

# ANDREA M. FRIEDRICH

---

Department of Psychology  
211 Kastle Hall  
University of Kentucky  
Lexington, KY 40506-0044  
(859) 257-6431  
Email: [Deafriedrich@aol.com](mailto:Deafriedrich@aol.com)

## EDUCATION

**Doctorate of Philosophy, Experimental Psychology**, May 2007

University of Kentucky, Lexington, KY

**Dissertation:** Differential Outcomes Effect Produced by Different Feeder Locations

Advisor: Thomas R. Zentall

**Master of Science, Experimental Psychology**, August 2002

University of Kentucky, Lexington, KY

**Thesis:** Work ethic in animals: Pigeons prefer food locations that require greater effort to obtain

Advisor: Thomas R. Zentall

**Bachelor, Psychology**, December 1996

Universidade Mackenzie, São Paulo, Brazil

**Majors:** Clinical, Organizational and Educational Psychology

**Teaching License, Psychology - High Schools**, December 1995

Universidade Mackenzie, São Paulo, Brazil

## PUBLICATIONS

**Friedrich, A. M., & Zentall, T. R.** (in press). A differential-outcomes effect in pigeons using hedonically nondifferential outcomes. *Learning & Behavior*.

**Friedrich, A. M., & Zentall, T. R.** (2010). A relational differential outcomes effect: Pigeons can classify outcomes as “good” and “better”. *Animal Cognition*, *13*, 359-365.

Miller, H. C., **Friedrich, A. M.**, Narkavic, R. J. , & Zentall, T. R. (2009). A differential-outcomes effect using hedonically nondifferential outcomes with delayed matching-to-sample by pigeons. *Learning & Behavior*, *37*(2), 161-166.

**Friedrich, A. M.**, Zentall, T. R., & Weisman, R. (2007). Absolute Pitch: Frequency-Range Discriminations in Pigeons (*Columbia livia*) - Comparisons with Zebra Finches (*Taeniopygia guttata*), and Humans (*Homo sapiens*). *Journal of Comparative Psychology*, *121*(1), 95-105.

Zentall, T. R. , **Friedrich, A. M.**, & Clement, T. S. (2006). Required pecking alters judgments of the passage of time by pigeons. *Psychonomic Bulletin & Review*, *13*(6), 1038-1042.

Zentall, T.R., Clement, T.S., **Friedrich, A. M.**, & DiGian, K. A. (2006). Stimuli signaling rewards that follow a less preferred event are preferred: Implications for cognitive dissonance. In E. A. Wasserman & T. R. Zentall (Eds.), *Comparative Cognition: Experimental Explorations of Animal Intelligence*. New York: Oxford.

**Friedrich, A. M.**, Clement, T. S., & Zentall, T. R. (2005). Discriminative stimuli that follow the absence of reinforcement are preferred by pigeons over those that follow reinforcement. *Learning & Behavior*, *33*(3), 337-342.

DiGian, K.A., **Friedrich, A. M.**, & Zentall, T.R. (2004). Discriminative stimuli that follow a delay have added value for pigeons. *Psychonomic Bulletin & Review*, *11*, 889-895.

- Friedrich, A. M.**, & Zentall, T. R. (2004). Pigeons shift their preference toward locations of food that take more effort to obtain. *Behavioural Processes*, 67, 405-415
- Friedrich, A. M.**, Clement, T. S., & Zentall, T. R. (2004). Functional equivalence in pigeons involving a four-member class. *Behavioural Processes*, 67, 395-403
- Zentall, T. R., & **Friedrich, A. M.** (2003). Justification of effort by pigeons. In R. Alterman & D. Kirsch (Eds.), *Proceedings of the 25rd Annual Meeting of the Cognitive Science Society* p. 835. Hillsdale, NJ:Erlbaum.
- Urcuioli, P. J., Pierce, J. N., Lionello-DeNolf, K. M., **Friedrich, A.**, Fetterman, J. G., & Green, C. (2002). The development of emergent differential sample behavior in pigeons. *Journal of the Experimental Analysis of Behavior*, 78, 409-432.

