

The Utility of Vagueness: Does it Lie Elsewhere?

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Summary

- Game theory finds that vagueness is never optimal in co-operative situations, but vague terms are very common in natural language. This suggests that there are some benefits of vagueness that game theory is not taking into account.
- Attempts to identify empirical benefits of vagueness suggest that the benefits that vague terms bring are due to other properties that the vague terms bring with them

Vagueness and other properties

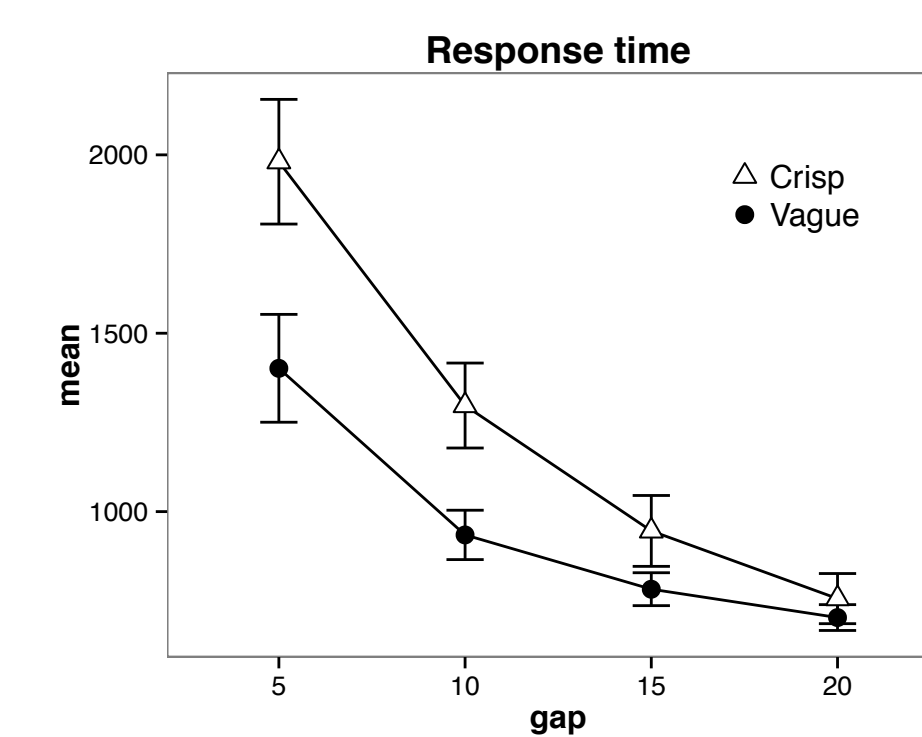
Properties of vagueness.

- borderline cases
- fuzzy boundaries
- Sorites paradox

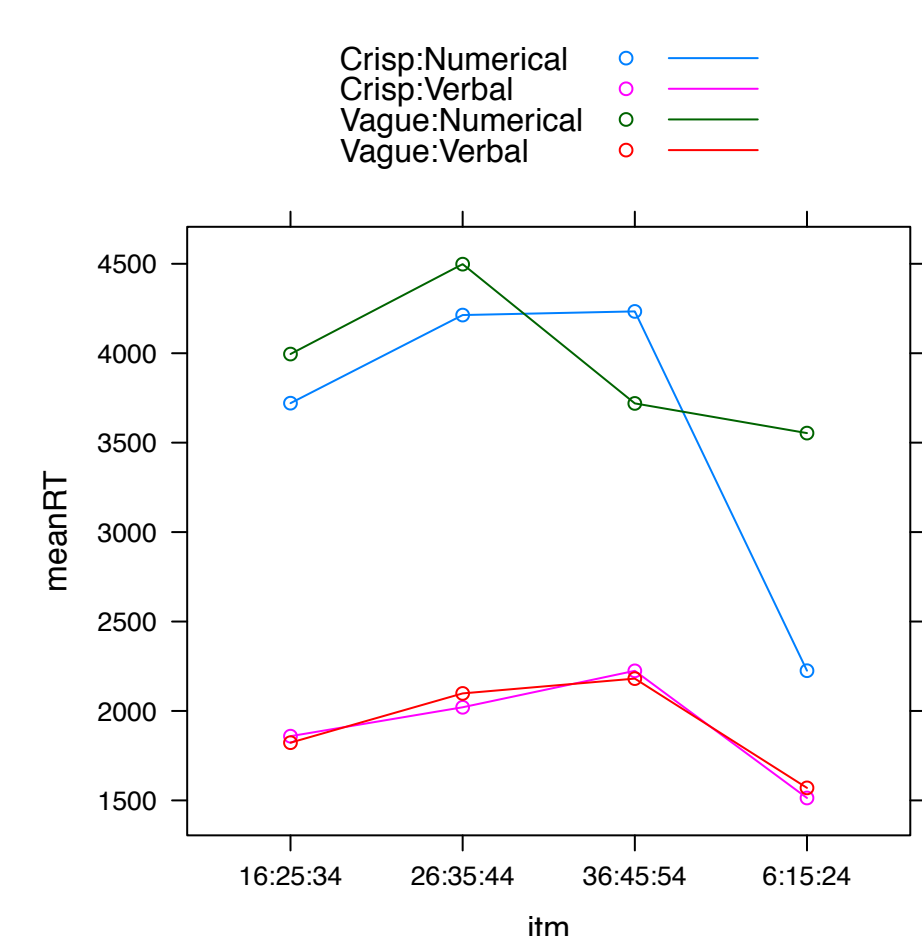
Other properties that vague expressions also tend to have.

