# Masha (Maryia) Fedzechkina

updated 5/20

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# **ACADEMIC POSITIONS**

2016 - present	Assistant professor  Department of Linguistics, Graduate Interdisciplinary Program in Cognitive Science, Graduate Interdisciplinary Program in Second Language Acquisition and Teaching, University of Arizona
2014 - 2016	Postdoctoral researcher Department of Psychology, University of Pennsylvania
2006 - 2009	Research assistant

Linguistic Data Processing, University of Cologne

## **EDUCATION**

2014	University of Rochester, Rochester, NY Ph.D., Brain & Cognitive Sciences
	Dissertation: Communicative efficiency, language learning, and language universals
2012	University of Rochester, Rochester, NY
	M.A., Brain & Cognitive Sciences
2011	LSA summer institute,
	University of Colorado at Boulder, Boulder, CO
2009	University of Cologne, Cologne, Germany
	M.A., Linguistic Data Processing, English, & Phonetics
2007	Minsk State Linguistic University, Minsk, Belarus
	B.A., English & German

# **PUBLICATIONS**

**Fedzechkina, M.** & Roberts, G. (2020). Learners sacrifice robust communication as a result of a social bias. *Proceedings of the 42nd Annual Conference of the Cognitive Science Society.* 

Hall Hartley, L. & **Fedzechkina**, **M.** (2020). Learners' bias to balance production effort against message uncertainty is independent of their native language. *Proceedings of the 42nd Annual Conference of the Cognitive Science Society*.

<sup>\*</sup> DENOTES EQUAL CONTRIBUTION

Zhao, Y. & **Fedzechkina**, **M.** (2020). Learners' harmonic preferences are modulated by lexical retrieval difficulty. *Proceedings of the Linguistic Society of America*.

**Fedzechkina, M.** & Jaeger, T. F. (2020). Production efficiency can cause grammatical change: Learners deviate from the input to better balance efficiency against robust message transmission. Cognition.

Roberts, G.\* & Fedzechkina, M\*. (2018). Social biases modulate the loss of redundant forms in the cultural evolution of language. Cognition.

**Fedzechkina, M.,** Chu, B., Jaeger, T. F. (2018). Human information processing shapes language change. *Psychological Science*.

**Fedzechkina, M.,** Newport, E., Jaeger, T. F. (2017). Balancing effort and information transmission during language acquisition: Evidence from word order and case-marking. Cognitive Science.

**Fedzechkina, M.**, Newport, E., Jaeger, T. F. (2016) The miniature artificial language learning paradigm as a complement to typological data. In Ortega, L., Tyler, A., Park, H. I., Uno, M. (Eds.), *The Usage-based Study of Language Learning and Multilingualism*. Georgetown: GUP.

**Fedzechkina, M.,** Jaeger, T. F., Trueswell, J.C. (2015). Production is biased to provide informative cues early: Evidence from miniature artificial languages. *Proceedings of the 37th Annual Conference of the Cognitive Science Society*.

**Fedzechkina, M.**, Jaeger, T. F., Newport, E. (2013). Communicative biases shape structures of newly acquired languages. *Proceedings of the 35th Annual Conference of the Cognitive Science Society*.

Fedzechkina, M., Jaeger, T. F., Newport, E. (2012). Language learners restructure their input to facilitate efficient communication. *Proceedings of the National Academy of Sciences*, 109(44): 17897-17902.

**Fedzechkina, M.,** Jaeger, T. F., Newport, E. (2011). Functional biases in language learning: Evidence from word order and case-marking interaction. *Proceedings of the 33rd Annual Conference of the Cognitive Science Society.* 

## **MANUSCRIPTS IN PREPARATION**

Ryrholm Martin, J., Pajak, B., **Fedzechkina**, **M.** (in prep). L2 learners (over)-generalize L1 similarity to novel domains: Insights from miniature language learning.

