

# Theresa Anne Burnett, Ph.D., C.C.C. - S.L.P.

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## PERSONAL INFORMATION

**Address:** 812 South Jordan Avenue, Bloomington IN 47401  
**Phone (home):** (1) 812-339-7856 **(cell):** (1) 240-505-9052

**Citizenship:** United States

## ACADEMIC EMPLOYMENT

Assistant Professor Indiana University, Bloomington IN 2004 – present

## POSTDOCTORAL TRAINING

National Institutes of Health, Bethesda MD 1999 – 2004  
National Institute of Neurological Disorders & Stroke  
Laryngeal & Speech Section  
Director: Christy L. Ludlow, Ph.D.

## EDUCATION

Ph.D. Northwestern University, Evanston IL 1999  
Department of Communication Sciences & Disorders  
*Voice pitch dynamics, guidance source & error correction*  
Advisor: Charles R. Larson, Ph.D.

M.A. Northwestern University, Evanston, IL 1991  
Department of Communication Sciences & Disorders

B.A. University of California at Santa Barbara, Goleta CA 1989  
Department of Speech & Hearing Sciences

## ACCREDITATIONS

Certificate of Clinical Competence, Speech-Language Pathology 1992 – present  
American Speech, Language, Hearing Association, Rockville MD

License, Speech-Language Pathology #8512 1992 – present  
California State Examining Committee, Sacramento CA

## GRANT AWARDS

Midwest Crossroads Alliance for Graduate Education and the Professorate 2007 – 2008  
(AGEP) Award: \$10,000  
National Science Foundation, Arlington VA  
*Training for Research and Academic Careers in Communication Sciences and Disorders* (PI)

Midwest Crossroads Alliance for Graduate Education and the Professorate 2006 – 2007  
(AGEP) Award: \$10,000  
National Science Foundation, Arlington VA  
*Training for Research and Academic Careers in Communication Sciences and Disorders* (PI)

American Speech-Language Hearing Association's (ASHA) Projects on 2006 – 2007  
Multicultural Activities: \$10,630  
ASHA's Office of Multicultural Affairs, Rockville MD  
*Training for Research and Academic Careers in Communication Sciences and Disorders* (Co-PI)

Career Transition Award (K22): \$477,000 2003 – 2010  
 National Institute of Neurological Disorders & Stroke  
 National Institutes of Health, Bethesda MD  
*Central integration of voice and sound* (PI)  
 Dissertation Year Grant: \$750 1997  
 Northwestern University, Evanston IL  
*Effect of target characteristics on the use of auditory feedback pitch for the control of voice F<sub>0</sub>* (PI)

**TEACHING EXPERIENCE**

Assistant Professor, Indiana University, Bloomington IN  
*Speech Anatomy & Physiology* Fall, '07,'08,'09 Spring, '10  
*Voice in Children and Adolescents; Voice Physiology Across the Lifespan* Spring, '08, '10  
*Voice & Fluency in Children & Adolescents (1/2 semester)* Spring, '05,– '07  
*Voice Disorders* Summer, '05; Spring '06, '07; Fall, '07, – '09  
*Speech & Language Diagnostics (1/2 semester)* Spring, '05,– '07  
 Graduate Teaching Assistant, Northwestern University, Evanston IL 1993 – 1999  
*Anatomy & Physiology of the Vocal Mechanism*  
*Aphasia I*  
*Augmentative & Alternative Communication*  
*Diagnostic Procedures in Speech-Language Pathology*  
*Speech Sound Learning*  
*Voice II*

**CLINICAL EXPERIENCE**

Staff Speech Pathologist 1991 – 1993  
 Sharp Memorial Hospital & Rehabilitation Center, San Diego CA  
 Graduate Clinician 1991  
 Northwestern Memorial Hospital, Chicago IL  
 Northwestern University, Evanston IL 1989 – 1991

**ADMINISTRATIVE EXPERIENCE**

Member, Indiana University Department of Speech and Hearing Support Subcommittee 2007 – present  
 Member, Indiana University Imaging Research Facility Operations Committee 2005 – present  
 Member, Indiana University Department of Speech and Hearing Diversity Committee 2005 – 2006  
 Faculty-Student Liaison, Northwestern University Department of Communication Sciences and Disorders 1996 – 1997

