

Kyoko Nagao, Ph.D.

(November 2009)

Research Interests

- Speech and voice characteristics throughout the life course
- Prosodic properties of speech: intonation, speech rate, stress
- Cross-language study of speech perception
- Second language production and perception of speech
- Intergenerational and cross-language variation in speech

Education

- Ph.D. **Indiana University, Bloomington, IN, USA** September 30, 2006
(Major: Linguistics)
(Major: Speech and Hearing Sciences)
- M.A. **Indiana University, Bloomington, IN, USA**, 1999
(Major: Linguistics)
- M.A. **Konan University, Kobe, Japan**, 1997
(Major: English (Linguistics))
- Stanford University, Stanford, CA, USA**, Summer, 1994
A summer program on Sociology and Sociolinguistics
- B.A. **Kwansei Gakuin University, Nishinomiya, Japan**, 1995
(Major: Literature)

Professional Experience

Nemours A.I. duPont Hospital for Children (2007.8 – Present)
Postdoctoral Fellow, Center for Pediatric Auditory and Speech Sciences

- Primary projects:
 - Improving intonation module of a text-to-speech synthesis program
 - Longitudinal study of speech development in young children with cochlear implants
 - Supervising research assistants.
- Director: Tim Bunnell

University of Delaware, Dept of Linguistics and Cognitive Science (2008.2 – Present)
Adjunct Assistant Professor

- Indiana University, Dept of Speech & Hearing Sciences** (2006 – 2007)
Postdoctoral Researcher, Voice Physiology Laboratory (2006.10 – 2007.7)
- Project: Effects of fMRI noises on voice production
 - Director: Theresa Burnett
- Instructor, Department of Speech and Hearing Sciences* (2006.8 – 2006.12)
- Teaching undergraduate courses *Introduction to Phonetics for Speech and Hearing Sciences* S111/S511 (76 students) and *Mathematics and Physics for Speech and Hearing* S319/S519 (12 students).
- Indiana University, Department of Linguistics** (2000 – 2006)
- Graduate Research assistant, Department of Linguistics* (2004 – 2006)
- Data process for the on-going project at the Linguistic Speech Laboratory
 - Project: Prosody in cross-language perception and production
 - Supervisor: Kenneth de Jong
- Assistant instructor, Department of Linguistics* (2004.1 – 2004.5)
- Teaching 3 laboratory sections of a graduate course *Introductory of Phonetics L541* (22 students).
- Graduate research assistant, Department of Linguistics* (2000 – 2003)
- Design and conduct experiments at the Linguistic Speech Laboratory
 - Project: Production and perception effects on syllabic affiliation
 - Supervisor: Kenneth de Jong
- Webmaster, Indiana University Linguistics Speech Laboratory* (2001 – 2004)
Associate editor, IULC Working Papers Online (2000 – 2002)
- NTT Basic Research Laboratories, Atsugi, Japan** (2000.4 – 2000.8)
- Research trainee*
- Design and conduct experiments
 - Project: Gender differences on the perception of emphasized words
 - Supervisor: Shigeaki Amano
- Advanced Telecommunications Research Institute, Kyoto, Japan** (2000.1 – 2000.3)
- Research assistant*
- Data analysis of epenthetic vowels in speech by Japanese learners of English
 - Primary investigator: Keiichi Tajima

Awards and Fellowships

- Indiana University Doctoral Student Grant-in-Aid of Research Award (2005)
- IU Speech & Hearing Sciences Departmental Research Support Award (2005)
- IU Graduate & Professional Student Organization Research Award (Fall, 2004)
- Fred W. Householder Memorial Awards (2001, 2005)
- International and Interdisciplinary Research Conference on Aging and Speech Communication student scholarship (2005)
- Indiana University Women in Science Program Travel Grant (2006)
- Indiana University Linguistic Club Travel Grants

Refereed Publications

- Nagao, K. (under revision). Cross-language age perception: Effects of speaker sex.
- Nagao, K. (under revision). Cross-language perception of speaker's age: Effects of language familiarity.
- Nagao, K., & de Jong, K. (2007). Perceptual rate normalization in naturally produced stops. *Journal of the Acoustical Society of America*, 121(5), 2882-2899.
- de Jong, K. J., Lim, B. J., & Nagao, K. (2004). The Perception of Syllable Affiliation of Singleton Stops in Repetitive Speech. *Language and Speech*, 47(3), 241-266.