- avoid numbers
- allow comparison

Earlier work



Vague instructions lead to faster and more accurate responses versus crisp alternatives

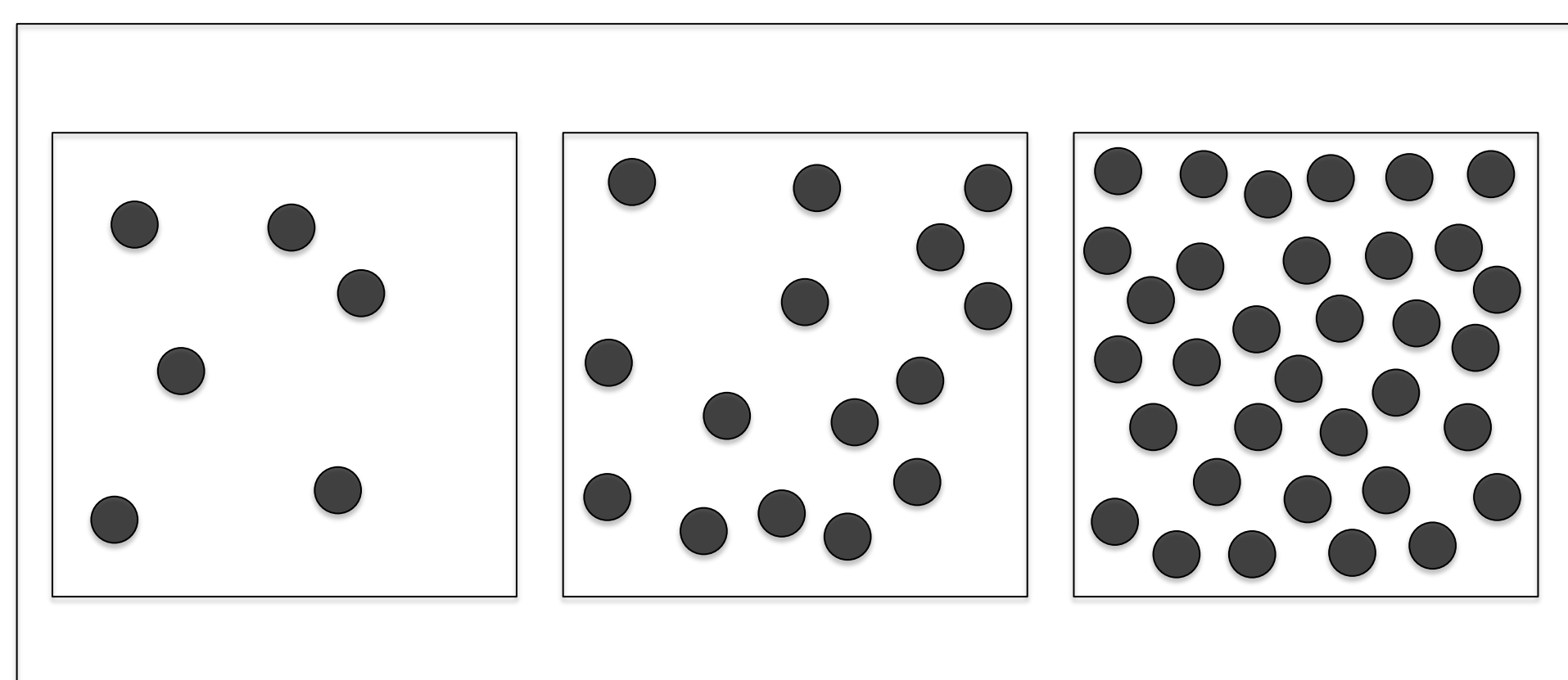


Instructions that avoid numbers and