

**Eric Dimperio**  
**Indiana University**  
**Psychological and Brain Sciences**  
**1101 E. 10<sup>th</sup> Street**  
**Bloomington, IN 47405**  
**Phone: 812-856-4678**  
**Cell: 812-272-8949**  
**edimperi@indiana.edu**

**Education:**

candidate for Ph.D., Cognitive Science / Psychology, Indiana University, expected 2009  
Concentrations: Cognitive Psychology, Modeling Cognitive Processes

B.S., Psychology, Arizona State University, Tempe, AZ, 2001

B.S., Computer Science, Arizona State University, Tempe, AZ, 2001

**Work Experience:**

Research Assistant, 2004-present  
Indiana University Decision Lab

Student Intern, Summer 2008

Army Research Laboratory

-Programmed robot simulator in MATLAB to test integration of decision models into complex, interactive environment

-Programmed dynamic decision models into an existing robot architecture. Initial use was in path plan selection.

Student Intern, Summer 2007

Air Force Research Laboratory

-Extended existing ACT-R model of Predator UAV pilots to increase cognitive fidelity and functionality on a simulated reconnaissance task.

Scientist, 2002 - 2004

Space and Naval Warfare Systems Center San Diego

Project Purpose - Duties:

Provide unique data generation & presentation capabilities for commanding aircraft carrier battle groups

-Software designer / Programmer

Create ability to search large corpus of unstructured text for time and place references

-Programmer

Create metrics for measuring abilities of artificially intelligent agents

-Programmer

Research Assistant, 2001 - 2002

Carl T. Hayden Veterans Administration Medical Center

Project - Duties:

Compare therapies for insomnia in older adults

- Collect and analyze data

## Research Interests

- Cognitive Decision Theory
- Cognitive Science
- Memory and learning processes used during judgment and decision making
- Connectionist models of cognition
- Cognitive architectures / integration of cognitive models
- Cognitive Robotics

## Publications

Griego, J.A., McDaniel, M.A., Dimperio, E. & Busemeyer, J.R. (In Press) Predicting Extrapolation Performance: A Comparison of Competing Associative Function Learning Models, *Journal of Experimental Psychology: Learning, Memory, and Cognition*.

Dimperio, E., Gunzelmann, G., & Harris, J. (2008). An Initial Evaluation of a Cognitive Model of UAV Reconnaissance. In J. Hansberger (Ed.) *Proceedings of the Seventeenth Conference on Behavior Representation in Modeling and Simulation* (pp. 165-173). Orlando, FL: Simulation Interoperability Standards Organization.

Dimperio, E. (2007). A comparison of models in a function learning task. in *Proceedings of the 29<sup>th</sup> Annual Meeting of the Cognitive Science Society (CogSci 2007)*.

Busemeyer, J. R., Dimperio, E., & Jessup, R. K. (2007). Integrating emotional processes into decision making models. In W. D. Gray (Ed.), *Integrated Models of Cognitive Systems* (pp. 213-229). New York: Oxford University Press.

## Publications Forthcoming and Under Review:

Busemeyer, J. R., Jessup, R. K., & Dimperio, E. (2008) Integrating sophisticated choice models with basic learning processes to more fully account for complex choice behavior. Submitted to *Cognition*.

Busemeyer, J. R., & Jessup, R. K., & Dimperio, E. (2008). The dynamic interactions between situations and decisions. To appear in P. Robbins, M. Aydede (Eds.), *The Cambridge Handbook of Situation Cognition*. Cambridge University Press.

## Conference Presentations:

Dimperio, E. (August, 2008). "Robotic Intelligent Control System with Human Inspired Plan Selection" Presentation at ARL Summer Student Research Symposium. Adelphi, MD

Dimperio, E., Gunzelmann, G., & Harris, J. (April, 2008). "An Initial Evaluation of a Cognitive Model of UAV Reconnaissance" Presentation at *Conference on Behavior Representation in Modeling and Simulation* Providence, RI.

Dimperio, E., and Busemeyer, J. (March, 2006) "Using interpolation regions to discriminate models of function learning" Presentation at Hoosier Mental Life. Indiana University, Bloomington, IN.

## Poster Presentations

Dimperio, E. (August, 2007) "Using interpolation regions to discriminate models of function learning" *29th Annual Meeting of the Cognitive Science Society (CogSci 2007)*. Nashville, TN..

## Unpublished Works

Dimperio, E. (2006). *People are agents too: A review of the use of agent based systems as descriptive models of human cognition and group dynamics*. Completed as part of qualification exams for Indiana University Graduate program.

Dimperio, E. (2006). *Neural Network Models of Decision Making: Past, Present, and Future*. Completed as part of qualification exams for Indiana University Graduate program.

Dimperio, E. (2006). *Exploring the intersection of decisions and cognitive architectures*. Completed as part of qualification exams for Indiana University Graduate program.

Dimperio, E. (2006). *Complex interpolation during a function learning task*. Second year project for Indiana University Graduate program

## Reviewer

-ad hoc paper reviewer for Perception & Psychophysics; Cognitive Science; Memory & Cognition

-ad hoc grant reviewer for Defense Advanced Research Projects Agency

## Courses Taught

<i>Position</i>	<i>Course Title</i>	<i>Location</i>
Lab Instructor	Methods of Experimental Psychology	Indiana University
Associate Instructor	Advanced Statistical Analysis II	Indiana University

## Grants and Fellowships:

- Mathematical Modeling Training Grant, Psychological and Brain Sciences Department, Indiana University, Bloomington, IN, 2008-2009.
- Cognitive Science Supplemental Fellowship, Cognitive Science Program, Indiana University, Bloomington, IN, 2006.

## Awards and Honors:

- 2<sup>nd</sup> Place Graduate Student Presentation / Paper – Army Research Laboratory Summer Student Research Symposium, Adelphi, MD, Aug. 7, 2008
- Distinguished Team Performance – SPAWAR Systems Center San Diego (2003)
- Matrix Resources scholarship recipient (2000)

- Matrix Resources scholarship recipient (1999)
- Member of Upsilon Pi Epsilon – Computer Science honor society

### **Computer & Programming Experience**

- MATLAB
- R
- C++
- Python
- LISP
- Proce55ing
- SPSS
- HTML/Javascript
- MySQL

### **References:**

Dr. Jerome Busemeyer  
Professor of Psychological and Brain Sciences  
Professor of Cognitive Science  
Manager of Cognition & Decision Program, Air Force Office of Scientific Research  
Indiana University  
1101 East Tenth Street  
Bloomington, Indiana 47405  
Phone: 812-855-4882  
E-mail: jbusemey@indiana.edu

Dr. Rob Goldstone  
Professor of Psychological and Brain Sciences  
Professor of Cognitive Science  
Indiana University  
1101 East Tenth Street  
Bloomington, Indiana 47405  
Phone: 812-855-4853  
E-mail: rgoldsto@indiana.edu

Dr. Doug Lange  
Deputy for Command and Control Science and Technology  
SPAWARSSYSCEN San Diego  
53560 Hull Street  
San Diego, CA 92152  
Phone: 619-553-6534  
E-mail: doug.lange@navy.mil

Dr. Glenn Gunzelmann  
Research Psychologist  
Air Force Research Laboratory  
6030 S. Kent St Mesa, AZ 85212-6061  
Phone: 480-988-6561 x-674  
E-mail: Glenn.Gunzelmann@mesa.afmc.af.mil