

SOWON HAHN, Ph.D.

Department of Psychology, Seoul National University, Seoul, Korea

Email : swahn@snu.ac.kr, Phone : +82 10 2731 4589

PROFESSIONAL PROFILE

- **Chair**, Department of Psychology, Seoul National University (from 2022 to Present)
- **Professor**, Department of Psychology, Seoul National University (from 2015 to Present)
- **Associate Professor**, Psychology, University of Oklahoma (from 2007 to 2014)
- **Assistant Professor**, Psychology, University of Oklahoma (from 2001 to 2007)
- **Post-doctoral Researcher**, Psychology, University of California, Riverside (from 1999 to 2001)

EDUCATION

- **Ph.D.**, Cognitive Psychology, University of Illinois at Urbana-Champaign, 1997
- **M.S.**, Cognitive Psychology, University of Illinois at Urbana-Champaign, 1994
- **B.S.**, Psychology, Seoul National University, 1991

RESEARCH INTERESTS

- Human Cognition, Cognitive Neuroscience, Affective Science, Smart Aging, Human Factors, Human-Robot Interaction

PROFESSIONAL SERVICE

- **Chair**, Department of Psychology, Seoul National University, 2022 to Present
- **Vice President**, Faculty Council, Seoul National University, 2021 to Present
- **Editor**, Korean Journal of Cognitive Science, 2021 to Present
- **Associate Director**, Center for Sports Development & Promotion, SNU, 2019 to Present
- **Director**, Center for Psychological Sciences, SNU, 2017 to 2020
- **Academic Director**, Korean Society of Cognitive Science, 2019 to 2021
- **Coordinator**, Brain-Mind-Behavior Interdisciplinary Program, SNU, 2017 to 2019
- **Chair**, Crisis Counseling Department, Center for Campus Life & Culture, SNU, 2017 to 2019
- **Chair**, International Public Relations Committee, Korean Psychological Association, 2016 to 2018

RESEARCH GRANTS (2018~)

- **Principal Investigator**, Development of Educational VR program to Promote Empathy: Increasing Cooperation and Prosocial Behavior through Immersive VR experience. *Seoul National University*, 2022~2023
- **Co-Investigator**, Development of Multidisciplinary Well-Aging Indicators and Digital Application for Menopause Symptom Monitoring of Middle-Aged Women. *Seoul National University*, 2022~2023
- **Principal Investigator**, Psychology of Emotion and Behavior. *Seoul National University*, 2022~2023
- **Principal Investigator**, Smart Aging Avatar Development: Biofeedback Technology Implementation and Human-AI Interaction Visualization Research. *Seoul National University*, 2021~2022

- **Principal Investigator**, Persona-based Self Aware Emotional Conversational Agent Pilot Data Development Research. *Smile Gate Incorporation*, 2021~2022
- **Principal Investigator**, SNU Diversity Council 2030 Development Plan Establishment Study, *Seoul National University*, 2021~2022
- **Co-Investigator**, Computer-mediated Communication Environment and Interface Design for IoT and Big Data-based Smart Construction, *Seoul National University*, 2019~2021
- **Principal Investigator**, AI-based Mental Health Diagnosis and Management System Development. *City of Seoul*, 2020~2022
- **Principal-Investigator**, Development of AI-based Service Platform for Psychological Self-Test and Management. *Korean Ministry of SMEs and Startups*, 2019~2020
- **Principal Investigator**, Development of Immersive Tourism Technology Utilizing 4D Technology and Affective Modeling. *Korean Institute of Culture and Tourism*, 2018~2019
- **Principal Investigator**, Trust in autonomous vehicle: Empirical studies with interdisciplinary perspectives. *Korean Psychological Association*. 2018

