

# MICHAEL N. GEUSS

Birthdate: January 11th, 1986  
Max Planck Institute for Biological Cybernetics  
Spemannstr. 38, 72076 Tübingen  
Email: michael.geuss@tuebingen.mpg.de

## EDUCATION

### **Ph.D. in Psychology**

University of Utah, Department of Psychology  
“An investigation into dynamic changes in visually-guided actions and perceived spatial layout when afraid”

**August 2014**  
Salt Lake City, Utah

### **M.S. in Psychology**

University of Utah, Department of Psychology

**May 2011**  
Salt Lake City, Utah

### **B.S. in Psychology**

College of William and Mary, Department of Psychology

**May 2008**  
Williamsburg, Virginia

## PROFESSIONAL EXPERIENCE

### **Visiting Scholar**

Max Planck Institute for Biological Cybernetics

**August 2014 - Current**  
Tübingen, Deutschland

## FUNDING, FELLOWSHIPS, AND HONORS

### **Alexander von Humboldt Postdoctoral Research Fellowship**

- Two year fellowship amounting to €75600

**August 2015 - Current**

### **Letter of Recognition for Teaching Excellence**

**Spring 2014**

### **Clayton Award for Excellence in Research**

- internal award amounting to \$2100

**March 2013**

### **Departmental Career Development Award**

- honoring best all-around student

**May 2012**

### **Departmental Research Commendation**

**May 2012**

### **Doctoral Students Grant**

- Max Planck Institute for Biological Cybernetics

**May - July 2011**  
Tübingen, Germany

### **Graduate School Travel Award**

- internal travel award amounting to \$1000 each

**May 2010, May 2011,**  
**November 2013**

### **Letter of Recognition for Research Excellence**

**May 2010, May 2011**

### **Cum Laude**

- graduated with a GPA of higher than 3.5 out of 4.0

**May 2008**

## RESEARCH INTERESTS

My research focuses on how non-visual factors related to the body influence and shape our perception of spatial layout. Specifically, I investigate how the size of our bodies and our emotional states influence both our perception of spatial layout and the performance of visually-guided actions. I conduct this work using virtual reality technology, physiological measures, and dynamic systems statistical analyses. I am an expert in several statistical techniques, experimental design, and handling of large datasets. I further apply this paradigm as a method to assess the perception of virtual spaces with the goal of improving the fidelity and immersive feeling of virtual reality technology.

