Seongmin A. Park

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Center for Mind and Brain

University of California, Davis
267 Cousteau Pl, Davis, CA 95618, USA

Education

Feb. 2012	Ph.D. in Culture Technology Graduate school of Culture Technology (GSCT), KAIST (Korea Advanced Institute of Science and Technology), Daejeon, Korea.

Working Experiences

Feb. 2019 – Present	Assistant Project Scientist in Center for Mind and Brain and Center for Neuroscience, University of California, Davis, USA
Feb. 2017 – Jan. 2019	Senior postdoctoral research fellow in Center for Mind and Brain, University of California, Davis, USA, Learning and Decision-Making Lab, Dr. Erie D. Boorman
Feb. 2016	Twin fellow in Hanse-Wissenschaftskolleg, Institute for Advanced Study, Delmenhorst, Germany
Oct. 2012 – Jan. 2017	Postdoctoral research fellow in Cognitive Neuroscience Centre, UMR 5229, CNRS (Centre national de la recherche scientifique), Lyon, France, Neuroeconomics Laboratory: Reward and Decision-Making, Dr. Jean-Claude Dreher

Teaching Experiences

2019. June	Guest lecture in Topics in Neuroeconomics class, “Strategic decision-making”
2018. May	Guest lecture in Topics in Neuroeconomics class, “Social decision-making”
2013 – 2017	Assisting supervision of 3 Master Neuroscience students and 1 Postdoctoral researcher
2011	Assisting supervision of 2 Master students in Culture Technology
2005 - 2009	Teaching Assistant, Korea Advanced Institute of Science and Technology (KAIST)

Researches

Dissertation

2012	“Neural Underpinnings of Factors influencing Aesthetic Judgment of Artworks” Advisor: Prof. Jaeseung Jeong Reading Committees: Profs. Jun Yong Noh, Woon-Seung Yeo, Yi Kyung Kim, and Chai-Youn Kim

Published Journal Refereed Articles

2020 **Seongmin A. Park**, Douglas S. Miller, Hamed Nili, Charan Ranganath, Erie D. Boorman *Map Making: Constructing, Combining, and Inferring on Abstract Cognitive Maps.* Neuon 107, 1-13

2019 Koosha Khalvati, **Seongmin A. Park**, Saghar Mirbagheri, Remi Philippe, Mariateresa Sestito, Jean-Claude Dreher, Rajesh P.N. Rao *Modeling Other Minds: Bayesian Inference Explains Human Choices in Group Decision Making.* Science Advances 5 (11), eaax8783

2019 **Seongmin A. Park,** Mariateresa Sestito, Erie D. Boorman, Jean-Claude Dreher*, Neural computations underlying strategic social decision-making in groups*, Nature Communications, 10 (1), 1-12

2019 Koosha Khalvati, Saghar Mirbagheri, **Seongmin A. Park,** Jean-Claude Dreher, Rajesh PN Rao*, A Bayesian Theory of Conformity in Collective Decision Making*, Neural Information Processing Systems (NIPS)

2018 Romuald Girard, Ignacio Obeso, Stéphane Thobois, **Seongmin A. Park**, Tiphaine Vidal, Emilie Favre, Miguel Ulla, Emmanuel Broussolle, Paul Krack, Franck Durif, Jean-Claude Dreher, *Wait and you shall see: sexual delay discounting in hypersexual Parkinson's disease*, Brain

2017 **Seongmin.A. Park**, Sidney Goïame, David A. O'Connor, Jean-Claude Dreher, *Integration of individual and social information for decision-making in groups of different sizes*, PLoS Biology 15.6 (2017): 15 (6), e2001958

2016 Koosha Khalvati, **Seongmin A. Park**, Jean-Claude Dreher, Rajesh Rao, *A Probabilistic Model of Social Decision Making based on Reward Maximization,* Neural Information Processing Systems (NIPS)

2015 **Seongmin A. Park**, Kyongsik Yun, and Jaeseung Jeong, *Reappraising Abstract Paintings after Exposure to Background Information*, PLoS ONE 10(5): e0124159. doi:10.1371/journal.pone.0124159

2013 **Seongmin A. Park**, Soyeong Jeong and Jaeseung Jeong, *TV programs that denounce unfair advantage impact women's sensitivity to defection in the Public goods game*, Social Neuroscience, Volume 8, Issue 6, 2013

2006 **Seongmin A. Park**, and SeungHo Ryu, *The influence of immersive experience of gamer on product placement (PPL) advertising perception*, Journal of Korea Game Society, vol.6, no.3, 2006

