

An Excellent Addition to Your Library!

Released: February 2013

Theoretical and Computational Models of Word Learning: Trends in Psychology and Artificial Intelligence

PREMIER REFERENCE SOURCE

Theoretical and Computational Models of Word Learning Trends in Psychology and Artificial Intelligence



Lakshmi Gogate & George Hollich

Lakshmi Gogate (Florida Gulf Coast University, United States) and George Hollich (Purdue University, United States)

The process of learning words and languages may seem like an instinctual trait, inherent to nearly all humans from a young age. However, a vast range of complex research and information exists in detailing the complexities of the process of word learning.

Theoretical and Computational Models of Word Learning: Trends in Psychology and Artificial Intelligence strives to combine cross-disciplinary research into one comprehensive volume to help readers gain a fuller understanding of the developmental processes and influences that makeup the progression of word learning. Blending together developmental psychology and artificial intelligence, this publication is intended for researchers, practitioners, and educators who are interested in language learning and its development as well as computational models formed from these specific areas of research.

Topics Covered:

- Artificial Intelligence
- Cognitive Learning
- Computational Intelligence
- Computer-Assisted Language Learning
- Domain Specific Word Learning
- Human-Computer Interactions
- Perceptual Models

ISBN: 9781466629738; © 2013; 451 pp.

Print: US \$175.00 | Perpetual: US \$265.00 | Print + Perpetual: US \$350.00

Pre-pub Discount:*

Print: US \$165.00 | Perpetual: US \$250.00

* Pre-pub price is good through one month after publication date.

Market: This premier publication is essential for all academic and research library reference collections. It is a crucial tool for academicians, researchers, and practitioners and is ideal for classroom use.

Lakshmi Gogate is a developmental psychologist and an Associate Professor of Psychology at Florida Gulf Coast University. She received a Doctorate in Developmental Psychology from Rutgers University and a Masters in Linguistics from Michigan State University. She is the recipient of a Dissertation Research Award from the APA, a Dean's Research Initiative award from the College of Medicine at SUNY Health Science Center, Brooklyn, and a Senior Faculty Scholarship Excellence Award at Florida Gulf Coast University. Her research focuses on the perceptual origins of language development in term and preterm infants. In particular, she investigates the embodied organismic-environmental interactions that result in infants' learning of names for objects and actions. Her research has been funded by the Thrasher Research Fund, The March of Dimes Birth Defects Foundation, and The National Science Foundation. Her papers include a theoretical model (with Hollich, G, "Invariance detection within an interactive system: A perceptual gateway to language development", 2010, Psychological Review) and a computational model (with Prince, C.G & Matatyaho, D. "Two-month-old infants' sensitivity to changes in syllable-object pairings: The role of temporal synchrony, 2009, Journal of Experimental Psychology: Human Perception and Performance) of word learning.



www.igi-global.com

Publishing Academic Excellence
at the Pace of Technology Since 1988

Section 1: The Puzzle: Broad Theoretical Approaches to Word Learning

Chapter 1

A Dynamic Neural Field Model of Word Learning
Samuelson Larissa K. (University of Iowa, USA)
Spencer John P. (University of Iowa, USA)
Jenkins Gavin W. (University of Iowa, USA)

Chapter 2

Timing Matters:
Gogate Lakshmi (Florida Gulf Coast University, USA)
Hollich George (Purdue University, USA)

Chapter 3

Pushing the Envelope of Associative Learning:
McMurray Bob (University of Iowa, USA)
Zhao Libo (University of Iowa, USA)
Kucker Sarah C. (University of Iowa, USA)
Samuelson Larissa K. (University of Iowa, USA)

Chapter 4

How Experiences with Words Supply All the Tools in the Toddler's Word-Learning Toolbox
Houston-Price Carmel (University of Reading, UK)
Law Beth (University of Reading, UK)

Chapter 5

Learning Words from Experience:
Henderson Annette M. E. (University of Auckland, New Zealand)
Sabbagh Mark A. (Queen's University, Canada)

Section 2: The Embodied Experience: Multiple Levels of Influence on Word Learning

Chapter 6

A Sensory-Motor Solution to Early Word-Referent Learning
Yu Chen (Indiana University, USA)
Smith Linda B. (Indiana University, USA)

Chapter 7

The Miracle Year:
Bortfeld Heather (University of Connecticut, USA & Haskins Laboratories, USA)
Shaw Kathleen (University of Connecticut, USA)
Depowski Nicole (University of Connecticut, USA)

Chapter 8

An Embodied Model of Young Children's Categorization and Word Learning
Twomey Katherine E. (University of Sussex, UK)
Horst Jessica S. (University of Sussex, UK)
Morse Anthony F. (University of Plymouth, UK)

Chapter 9

Developmental Language Learning from Human/Humanoid Robot Social Interactions:
Arsénio Artur M. (Universidade Técnica de Lisboa, Portugal)

Chapter 10

Making Use of Multi-Modal Synchrony:
Wrede Britta (Bielefeld University, Germany)
Schillingmann Lars (Bielefeld University, Germany)
Rohlfing Katharina J. (Bielefeld University, Germany)

Section 3: Organismic Processes and Mechanisms for Word Learning

Chapter 11

Development of Word Recognition across Speakers and Accents
Mulak Karen E. (University of Western Sydney, Australia)
Best Catherine T. (University of Western Sydney, Australia & Haskins Laboratories, USA)

Chapter 12

A Neurorobotics Approach to Investigating Word Learning Behaviors
Veale Richard (Indiana University, USA)

Chapter 13

Learning Words by Imitating
Cederborg Thomas (INRIA, France)
Oudeyer Pierre-Yves (INRIA, France)

Chapter 14

I Think I Have Heard That One Before:
Sato Yo (University of Hertfordshire, UK)
Ji Ze (University of Hertfordshire, UK)
van Dijk Sander (University of Hertfordshire, UK)

Chapter 15

Two Distinct Sequence Learning Mechanisms for Syntax Acquisition and Word Learning
Walk Anne McClure (Saint Louis University, USA)
Conway Christopher M. (Georgia State University, USA)

Order Your Copy Today!

Name: _____

Organization: _____

Address: _____

City, State, Zip: _____

Country: _____

Tel: _____

Fax: _____

E-mail: _____

Enclosed is check payable to IGI Global in
US Dollars, drawn on a US-based bank

Credit Card Mastercard Visa Am. Express

3 or 4 Digit Security Code: _____

Name on Card: _____

Account #: _____

Expiration Date: _____