## **PUBLICATIONS**

### ***Journal Articles***

- Stefanucci, J. K., Creem-Regehr, S. H., Thompson, W. B., Lessard, D. A., & **Geuss, M. N.** (In Press). Evaluating the accuracy of size perception on screen-based displays: Displayed objects appear smaller than real objects. *Journal of Experimental Psychology: Applied*.
- Geuss, M. N.**, Stefanucci, J. K., Creem-Regehr, S. H., Thompson, W. B., & Mohler, B. J. (In Press). Effect of display technology on perceived scale of space. *Journal of Human Factors and Ergonomics Society*.
- Gagnon, K. T., **Geuss, M. N.**, Stefanucci, J. K., Baucom, B. B., & Creem-Regehr, S. H. (In Press). The influence of social context and body size on action judgments for self and others. *Journal of Experimental Psychology: Human Perception and Performance*.
- Linkenauger, S. A., Wong, H. Y., **Geuss, M. N.**, Stefanucci, J. K., Bühlhoff, H. H., Mohler, B. J., & Proffitt, D. R. (In Press). The perceptual homunculus: The perception of the relative proportions of the body. *Journal of Experimental Psychology: General*, 144, 103-113.
- Butner, J., Gagnon, K. T., **Geuss, M. N.**, Lessard, D. A., & Story, N. (2015). Using topology to generate and test theories of change. *Psychological Methods*, 20, 1-25.
- Linkenauger, S. A., **Geuss, M. N.**, Stefanucci, J. K., Leyrer, M., Richardson, B. H., Proffitt, D. R., Bühlhoff, H. H., & Mohler, B. J. (2014). Evidence for hand-size constancy: Perceived hand size is less susceptible to optical magnification. *Psychological Science*, 38, 61-64. DOI: 10.1177/0956797614548875
- Creem-Regehr, S. H., Gagnon, K. T., **Geuss, M. N.**, & Stefanucci, J. K. (2013). Relating spatial perspective taking to the perception of others' affordances: Evidence for shared mechanisms? *Frontiers in Human Neuroscience*, 7, 596.
- Gagnon, K. T., **Geuss, M. N.**, Stefanucci, J. K. (2013). Fear influences perceived reaching to targets in audition, but not vision. *Evolution and Human Behavior*, 34(1), 49-54.
- Geuss, M. N.**, Stefanucci, J. K., Creem-Regehr, S. H., & Thompson, W. (2012). Effect of viewing plane on perceived distance in real and virtual environments. *Journal of Experimental Psychology: Human Perception and Performance*, 38(5), 1242-1253.
- Geuss, M. N.**, Stefanucci, J. K., de Benedictis-Kessner, J., & Stevens, N. R. (2010). A balancing act: Physical balance, through arousal, influences size perception. *Attention, Perception, and Psychophysics*, 72, 1890-1902.
- Stefanucci, J. K., & **Geuss, M. N.** (2010). Duck!: Scaling the height of a horizontal barrier to body height. *Attention, Perception, and Psychophysics*, 72, 1338-1349.
- Stefanucci, J. K. & **Geuss, M. N.** (2009). Big people, little world: The body influences size perception. *Perception*, 38, 1782-1795.

### ***Published Conference Proceedings (peer-reviewed papers)***

- Jun, E., Stefanucci, J. K., Creem-Regehr, S. H., **Geuss, M. N.**, & Thompson, W. (2015). Big Foot: Using the size of a virtual foot to scale gap width. *In Proceedings of the ACM Transactions on Applied Perception for the Symposium on Applied Perception*. ACM.
- Wellerdiek, A., Breidt, M., **Geuss, M. N.**, Streuber, S., Kloos, U., Black, M., & Mohler, B. (2015). Perception of strength and power of realistic male characters. *In Proceedings of the ACM Symposium on Applied Perception*. ACM.
- Gutekunst, M., **Geuss, M.**, Stefanucci, J. K., Kloos, U., & Mohler, B. (2014). A video self-avatar influences the perception of heights in an augmented reality Oculus Rift. *In Proceedings of the Eurographics Symposium on Virtual Environments*.
- Tarampi, M., **Geuss, M. N.**, Stefanucci, J. K., & Creem-Regehr, S. H. (2014). A preliminary study on the role of movement imagery in spatial perception. *In Spatial Cognition IX* (pp. 383-395). Springer International Publishing.
- Stefanucci, J. K., Lessard, D. A., **Geuss, M. N.**, Creem-Regehr, S. H., & Thompson, W. (2012). Evaluating the accuracy of size perception in real and virtual environments. *In Proceedings of the ACM Symposium on Applied Perception* (pp. 79-82). ACM.
- Geuss, M. N.**, Stefanucci, J. K., Creem-Regehr, S. H., & Thompson, W. (2010). Can I pass?: Using affordances to measure perceived size in virtual environments. *In Proceedings of Symposium on Applied Perception in Graphics and Visualization*, (pp. 61-64).