**PUBLICATIONS: ARTICLES**

Burnett, T.A., & Egenolf, K. (Submitted). Intra-subject and inter-subject variability of voice F<sub>0</sub> error correction during sustained phonation. *Journal of the Acoustical Society of America*  
 Burnett, T.A., Hindemarsch, E., & McCurdy, K.E. (2008). Effect of anticipation on voice F<sub>0</sub> responses to auditory feedback pitch shifts. *Proceedings of Meetings on Acoustics*. 2: 060004.  
 Burnett, T.A., McCurdy, K.E., & Bright, J. (2008). Reflexive and volitional voice fundamental frequency (F<sub>0</sub>) responses to an anticipated feedback pitch error. *Experimental Brain Research* 191(3): 341-51.  
 Burnett, T.A., Mann, E.A., Stoklosa, J.B., & Ludlow, C.L. (2005). Self-triggered functional electrical stimulation during swallowing. *Journal of Neurophysiology* 94: 4011 - 4018.  
 Burnett, T.A., Mann, E.A., Cornell, S.A., & Ludlow, C.L. (2003). Laryngeal elevation achieved by

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- neuromuscular stimulation at rest. Journal of Applied Physiology 94(1): 128-134.
- Burnett, T.A. & Larson, C.R. (2002). Early pitch-shift response is active in both steady and dynamic voice pitch control. Journal of the Acoustical Society of America 112(3): 1058-63.
- Mann, E.A., Burnett, T.A., Cornell, S.A., & Ludlow, C.L. (2002). The effect of neuromuscular stimulation of the genioglossus on the hypopharyngeal airway. Laryngoscope 112(2): 351-6
- Larson, C.R., Burnett, T.A. Bauer, J., Kiran, S., & Hain, T.C. (2001) Comparison of voice F<sub>0</sub> responses to pitch-shift onset and offset conditions Journal of the Acoustical Society of America 110(6): 2845-8.
- Hain, T.C., Burnett, T.A., Larson, C.R. & Kiran, S. (2001). Effects of delayed auditory feedback (DAF) on the pitch-shift reflex. Journal of the Acoustical Society of America 109(5): 2146-52
- Hain, T.C., Burnett, T.A., Kiran, S., Larson, C.R., Singh, S. & Kenney, M.K. (2000). Instructing subjects to make a voluntary response reveals the presence of two components to the audio-vocal reflex. Experimental Brain Research 130(2): 133-41.
- Larson, C.R., Burnett, T.A., Kiran, S. & Hain, T.C. (2000). Effects of pitch-shift velocity on voice F<sub>0</sub> responses. Journal of the Acoustical Society of America 107(1): 559-64.
- Burnett, T.A., Freedland, M.B., Larson, C.R. & Hain, T.C. (1998). Voice F<sub>0</sub> responses to manipulations in pitch feedback. Journal of the Acoustical Society of America 103(6): 3153-61.
- Burnett, T.A., Senner, J.E. & Larson, C.R. (1997). Voice F<sub>0</sub> responses to pitch-shifted auditory feedback: a preliminary study. Journal of Voice. 11(2): 202-11.

#### **PUBLICATIONS: BOOK CHAPTERS**

- Larson, C.R., Carrell, T.D., Senner, J.E., Burnett, T.A. & Nichols, L.L. A proposal for the study of voice F<sub>0</sub> control using the pitch shifting technique. Proceedings of Vocal Fold Physiology: Voice Quality Control (Eds. O. Fujimura & M. Hirano), Singular, San Diego, 1995.
- Larson, C.R., White, J.P., Freedland, M.B. & Burnett, T.A. Interactions between voluntary pitch modulations & pitch-shifted feedback signals: Implications for neural control of voice pitch. Proceedings of Vocal Fold Physiology: Controlling Chaos & Complexity. (Eds. N. Fletcher & P.J. Davis), Singular, San Diego, 1996.

#### **INVITED PRESENTATIONS**

- Burnett, Theresa A., Hindemarsch, Elise, & McCurdy, Katie E. *Effect of anticipation on voice F<sub>0</sub> responses to auditory feedback pitch shifts*. Special session on auditory and somatosensory feedback in speech production, 154th Meeting of the Acoustical Society of America, New Orleans, LA, November, 2007.

