

Context-Specific Embedding Spaces Recover Human Similarity

PRINCETON
Neuroscience
INSTITUTE

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Semantic Similarity



Size

How Similar? 1 - 2 - 3 - 4 - 5



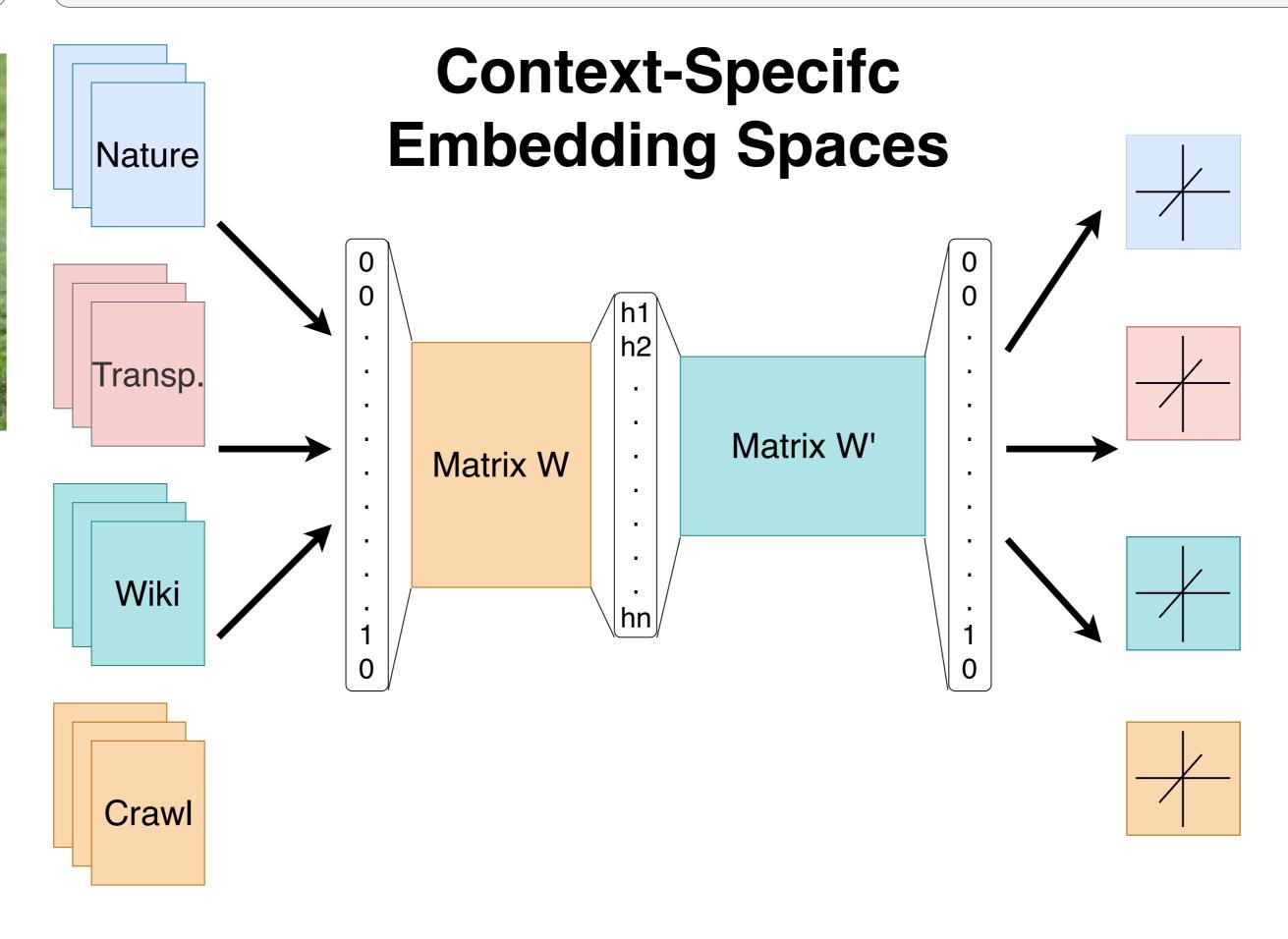
Danger Pelt Value Meat Value

Semantic Context 1 Semantic Context 2

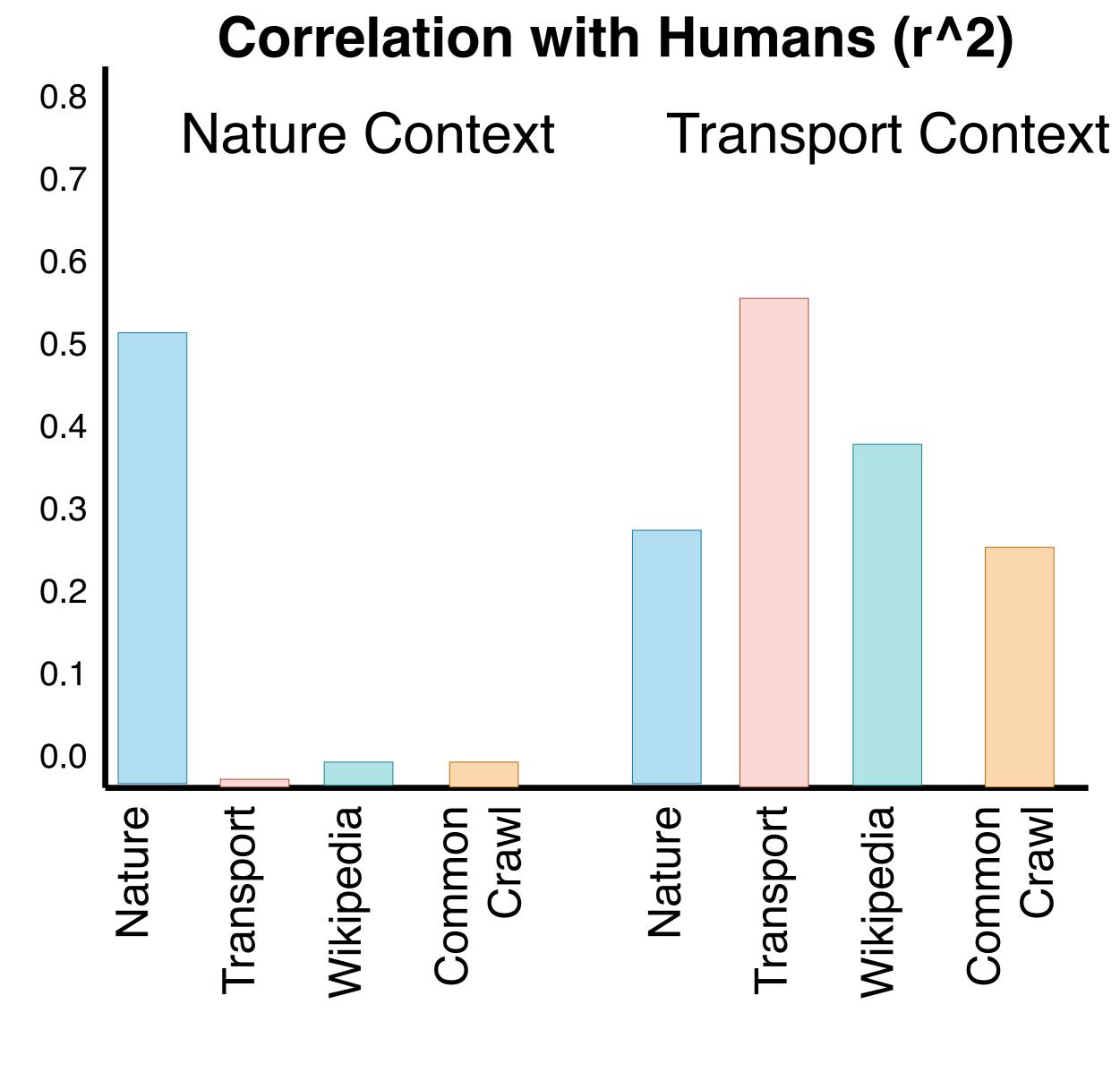
Key Idea:

Similarity Depends on Semantic Context

Experiment: Context-Specific Embeddings Predict Similarity