### **CONFERENCE PRESENTATIONS**

- Geuss, M. N., Ruginski, I. T., & Stefanucci, J. K. (2015, September). *Anxiety alters visual guidance of braking over time*. Poster to be presented at the Driving Simulator Conference and Exhibition, Tübingen, Germany.
- Geuss, M. N. & Stefanucci, J. K. (2015, March). *Height estimates are altered by state- and trait-levels of fear*. Poster to be presented at the International Convention of Psychological Science, Amsterdam, Netherlands.
- Ruginski, I. T., Geuss, M. N., & Stefanucci, J. K. (2014, November). *Braking bad: The dynamic influence of anxiety on visually-guided action performance*. Poster presented at the Annual Meeting of The Psychonomic Society, Long Beach, California.
- Geuss, M. N., Du Toit, F. D., & Stefanucci, J. K. (2013, November). *The dynamic relationship between fear and estimates of virtual heights*. Talk presented at the Annual Meeting of The Psychonomic Society, Toronto, Canada.
- Gagnon, K. T., Geuss, M. N., Stefanucci, J. K., & Creem-Regehr, S. H. (2013, November). *The influence of body size and social context on action judgments for self and others*. Talk presented at the Annual Meeting of The Psychonomic Society, Toronto, Canada.
- Geuss, M. N., Lessard, D. A., Stefanucci, J. K., Creem-Regehr, S. H., & Thompson, W. B. (2012, May). *A comparison of size perception in real and virtual environments using judgments of action capability*. Poster presented at the 12th Annual Meeting of the Vision Sciences Society, Naples, FL.

- Butner, J., Gagnon, K. T., Geuss, M. N., Malloy, T., Kramer, M., Stefanucci, J. K. (2012, May). *From perception through phase relations of retina ganglion cell firing and extraocular muscle contractions*. Poster presented at the 12th Annual Meeting of the Vision Sciences Society, Naples, FL.
- Gagnon, K. T., Geuss, M. N., Rueckert, J., & Stefanucci, J. K. (2011, November). *A test of embodied perception with aurally perceived distances*. Poster presented at the 52nd Annual Meeting of Psychonomic Society, Seattle, WA.
- Geuss, M. N., Allen, G., Stefanucci, J. K., Creem-Regehr, S. H., & Thompson, W. B. (2011, May). *The role of depth and frontal planes in perceiving distances in a virtual environment*. Poster presented at the 11th Annual Meeting of the Vision Sciences Society, Naples, FL.
- Lessard, D. A., Tarampi, M. R., Geuss, M. N., Creem-Regehr, S. H., Stefanucci, J. K., & Thompson, W. B. (2011, May). *Overestimating action capabilities for passing through vertical and horizontal gaps under severely degraded vision*. Poster presented at the 11th Annual Meeting of the Vision Sciences Society, Naples, FL.
- Rueckert, J. W., Geuss, M. N., Gagnon, K. T., & Stefanucci, J. K. (2011, April). *The influence of affect on aurally and visually perceived distances*. Talk given at the 81st Annual Meeting of the Rocky Mountain Psychological Association, Salt Lake City, UT.
- Platts, S., Hubertz, T., Tarampi, M., Geuss, M. N., Stefanucci, J. K., & Creem-Regehr, S. H. (2011, April). *The influence of spatial expertise on perception and action*. Poster presented at the 81st Annual Meeting of the Rocky Mountain Psychological Association, Salt Lake City, UT.
- Tarampi, M., Geuss, M. N., Stefanucci, J. K., & Creem-Regehr, S. H. (2010, November). *Yes I can: Dancers are overconfident in their affordance judgments*. Poster presented at the 50th Annual Meeting of the Psychonomic Society, St. Louis, MI.
- Creem-Regehr, S. H., Geuss, M. N., Ziemek, T., Allen, G., Stefanucci, J. K., Thompson, W. (2010, May). *Comparing different measures of space perception across real and virtual environments*. Poster presented at the 10th Annual Meeting of the Vision Sciences Society, Naples, FL.
- Geuss, M. N., & Stefanucci, J. K. (2010, May). *Arousal and imbalance influence size perception*. Poster presented at the 10th Annual Meeting of the Vision Sciences Society, Naples, FL.
- Stefanucci, J. K., & Geuss, M. N. (2010, May). *Perception of the height of a barrier is scaled to the body*. Poster presented at the 10th Annual Meeting of the Vision Sciences Society, Naples, FL.
- Geuss, M. N., & Stefanucci, J. K. (2009, May). *Mirror, mirror, on the wall, how wide is this aperture?* Poster presented at the 9th Annual Meeting of the Vision Sciences Society, Naples, FL.
- Geuss, M. N., & Stefanucci, J. K. (2009, March). *Mirror, mirror, on the wall, how wide is this aperture?* Talk given at the William and Mary Graduate Research Symposium, Williamsburg, V.A.
- Stefanucci, J. & Geuss, M. N. (2008, May). *Changing Spaces: Body size influences the perception of aperture width*. Poster presented at the 8<sup>th</sup> Annual Meeting of the Society for Vision Sciences, Naples, FL.

