

Susan Windisch Brown

Curriculum Vitae

Research Interests

Computational linguistics and natural language processing, in particular, semantic issues such as event representation, verb polysemy, metaphor, and ontology development. I am also interested in the use of psycholinguistic and corpus linguistic methodologies and insights to improve NLP.

Education

University of Colorado at Boulder	Joint Ph.D., May 2010 Linguistics; Cognitive Science Co-advisors: Martha Palmer; James Martin
University of Colorado at Boulder	M.A. Linguistics, May 2005 Human Language Technology Certificate, 2005
University of Chicago	M.A. English Language and Literature, 1988
University of Michigan	B.A. English Language and Literature, 1987

Professional Experience

University of Colorado

<i>Director, CLASIC</i> Computational Linguistics, Analytics, Search, and Informatics Responsibilities: academic, internship and job advising for all CLASIC students, academic and admissions advising for prospective students, admissions committee lead, development of CLASIC curriculum, budget input	August 2023-present
<i>Associate Teaching Professor</i> Graduate School	August 2023-present
<i>Senior Research Associate</i> Department of Linguistics	July 2018-present
<i>Associate Director, CLASIC</i>	Jan 2017-August 2023
<i>Research Associate</i> Department of Linguistics Linguistics Department	May 2015-July 2018
<i>Professional Temp</i>	July 2014-April 2015

Institute of Cognitive Science

Università degli Studi di Firenze

Post-Doctoral Research Fellow

July 2012- Nov. 2014

IMAGACT : Cross-linguistic, multimodal ontology of action

University of Copenhagen

Visiting Scholar

August 2011

Semantic and Multimodal Annotation, CLARA

University of Colorado

Post-Doctoral Research Fellow

May 2010-May 2011

VerbNet and SemLink Corpus Projects

Research Assistant

August 2006-May 2010

DARPA GALE OntoNote

Brown Editorial and Project Management Services

1990-2009

Owner and Manager

Peer-Reviewed Publications

- Elizabeth Spaulding, Kathryn Conger, Anatole Gershman, Rosario Uceda-Sosa, Susan Windisch Brown, James Pustejovsky, Peter Anick, and Martha Palmer. 2023. The DARPA Wikidata Overlay: Wikidata as an ontology for natural language processing. In Proceedings of the 19th Joint ACL - ISO Workshop on Interoperable Semantic Annotation (ISA-19), pages 1–10, Nancy, France.
- Susan Windisch Brown, Julia Bonn, Ghazaleh Kazeminejad, Annie Zaenen, James Pustejovsky, and Martha Palmer. 2022. Semantic representations for NLP using VerbNet and the generative lexicon. *Frontiers in Artificial Intelligence*, 5.
- Ghazaleh Kazeminejad, Martha Palmer, Susan Windisch Brown, and James Pustejovsky. 2022. Componential analysis of English verbs. *Frontiers in Artificial Intelligence*, 6.
- Piyush Mishra, Akanksha Malhotra, Susan Windisch Brown, Martha Palmer, and Ghazaleh Kazeminejad. 2021. A graphical interface for curating schemas. In Proceedings of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing: System Demonstrations, pp. 159-166.
- Olga Majewska, Charlotte Collins, Simon Baker, Jari Björne, Susan Windisch Brown, Anna Korhonen, and Martha Palmer. 2021. BioVerbNet: A large semantic-syntactic classification of verbs in biomedicine. *Journal of Biomedical Semantics* 12.
- Kevin Stowe, Jenette Preciado, Kathryn Conger, Susan Windisch Brown, Ghazaleh Kazeminejad, James Gung, and Martha Palmer. 2021 SemLink 2.0: Chasing lexical resources. In *14th International Conference on Computational Semantics (IWCS)*. Online, June 17-18.
- Wen, Haoyang, Ying Lin, Tuan M. Lai, Xiaoman Pan, Sha Li, Xudong Lin, Ben Zhou, Susan W. Brown et al. 2021. RESIN: A dockerized schema-guided cross-document cross-lingual