PUBLICATIONS

- Zhang, X., Lee, S., Maeng, H., & **Hahn, S.** (2023). The Effects of Failure Types on Trust Repairs in Human-Robot Interactions. *International Journal of Social Robotics*. 15(9-10), 1-17.
- Zhang, X., Lee, S., Kim, W., & **Hahn, S.** (2023). "Sorry, it was my fault": Repairing trust in human-robot interactions. *International Journal of Human-Computer Studies*, 175, 103031
- Bero, J., Li, Y., Kumar, A., Humphries, C., Nag, S., Lee, H., Ahn, W., **Hahn, S.**, Constable, T., Kim, H., & Lee, D. (2023). Coordinated anatomical and functional variability in the human brain during adolescence. *Human Brain Mapping*, 44(4), 1757-1778.
- Kim, J., Jung, Y., Lee, Y.K., & **Hahn, S.** (2023). Relationship between perspective taking ability and psychological and emotional characteristics observed in a large emotion diary dataset: A cluster analysis. *Korean Journal of Health Psychology*, 28(1), 1~25.
- Maeng, H., Kim, H., Park, J., & **Hahn, S.** (2022). Effects of robot's trust repair behavior on Human-Robot Interaction. *Korean Journal of Cognitive Science*, 33(4), 205-228.
- Lee, Y.K., Cho, W.I. Bae, S., Choi, H.W., Park, J. S., Kim, N.S., & **Hahn, S.** (2022). "Feels Like I've Known You Forever": Empathy and Self-Awareness in Human Open-Domain Dialogs. *Proceedings of the Annual Meeting of the Cognitive Science Society*, 44.
- Hong, J.H., Gu, J., Lee, Y.K., & **Hahn, S.** (2022). Fishing Free-Riders using Altruism: Zero-Sum Fitness Competition in Prey-Predator system. *Proceedings of the Annual Meeting of the Cognitive Science Society*, 44.
- Choi, W.I., Lee, Y.K., Bae, S., Kim, J. H., Park, S.A., Kim, M.S., **Hahn, S.**, Kim, N.S. (2022). When Crowd Meets Persona: Creating a Large-Scale Open-Domain Persona Dialogue Corpus. The 10th AAAI Conference on Human Computation and Crowdsourcing.
- Jung, Y., Lee, Y.K., & **Hahn, S.** (2021). Web-scraping the Expression of Loneliness during COVID-19. *Proceedings of the Annual Meeting of the Cognitive Science Society*, 43.
- Lee, Y.K., Jung, Y., Lee, I., Park, J.E., & **Hahn, S.** (2021). Building a Psychological Ground Truth Dataset with Empathy and Theory-of-Mind during the COVID-19 Pandemic. *Proceedings of the Annual Meeting of the Cognitive Science Society*, 43.
- Park, J.E., Lee, Y.K., & **Hahn, S.** (2021). Racial Bias in Emotion Interference: An Experimentation Study Using a Word Embedding Method. *Proceedings of the Annual Meeting of the Cognitive Science Society*, 43.
- Maeng, H. & **Hahn, S.** (2021). *The Effect of Non-Verbal Vocal Language on Evaluating Trustworthiness of Humans and Artificial Agents*. APS Virtual Convention 2021.

