

SAMANTHA WRAY

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POSITIONS HELD

2020 - Research Assistant Professor & Lecturer · Dartmouth College

Instructor of record:

- LING 11: Language Acquisition
- LING 11: History of the Arabic Language
- LING 50: Psycholinguistics
- PSYCH 10: Experimental Design, Methodology, and Data Analysis Procedures
- PSYCH 28: Cognitive Psychology
- COGS 50: Computational Psychology of Language

Researcher focusing on word recognition models for understudied languages using behavioral and neuroimaging methods

2017 - 2020 Postdoctoral Associate · New York University Abu Dhabi

Researcher in Neuroscience of Language Lab focusing on word recognition models in magnetoencephalography. Developing and executing experiments, building and improving Arabic corpora; Managing research assistants, experimental protocols and grant funds

2016 Faculty Associate · Arizona State University

Instructor of record:

- ENG 313: Phonology and Morphology
- LIN 511: Phonetics and Phonology

Faculty supervisor for Honors student projects

2014 - 2015 Research Associate · Qatar Computing Research Institute

Creator of spoken dialectal Arabic corpora built using automatic and human computation (crowdsourcing) classification, used for training of automatic Arabic dialect identification, speech recognition and speech-to-text models

EDUCATION

2016 Ph.D. Linguistics · University of Arizona

Dissertation: *Decomposability and the effects of morpheme frequency in lexical access*
Committee: Adam Ussishkin (chair), Michael Hammond, Samira Farwaneh

2013 M.Sc. Human Language Technology · University of Arizona

2008 B.A. Linguistics - English Literature ·
Western Washington University

PUBLICATIONS

- 2022 **Wray, Samantha** & Adam Ussishkin. *Productivity effects on morphological processing in Maltese auditory word recognition* in *Morphological Diversity and Linguistic Cognition*, Cambridge University Press.
- 2022 Sims, Andrea, Adam Ussishkin, Jeffrey Parker, and **Samantha Wray**. *At the intersection of cognitive processes and linguistic diversity*. in *Morphological Diversity and Linguistic Cognition*, Cambridge University Press.
- 2021 **Wray, Samantha**, Linnaea Stockall, and Alec Marantz. *Early Form Based Morphological Decomposition in Tagalog: MEG evidence from Reduplication, Infixation and Circumfixation*. in *Neurobiology of Language*.
- (submitted) **Wray, Samantha**. *Productivity modulates decomposition in auditory lexical access: evidence from colloquial Arabic*.

PUBLICATIONS IN PROCEEDINGS

- 2018 Coto-Solano, Rolando, Sally Akevai Nicholas, and **Samantha Wray**. *Development of Natural Language Processing Tools for Cook Islands Maori*. in *Proceedings of Australasian Language Technology Association Workshop*.
- 2018 **Wray, Samantha**. *Classification of Closely Related Sub Dialects of Arabic Using Support Vector Machines*. in *Proceedings of International Conference on Language Resources and Evaluation (LREC) 2018*.
- 2015 **Wray, Samantha** & Ahmed Ali. *Crowdsource a little to label a lot: labeling a speech corpus of Dialectal Arabic*. in *Proceedings of Interspeech 2015*.
- 2015 **Wray, Samantha**, Hamdy Mubarak, and Ahmed Ali. *Best Practices for Crowdsourcing Dialectal Arabic Speech Transcription*. in *Proceedings of the Second Workshop on Arabic Natural Language Processing*.

PRESENTATIONS

Talks

- 2020 **Wray, Samantha**. *Morphosyntactic Derivation of the Form VIII Verb: Stuck in the Middle Again*. at 34th Arabic Linguistics Symposium, Tucson, Arizona, USA
- 2019 **Wray, Samantha**, Linnaea Stockall, and Alec Marantz. *Automatic decomposition revisited with MEG evidence from visual processing of Tagalog circumfixes, infixes, and reduplication (Poster Slam)* at Society for Neurobiology of Language, Helsinki, Finland
- 2019 Coto-Solano, Rolando, Sally Akevai Nicholas, **Samantha Wray**, and Tyler Peterson. *Accelerating the analysis of your audio recordings with Untrained Forced Speech Alignment*. at 6th International Conference on Language Documentation Conservation, Honolulu, Hawaii, USA
- 2018 Coto-Solano, Rolando, Sally Akevai Nicholas, and **Samantha Wray**. *Development of Natural Language Processing Tools for Cook Islands Maori*. at Australasian Language Technology Association Workshop, Dunedin, Aotearoa New Zealand
- 2017 **Wray, Samantha** & Adam Ussishkin. *Binyan productivity effects on morphological processing in Maltese auditory word recognition*. at the Workshop on