## CONFERENCE PRESENTATIONS

- Zentall, T. R., Friedrich, A. M., Klein, E. D., & Singer, R. A. (2006, May). Wrinkles in Time Assessment in Animals: Production, Discrimination, Detection, and Subjectivity. Paper presented at the annual meeting of Society for the Quantitative Analyses of Behavior, Atlanta, GA.
- Friedrich, A. M., & Zentall, T. R. (2005, May). Pigeons Use Anticipation of an Outcome as Additional Cue for Comparison Choice Paper presented at the annual meeting of the Midwestern Psychological Association, Chicago, IL.
- Weisman, R. , Friedrich, A., & Zentall, T. (2005, May). Using Behavior Analysis to Study the Evolution of Pitch Perception. Paper presented at the annual meeting for Quantitative Analysis of Behavior, Chicago, IL
- Friedrich, A. M., Zentall, T.R., Weisman, R. (2005, March). The Specifics of Absolute Pitch Perception in Pigeons. Paper presented at the 12<sup>th</sup> Annual Comparative Cognitive Society Meeting. Merlbourne, FL.
- Taylor, R. D., & Friedrich, A. M. (March, 2005). Food reinforced place preference in female Japanese quail (*Coturnix japonica*). Paper presented at the Fifty-first annual meeting of the Southwestern Psychological Association, Memphis, TN.
- Weisman, R. , Cohen, J., Friedrich, A. M., & Zentall, T.R. (2004, September). Evolution of absolute pitch in birds and mammals. Paper presented at the Annual Meeting of the Spanish Society of Comparative Psychology, Oviedo, Spain
- Friedrich, A. M., Morrell, D. & Zentall, T. R. (2004, May) . Pigeons have absolute pitch, humans don't. Paper presented at the fourth annual Spring Symposium in Ecology, Evolution and Behavior, University of Kentucky, Lexington, KY
- Friedrich, A. M., & Zentall, T. R. (2004, April). A Differential Outcomes Effect Using Two Different Feeder Locations. Paper presented at the annual meeting of the Midwestern Psychological Association, Chicago, IL.
- Weisman, R. , Friedrich, A. M., Morrell, D. & Zentall, T.R. (2004, March). Absolute Pitch: forget about whether music training matters; what matters is whether you are a mammal or a bird. Paper presented at the 11<sup>th</sup> Annual Comparative Cognitive Society Meeting, Melrbourne, FL.
- Friedrich, A. M., & Zentall, T. R. (2003, November). A differential outcomes effect using two different feeder locations. Paper presented at the meeting of the Psychonomic Society, Vancouver, BC, Canada

Friedrich, A. M., & Zentall, T. R. (2003, April). 'Work ethic' in animals: pigeons prefer food locations that require greater effort. Poster presented at the annual meeting of the Midwestern Psychological Association, Chicago, IL.

Friedrich, A. M., & Zentall, T.R. (2003, March). Differential outcomes based on feeder location can serve as an effective cue for comparison choice. Oral presentation at the 10<sup>th</sup> Annual Comparative Cognitive Society Meeting.

## **RESEARCH EXPERIENCE**

### Research Assistant for Dr. Thomas R. Zentall

Department of Psychology, University of Kentucky, Lexington, KY

Responsible for designing and conducting experiments that investigate coding strategies, contrast effects and changes in reward value in pigeons. Also responsible for collecting and analyzing data and supervising undergraduate students in data collection

Summer 2004, Spring 2004, Fall 2003, Summer 2003, Spring 2003, Fall 2002

### Graduate Research Assistant for Dr. Peter Urquioli

Department of Psychology, Purdue University, West Lafayette, IN

Responsible for conducting experiments that investigate coding strategies in pigeons.