Other Publications

- Burnett, T.A., Nagao, K., Bargatze, D., & McCurdy, K. (in preparation). Effect of scanning paradigm on vocalization related BOLD activity.
- Yarrington, D., Gray, J., Pennington, C., Bunnell, H. T., Cornaglia, A., Lilley, J., Nagao, K., & Polikoff, J. B. (2008). ModelTalker Voice Recorder – An Interface System for Recorded a Corpus of Speech for Synthesis. *Proceedings of the ACL-08: HLT Demo Session*, pp. 28-31.
- Nagao, K. (2006). *Cross-language study of age perception*. Unpublished doctoral dissertation, Indiana University, Bloomington.
- Nagao, K. (2004). *WaveSurfer Guide for L541*. URL: <http://mypage.iu.edu/~knagao/man/>
- Nagao, K., Lim, B. J., & de Jong, K. (2003). Perception of rate induced resyllabification: Cross-language comparison. In D. Burleson, C. Dillon & R. Port (Eds.), *Speech Prosody and Timing, Dynamic Aspects of Speech: Indiana University Working Papers in Linguistics* (Vol. 4, pp. 33-43). Bloomington: IULC Publications.
- Lim, B. J., de Jong, K., & Nagao, K. (2003). The perception of rate-induced resyllabification in English: Native English listeners. In D. Burleson, C. Dillon & R. Port (Eds.), *Speech Prosody and Timing, Dynamic Aspects of Speech: Indiana University Working Papers in Linguistics* (Vol. 4, pp. 25-32). Bloomington, IN: IULC Publications.
- Nagao, K., Lim, B. J., & de Jong, K. (2003). Perceptual acquisitions of non-native syllable structures by native listeners of Japanese. In M. J. Sole, D. Recasens & J. Romero (Eds.), *Proceedings of the 15th International Congress of Phonetic Sciences, Barcelona, Spain*, pp. 1565-1568.
- Nagao, K. (2002). Tips for making a large size poster using Microsoft PowerPoint. URL: <http://mypage.iu.edu/~knagao/man/>
- de Jong, K., Nagao, K., & Lim, B. J. (2001) "The interaction of syllabification and voicing perception in American English" In T. A. Hall, B. Pompino-Marschall & M. Rochon (Eds.), *ZAS papers in linguistics* (ed., Vol. 28, pp. 27-38). Berlin: Zentrum fur Allgemeine Sprachwissenschaft.
- Lim, B. J., de Jong, K., & Nagao, K. (2001), "Cross-language perception of syllable affiliation: effects of voicing and language background", *Berkley Linguistics Society* 27.
- Erickson D., Tajima, K., & Nagao, K. (2000) "Phonetic analysis of vowel epenthesis in native Japanese speakers' production of English words", *Bulletin of Gifu City Women's College No.50*. pp.73-78., originally presented as Tajima, Keiichi, Donna Erickson, Nagao, K. (2000) "Phonetic analysis of vowel epenthesis in native Japanese speakers' production of English words" at the Fourteenth General Meeting of the Phonetic Society of Japan.

Nagao, K., and Amano, S. (2000) "Hatsuwa niokeru Kyochohyogen no Chikaku.(Perception of words produced with emphasis)", *Nihon Onkyo Gakkai Chokaku Kenkyukai Shiryo, H-2000-65*.

