UNIVERSITY OF
GOTHENBURG

# SPATIAL RELATIONS IN EMERGENT LANGUAGES

## This is the subtitle

**Dominik Künkele**

# Abstract

# Preface

# Contents

# 1 Introduction

## 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]*
- 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 ???
- unambigous dataset:
—- target group = non-target group
—- all attributes shared, except for the color
—-   –> describable with one 'word'

# 4 Results and Discussion

# 5   Ethical Considerations

*[Dominik Künkele]* 1 pages

*[Dominik Künkele]* 1 big model vs. many task specific models

# 6 Critiques and Limitations

*[Dominik Künkele]* 3 pages

*[Dominik Künkele]* combine with future work

# 7 Future Work

[Dominik Künkele] 2 pages

# 8 Conclusion

*[Dominik Künkele]* 2 pages

# References

# A    Resources