- cross-media information extraction and event tracking system. In *Proceedings of the 2021 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies: Demonstrations* (pp. 133-143).
- Claire Bonial, Susan W. Brown, Ghazaleh Kazeminejad, Martha Palmer. 2021. The Rich Event Ontology. In T. Caselli, E. Hovy, M. Palmer & P. Vossen (Eds.), *Computational Analysis of Storylines: Making Sense of Events*. Cambridge: Cambridge University Press.
- Daniel Peterson, Susan W. Brown, and Martha Palmer. 2020. Verb class induction with partial supervision. *The Thirty-Fourth AAAI Conference on Artificial Intelligence*, New York, February.
- Susan Windisch Brown, Julia Bonn, James Gung, Annie Zaenen, James Pustejovsky, and Martha Palmer. 2019. "VerbNet representations: Subevent semantics for transfer verbs." In *Proceedings of the Association for Computational Linguistics, Designing Meaning Representations Workshop, 2019*, Florence, Italy, August.
- Susan Windisch Brown, James Pustejovsky, Annie Zaenen, and Martha Palmer. 2018. Integrating Generative Lexicon Event Structures into VerbNet. In *Proceedings of the Eleventh International Conference on Language Resources and Evaluation (LREC 2018)*, Miyazaki, Japan, May.
- Kazeminejad, G., Bonial, C., Brown, S. W., & Palmer, M. 2018. Automatically extracting qualia relations for the Rich Event Ontology. In *Proceedings of the 27th International Conference on Computational Linguistics*, pp. 2644-2652.
- Susan Windisch Brown, Claire Bonial, Leo Obrst, and Martha Palmer. 2017. The Rich Event Ontology. *Proceedings of the Association of Computational Linguistics, Events and Stories in the News Workshop*. Vancouver, August.
- James Pustejovsky, Martha Palmer, Annie Zaenen, and Susan Brown. 2016. Verb meaning in context: Integrating VerbNet and GL predicative structures. In *Proceedings of Interoperability for Semantic Annotation (ISA) 2016, held in conjunction with LREC 2016*, Portoroz, Slovenia. May.
- Claire Bonial, Susan Windisch Brown, Martha Palmer. 2016. A lexically informed upper-level ontology. In *Proceedings of Interoperability for Semantic Annotation (ISA) 2016, held in conjunction with LREC 2016*, Portoroz, Slovenia. May.
- Claire Bonial, David Tahmoush, Susan Windisch Brown, and Martha Palmer. 2016. Multimodal use of an upper-level event ontology. In *Proceedings of the 4th Workshop on Events: Definition, Detection, Coreference, and Representation*, pp. 18–26, San Diego.
- Susan Windisch Brown. 2014. From Visual Prototypes of Action to Metaphors: Extending the IMAGACT Ontology of Action to Secondary Meanings. In *Proceedings of the Tenth Joint ISO – ACL SIGSEM Workshop on Interoperable Semantic Annotation*, Reykjavik, May.
- Susan Windisch Brown, Dmitriy Dligach, and Martha Palmer. 2014. VerbNet class assignment as a WSD task. In Harry Bunt, Johan Bos, Stephen Pullman, eds., *Computing Meaning*, Vol. 4. New York: Springer.
- Susan Windisch Brown, Gloria Gagliardi, and Massimo Moneglia. 2014. IMAGACT4ALL: Mapping Spanish Varieties onto a Corpus-Based Ontology of Action. *CHIMERA: Romance Corpora and Linguistic Studies* 1: 91-135.
- Gloria Gagliardi, Massimo Moneglia, Susan Brown, Francesca Frontini, Fahad Khan, Monica Monachini and Alessandro Panunzi. 2014. The IMAGACT Visual Ontology. An Extendable Multilingual Infrastructure for the representation of lexical encoding of