#### **CONFERENCE PRESENTATIONS**

- Burnett, T., and McCurdy, K.E. (Accepted) *Inter- and intra-subject variability of voice F<sub>0</sub> responses to auditory feedback pitch shifts*. Fifteenth Biennial Conference on Motor Speech, Savannah GA, March 2010.
- Nagao, K., McCurdy, K.E., & Burnett, T.A. *Age effects of pitch-shifted auditory feedback on reflexive and volitional voice F<sub>0</sub> control*. Acoustics'08, Paris, France, June 2008
- Burnett, Theresa A., Nagao, Kyoko, & Bargatze, Dylan. *Continuous vs. sparse scanning paradigms for imaging vocalization-related BOLD activity*. Human Brain Mapping, Chicago IL, June 2007.
- Burnett, Theresa A. & Madonia, Dana A. *Voice F<sub>0</sub> responses to actual vs. consciously perceived auditory feedback pitch shifts*. 4th Joint Meeting of the Acoustical Society of America and the Acoustical Society of Japan, Honolulu HI, November 2006.
- Madonia, Dana A. & Burnett, Theresa A. *Voice F<sub>0</sub> responses and manual reaction times to auditory feedback pitch shifts*. 4th Joint Meeting of the Acoustical Society of America and the Acoustical Society of Japan, Honolulu HI, November 2006.
- Burnett, T.A., Mann, E.A., Bielamowicz, S. & Ludlow, C.L. *Hyolaryngeal movements and upper esophageal sphincter pressure changes result from neuromuscular stimulation*. 11<sup>th</sup> Annual Meeting of the Dysphagia Research Society, Miami FL, October 2002.
- Burnett, T.A., Mann, E.A., Cornell, S., Stoklosa, J., & Ludlow, C.L. *Do muscle activation patterns change following neuromuscular stimulation during swallowing?* 10<sup>th</sup> Annual Meeting of the Dysphagia Research Society, San Antonio TX, October 2001.

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- Burnett, T.A., Mann, E., Cornell, S.A., & Ludlow, C.L. *An evaluation of muscle stimulation for laryngeal elevation in humans*. Dysphagia Research Society. Savannah GA, October 2000.
- Burnett, T.A., Hain, T.C., & Larson, C.R. *Voice pitch oscillations following auditory feedback pitch shifts*. 10<sup>th</sup> Biennial Conference on Motor Speech. San Antonio TX, 2000.
- Burnett, T.A. & Larson, C.R. *Effect of referent source & dynamics on voice F<sub>0</sub> stability in the presence of auditory feedback pitch perturbations*. 137<sup>th</sup> meeting of the Acoustical Society of America, Berlin Germany, 1999.
- Burnett, T.A. & Larson, C.R. *Following vs. compensating voice F<sub>0</sub> responses to shifts in auditory feedback pitch*. 2nd International Conference on Voice Physiology & Biomechanics, Berlin Germany, 1999.
- Hain, T.C., Burnett, T., Larson, C.R. *Performance of a simple feedback model of F<sub>0</sub>*. Meeting of the Association for Research in Otolaryngology, St. Petersburg Beach, FL, 1999.
- Burnett, T.A. & Larson, C.R. *Voice F<sub>0</sub> responds to auditory feedback pitch shifts during both steady & dynamic vocal behaviors*. 136<sup>th</sup> Meeting of the Acoustical Society of America, Norfolk VA, 1998.
- Burnett, T.A., Larson, C.R., Kiran, S., & Hain, T.C. *Comparison of voice F<sub>0</sub> responses to pitch-shift onset vs. offset conditions*, Speech Motor Control, Tucson AZ, 1998.
- Larson, C.R., Burnett, T.A., Singh, S. & Kiran, S. *Effects of instructions on vocal responses to pitch shift stimuli*. Society for Neuroscience, New Orleans LA, 1997.
- Burnett, T.A., Kiran, S., Larson, C.R., & Hain, T.C. *Voice F<sub>0</sub> responses to feedback pitch are not affected by speed of stimulus onset*. 134<sup>th</sup> Meeting of the Acoustical Society of America, San Diego CA, 1997.
- Larson, C.R., Burnett, T.A., Freedland, M.B. & Hain, T.C. *Voice F<sub>0</sub> responses to manipulations in pitch feedback stimuli*. First International Conference on Voice Physiology & Biomechanics, Evanston IL, 1997.
- Burnett, T.A., Singh, S.A., Kiran, S. & Larson, C.R. *Effects of task instruction on voice F<sub>0</sub> responses to auditory feedback pitch shifts*. Third Joint Meeting of the Acoustical Society of America & the Acoustical Society of Japan, Honolulu HA, 1996.
- Burnett, T.A., Larson, C.R., Freedland, M.B. & White, J.P. *Differential effects of pitch shift duration on voice F<sub>0</sub> control*, Speech Motor Control Conference, Amelia Island FL, 1996.
- Freedland, M.B., Larson, C.R., Burnett, T.A. & White, J.P. *The effects of loudness and noise on voice control in response to pitch shift stimuli*. Speech Motor Control Conference, Amelia Island FL, 1996.
- Larson, C.R., Carrell, T.D., Senner, J.E. & Burnett, T.A. *Pitch shifting for the study of voice F<sub>0</sub> control*. American Speech & Hearing Association, New Orleans LA, 1994.
- Burnett, T.A., Senner, J.E., Carrell, T.D. & Larson, C.R. *Changes in F<sub>0</sub> following auditory feedback pitch shifting*. American Speech & Hearing Association, New Orleans LA 1994.