permit comparison tasks lead to faster responses, but there is no additional effect of vagueness

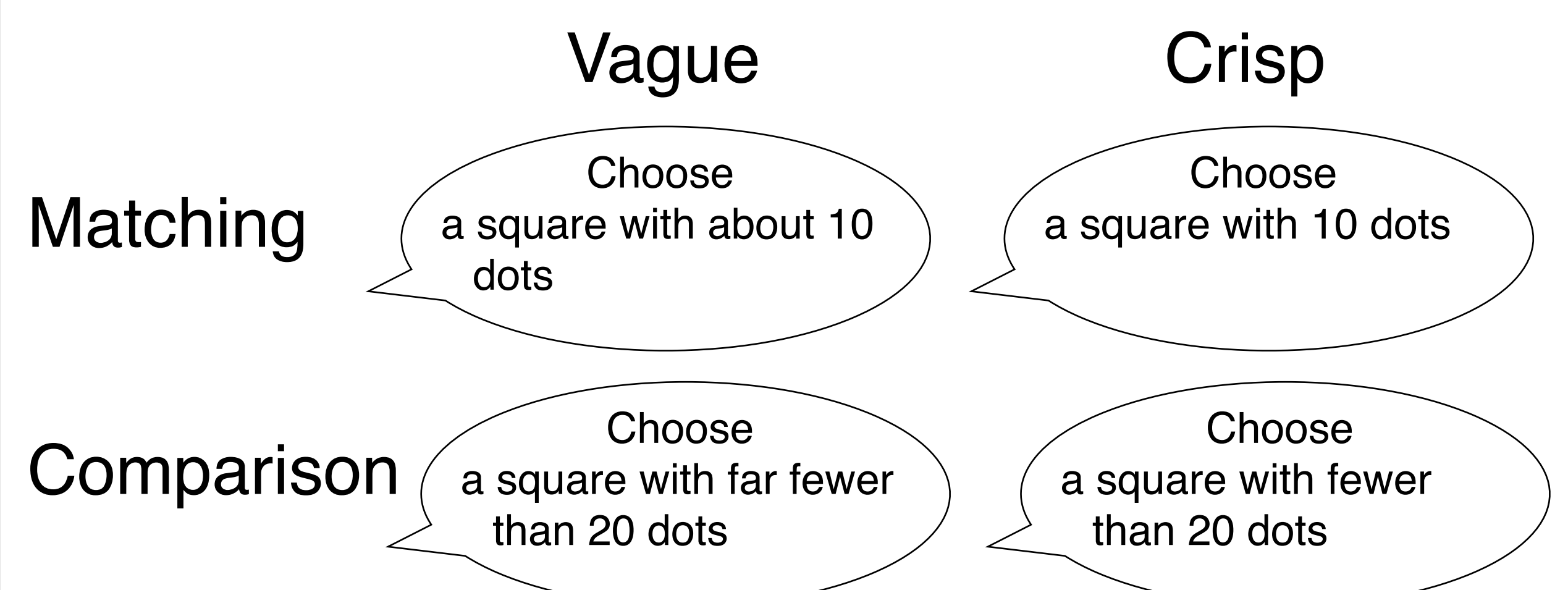
Next: Hold use of numbers constant and manipulate vagueness and selection task

