

Connectionist Natural Language Processing

Readings from Connection Science

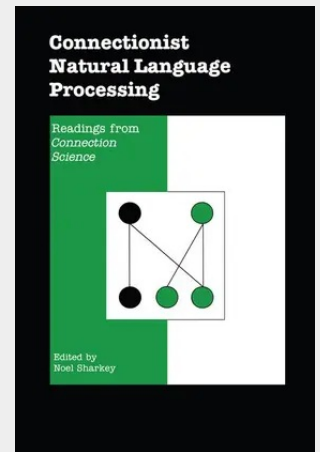
Connection science is a new information-processing paradigm which attempts to imitate the architecture and process of the brain, and brings together researchers from disciplines as diverse as computer science, physics, psychology, philosophy, linguistics, biology, engineering, neuroscience and AI. Work in Connectionist Natural Language Processing (CNLP) is now expanding rapidly, yet much of the work is still only available in journals, some of them quite obscure. To make this research more accessible this book brings together an important and comprehensive set of articles from the journal which represent the state of the art in Connectionist natural language processing; from speech recognition to discourse comprehension. While it is quintessentially Connectionist, it also deals with hybrid systems, and will be of interest to both theoreticians as well as computer modellers.

Range of topics covered:

- Connectionism and Cognitive Linguistics
- Motion, Chomsky's Government-binding Theory
- Syntactic Transformations on Distributed Representations
- Syntactic Neural Networks
- A Hybrid Symbolic/Connectionist Model for Understanding of Nouns
- Connectionism and Determinism in a Syntactic Parser
- Context Free Grammar Recognition
- Script Recognition with Hierarchical Feature Maps
- Attention Mechanisms in Language
- Script-Based Story Processing
- A Connectionist Account of Similarity in Vowel Harmony
- Learning Distributed Representations
- Connectionist Language Users
- Representation and Recognition of Temporal Patterns
- A Hybrid Model of Script Generation
- Networks that Learn about Phonological Features
- Pronunciation in Text-to-Speech Systems

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