Siegel, E., Geuss, M. N., & Stefanucci, J. K. (2008, May). *Studying the relationship between emotion and height perception in naturalistic settings*. Poster presented at the 8<sup>th</sup> Annual Meeting of the Society for Vision Sciences, Naples, FL.

Siegel, E., Geuss, M. N., & Stefanucci, J. K. (2008, May). *How's it going to feel? Affective forecasting of fear and excitement in dangerous situations*. Poster presented at the 20<sup>th</sup> Annual Meeting of the Association for Psychological Science, Chicago, IL.

Geuss, M. N. & Stefanucci, J.K. (2008, April). *Changing spaces: body size influences perception of aperture width*. Poster presented at L. Starling Reid Undergraduate Psychology Conference, Charlottesville, VA.

Siegel, E., Geuss, M. N., & Stefanucci, J. K. (2008, March). *Emotional heights: The influence of affect on behavior and perception*. Poster presented at the Annual Meeting of the Eastern Psychological Association, Boston, MA.

Geuss, M. N. & Stefanucci, J. K. (2008, February). *Changing spaces: body size influences perception of aperture width*. Poster presented at the William and Mary 14<sup>th</sup> Annual Undergraduate Science Research Symposium, Williamsburg, VA.

## **TEACHING EXPERIENCE**

### **Multilevel Modeling (Graduate Level Statistics)**

- Teaching Assistant

### **Quantitative Methods I (Graduate Level Statistics)**

- Teaching Assistant

### **Sensation and Perception**

- Online Graduate Instructor

### **Behavioral Modification**

- Teaching Assistant

### **Comparative Psychology**

- Teaching Assistant, Lab

### **Introductory Psychology**

- Teaching Assistant

### **Statistics**

- Teaching Assistant

### **Spring 2014**

University of Utah

### **Fall 2013**

University of Utah

### **Summer 2011**

University of Utah

### **Summer 2009**

College of William & Mary

### **Spring 2009**

College of William & Mary

### **Spring 2009**

College of William & Mary

### **Fall 2008**

College of William & Mary

## **STUDENT SUPERVISION**

Ph.D. student, co-advisor: Anne Thaler (May 2015 - Current)

M.S. student, co-advisor: Daniel Diers (August 2014 - January 2015)

B.S. student, co-advisor, Honor Thesis: Lauren Forrest (August 2011 - May 2012)

## **TECHNICAL SKILLS**

### ***Virtual Reality***

- Vizard, Virtools, PPT, Vicon, Unity, Unreal Engine

### ***Statistical Programs***

- HLM, MPlus, R, SPSS

SPRING 2015

**PROFESSIONAL ACTIVITIES**

**Conference Co-Chair**, Symposium on Applied Perception 2015

**Ad-Hoc Reviewer**

Attention Perception & Psychophysics; International Research Journal of Management and Business Studies; Journal of Experimental Child Psychology; Journal of Experimental Psychology: Human Perception and Performance; Journal of Experimental Psychology: General; Psychonomic Bulletin & Review