

# Gustave Hahn-Powell

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## Education

2013-pres **Ph.D.** (*in progress*) in Computational Linguistics, *University of Arizona*  
2012-2014 **M.S.** Human Language Technology, *University of Arizona*  
2008-2010 **M.A.** Applied Linguistics, *University of Alabama*  
2004-2008 **B.A.** Japanese, *University of Alabama*  
2006-2007 Study abroad in Kyoto, Japan (*Ritsumeikan University*)

## Publications (peer-reviewed)

### Articles

2015 | Fried, D., Jansen, P., Hahn-Powell, G., Surdeanu, M., and Clark, P. (2015). Higher-order lexical semantic models for non-factoid answer reranking. *Transactions of the Association for Computational Linguistics*, 3:197–210. Paper available at <https://transacl.org/ojs/index.php/tacl/article/view/550/122>

### Conference Proceedings

2017 | Hahn-Powell, G., Valenzuela-Escárcega, M. A., and Surdeanu, M. (2017). Swanson linking revisited: Accelerating literature-based discovery across domains using a conceptual influence graph. In *Proceedings of the 55th Annual Meeting of the Association for Computational Linguistics: Software Demonstrations*, page forthcoming. ACL

2016 | Hahn-Powell, G., Bell, D., Valenzuela-Escárcega, M. A., and Surdeanu, M. (2016). This before that: Causal precedence in the biomedical domain. In *Proceedings of the 2016 Workshop on Biomedical Natural Language Processing*. Association for Computational Linguistics. Paper available at <https://arxiv.org/abs/1606.08089>

Bell, D., Hahn-Powell, G., Valenzuela-Escárcega, M. A., and Surdeanu, M. (2016). An investigation of coreference phenomena in the biomedical domain. In *lre (2016)*. Paper available at <http://arxiv.org/abs/1603.03758>

Valenzuela-Escárcega, M. A., Hahn-Powell, G., and Surdeanu, M. (2016). Odin's runes: A rule language for information extraction. In *lre (2016)*. Paper available at <http://surdeanu.info/mihai/papers/lrec2016-odin.pdf>

- 2015 Valenzuela-Escárcega, M. A., Hahn-Powell, G., Hicks, T., and Surdeanu, M. (2015a). A domain-independent rule-based framework for event extraction. In *Proceedings of the 53rd Annual Meeting of the Association for Computational Linguistics and the 7th International Joint Conference on Natural Language Processing of the Asian Federation of Natural Language Processing: Software Demonstrations*, pages 127–132. ACL-IJCNLP 2015. Paper available at <http://www.aclweb.org/anthology/P/P15/P15-4022.pdf>
- 2013 Dawson, C. R., Pero, L. D., Morrison, C. T., Surdeanu, M., Hahn-Powell, G., Chapman, Z., and Barnard, K. (2013). Bayesian modeling of scenes and captions. In *Proceedings of the 2013 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies; Workshop on Vision and Language*. (WVL)NAACL-HLT. Slides available at [http://nlp.cs.illinois.edu/WVL13/slides/Dawson\\_WVL13.pdf](http://nlp.cs.illinois.edu/WVL13/slides/Dawson_WVL13.pdf)

### *Presentations*

- 2015 Hahn-Powell, G., Martin, B., and Archangeli, D. (2015). A method for automatically detecting problematic tongue traces. In *Proceedings of Ultrafest VII*. Ultrafest VII. Abstract available at <http://www.ultrafest2015.hku.hk/docs/ABSTRACT%20BOOK.pdf>
- 2014 Hahn-Powell, G. and Archangeli, D. (2014a). Autotrace: An automatic system for tracing tongue contours. In *asa* (2014), pages 2104–2104. Slides available at [http://www.parsertongue.com/publications/ASA\\_Indianapolis\\_2014\\_AT\\_slides.pdf](http://www.parsertongue.com/publications/ASA_Indianapolis_2014_AT_slides.pdf)
- Hahn-Powell, G. and Archangeli, D. (2014b). Testing autotrace. In *asa* (2014), pages 2082–2082. Poster available at [http://parsertongue.com/publications/ASA\\_Indianapolis\\_2014\\_AT\\_poster.pdf](http://parsertongue.com/publications/ASA_Indianapolis_2014_AT_poster.pdf)
- 2013 Archangeli, D., Mahdavi, M., Ellison, D., Hahn-Powell, G., Coto, R., Berry, J., and Boersma, P. (2013). Ultrapraat software & database for simultaneous acoustic and articulatory analysis. In *ult* (2013). Abstract available at [http://www.qmu.ac.uk/casl/conf/ultrafest\\_2013/docs/UltraPraat.pdf](http://www.qmu.ac.uk/casl/conf/ultrafest_2013/docs/UltraPraat.pdf)
- Sung, J.-H., Berry, J., Cooper, M., Hahn-Powell, G., and Archangeli, D. (2013). Testing autotrace: A machine-learning approach to automated tongue contour data extraction. In *ult* (2013). Abstract available at [http://www.qmu.ac.uk/casl/conf/ultrafest\\_2013/docs/G\\_HahnPowel\\_1\\_ultrafest.pdf](http://www.qmu.ac.uk/casl/conf/ultrafest_2013/docs/G_HahnPowel_1_ultrafest.pdf)
- 2010 Patton, E., Hahn-Powell, G., and Nelson, R. (2010). The ‘worthy of attention’ collocation: Frequency, synonymy, and learnability. SECOL LXII. Abstract available at <http://www.secol.org/conferences/olemissconference/schedule/abstracts/patton,%20hahn-powell,%20nelson.html>

## Publications (not peer-reviewed)

### *Manuals*

- 2015 | Valenzuela-Escárcega, M. A., Hahn-Powell, G., and Surdeanu, M. (2015b). Description of the odin event extraction framework and rule language. *CoRR*, abs/1509.07513. Paper available at <http://arxiv.org/abs/1509.07513>

## Research Experience

### **Research Associate for the Natural Language Processing Lab**

- 2016-pres     *Extending multi-domain influence relation networks via rule learning.*  
*Funding source: Bill and Melinda Gates Foundation HBGDki Initiative*
- 2014-pres     *Machine reading and sieve-based assembly of biomolecular interactions.*  
*Funding source: DARPA Big Mechanism project*
- 2014           *Non-factoid question-answering.*  
*Funding source: Allen Institute for AI*

### **Programmer and Manager for the Arizona Phonological Imaging Lab**

- 2012-2015     *Machine learning methods for automatically identifying tongue contours in ultrasound images.*  
*Funding source: National Science Foundation*

## Research Interests

rule-based information extraction, knowledge assembly, synonymy, computational modeling of language, non-factoid question answering