- Lee, I., Lee, YK., & **Hahn, S.** (2021). Understanding Emotional Information from Images and Texts: A Cross-Cultural Study. *HCI International 2021*.
- Kim, K., Lee, Y., Ahn, H., **Hahn, S.**, & Oh, S. (2020). Pedestrian intention prediction for autonomous driving using a multiple stakeholder perspective model. In *Proceedings of the 2020 IEEE/RSJ International Conference of Intelligent Robots and Systems (IROS)*.
- **Hahn, S.**, & Buttaccio, D. R. (2018). Aging and guided visual search: The role of visual working memory. *Aging, Neuropsychology, and Cognition*, 25(4), 535-549.
- Kim, J. S., Kim, J. W., **Hahn, S.**, & Kim, Y. S. (2018). The Difference of Body Composition According to Smart Phone Proficiency in Korean Elderly. *Medicine & Science in Sports & Exercise*, 50(5S), 302.
- Kim, J. S., Kim, J. W., **Hahn, S.**, & Kim, Y. S. (2018). The difference of body mass index according to smart phone proficiency in Koreans over the age of 60. *The Korean Journal of Sports Medicine*, 36(4), 189-196.
- Oh, S., Hwang, J., Yew, J., & **Hahn, S.** (2018). Age differences of preference for humanoid AI speakers. *Korean Journal of Cognitive Science*, 29(1), 1-16.
- Park, S., **Hahn, S.**, Lee, T., & Jun, M. (2018). Two factor model of consumer satisfaction: International tourism research. *Tourism Management*, 67, 82-88.
- **Hahn, S.** (2017). Emotion and attention: When the heart's eye guides the mind's eye. *Journal of Cognitive Science*, 18(2), 103-115.
- **Hahn, S.** (2017). Cognitive aging and acceptance of the information and communications technology. *Journal of Management and Economics*, 56(1), 53-60.
- Huffman, W. B., & **Hahn, S.** (2017). Investigating optimal memory enhancement procedures in foreign language learning. *Applied Cognitive Psychology*, 31(5), 539-545.
- Kim, M., You, N., Kim, Y., **Hahn, S.**, & Yun, M. (2017). Acceptability of a robotic agent in older people using ICT ability. *The Japanese Journal of Ergonomics*, 53(2), S696-S698.
- Kim, M., You, N. K., Kim, Y., **Hahn, S.**, & Yun, M. H. (2017). Effects of ICT ability of the elderly people for the acceptability of conversational agent. *Proceedings of Ergonomics Society of Korea 2017*, 259-265.
- **Hahn, S.**, & Chung, Y. (2016). Neuroticism, attention, and eye movements. In A. Di Fabio (Ed.), *Neuroticism: Characteristics, Impact on Job Performance and Health Outcomes* (pp. 103-112). New York: Nova Publishers.
- **Hahn, S.**, Buttaccio, D., Hahn, J., & Lee, T. (2015). Personality and attention: Levels of neuroticism and extraversion can predict attentional performance during a change detection task. *Quarterly Journal of Experimental Psychology*, 68(6), 1041-1048.
- Huffman, W. B., & **Hahn, S.** (2015). Cognitive principles in mobile learning. *Psychology* 6, 456-463.
- Buttaccio, D. R., Lange, N. L., **Hahn, S.**, Thomas, R. P. (2014). Explicit awareness supports conditional visual search in the retrieval guidance paradigm. *Acta Psychologica*, 145, 44-53.
- Buttaccio, D. R., Lange, N. D., **Hahn, S.**, Thomas, R. P., & Davelaar, E. J. (2013). Explicit awareness supports conditional visual search in the retrieval guidance paradigm. *Proceedings of the 35th Annual Meeting of the Cognitive Science Society*. Cognitive Science Society.
- Buttaccio, D. R., & **Hahn, S.** (2011). The influence of action on visual search: Behavioral response toward stimuli modifies the selection process. *Attention, Perception, & Psychophysics*, 73(5), 1453-1466.
- Buttaccio, D. R., & **Hahn, S.** (2010). The effect of behavioral response on affective evaluation. *Acta Psychologica*, 135, 343-348.
- Thomas, R. P., **Hahn, S.**, Lange, N.D., Buttaccio, D., Alberts, T., Dougherty, M.R., & Rose, L. (2010). Target identification and assessment in visual intelligence, surveillance, & reconnaissance. *Proceedings of the Missile Defense Sensors, Environments and Algorithms*; published by the Military Sensing Information Analysis Center (SENSIAC), a Department of Defense chartered Information

Analysis Center.