**PATENTS**

- Ludlow, C.L., Mann, E., Burnett, T., Bielamowicz, S. *Methods and devices for intramuscular stimulation of upper airway and swallowing*, United States of America, 7606623, Institution 2009

**AWARDS**

- 3<sup>rd</sup> Place Oral Presentation 2002  
 11<sup>th</sup> Annual Meeting of the Dysphagia Research Society, Miami FL  
*Hyolaryngeal movements and upper esophageal sphincter pressure changes result from neuromuscular stimulation.*
- 2<sup>nd</sup> Place Poster 2000  
 9<sup>th</sup> Annual Meeting of the Dysphagia Research Society, Savannah GA  
*An evaluation of muscle stimulation for laryngeal elevation in humans.*

**PROFESSIONAL ACTIVITIES**

- Editorial Consultant 2000 – 2003  
 Journal of Speech, Language, & Hearing Research (Speech)

Ad hoc Reviewer

American Journal of Speech-Language Pathology  
 Experimental Brain Research  
 Journal of the Acoustical Society of America  
 Journal of Applied Physiology  
 Journal of Speech, Language, & Hearing Research  
 Eurospeech/Interspeech 2003 Conference

Judge, Student Presentation Competition

154th Meeting of the Acoustical Society of America, New Orleans LA 2007  
 4th Joint Meeting of the Acoustical Society of America & the Acoustical Society of Japan, Honolulu, HI 2006

**PROFESSIONAL ASSOCIATION MEMBERSHIPS**

Organization for Human Brain Mapping 2003 – present  
 Society for Neuroscience 2001 – present  
 Acoustical Society of America 1997 – present  
 American Speech-Language Hearing Association 1991 – present  
 Dysphagia Research Society 2001 – 2004

**RESEARCH MENTORSHIP**

Dissertation Committee Member, Mr. Daniel Fogerty 2006 – present  
 Dissertation Committee Member, Mr. Jacob Kean 2006 – 2007  
 Chairperson, Undergraduate Honors Thesis: Ms. Elise Hindmarsh 2006 – 2007  
 Chairperson, Undergraduate Honors Thesis: Ms. Molly Goetz 2009 – 2010  
 Chairperson, Postdoctoral research fellowship: Dr. Kyoko Nagao 2006 – 2007  
 Mentor, Indiana University Department of Speech & Hearing Sciences 2005 – 2007  
 Undergraduate Honors Program: Ms. Amanda McAdoo; Ms. Rebecca Bruning; Ms. Elise Hindmarsh, Ms. Kortnee Moore, Ms. Jessica Mattia  
 Mentor, Blair Magnet High School Research Program 2002  
 Mentor, NINDS Summer Program in the Neurological Sciences, Mr. Joseph Stoklosa 2001