Spring 1999, Fall 1999

## **TEACHING EXPERIENCE**

### Instructor, Problems in Psychology: Teaching Psychology (PSY 780)

Department of Psychology, University of Kentucky, Lexington, KY

Spring 2011, Fall 2011

### Instructor, Learning and Cognition (PSY 311)

Department of Psychology, University of Kentucky, Lexington, KY

Fall 2011, Spring 2011, Fall 2010, Spring 2010, Fall 2009, Summer 2009, Spring 2009, Fall 2008, Summer 2008, Spring 2008, Fall 2007, Spring 2007, Fall 2006, Spring 2006, Fall 2005, Summer 2005, Spring 2005

### Instructor, Application of Statistics in Psychology (PSY 216)

Department of Psychology, University of Kentucky, Lexington, KY

Fall 2010, Summer 2010, Fall 2009, Fall 2008, Fall 2005

### Instructor, Experimental Psychology (PSY 215)

Department of Psychology, University of Kentucky, Lexington, KY

Fall 2010, Summer 2010, Spring 2010, Fall 2009, Summer 2009, Spring 2009, Fall 2008, Summer 2008, Spring 2008, Fall 2007, Spring 2007, Fall 2006, Spring 2006, Summer 2005

### Instructor, Orientation to Psychology (PSY 195)

Department of Psychology, University of Kentucky, Lexington, KY

Fall 2011

### Instructor, Introduction to Psychology (PSY 100)

Department of Psychology, University of Kentucky, Lexington, KY

Fall 2011, Spring 2010, Spring 2009, Spring 2008, Fall 2007, Fall 2006, Spring 2006, Fall 2005

### Instructor, Academic Orientation (UK 101)

University of Kentucky, Lexington, KY

Fall 2006

Laboratory Instructor, Learning (PSY 450)  
Department of Psychology, University of Kentucky, Lexington, KY  
Fall 2004

Laboratory Instructor, Experimental Psychology (PSY 215)  
Department of Psychology, University of Kentucky, Lexington, KY  
Fall 2004, Spring 2002, Fall 2001, Summer 2001, Spring 2001

Laboratory Instructor, Introduction to Psychology (PSY 100)  
Department of Psychology, University of Kentucky, Lexington, KY  
Fall 2000

Teaching Assistant, Motivation  
Department of Psychology, Purdue University, West Lafayette, IN  
Spring 2000, Fall 1999

Teaching Assistant, Research Methods  
Department of Psychology, Purdue University, West Lafayette, IN  
Spring 2000, Fall 1999

Laboratory Instructor, Experimental Psychology  
Department of Psychology, Universidade Mackenzie, Sao Paulo, Brazil  
February 1994 – December 1995

Teaching Assistant, Psychopathology I and II  
Department of Psychology, Universidade Mackenzie, Sao Paulo, Brazil  
August 1994 – August 1995

## **RESEARCH AND TEACHING SUPERVISION EXPERIENCE**

### **Internship supervision**

Lacey Simonson, Lindsay Kampfer and Jessica Kroetz (site: Jumpstart)  
University of Kentucky, 2008

Nicole Rauen (site: Linlee Elementary) and Lacey Simonson (site: Jumpstart)  
University of Kentucky, 2006

Tiffany Cox (site: Gentiva Health Services)  
University of Kentucky, 2005

**Honors Thesis** for Tasha Smith, BS in Psychology  
Univeristy of Kentucky, 2002

**Honors Thesis** for Michal Cieraszyński, BS in Psychology  
Univeristy of Kentucky, 2005

**Training** of new graduate teaching assistants  
Univeristy of Kentucky, Fall 2004

**Training** undergraduate students to execute and collect data from scientific experiments  
Univeristy of Kentucky, 2000-2005

**Teaching** undergraduates students how to effectively communicate scientific findings in oral and written presentations  
University of Kentucky, 2000-2005

## **OTHER EXPERIENCE**

### **Industrial/Organizational Psychologist**

Aptus (São Paulo, Brazil).

Responsible for recruitment and selection. March 1997 - October 1997.

### **Intern**

Centro Preparatorio de Oficiais da Reserva em São Paulo (C.P.O.R. – S.P.). (São Paulo, Brazil).

Responsible for applying psychometric, IQ and ability tests on military officers. March 1995 – December 1995.

### **Intern**

Associação dos Amigos dos Excepcionais do Brooklin (São Paulo, Brazil). Responsible for developing group activities to stimulate children with mental disabilities. February 1995 – May 1995.

### **Intern**

Lar do Alvorecer Cristão (São Paulo, Brazil). Responsible for developing activities to stimulate infants. March 1996 – December 1996.