Fedzechkina, M. & Trueswell, J. (in prep). Producing informative cues early: A miniature language study.

#### **INVITED TALKS**

**2020.** Artificial language learning over the web: unique challenges and advantages. Edingburgh Summer School in Artificial Language Learning, Edinburgh, UK, August 17-19 [keynote speaker] [conference cancelled due to COVID-19]

**2018.** Human information processing shapes language change. Quantitative Approaches to Language Conference, University of California Irvine, Irvine, CA, May 4.

**2018.** Human information processing shapes language change. Cognition & Language Workshop, Stanford University, Palo Alto, CA, February 8.

**2017.** Human information processing shapes language change. 11th Annual Arizona Linguistics Circle Conference, University of Arizona, Tucson, AZ, October 20-22. [keynote speaker]

**2017.** Processing preferences shape language structure and language change. 30th Annual CUNY Conference on Human Sentence Processing, MIT, Cambridge, MA, March 30-April 1. [keynote speaker]

**2017.** Using miniature languages to study constraints on first and second language acquisition. Second Language Acquisition and Teaching Colloquium, University of Arizona, Tucson, AZ, September 29.

- **2017.** Processing and communication shape language learning and structure. Cognitive Science Seminar, Program in Cognitive Science, University of Arizona, Tucson, AZ, February 10.
- **2016.** Processing and communication shape language learning and structure. Invited symposium at 41<sub>st</sub> Annual Meeting of the Boston University Conference on Language Development, Boston, MA, November 6. [invited symposium]
- **2016.** Learners' biases as a cause for cross-linguistic generalizations: Processing and communication shape language learning and structure. Department of Linguistics, University of Arizona, Tucson, AZ, March, 8.
- **2016.** Learners' biases as a cause for cross-linguistic generalizations: Processing and communication shape language learning and structure. Department of Linguistics, University of California, San Diego, CA, February, 22.
- **2014.** Communication shapes structures of newly acquired languages. Department of Linguistics, University at Buffalo -- SUNY, Buffalo, NY, January 27.
- **2013.** Learners' communicative preferences shape structures of newly acquired languages. Language and Cognition Lab, Department of Psychology, Stanford University, Palo Alto, CA, November 18.
- **2013.** Learners' communicative preferences shape structures of newly acquired languages. Language Development and Language Processing Lab, Department of Psychology, University of Pennsylvania, Philadelphia, PA, May 15.
- **2011.** Are there functional biases in language acquisition? Cognitive and Computational Approaches to Language Group, Department of Linguistics, The Ohio State University, Columbus, OH, January 10.

#### **CONFERENCE PRESENTATIONS**

TALKS THAT LED TO PROCEEDINGS PAPERS MENTIONED ABOVE ARE NOT INCLUDED BELOW

Zhao, Y., & **Fedzechkina**, **M.** (2019). Learners' harmonic preferences in head ordering are modulated by lexical retrieval difficulty. Arizona Linguistics Circle, Tucson, AZ, October 25-27, 2019.

Ryrholm Martin, J., Pajak, B., & **Fedzechkina**, **M.** (2018). (Over-)generalization of L1-to-L2 similarity: Interference during L2 word order learning.  $92_{nd}$  Annual Meeting of the Linguistic Society of America, Salt Lake City, UT, January 4-7, 2018.

Ryrholm Martin, J., Pajak, B., & **Fedzechkina**, **M.** (2017). L1-L2 similarity causes over-generalization in L2 word order learning: Evidence from a miniature artificial language. Arizona Linguistics Circle, Tucson, AZ, October 20-22, 2017.

**Fedzechkina, M.,** Chu, B., & Jaeger, T. F. (2017). Learners' processing preferences explain cross-linguistic word order variation. Georgetown University Round Table on Languages and Linguistics 2017, Washington, DC, March 10-12, 2017.