Morphological Typology and Linguistic Cognition, University of Kentucky,
Lexington, Kentucky, USA

- 2016 Ussishkin, Adam, Hadas Velan, Michael Spagnol, Andrew Wedel, and **Samantha Wray**. *Maltese root priming is morphological, not phonological*. at the 22nd AMLaP (Architecture and Mechanisms of Language Processing) Conference, Basque Center for Brain and Language, Bilbao, Spain
- 2015 Ussishkin, Adam, Luke Galea, Andrew Wedel and **Samantha Wray**. *Maltese templates and vocalic melodies are phonological: evidence from auditory priming*. at the Fifth International Conference on Maltese linguistics. Turin, Italy
- 2015 Ussishkin, Adam, Luke Galea, Andrew Wedel and **Samantha Wray**. *Phonology vs. morphology: How auditory lexical decision in Maltese resolves the conflict*. at the 23rd Manchester Phonology Meeting. Manchester, UK
- 2015 Coto-Solano, Rolando & **Samantha Wray**. *Distribution of consonantal features in Middle Egyptian verb roots*. at 46th Annual Conference of African Linguistics. Eugene, Oregon, USA
- 2015 Ussishkin, Adam, Luke Galea, Andrew Wedel and **Samantha Wray**. *The phonological status of Maltese word patterns: Evidence from auditory priming*. at the 89th Annual Meeting of the Linguistics Society of America. Portland, Oregon, USA
- 2013 Ussishkin, Adam, Luke Galea, Andrew Wedel and **Samantha Wray**. *When visual and auditory processing diverge: evidence from Maltese*. at Fourth International Conference on Maltese linguistics. Bremen, Germany
- 2012 **Wray, Samantha**. *Prosodic Features of a Sanaani Arabic Language Game*. at Arabic Linguistics Symposium. New York, New York, USA

Posters

- 2019 **Wray, Samantha**, Linnaea Stockall, and Alec Marantz. *Breaking down breaking down: automatic decomposition revisited with MEG evidence from visual processing of circumfixes, infixes, and reduplication in Tagalog* at AMLaP 2019, Moscow, Russia
- 2019 **Wray, Samantha**, Linnaea Stockall, and Alec Marantz. *Automatic decomposition revisited with MEG evidence from visual processing of Tagalog circumfixes, infixes, and reduplication* at Society for Neurobiology of Language, Helsinki, Finland
- 2019 **Wray, Samantha**, Alec Marantz, and Linnaea Stockall. *Reduplicated words are automatically decomposed, even when they are fake: MEG evidence from Tagalog pseudoreplicants* at 32nd CUNY Conference on Human Sentence Processing, Boulder, Colorado, USA
- 2019 **Wray, Samantha & Alec Marantz**. *Words in speech decompose to their roots even when the root is interrupted: a study on Emirati Arabic* at Cognitive Neuroscience Society Annual Meeting, San Francisco, California, USA
- 2018 **Wray, Samantha & Alec Marantz**. *Phonemic Prediction at the Root for Arabic Words with Prefixes and Infixes*. at AMLaP 2018, Berlin, Germany
- 2018 **Wray, Samantha**. *Classification of Closely Related Sub Dialects of Arabic Using Support Vector Machines*. at LREC 2018, Miyazaki, Japan
- 2016 **Wray, Samantha**. *Affix productivity and morpheme frequency in lexical access* at the Tenth International Conference on the Mental Lexicon 2016. Ottawa, Canada
- 2015 **Wray, Samantha & Ahmed Ali**. *Crowdsource a little to label a lot: labeling a speech corpus of Dialectal Arabic*. at Interspeech 2015. Dresden, Germany
- 2015 **Wray, Samantha**, Hamdy Mubarak, and Ahmed Ali. *Best Practices for Crowdsourcing Dialectal Arabic Speech Transcription*. at the Second Workshop on Arabic Natural Language Processing (co-located with ACL). Beijing, China

- 2014 **Wray, Samantha**, Jennifer Boutz, Valerie Novak and Tim Buckwalter. *Authenticating and supplementing a Yemeni Arabic dictionary using a web corpus*. at American Association of Corpus Linguistics. Flagstaff, Arizona, USA

Demo

- 2015 Hakouz, Waed, Abdurrahman Ghanem, **Samantha Wray** and Ahmed Ali. *Lahajet: A Game for Classifying Dialectal Arabic Speech*. at 2015 IEEE Automatic Speech Recognition and Understanding Workshop. Scottsdale, Arizona, USA