Invited Talks

Feb. 2018 "How does the brain infer unobserved relationships between elements in different knowledge structures?", Center for Neuroscience, Memory seminar, UC Davis

Oct. 2017 "Neural computations of strategic decision-making in the volunteer's dilemma", perception cognition and cognitive neuroscience (PCCN) seminar, UC Davis

Feb. 2016 "Cooperative decision-making in volunteer's dilemma"

Hanse-Wissenschaftskolleg, Institute for Advanced Study, Delmenhorst, Germany

Jan. 2016 "Neural mechanisms of collective decision-makings in a group"

Centre de neurosciences cognitives (UMR 5229), CNRS, Bron, France

Nov. 2014 "Subjective confidence in one's decision and group size effect during group decisions"

Virginia Tech Carilion Research Institute, Roanoke, VA, USA

Sep. 2013 "How we make a decision as a group member"

Neuroscience department in Università degli Studi di Parma, Parma, Italy

Oct. 2012 "Neural Underpinnings of Factors influencing Aesthetic Judgment of Artworks"

Centre de neurosciences cognitives (UMR 5229), CNRS, Bron, France

Conferences

Oct. 2019 " Hexadirectional coding in human entorhinal cortex represents the trajectory through social networks during decision-making " Seongmin A. Park, Douglas S. Miller, and Erie D. Boorman, Society for Neuroscience (SfN 2019), Chicago, IL, USA

Sep. 2019 "Hexadirectional coding of trajectories through an abstract multidimensional social network during decisions" Seongmin A. Park, Douglas S. Miller, and Erie D. Boorman, Cognitive Computational Neuroscience (CCN 2019), Berlin, Germany

Sep. 2019 "A cognitive map of social network space" Seongmin A. Park, Douglas S. Miller, Hamed Nili and Erie D. Boorman, Cognitive Computational Neuroscience (CCN 2019), Berlin, Germany

Aug. 2019 "Hexadirectional coding of trajectories through an abstract and discrete social network during decisions-making" Seongmin A. Park, Douglas S. Miller, and Erie D. Boorman, Bay Area Memory Meeting (BAMM 2019), San Jose, CA, USA

May, 2019 "Integrating discrete abstract structures to construct cognitive maps of social hierarchies" Seongmin A. Park, Douglas S. Miller, Hamed Nili and Erie D. Boorman, Social and affective neuroscience (SANS 2019), Miami, Fl, USA

Nov. 2018 "Integrating discrete abstract structures to construct cognitive maps of social hierarchies" Seongmin A. Park, Douglas S. Miller, Hamed Nili and Erie D. Boorman, Society for Neuroscience (SfN 2018), San Diego, CA, USA

Aug. 2018 "Integrating discrete abstract structures to construct cognitive maps of social hierarchies" Seongmin A. Park, Douglas S. Miller, Hamed Nili and Erie D. Boorman, Bay Area Memory Meeting (BAMM 2018), Davis, CA, USA

Sep. 2017 "Neural computations of strategic decision-making in the volunteer's dilemma" Seongmin A. Park, and Jean-Claude Dreher, Society for Neuroeconomics (SNE 2017), Toronto, Canada

Jun. 2017 "Neural computations of strategic decision-making in the volunteer's dilemma" Seongmin A. Park, Reinforcement Learning and Decision Making (RLDM 2017), Ann Arbor, MI, USA

Jun. 2016 "The dlPFC mediates decision confidence to influence social conformity" Seongmin A. Park, Sidney Goïame, David A. O'Connor and Jean-Claude Dreher, Decision Neuroscience in Humans, Delmenhorst, Germany

Jun. 2016 "The brain optimally integrates group size and social influence during group decision-making" Seongmin A. Park, Sidney Goïame, David A. O'Connor and Jean-Claude Dreher, Decision Neuroscience in Humans, Delmenhorst, Germany

May. 2015 "Neural mechanisms underlying diffusion of responsibility" Seongmin A. Park, Sidney Goïame, and Jean-Claude Dreher, Symposium on biology of decision-making (SBDM 2015), Paris, France

May. 2015 "The brain optimally integrates group size and social influence during group decision-making" Seongmin A. Park, Sidney Goïame, and Jean-Claude Dreher, Symposium on biology of decision-making (SBDM 2015), Paris, France

Nov. 2014 "Subjective confidence in one's decision and group size effect during group decisions" Seongmin A. Park, Sidney Goïame, and Jean-Claude Dreher, Society for Neuroscience (SfN 2014), Washington DC, USA