- **Hahn, S.**, & Gronlund, S. D. (2007). Top-down guidance in visual search for facial expressions. *Psychonomic Bulletin & Review*, *14*, 159-165.
- **Hahn, S.**, Carlson, C., Singer, S., & Gronlund, S. D. (2006). Aging and visual search: Automatic and controlled attentional bias to threat faces. *Acta Psychologica*, *123*, 312-336.
- **Hahn, S.**, Andersen, G. J., & Kramer, A. F. (2004). Age influences on multi-dimensional set switching. *Aging, Neuropsychology, and Cognition*, *11*, 25-36.
- **Hahn, S.**, Andersen, G. J., & Saidpour, A. (2003). Static scene analysis for the perception of heading. *Psychological Science*, *14*, 543-548.
- **Hahn, S.**, Andersen, G. J., & Kramer, A. F. (2003). Multi-dimensional set switching. *Psychonomic Bulletin and Review*, *10*, 503-509.
- Colcombe, A., Kramer, A.F., Irwin, D. E., Peterson, M., Colcombe, S., & **Hahn, S.** (2003). Age-related effects of attentional and oculomotor capture by onsets and color singletons as a function of experience. *Acta Psychologica*, *113*, 205-225.
- Peterson, M., Kramer, A. F., Irwin, D. E., & **Hahn, S.** (2002). Modulating of oculomotor capture by abrupt onsets during attentionally demanding visual search. *Visual Cognition*, *9*, 755-791.
- Kramer, A. F., **Hahn, S.**, McAuley, E., Cohen, N., Banich, M., Harrison, C., Chason, J., Boileau, R.A., Bardell, L., Colcombe, A., & Vakil, E. (2001). Exercise, Aging and Cognition: Healthy body, healthy mind? In W. A. Rogers & A. D. Fisk (Eds.), *Human factors interventions for the health care of older adults* (pp. 91-120). NJ: Erlbaum.
- Kramer, A. F., Cassavaugh, N. D., Irwin, D. E., Peterson, M. S., & **Hahn, S.** (2001). Influence of single and multiple onset distractors on visual search for singleton targets. *Perception and Psychophysics*, *63*, 952-968.
- Kramer, A. F., **Hahn, S.**, Irwin, D. E., & Theeuwes, J. (2000). Age differences in the control of looking behavior: Do you know where your eyes have been? *Psychological Science*, *3*, 210-217.
- Irwin, D., Colcombe, A., Kramer, A. F., & **Hahn, S.** (2000). Attentional and oculomotor capture of eyes by color and onset singletons. *Vision Research*, *40*, 1443-1458.
- Kramer, A. F., **Hahn, S.**, McAuley, E. (2000). Influence of Aerobic Fitness on the Neurocognitive Function of Older Adults. *Journal of Aging and Physical Activity*, *8*, 379-385.
- Kramer, A. F., **Hahn, S.**, Banich, M., Cohen, N., Colcombe, A., Bardell, L., Vakil, E., Chason, J., Harrison, C., & McAuley, E. (1999). Ageing, fitness, and neurocognitive function. *Nature*, *400*, 418-419.
- Kramer, A. F., **Hahn, S.**, Irwin, D. E., & Theeuwes, J. (1999). Attentional capture and aging: Implications for visual search performance and oculomotor control. *Psychology and Aging*, *14*, 135-154.
- Theeuwes, J., Kramer, A. F., **Hahn, S.**, Irwin, D. E., & Zelinsky, G. (1999). Influence of attentional capture on oculomotor control. *Journal of Experimental Psychology: Human Perception and Performance*, *25*, 1595-1608.
- Kramer, A. F., **Hahn, S.**, & Gopher, D. (1999). Task coordination and aging: Explorations of executive control processes in the task switching paradigm. *Acta Psychologica*. *101*, 339-378.
- **Hahn, S.**, & Kramer, A. F. (1998). Further evidence for the division of attention among noncontiguous locations. *Visual Cognition*, *5*, 217-256.
- Theeuwes, J., Kramer, A. F., **Hahn, S.**, & Irwin, D. E. (1998). Our eyes do not always go where we want them to go: capture of the eyes by new objects. *Psychological Science*, *9*, 379-385.
- **Hahn, S.**, & Kramer, A. F. (1995). Attentional flexibility and aging: You don't need to be 20 years of age to split the beam. *Psychology and Aging*, *10*, 597-609.
- Kramer, A. F., & **Hahn, S.** (1995). Splitting the beam: Distribution of attention over noncontiguous regions of the visual field. *Psychological Science*, *6*, 381-386.