Nagao, K. (1999) "Shooten-no kihonshuuhasuuhenka ni kansuru danjosa nitsuite: Nihongo ni okeru ichikenkyuu (Gender differences in fundamental frequency in focused words)", *Nihon Onkyo Gakkai Chokaku Kenkyukai Shiryo, H-99-86*.

Invited talk

Nagao, K. (in preparation). Fourier Synthesis. Invited talk at the 159th Meeting of the Acoustical Society of America, Baltimore, Maryland, on April 21, 2010.

Nagao, K. (2009). How old do you think I am?: The effects of language, sex, stereotype, and accent on age estimation. Invited talk at the Linguistics Colloquium, University of Delaware.

Presentations

Nagao, K., Cornaglia, A., & Bunnell, H.T. (submitted). Development of vowel production in young children with cochlear implants.

Rodrigues, P., & Nagao, K. (submitted). Effects of listener experience with foreign accent on perceptions of accentedness and speaker age.

Nagao, K., Cornaglia, A., & Bunnell, H.T. (to be presented). Acoustic analysis of vocal development in young children with cochlear implants: A preliminary report. To be presented in XVIIth Biennial International Conference on Infant Studies, Baltimore, Maryland, on March 12, 2010.

Yarrington, D., Pennington, C., Bunnell, T., Gray, J., Lilley, J., Nagao, K., & Polikoff, J. B. (2008). ModelTalker Voice Recorder (MTVR) - A System for Capturing Individual Voices for Synthetic Speech. Presented at the ISAAC 13th Biennial Conference, Montreal, Canada on August 7, 2008.

Nagao, K. & Riley, A. K. (2008). Cross-language study of age perception by elderly listeners. Presented at the Acoustics'08 in Paris, France on June 29 to July 4, 2008.

Nagao, K., McCurdy, K. E., & Burnett, T. A. (2008). Age effects on reflexive and volitional voice F0 responses to pitch-shifted auditory feedback. Presented at the Acoustics'08 in Paris, France on June 29 to July 4, 2008.

Nagao, K. (2008). Language-specific vs. language-common perceptual cues for age identification. Presented at the Linguistic Variation Across the Lifespan symposium at the Ohio State University on May 2-3, 2008.

Burnett, T., Nagao, K., Bargatze, D. (2007). Continuous vs. sparse scanning paradigms for imaging vocalization-related BOLD activity. Presented at the 13th Annual Meeting of the Organization for Human Brain Mapping held in Chicago, IL. June 12, 2007.

Brady, M. C., Port, R. F., & Nagao, K. (2006). Effects of speaking style on the regularity of mora timing in Japanese. Presented at the 4th Joint Meeting of the Acoustical Society of America and the Acoustical Society of Japan on November 30 at Honolulu, Hawaii.

Nagao, K. (2006). Cross-language study of age stereotypes in speech perception. Presented at the NWAV35 on November 10 at Columbus, OH.

Nagao, K., & de Jong, K. (2006). Cross-language study of age perception: A sociolinguistic perspective on talker's sex. Presented on January 7, 2006 at the 80th annual meeting of the Linguistic Society of America at Albuquerque, NM.