- Action. In *Proceedings of the Ninth International Conference on Language Resources and Evaluation (LREC 2014)*, Reykjavik, May.
- M. Moneglia, S. W. Brown, A. Kar, A. Kumar, A. K. Ojha, H. Mello, Niharika, G. N. Jha, B. Ray, and A. Sharma. 2014. Mapping Indian Languages onto the IMAGACT Visual Ontology of Action. 2nd Workshop on Indian Language Data: Resources and Evaluation . In *Proceedings of the Ninth International Conference on Language Resources and Evaluation (LREC 2014)*, Reykjavik, May.
- Susan Windisch Brown and Martha Palmer. 2012. Semantic annotation of metaphorical verbs with VerbNet. In *Proceedings of the Eighth Joint ISO – ACL SIGSEM Workshop on Interoperable Semantic Annotation*, Pisa, October.
- Susan Windisch Brown, Dmitriy Dligach, and Martha Palmer. 2011. VerbNet class assignment as a WSD task. Ninth International Conference on Computational Semantics IWCS 2011. Oxford, UK, January.
- Claire Bonial, Susan Windisch Brown, William Corvey, Volha Petukhova, Martha Palmer and Harry Bunt. 2011. An exploratory comparison of thematic roles in VerbNet and LIRICS. *Proceedings of the Sixth Joint ISO-ACL SIGSEM Workshop on Interoperable Semantic Annotation*. Oxford, UK, January.
- Claire Bonial, Susan Windisch Brown, Jena D. Hwang, Christopher Parisien, Martha Palmer and Suzanne Stevenson. 2011. Incorporating coercive constructions into a verb lexicon. *Annual Meeting of the Association for Computational Linguistics: Human Language Technologies (ACL-HLT) Workshop on Relational Models of Semantics*. Portland, OR, June.
- Susan Windisch Brown, Travis Rood, and Martha Palmer. 2010. Number or nuance: Which factors restrict reliable word sense annotation? In *Proceedings of the 7th International Conference on Language Resources and Evaluation (LREC 2010)*. Malta, May 2010.
- Susan Windisch Brown and Martha Palmer. 2010. What computers need to know about verbs. In Phillip Sheu, Heather Yu, C. V. Ramamoorthy, Arvind K. Joshi, and Lotfi A. Zadeh (eds.), *Semantic Computing*. IEEE Press/Wiley.
- Martha Palmer, Jena D. Hwang, Susan Windisch Brown, Karin Kipper Schuler and Arrick Lanfranchi. 2009. Leveraging lexical resources for the detection of event relations. *Proceedings of the AAAI2009 Spring Symposium on Learning by Reading*. Stanford, CA, March.
- Martha Palmer and Susan Windisch Brown. 2008. The relevance of a cognitive model of the mental lexicon to automatic word sense disambiguation—and vice versa. *CoLing 2008: Proceedings of the workshop on human judgments in computational linguistics*. Manchester, Association of Computational Linguistics.
- Susan Windisch Brown. 2008. Sense distinctions for WSD: Psycholinguistic evidence. *Annual Meeting of the Association for Computational Linguistics: Human Language Technologies (ACL-HLT)*. Columbus, OH, Association for Computational Linguistics.
- Susan Windisch Brown. 2008. Polysemy in the mental lexicon. *Colorado Research in Linguistics 21*, June.
- Les Sikos, Susan Windisch Brown, Albert E. Kim, Laura A. Michaelis, and Martha Palmer. 2008. Figurative language: "Meaning" is often more than just a sum of the parts. In Samsonovich, A. V. (ed.), *Biologically Inspired Cognitive Architectures: Papers from the AAAI Fall Symposium. AAAI Technical Report FS-08-04*. Menlo Park, CA: AAAI Press.
- Cecily Jill Duffield, Jena D. Hwang, Susan Windisch Brown, Dmitriy Dligach, Sarah E. Vieweg, Jenny Davis and Martha Palmer. 2007. Criteria for the manual grouping of verb senses.

Proceedings of the Linguistic Annotation Workshop, Prague, Association for Computational Linguistics.

Dissertation

Finding Meaning: Sense Inventories for Improved Word Sense Disambiguation

Co-advisors: Martha Palmer and James Martin

Abstract: The deep semantic understanding necessary for complex natural language processing tasks would benefit from highly accurate word sense disambiguation (WSD). Drawing on theories and methodologies from cognitive linguistics, psycholinguistics, and computational linguistics, I address underlying assumptions about word sense inventories, investigate factors influencing successful sense annotation, and experiment with the appropriateness of using a lexicon enriched with syntactic and semantic information as a sense inventory for WSD.

Teaching

CLASIC Capstone CSCI/LING 5140

University of Colorado, Spring 2019, Spring 2020, Spring 2021, Spring 2022, Spring 2023, Spring 2024

Computational Corpus Linguistics LING 5200

University of Colorado, Fall 2015, Fall 2016, Fall 2018, Fall 2019, Fall 2020, Fall 2021, Fall 2022, Fall 2023

Natural Language Processing CSCI/LING 5832

University of Colorado, Spring 2016, Spring 2017

Co-Instructor, Natural Language Processing CSCI/LING 5832

University of Colorado, Spring 2015

CLARA Summer School: Semantic and Multimodal Annotation

University of Copenhagen, August 2011

NAACL tutorial: VerbNet

North American Chapter of the Association for Computational Linguistics (NAACL) annual conference, Boulder, Colorado, June 2009

Teaching assistant, LING 1010/CLAS 1010: The Study of Words

University of Colorado, Boulder, Fall 2008

Advanced Computational Linguistics, Guest lecture: Ontologies and NLP, University of Colorado, Boulder, 2016, 2017, 2018.

Semantics, Guest lecture: Computational semantics, University of Colorado, Boulder, 2015

Introduction to Linguistics, Guest lecture: Psycholinguistics and lexical semantics, University of Colorado, Boulder, 2009

Advanced Computational Linguistics, Guest lecture: Ontologies and NLP, University of Colorado, Boulder, 2008.

Corpus Linguistics, Guest lecture: Lexical resources for corpus linguistics and natural language processing, University of Colorado, Boulder, 2007.

