### **ANNA METZGER**



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### **ACADEMIC DEGREES**

2017 Dr. rer. nat. (General Psychology)

Justus Liebig University Gießen, Germany

Thesis:"Beyond a single touch: Sequential and top-down effects in haptic

perception"

Grade: Summa cum laude

Advisor: PD Dr. Knut Drewing

2010 *M.Sc.* (Cognitive Science)

University of Osnabrueck, Germany

Thesis: "An adaptive model of human attention based on hierarchical feature

complexity"

Advisor: Prof. Dr. Peter König Grade: very good with distinction

**2008** *B.Sc.* (Biology)

Leibniz University Hanover, Germany

#### RESEARCH EXPERIENCE

**2017 -** *Postdoctoral fellow* Department of General Psychology

Justus Liebig University Giessen, Germany

**12.07.2017-** maternity leave

23.08.2018

**01.05.2014 -** *Doctoral candidate* Department of General Psychology

11.07.2017 Justus Liebig University Giessen, Germany

#### **PUBLICATIONS**

Metzger, A., & Drewing, K. (2015). Haptically perceived softness of deformable stimuli can be manipulated by applying external forces during the exploration. In *World Haptics Conference* (WHC), 2015 IEEE (pp. 75-81). IEEE.

Metzger, A., & Drewing, K. (2016). Haptic Aftereffect of Softness. In *International Conference on Human Haptic Sensing and Touch Enabled Computer Applications (Eurohaptics 2016)* (pp. 23-32). Springer International Publishing.

Metzger, A., & Drewing, K. (2017). The longer the first stimulus is explored in softness discrimination the longer it can be compared to the second one. In *World Haptics Conference (WHC)*, 2017 IEEE (pp. 31-36). IEEE.

Metzger, A., Lezkan, A., & Drewing, K. (2018). Integration of Serial Sensory Information in Haptic Perception of Softness. *Journal of Experimental Psychology: Human Perception and Performance*, 44(4), 551-565.

Metzger A., Toscani M., Valsecchi M., Drewing K. (2018). Haptic Saliency Model for Rigid Textured Surfaces. In: Prattichizzo D., Shinoda H., Tan H., Ruffaldi E., Frisoli A. (eds) *Haptics: Science, Technology, and Applications. EuroHaptics 2018. Lecture Notes in Computer Science, vol 10893* (pp. 389-400). Springer, Cham

Lezkan, A., Metzger, A., & Drewing, K. (2018). Active haptic exploration of softness: Indentation force is systematically related to prediction, sensation and motivation. *Frontiers in integrative neuroscience*, *12*, 59.

Metzger, A., Mueller, S., Fiehler, K., & Drewing, K. (2019). Top-down modulation of shape and roughness discrimination in active touch by covert attention. *Attention, Perception, & Psychophysics*, 81(2), 462-475.

Metzger, A., & Drewing, K. (2019). Effects of Stimulus Exploration Length and Time on the Integration of Information in Haptic Softness Discrimination. *IEEE transactions on haptics*.

Metzger, A., & Drewing, K. (2019). Dynamics of exploration in haptic search. In *World Haptics Conference (WHC)*, 2019 IEEE. IEEE.

Mueller, S., de Haas, B., Metzger, A., Drewing, K., & Fiehler, K. (2019). Neural correlates of top-down modulation of haptic shape versus roughness perception. *Human brain mapping*, 1–13.

Metzger, A., & Drewing, K. (2019). Memory influences haptic perception of softness. *Scientific Reports*, *9*(1): 14383.

#### **INVITED TALKS**

Satellite symposium on haptic science, 2019, Tokyo, Japan: Integration of sensory information and exploratory movements in active touch.

#### **CONFERENCE CONTRIBUTIONS**

World Haptics Conference, 2015, Chicago, USA: Oral presentation. Haptically perceived softness of deformable stimuli can be manipulated by applying external forces during the exploration.

Eurohaptics Conference, 2016, London, UK: Oral presentation: Haptic Aftereffect of Softness.

European Conference on Visual Perception, 2016, Barcelona, Spain: Poster presentation. Adaptation to softness in haptic perception.

World Haptics Conference, 2017, Fürstenfeldbruck (Munich), Germany: Oral presentation: The longer the first stimulus is explored in softness discrimination the longer it can be compared to the second one

Conference of Experimental Psychologists, 2017, Dresden, Germany: Oral presentation. Serial integration of information in haptic softness perception.

Eurohaptics Conference, 2018, Pisa, Italy: Oral presentation. Haptic Saliency Model for Rigid Textured Surfaces. *Best paper award* 

#### PROFESSIONAL ACTIVITIES

**Ad hoc Reviewer for:** Attention, Perception & Psychophysics, IEEE Transactions on Haptics, IEEE Transactions on Applied Perception, World Haptics, Haptic Symposium, Eurohaptics

**Guest Editor for:** IEEE Transactions on Haptics

# WORKSHOPS

16.9-18.9.2014	Statistical Generative Models in Perception Justus Liebig University Gießen
11.113.1.2015	New perspectives in sensorimotor integration: predictive sensory suppression and tactile perception during movement Justus Liebig University Gießen
28.6-11.7.2015	Summer School in Computational Sensory-Motor Neuroscience Radboud University Nijmegen, The Netherlands

# **TEACHING**

2016	Lecture Course: Psychology of Perception: Theory and Application
2016-2017	Master Thesis: Top-down influences on sensory processing in somatosensory texture and shape perception.
2017	Bachelor Thesis: Memory influences haptic perception of softness