Roberts, G. & **Fedzechkina**, **M.** (2017). The effect of social biases on retention of redundant variation: An artificial language study. Georgetown University Round Table on Languages and Linguistics 2017, Washington, DC, March 10-12, 2017.

**Fedzechkina, M.** & Jaeger, T. F. (2017). Trade-off between effort and robust information transmission in cross-linguistic morphosyntax. Georgetown University Round Table on Languages and Linguistics 2017, Washington, DC, March 10-12, 2017.

**Fedzechkina, M.** (2016). Learners' biases as a cause for cross-linguistic generalizations. 7th Annual ASUofA Cognitive Science Conclave, Tempe, AZ, December 10, 2016.

Jaeger, T. F. & **Fedzechkina, M.** (2016). Effort vs. robust information transmission in language evolution. 11th International Conference on the Evolution of Language, New Orleans, MS, March 21-24.

**Fedzechkina, M.**, Chu, B., Jaeger, T. F., & Trueswell, J. (2016). Processing preferences shape language change. 11th International Conference on the Evolution of Language, New Orleans, MS, March 21-24.

Roberts, G. & **Fedzechkina**, **M.** (2016). Social biases vs. efficient communication: An iterated-learning study. 11th International Conference on the Evolution of Language, New Orleans, MS, March 21-24.

**Fedzechkina, M.,** Jaeger, T. F., Trueswell, J.C. (2015). Processing biases in learning shape cross-linguistically frequent structures. 40th Annual Meeting of the Boston University Conference on Language Development, Boston, MA, November 13-15.

Roberts, G. & Fedzechkina, M. (2015). Population structure, social bias, and efficiency: An iterated-learning study. 13th International Cognitive Linguistics Conference, Newcastle, UK, July 20-25.

**Fedzechkina, M.**, Newport, E., Jaeger, T. F. (2014). The miniature artificial language learning paradigm as a complement to typological data. Georgetown University Round Table on Languages and Linguistics 2014, Washington, DC, March 14-16, 2014.

**Fedzechkina, M.**, Newport, E., Jaeger, T. F. (2014). Functional biases in acquisition shape cross-linguistically frequent structures. Georgetown University Round Table on Languages and Linguistics 2014, Washington, DC, March 14-16.

Jaeger, T. F., Fedzechkina, M., Kurumada, C., Newport, E. (2012). Confusability reduction in production and acquisition. DGfS 2012 workshop 'Information Density and Linguistic Variation', Frankfurt, Germany, March 9.

## **CONFERENCE POSTERS**

**Fedzechkina, M.**, Jaeger, T. F., Trueswell, J. (2015). Producing informative cues early: Evidence from a miniature artificial language. 28th Annual CUNY Conference on Human Sentence Processing, Los Angeles, CA, March 19-21.

**Fedzechkina, M.**, Chu, B., Jaeger, T. F. (2015). 'Long before short' preference in a head-final artificial language: In support of dependency minimization accounts. 28th Annual CUNY Conference on Human Sentence Processing, Los Angeles, CA, March 19-21.

**Fedzechkina, M.**, Newport, E., Jaeger, T. F. (2014). Trading off robust information transmission in language learning and language structure. 39th Annual Meeting of the Boston University Conference on Language Development, Boston, MA, November 7-9.

**Fedzechkina, M.**, Newport, E., Jaeger, T. F. (2014). Language processing shapes language change: Redundant cues are less likely to be maintained in language. 27th Annual CUNY Conference on Human Sentence Processing, Columbus, OH, March 13-15.

**Fedzechkina, M.**, Jaeger, T. F., Newport, E. (2011). Functional biases in acquisition: Language learners restructure the input to avoid uncertainty. 36th Annual Meeting of the Boston University Conference on Language Development, Boston, MA, November 4-6.

**Fedzechkina, M.**, Jaeger, T. F., Newport, E. (2011). Functional biases in (artificial) language learning. 24th Annual CUNY Conference on Human Sentence Processing, Stanford, CA, March 24-26.