Current experiment

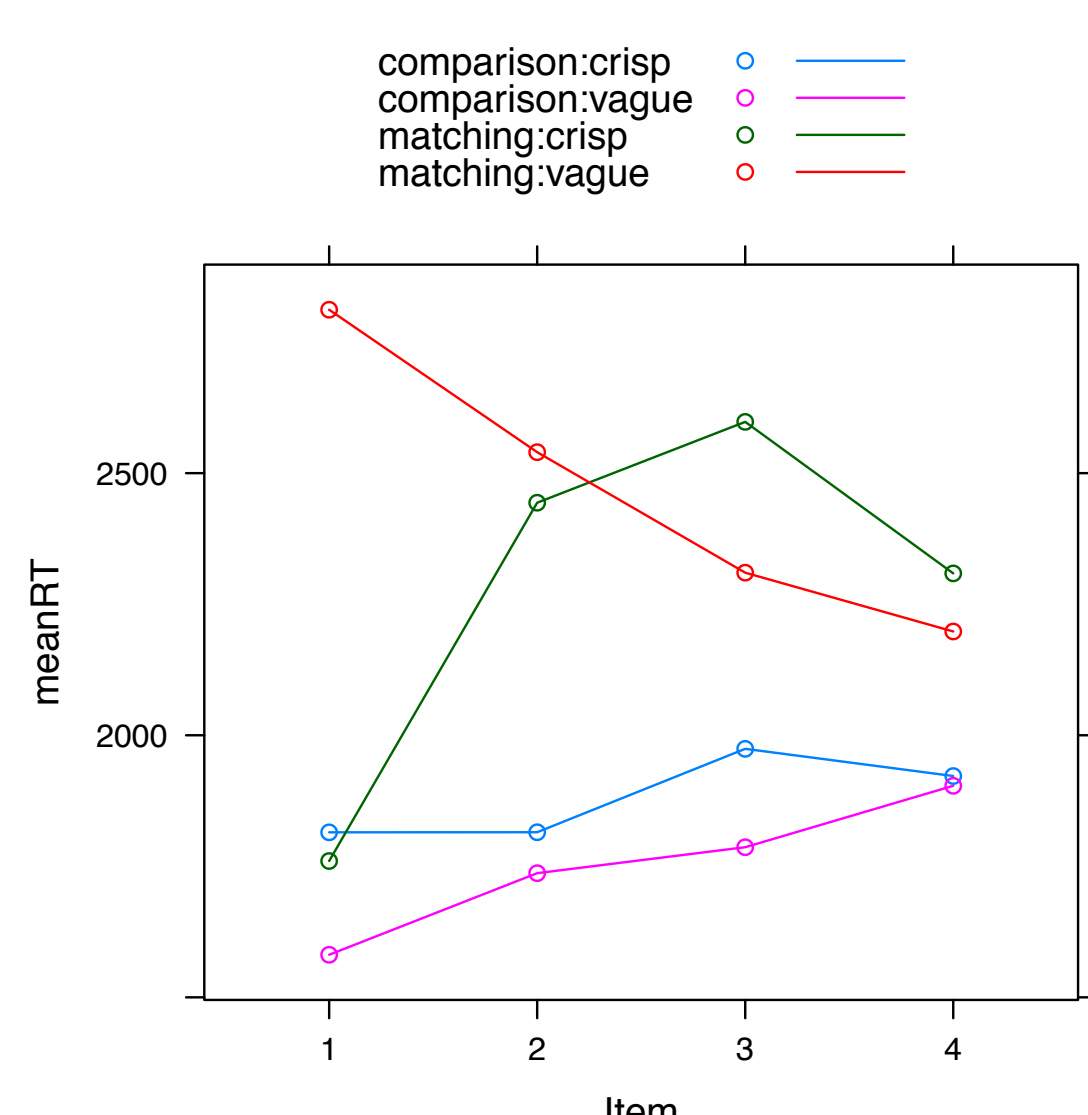
Stimulus



Manipulation



Results



Vague comparison is easier than crisp comparison, but in matching, vagueness has no effect

Discussion

- Vague and crisp forms were equally difficult on average.
- Comparison forms were easier than the matching forms.
- Vague comparison forms were easier than crisp comparison forms.
- Could the advantage for vagueness be due to number of valid targets?