Semantics and Pragmatics, Guest lecture: Models of the lexicon, University of Colorado, Boulder, 2006.

Invited Talks

Susan Windisch Brown. 2022. Generative Lexicon-Based Semantic Representations for VerbNet. CLEAR, University of Colorado, July 20.

Susan Windisch Brown. 2014. From Visual Prototypes of Action to Metaphors. The Institute of Cognitive Science, University of Colorado, December 12.

Susan Windisch Brown. 2013. Off-label use: Using two applied linguistic resources to explore verb polysemy. Institut für Maschinelle Sprachverarbeitung, University of Stuttgart, November 28.

Susan Windisch Brown, Nianwen Xue, and Martha Palmer. 2009. Computational lexicons: When theory meets data. The Linguistic Society of America Annual Meeting. San Francisco.

Susan Windisch Brown, Les Sikos, Albert Kim, Martha Palmer and Laura Michaelis. 2009. Figurative language. Institute of Cognitive Science, University of Colorado, Boulder.

Martha Palmer and Susan Windisch Brown. 2008. The relevance of a cognitive model of the mental lexicon to automatic word sense disambiguation—and vice versa. CoLing 2008: Workshop on human judgments in computational linguistics. Manchester, U.K.

Conference Presentations

Martha Palmer, Jena D. Hwang, Susan Windisch Brown, Karin Kipper Schuler, and Arrick Lanfranchi. 2009. Leveraging lexical resources for the detection of event relations. AAAI Spring Symposium. Stanford, CA.

Susan Windisch Brown. 2008. Polysemy in the mental lexicon. The Sixth International Conference on the Mental Lexicon. Banff, Alberta, Canada.

Susan Windisch Brown. 2008. The mental representation of polysemous verbs. Verb Concepts: Cognitive Science Perspectives on Verb Representation and Processing. Montreal, Canada.

Susan Windisch Brown. 2008. Word sense and sensibility: Mental representations of polysemous words. Poster presentation at the Annual Meeting of the Cognitive Science Society. Washington, D.C.

Susan Windisch Brown, Cecily Jill Duffield, Jena D. Hwang, Dmitriy Dligach, Sarah E. Vieweg, Jenny Davis, Martha Palmer. 2007. The role of functional nouns in manual grouping of verb senses. Concept Types and Frames in Language, Cognition, and Science (CTF07), Düsseldorf, Germany.

Cecily Jill Duffield, Jena D. Hwang, Susan Windisch Brown, Dmitriy Dligach, Sarah E. Vieweg, Jenny Davis and Martha Palmer. 2007. Criteria for the manual grouping of verb senses. CogSci 2007, Nashville, Tenn.

Susan Windisch Brown. 2004. By the by: Grammaticalization of English proximal prepositions. Sixth High Desert Linguistics Conference, Albuquerque, NM.
Susan Windisch Brown. 2004. A corpus-based tool for the generation of EFL practice sets. 1st Workshop on English Linguistics and Education through Corpora (WELEC 1), Seoul, Korea.

Academic Service

Journal and book peer reviewing: *Linguistic Issues in Language Technology*, 2014, 2015, 2017; *Concept Types and Frames*, 2012; *Transactions on Speech and Language Processing*, 2011

Conference organizing committees: Events and Stories in the News, 2018, 2019

Program committees: Association for Computational Linguistics, 2019; Linguistic Annotation Workshop, 2018; Metaphor Workshop, 2015, 2016, 2017, 2018; IWCS 2013; EMNLP 2009
Board member, *Colorado Research in Linguistics*, 2007-2011

Student board member, Institute of Cognitive Science, University of Colorado, 2009-2010

Academic and Professional Recognition

University of Colorado Graduate Mentor Award, 2022

Chancellor's Fellowship, University of Colorado, 2005-2009

Century Scholar Award, University of Chicago, 1987

Phi Beta Kappa, University of Michigan, 1987

Relevant Skills

Programming languages: Python, Perl, C++

Corpus search tools: CQP, Tgrep, Sketch Engine

Statistical analysis: SAS, SPSS, Excel

Languages

English: native

French: Reading and writing: advanced (C1), Speaking: intermediate (B2)

German: Intermediate (working in B1)

Italian: beginner

Spanish: beginner

Russian, Kafa, Anglo-Saxon: Structural knowledge

References

Martha Palmer, Professor, Department of Linguistics and Department of Computer Science,
University of Colorado at Boulder

Martha.Palmer@colorado.edu

phone: +1 303 492 1300

Massimo Moneglia, Professor, Dipartimento di Lettere e Filosofia, University of Florence,
Italy
moneglia@unifi.it
phone: +39 055 275 69 88