Jun. 2014 "Justice decisions: brain integration of confidence in own judgment and other's opinion" Seongmin A. Park, and Jean-Claude Dreher, The Annual Congress of the French Economic Association (63rd AFSE), Lyon, France

Jun. 2014 "Justice decisions: brain integration of confidence in own judgment and other's opinion" Seongmin A. Park, and Jean-Claude Dreher, Organization for Human Brain Mapping (OHBM 2014), Hamburg, Germany

May 2014 "Third-party punishment for justice – how does the brain integrate one's confidence in judgment and other juror's opinion"
Seongmin A. Park, Sidney Goïame, and Jean-Claude Dreher, Symposium on biology of Decision Making (SBDM 2014), Paris, France

Jun. 2012 "Artistic style recognition influences on reward processing during aesthetic judgment of paintings"
Seongmin A. Park and Jaeseung Jeong, Organization for Human Brain Mapping (OHBM 2012), Beijing, China

Jun. 2012 "Neural correlates of alterations in aesthetic judgment of artworks with judgments of others" Seongmin A. Park, Yongjin Jin, Chongwook Chung, and Jaeseung Jeong, Organization for Human Brain Mapping
(OHBM 2012), Beijing, China

Apr. 2012 "Neural correlates of social influences on aesthetic judgment for artworks"
Seongmin A. Park; Youngjin Jin, Chongwook Chung, and Jaeseung Jeong
Social & Affective Neuroscience Society Annual Meeting (SANS 2012), New York, USA

Nov. 2010 "The effect of contextual framing on the aesthetic appraisal of visual artworks"
Seongmin A. Park, Yoonsol Lee, Chongwook Chung, and Jaeseung Jeong, Society for Neuroscience (SfN 2010), San Diego, CA, USA

Oct. 2009 "The influence of investigative TV report on viewers' cooperative and free-riding behaviors in public goods game"
Seongmin A. Park, Soyeong Jeong, and Jaeseung Jeong, Society for Neuroscience (SfN 2009). Chicago, IL, USA

Apr. 2008 "Painting's information increases aesthetic preference for contemporary paintings"
Seongmin A. Park, Kyongsik Yun, and Jaeseung Jeong, Cognitive Neuroscience Society (CNS), San Francisco, CA, USA

Skills

Behavior and Neuroimaging experiment design

- Designing fMRI and EEG experiments
- Programming experimental tasks (Neurobs Presentation, and E-Prime)

Data acquisition and analyses

- fMRI data analysis (SPM)
- EEG data analysis (EEGLAB, and sLORETA)
- Eye-tracking data analysis
- Galvanic Skin Response (GSR) data analysis
- Computational modeling of human behaviors
- Programming language (MATLAB, STAN, C/C++, and Web programming)
- Statistics Analysis (SPSS, R, STATA, and Origin)

Graphic and Design

- I occasionally work as a professional graphic designer (Photoshop, Illustrator, Flash, MAYA, and Premiere)

Scholarships

2005 - 2011	Selected as fully supported scholarship program by Korea Ministry of Culture, Sports and Tourism
2001 - 2005	Selected as fully supported scholarship program by Korea Research Foundation

Honors and Awards

Sep. 2019	CCN 2019 Trainee Abstract Travel Award
Apr. 2019	Gazzaniga award, Best poster, Center for mind and Brain, UC Davis
Mar. 2019	CNS 2019 Trainee Abstract Travel Award
Jun. 2012	OHBM 2012 Trainee Abstract Travel Award
Aug. 2007	Minister's Award for Excellent Student (Unanimous Recommendation from faculty members in Graduate School of Culture Technology (GSCT))
Feb. 2007	*Summa Cum Laude*, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, Korea
Aug. 2005	*Summa Cum Laude*, Ajou University, Suwon, Korea

References

Dr. Erie D. Boorman

Assistant Professor in Department of Psychology, Department of Neuroscience,

University of California, Davis

Dr. Charan Ranganath
Professor in Department of Psychology, Department of Neuroscience,
University of California, Davis

Dr. Jean-Claude Dreher
Research director, Cognitive Neuroscience Center,
Centre national de la recherche scientifique (CNRS), UMR 5229, France

Dr. Jaeseung Jeong
Professor in Department of Brain and Bio Engineering, Program of Brain and Cognitive Engineering,
Korea Advanced Institute of Science and Technology (KAIST)
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