluated (*4-quadrants exploration*); some requiring only the exploration of one set of objects (*one-quadrant exploration*).
Results. The 30 participants rejected the critical sentences (> 90%). Mixed-effects models were employed using R (Baayen et al., 2008), with crossed random effects for subjects and items. Interestingly, the exploration pattern (e.g. number of fixations, area explored and time of exploration) for the critical trials is halfway between controls and is statistically significant from both controls (4-quadrants pMCMC=.0012; 1-quadrant pMCMC=.0001). The results suggest that adults adopt a Maximal Commitment Strategy and stop their search once a counterexample is found contra Crain et al. (1994). However, another possibility could be that adults maximally exploit whatever information is available in the context. Our experiment does not distinguish between a Maximal Commitment strategy from a Maximal Exploitation of the context since both converge toward the same interpretation: the strongest interpretation is the one that requires to use all contextual information. To disentangle these two strategies we conducted another experiment that differs from our first experiment only in the use of a negative sentence (2) The small square is not the only one that is a policeman. Since in (2) the entailment relations are reversed, the stronger interpretation, as dictated by Maximal Commitment, requires the investigation of only one of the quadrants, i.e. the quadrant with the squares (see Fig 1). This interpretation makes the sentence false because, among the squares, the small one IS the only policeman. A Maximal Exploitation strategy on the other hand makes the sentence true since there are other figures that are policemen. Based on the data from 30 Italian-speaking adults we can conclude that adults do not follow a Maximal Commitment strategy: the high acceptance rate of target sentences (> 92%) suggests that they rather follow a more general strategy that instructs them to use all the available information.

References: