Universität Hamburg Department Informatik Knowledge Technology, WTM

On the Relationship between Generative Encodings .. - in-depth analysis

Seminar Paper
Bio-inspired Artificial Intelligence

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11.11.2015

Abstract

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1 Introduction

This paper: [?]

What research question is examined in the paper?

Solution suggested by this paper?

2 related work

Typical approaches from related work

- typically the two problems (1. encoding of nervous systems for evolution of large good neural networks and 2. synaptic plasticity in neural networks) are studied separately

About generative encodings:

- $[?] \rightarrow \text{L-Systems}$
- $[?] \rightarrow$ neuroscience toolbox

About synaptic plasticity:

- [?] \to importance of synaptic plasticity for learning - [?] \to synaptic plasticity in neural networks

3 Background Information

From genes to nervous systems

- Direct and developmental encodings

Skinner-box

- Where and for what purpose can this experiment be used?

Definition of regularity used in this paper

4 Approach description

Proposal of the paper

- bias towards regularity is critical to evolve plastic neural networks

5 Approach analysis

results from the experiment

6 Conclusion

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