**Fedzechkina, M.,** Jaeger, T. F., Newport, E. (2011). Word order and case-marking in language acquisition and processing. 85<sup>th</sup> Annual Meeting of the Linguistic Society of America, Pittsburgh, PA, January 6-9. **[designated particularly media-worthy]** 

#### **NON-ACADEMIC WRITING**

Fedzechkina, M. (2018). Inadvertently Touched by Scandal. Inside Higher Ed.

## **TEACHING**

# **University of Arizona:**

- Linguistics 533: Theories of Language Development (graduate level)
- Linguistics 532: Psychology of Language (graduate level)
- Linguistics 696F: Empirical Approaches to Language Universals (graduate level seminar)
- Linguistics 341: Language Development (undergraduate level; both in-person and online)

Linguistics 432: Psychology of Language (undergraduate level; both in-person and online)

# **University of Rochester:**

- BCS 259: Language Development (teaching assistant)
- BCS 152: Language and Psycholinguistics (teaching assistant)

#### STUDENT MENTORSHIP

## Primary PhD advisor, University of Arizona:

- Jaycie Ryrholm Martin
- Lucy Hall Hartley

#### Dissertation or qualifying committee member, University of Arizona:

- Adam King (qualifying paper & dissertation)
- Drake Asberry (dissertation)
- Anna Katikhina

# Honors thesis supervision, University of Arizona:

• Grace Johnson

# Graduate research assistants, University of Arizona:

- Lucy Hall Hartley, Fall 2018 present
- Yiuyn Zhao, Fall 2018 Spring 2019
- Matthew Watson, Fall 2017 Spring 2019
- Jaycie Martin, Fall 2016 Spring 2018
- Noah Nelson, Spring 2016 Spring 2018
- Florian Hafner, Fall 2016

# Undergraduate research assistants, University of Arizona:

- Christina Marikos, Fall 2018
- Riah Coulter, Spring 2018 Fall 2018
- Nizan Howard, Fall 2017 present
- Shannon Williams, Summer 2017

#### Independent study students, University of Arizona:

• Louis Edward Gallegos, Spring 2017. Topic: 'Web-based methods for cross-linguistic data elicitation'.

# Undergraduate research assistants, University of Pennsylvania:

- Anton Relin, Fall 2015 Spring 2016
- Logan Castrucci, Fall 2015 Spring 2016
- Emily Eck, Summer 2015 Fall 2015
- Ivy Gregory, Spring 2015
- Barry Oshiba, Fall 2014
- Juan Padilla, Fall 2014 Spring 2015

#### **Undergraduate research assistants, University of Rochester:**

- Madeline Clark, Spring 2015 Spring 2016
- Becky Chu, Spring 2014 Spring 2016
- Patrick Davis, Summer 2013
- Suzanne Blackley, Spring 2013 Spring 2014
- Shreya Krishnan, Summer 2012, Spring 2013, Fall 2013 Spring 2014
- Erica Williams, Spring 2013, Fall 2013 Spring 2014
- Kate Heffernan, Spring 2013

- Meghan Hennessy, Spring 2013
- Christopher Anzalone, Fall 2012
- Elisa Hoyos, Fall 2012
- Rachel Aronovitz, Fall 2012
- Cynthia Orr, Fall 2012
- Theodore Lincoln, Summer 2012
- Greta Smith, Fall 2012 Spring 2013
- Tara Stanley, Fall 2011 Summer 2013
- Vivian Choi, Fall 2010 Spring 2011
- Keryn Bernstein, Fall 2010 Spring 2011
- Colleen Dolan, Summer 2010, Fall 2011 Spring 2012
- Rebecca Glass, Summer 2010

