



DEPARTMENT OF PHILOSOPHY,  
LINGUISTICS AND THEORY OF SCIENCE

# SPATIAL RELATIONS IN EMERGENT LANGUAGES

This is the subtitle

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## Abstract

## Preface

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# 1 Introduction

*[Dominik Künkele]* 2 pages

1.1 Research Question

1.2 Motivation

1.3 Contribution

1.4 Scope

## 2 Background and Related Work

*[Dominik Künkele]* 7 pages

### 2.1 Language Games

*[Dominik Künkele]*

- EGG
- Resnet

### 2.2 Dataset

*[Dominik Künkele]*

- CLEVR
  - 3D objects
  - simple objects
- CLEVR baselines

### 3 Experimental Setup

[Dominik Künkele] 15 pages

[Dominik Künkele]

- what is ambiguity?
- control over dataset
- target object/target group/non-target group:
  - 1. how many objects?
  - 2. how many shared attributes?
  - 3. which shared attributes?
  - 4. level of ambiguity
- as close to CLEVR as possible
  - image size
  - number (10.000)
  - between 3 to 10 objects ???
- unambiguous dataset:
  - target group = non-target group
  - all attributes shared, except for the color
  - → describable with one 'word'

## 4 Results and Discussion

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## 5 Ethical Considerations

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## 6 Critiques and Limitations

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[Dominik Künkele] combine with future work

## 7 Future Work

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## 8 Conclusion

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## References

## A Resources