

SNE Annual Meeting

Detailed Program

Friday October 4th

Welcome and Opening

Remarks

08:30 – 08:45

Alan Sanfey

SNE President

Session I

08:45 – 10:20

Valuation and Value System

08:45 - 09:05

The construction of value: How subjective preferences for visual art are computed from elementary stimulus features.

John O'Doherty¹, Kiyohito Iigaya¹, Sanghyun Yi¹, Iman Wahle¹, Sandy Tanwisuth¹

¹Caltech

09:10 - 09:30

A dynamic utility maximization model explains rats' willingness to work for water

Pamela Reinagel¹

¹UCSD

09:35 - 09:55

Dopamine modulates the richness of the environment in human economic foraging

Matthew Apps¹, Campbell Le Heron, Masud Husain¹

¹University of Oxford

10:00 - 10:20

Forecasting the social media impact of nature imagery with neural data

Nik Sawe¹, Tierney Thys², Kelly MacNiven¹, Brian Knutson¹

¹Stanford University, ²California Academy of Sciences

Poster Spotlights I

10:25 – 10:50

10:25 - 10:30

Decomposing neurocognitive bases of indebtedness in grateful situations: A dual-motivational account

Xiaoxue Gao¹, Eshin Jolly², Luke Chang², Xiaolin Zhou¹

¹Peking University, ²Dartmouth College

10:30 - 10:35

Delay discounting and anhedonia: A transdiagnostic approach

Min Su Kang¹, Daniel Wolf¹, Rebecca Kazinka¹, Sangil Lee¹, Kosha

Ruparel¹, Mark Elliott¹, Claudia Baldassano¹, Anna Xu¹, Matthew Cieslak¹, Theodor Satterthwaite¹, Joseph Kable¹

¹University of Pennsylvania

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| 10:35 - 10:40 | Violations of economic rationality in reinforcement learning are driven by a saliency-dependent reward-prediction-error signal in the ventral striatum Mikhail Spektor ¹ , Sebastian Gluth ² , Jörg Rieskamp ² <i>¹University of Freiburg, ²University of Basel</i> |
| 10:40 - 10:45 | Early childhood trauma negatively affects real-life outcomes via detrimental effects on neurodevelopment: Large-scale evidence from the UK biobank Gökhan Aydogan ¹ , Remi Daviet ² , Richard Karlsson Linnér ³ , Philipp Koellinger ³ , Gideon Nave ² , Birgit Kleim ¹ , Christian Ruff ¹ <i>¹University of Zurich, ²University of Pennsylvania, ³VU University Amsterdam</i> |
| 10:45 - 10:50 | Over- and underreaction in detecting regime shifts and the neurocomputational substrates for estimating probability of change Mu-Chen Wang ¹ , George Wu ¹ , Shih-Wei Wu ¹ <i>¹National Yang-Ming University</i> |
| Poster Session I 10:50 – 13:15 | Coffee/Tea served Please visit our poster presenters. |
| 13:15 – 14:15 | Buffet Lunch (hotel restaurant, main floor) |

The Kavli Foundation Social and Decision Science Workshops

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| 14:15 – 15:45 | Pierre Chandon , Ph.D. INSEAD |
| 15:45 – 16:05 | Coffee Break |
| 16:05 – 17:35 | Karin Roelofs , Ph.D. Donders Institute and Behavioural Science Institute, Radboud University |

The Kavli Foundation Neuroscience Workshops

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| 14:15 – 15:45 | Jacqueline Gottlieb , Ph.D. Columbia University Medical Center |
| 15:45 – 16:05 | Coffee Break |
| 16:05 – 17:35 | Laurence Hunt , Ph.D. Oxford Centre for Human Brain Activity |

**Networking Cocktail
Reception**

17:35 – 19:00

Conference Floor

Join us for appetizers, drinks and networking opportunities

Saturday October 5th

Session II

08:45 – 10:20

Learning

08:45 - 09:05

Planning activities in monkey OFC-RSC circuit in a 3D virtual reality foraging task

Maya Zhe Wang¹, Benjamin Hayden¹

¹University of Minnesota

09:10 - 09:30

Model-free or muddled models in the two-stage task?