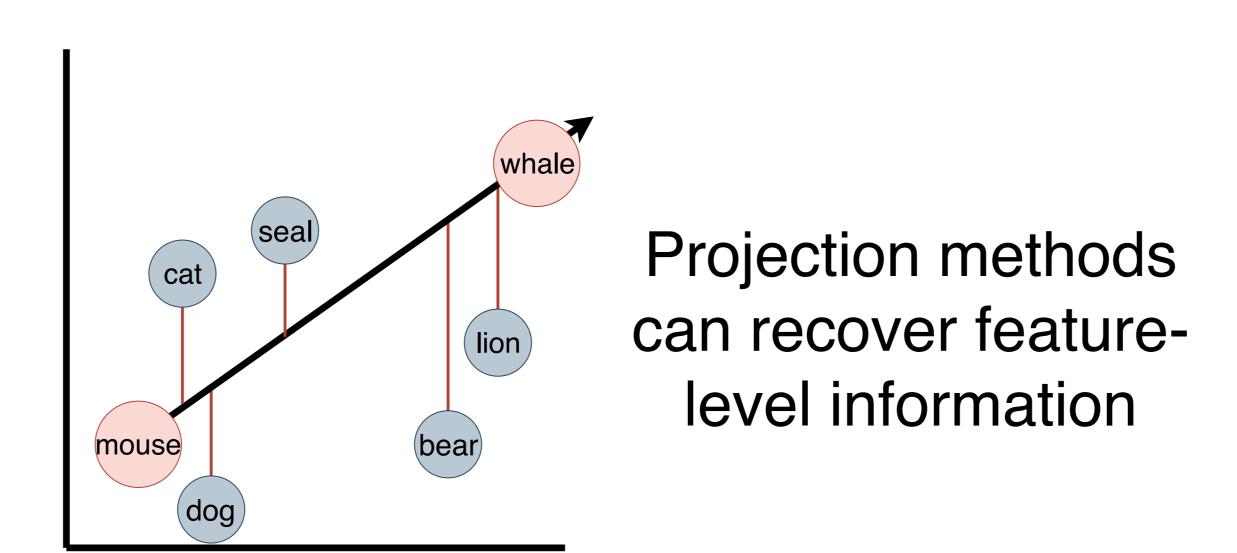


Key Idea:
Train on Corpora Segmented by Semantic
Similarity



Semantic Embeddings: Word2Vec

Experiment: Context-Specific Embeddings Predict Features



Key Idea:Use Contextually-Relevant Endpoints for Projection

	Nature	Transport	Wiki
Nature Context	11/12	1/12	5/12
Transport Context	8/12	10/12	5/12

Selected References:

Mikolov et al (2013a, 2013b), lordan et al (2018), Grand et al (2018)