- Nagao, K., & Kewley-Port, D. (2005). The effect of language familiarity on age perception. Presented at the Research Conference on Aging and Speech Communication on October 9-12, 2005 at Indiana University.
- Nagao, K., de Jong, K., & Lim, B. J. (2005). Learning variation in a second language: A cross-language study of rate normalization. Presented at the 1st ASA Workshop on Second Language Speech Learning, Vancouver, Canada.
- Nagao, K. (2005). Sociological effects on vocal aging: Age related *F0* effects in two languages. Presented at the 149th Meeting of the Acoustical Society of America, Vancouver, Canada.
- Nagao, K., & de Jong, K. (2003). Perceptual rate normalization in naturally produced bilabial stops. *Journal of the Acoustical Society of America*, Vol. 114 (4), p. 2338.
- Nagao, K. (2003). "Japanese traditional clothes". Presented at the 2003 Teaching East Asian Literature in the High School Workshop on July 16, 2003.
- Nagao, K., Lim, B. J., and de Jong, K. (2002) "Perception of English resyllabification by monolingual Japanese listeners", *Journal of the Acoustical Society of America*, Vol. 111(5), p. 2477.
- de Jong, K., Nagao, K., Lim, B. J., and Okamura, K. (2002) "Lexical and phonotactic effects on the perception of rate induced resyllabification", *Journal of the Acoustical Society of America*, Vol. 111(5), p. 2477.
- de Jong, K., Lim, B. J., and Nagao, K. (2001) "Phase transitions in a repetitive speech task as gestural recomposition", *Journal of the Acoustical Society of America*, Vol. 110 (5), p. 2657.
- Nagao, K., Lim, B. J., and de Jong, K. (2001) "Cross-language perception of rate induced resyllabification", *Journal of the Acoustical Society of America*, Vol. 109(5), p. 2474.
- de Jong, K., Lim, B. J., and Nagao, K. (2001) "The perception of rate induced resyllabification in English", *Journal of the Acoustical Society of America*, Vol. 109(5), p. 2311.
- Nagao, K., and Amano, S. (2000) "A role of fundamental frequencies in the perception of emphasized words", *Journal of the Acoustical Society of America*, Vol. 108(5), p. 2465.
- Nagao, K. (1999), "Gender differences in fundamental frequency in focused words: A case from Japanese", *Journal of the Acoustical Society of America*, Vol. 106(4), p. 2154.
- Nagao, K., and McCall, B. (1999) "A perception-based account of mimetic palatalization in Japanese", presented at the Satellite Meeting of the International Congress of Phonetic Sciences, San Francisco, CA.
- McCall, B., and Nagao, K. (1999). "Aspects of Markedness in Japanese Mimetics", presented at the Kentucky Foreign Language Conference, 24 April, 1999, Lexington Kentucky.

Professional Societies

Acoustical Society of America
 American Speech-Language-Hearing Association
 International Phonetic Association

Language Competencies

Japanese (Native) English (Advanced) French (Reading) Chinese (Elementary)
 Arabic (Elementary)

Computer Skills

- *Programming Languages:* Matlab, C, AWK, Prolog, R, HTML
- *Software:* Praat, IgorPro, BrainVoyager, Microsoft Word, Excel, PowerPoint, Publisher, Dreamweaver, SPSS

Certification

- Technical College Teacher Certificate in English, Issued by the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT), March, 1997.
- Middle School Teacher Certificate in English, Issued by MEXT, March, 1995.
- High School Teacher Certificate in English, Issued by MEXT, March, 1995.

Professional and University Services

- Guest lecturer*** Advanced Topics in Artificial Intelligence: Talking Machines CISC 889, University of Delaware, Fall, 2007. (guest lecturer on “Introduction of Linguistics and Phonetics”)
- Guest lecturer*** Cognitive and Communicative Aspects of Aging S307, Indiana University, Spring, 2004. (guest lecturer on “Cultural aspects of aging”).
- Guest lecturer*** Digital Signal Processing S522, Indiana University, Spring, 2003. (guest lecturers on “LPC and Klatt Synthesis” and “Cochlea implant processing”)
- Associate editor*** *IULC Working Papers Online*, 2000 – 2002
- Reviewer*** National Science Foundation, Language and Speech, Journal of Speech, Hearing, and Language Research
- Webmaster*** *Indiana University Linguistics Speech Laboratory*, 2001-2004
URL: <http://www.indiana.edu/~lsl/home.html>
- Guest speaker*** *Asian Culture Around Campus* host by Asian Culture Center, Indiana University on September 25, 2003.
- Volunteer speaker*** *Global Speakers Services* at Indiana University, 1997-2004