# Independent study students, University of Rochester:

- Becky Chu, Summer 2014. Topic: 'First and second language influences on the acquisition of case-marking in the third language'.
- Suzanne Blackley, Summer 2013 Summer 2014. Topic: 'Communicative influences on the acquisition of optional case systems: A partner study using miniature artificial languages'.
- Delarom Menhaj, Spring 2013. Topic: 'The role of language experience in morphological acquisition'.
- Eric Partridge, Spring, 2012. Topic: 'Production strategies in two-word stage children'.
- Shreya Krishnan, Spring, 2012. Topic: 'Production strategies in two-word stage children'.
- Tara Stanley, Spring 2011. Topic: 'Functional biases in language acquisition'.
- Colleen Dolan, Spring 2010. Topic: 'Processing influences on word order acquisition'.
- Rebecca Glass, Spring 2010. Topic: 'Processing influences on word order acquisition'.

#### **PROFESSIONAL SERVICE**

# Workshop organization:

• Interdisciplinary Workshop on Origins and Evolution of Word Order. April 16, 2018, Torun, Poland. (with Ramon Ferrer-i-Cancho).

# Reviewing:

- Ad-hoc journal reviewer: Psychological Science; Journal of Memory and Language; Cognition;
   Language, Learning, & Development; Language, Cognition, & Neuroscience; Wiley Interdisciplinary
   Reviews: Cognitive Science; Frontiers in Psychology; Applied Psycholinguistics; Open Mind; Language
   Dynamics and Change; Language
- Conference reviewer: Cognitive Science Society Conference; Evolution of Language International Conference (EvoLang); CUNY Conference on Human Sentence Processing

Grant reviewer: NSF

# **University of Arizona service:**

Hiring Committee, Department of Linguistics

Advertising Committee, Department of Linguistics

SPFI Committee, Department of Linguistics

- Colloquium Organizer, Department of Linguistics
- Human Subjects Committee, Department of Linguistics

Fall 2018-Spring 2018

Spring 2018-present

Fall 2018-present

Summer 2017-present

Fall 2016-present

# **MEDIA COVERAGE**

**Fedzechkina, M.,** Chu, B., Jaeger, T. F. (2017). Human information processing shapes language change. *Psychological Science*.

<u>Reported in</u>: NPR Phoenix, NPR Tucson -- Arizona Science, World Economic Forum, Futurity, True Viral News, Science Newsline, Scott, Eurasia Review, Laboratory Equipment, MedicalXpress

Fedzechkina, M., Jaeger, T. F., Newport, E. (2012). Language learners restructure their input to facilitate efficient communication. *Proceedings of the National Academy of Sciences*, 109(44): 17897-17902.

Reported in: Psychology Today, Academic Minute, Sceptic's Guide to the Universe, ScienceOmega, Rochester Review, Futurity, Phys.org, ScienceBlog, Science Daily, E-Science News, Sify News, ThruthDrive, BioSpace.

# **RESEARCH FUNDING**

pending	\$19,025	University Research Foundation, University of Pennsylvania: Communication, learning, and social preference: Investigating the joint influences of social and non-social biases on the cultural evolution of language.
2018	\$37,375	University of Arizona Equipment Enhancement Fund: Eye- movement tracking in language processing research (equipment grant for eye-tracker purchase)
201 <i>7</i> 2018	\$3,216	SBSRI Faculty Small Grant: A web-based framework for multiday language learning experiments

#### **SCHOLARSHIPS AND AWARDS**

2017 2018	Tucson Public Voices Fellowship
2011	Paula Menyuk travel award for BUCLD 2011
2011	LSA summer institute fellowship
2007—2009	<b>Koelner Gymnasial- und Stiftungsfonds</b> , Cologne, Germany Scholarship for academic excellence
2007	<b>University of Cologne,</b> Cologne, Germany Tuition waver
2000—2004	Minsk State Linguistic University, Minsk, Belarus Scholarship for academic excellence

## **LANGUAGES**

Belarusian (native)
Russian (native)
English (fluent)
German (fluent)
Italian (intermediate)

Tucson, AZ May 13, 2020