Invited Talks

- 2020 **Wray, Samantha**. *Whats in a word? Phonological transparency in Tagalog pseudo-reduplicates*. at Applied Phonology course at UCLA. California, USA
- 2019 **Wray, Samantha**. *Whats in a word? Neural correlates of morphophonemic processing*. at Dartmouth College. Hanover, New Hampshire, USA
- 2018 Coto-Solano, Rolando **Samantha Wray**. *Forced alignment workshop*. at Jawaharlal Nehru University. New Delhi, India
- 2016 **Wray, Samantha**. *Creating and utilizing colloquial Arabic corpora*. at Arizona State University. Phoenix, Arizona, USA

FELLOWSHIPS, GRANTS AND HONORS

Inter/National

- 2021 - 2024 United Kingdom Research and Innovation Economic and Social Research Council (ESRC) - Systematicity and Variation in Word Structure Processing Across Languages: a Neuro-Typology approach (SAVaNT) (co-Investigator, with Principal Investigator Linnaea Stockall and co-Investigators Christina Manouilidou, Dustin Chacón, Rok Žaucer, and Alec Marantz) US\$958,598
- 2020 - 2023 Abu Dhabi Department of Education and Knowledge - Lisaaniyat: A real-time MRI collection of Arabic speech in motion (co-Investigator, with Principal Investigator Alec Marantz and co-Investigators Ben Lang, Haidee Paterson, Osama Abdullah, and Zainab Hermes) AED300,000 US\$81,677
- 2015 - 2017 National Science Foundation Doctoral Dissertation Research Improvement Grant - Morphological Decomposition in Arabic (co-Principal Investigator, with Principal Investigator Adam Ussishkin) BCS-1533780, US\$10,711
- 2013 - 2014 CASA I (Center for Arabic Study Abroad) Fellowship American University Cairo, Egypt + Qasid Institute Amman, Jordan
- 2011 USDE FLAS (Foreign Languages and Area Studies) Fellowship for Advanced Modern Standard Arabic at Qalam wa Lawh Institute, Rabat, Morocco

Local

- 2019 New York University Postdoctoral Research Travel Award - US\$2000 for participating in ICLDC panel
- 2015 University of Arizona Graduate Interdisciplinary Programs Raphael and Jolene Gruener Research Travel Award - US\$500 for fieldwork in Amman, Jordan
- 2015 University of Arizona Graduate and Professional Student Council Research and Project Grant - US\$2000 for creation of a colloquial Arabic corpus
- 2014 University of Arizona Graduate Professional Student Council Travel Grant for professional development - US\$500 for travel to present at AACL
- 2012 University of Arizona Graduate Professional Student Council Travel Grant for professional development - US\$500 for travel to present at Arabic Linguistics Symposium

- 2011 University of Arizona Social and Behavioral Sciences Research Institute
Pre-doctoral grant, coawardee: Kevin Schluter - US\$500 for creation of
Palestinian word familiarity materials
- 2010 University of Arizona Graduate and Professional Student Council Student
Showcase for poster Sanaani language games - First Place Winner Languages
and Literature Category

ACADEMIC SERVICE

- Grant review* National Science Foundation
- Journal review* Australian Journal of Linguistics
Poznan Studies in Contemporary Linguistics
Language and Speech
Journal of Phonetics
- 2020 Reviewer · 34th Arabic Linguistics Symposium
- 2019 Reviewer/Program Committee · Neuroscience of Language Conference
(NeuroLang-AD)
- 2019 Organizing Committee · Neuroscience of Language Conference
(NeuroLang-AD)
- 2017 Reviewer/Program Committee · 6th International Conference on Maltese
Linguistics
- 2017 Reviewer/Program Committee · Morphological Typology and Linguistic
Cognition Workshop - 2017 Linguistic Society of America Institute
- 2017 Organizing committee · Morphological Typology and Linguistic Cognition
Workshop - 2017 Linguistic Society of America Institute
- 2015 Reviewer/Program Committee · Arabic Natural Language Processing
Workshop (co-located with ACL)
- 2015 Mentor · "Hot Summer Cool Research" Internship Program at Qatar
Computing Research Institute
- 2012 - 2013 Lab Manager · Psycholinguistics and Computational Linguistics Lab (PsyCol)
at the University of Arizona
- 2012 Outreach Committee · Linguistics Department at the University of Arizona
- 2012 Organizing Committee · Arizona Linguistics Circle Conference
- 2011 - 2012 President · Arizona Linguistics Circle, Linguistics Graduate Council at the
University of Arizona
- 2011 Organizing Committee · Arizona Linguistics Circle Conference
- 2010 - 2011 Treasurer · Arizona Linguistics Circle, Linguistics Graduate Council at the
University of Arizona