Carolina Feher da Silva¹, Gaia Lombardi¹, Micah Edelson¹, Todd Hare¹

¹University of Zurich

09:35 - 09:55

Neurocomputational mechanisms of learning on social networks

Yaomin Jiang¹, Qingtian Mi¹, Lusha Zhu¹

¹Peking University

10:00 - 10:20

Plasticity of human strategic sophistication

Sibilla Di Guida¹, Luca Polonio², Davide Marchiori¹

¹University of Southern Denmark, ²University of Minnesota

Poster Spotlights II

10:25 – 10:50

10:25 - 10:30

Testosterone administration increases social discounting in healthy males

Yin Wu¹

¹Shenzhen University

10:30 - 10:35

Individual differences in dopamine predict self-control of everyday desires

Jaime Castellon¹, David Zald², Gregory Samanez-Larkin¹

¹Duke University, ²Vanderbilt University

10:35 - 10:40

The bounded rationality of probability distortion

Laurence Maloney¹, Hang Zhang²

¹New York University, ²Peking University

10:40 - 10:45

Agreement with the group majority vote prevents consideration of past outcomes

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| 10:45 - 10:50 | <p>Marwa El Zein¹, Bahador Bahrami¹ ¹<i>University College London</i></p> <p>The construction and deconstruction of suboptimal preferences through reinforcement learning</p> <p>Sophie Bavard¹, Stefano Palminteri¹ ¹<i>INSERM</i></p> |
| <p>Poster Session II 10:50 – 13:15</p> <p>13:15 – 14:15</p> | <p>Coffee/Tea served Please visit our poster presenters.</p> <p>Buffet Lunch (hotel restaurant, main floor)</p> |
| <p>Session III 14:15 – 15:50</p> <p>14:15 - 14:35</p> <p>14:40 - 15:00</p> <p>15:05 - 15:25</p> <p>15:30 - 15:50</p> | <p>Social Reward and Social Preferences</p> <p>Neurocomputational mechanisms at play when weighing concerns for extrinsic rewards, moral values and social image Jean-Claude Dreher¹, Chen Qu², Elise Metereau¹, Luigi Butera³, Marie-Claire Villeval¹, Ignacio Obeso¹, I Moisa⁴, Christian Ruff⁴ ¹<i>CNRS</i>, ²<i>South China Normal University</i>, ³<i>Copenhagen Business School</i>, ⁴<i>University of Zurich</i></p> <p>Size matters: Social preferences are reflected in the cortical thickness of the temporoparietal junction Andrea Fariña¹, Michael Giffin¹, Jörg Gross¹, Carsten De Dreu¹ ¹<i>Leiden University</i></p> <p>Model-free learning is prioritised when avoiding harm to others Patricia Lockwood¹, Miriam Klein-Flugge¹, Ayat Abdurahman¹, Molly Crockett² ¹<i>University of Oxford</i>, ²<i>Yale University</i></p> <p>MDMA increases cooperation and recruitment of social brain areas when playing trustworthy players in an iterated prisoner's dilemma Anthony Gabay¹, Matthew Kempton², James Gilleen³, Mitul Mehta² ¹<i>University of Oxford</i>, ²<i>King's College London</i>, ³<i>University of Roehampton</i></p> |
| <p>The Fred Kavli Plenary Lecture 16:00 – 17:00</p> | <p>Savouring and its modulation by prediction errors Peter Dayan, Max Planck Institute for Biological Cybernetics</p> <p>Humans and animals apparently extract intrinsic value from anticipating, or savoring, impending rewards. Further, when these outcomes are uncertain, people typically prefer to know their fate in advance. We link these two phenomena through the suggestion that reward prediction errors occasioned by the</p> |

revelation can boost the level of savoring. The result is a behavioural anomaly that has consequences for maladaptivity such as gambling. We formalize this proposal, and investigate its neurobiology in humans using fMRI. In a task involving delayed probabilistic rewards, we found that participants had a greater preference for advance information for greater delays and lower probabilities, consistent with the boosting hypothesis. Ventromedial prefrontal cortex (vmPFC) encoded the time-varying anticipatory value signal predicted by the behavioral model. Reward prediction errors, encoded in dopaminergic midbrain, were coupled to vmPFC via hippocampus. We suggest that boosting might be driven by enhanced hippocampus-based imagination of future outcomes.

All Attendee Dinner Reception
18:30 – 20:00
NoLita
64 South Great George's Street

Enjoy a drink and appetizers at NoLita. Located in the heart of Dublin's city centre, NoLita prides itself on being one of the cities most loved nightlife hotspots. After dinner, meet fellow delegates at one of the pub meet ups.

Sunday October 6th

Announcements
08:30 – 08:45

Alan Sanfey

Join us for the Early Career Award presentations, the Society Board Election Results and other Society information.

Session IV
08:45 – 10:20

Risk, Effort, and Delay

08:45 - 09:05

How executive fatigue arises and affects decision making

Antonius Wiehler¹, Bastien Blain², Francesca Branzoli¹, Isaac Adanyeguh³, Fanny Mochel³, Donata Marra³, Mathias Pessiglione¹
¹ICM, *Hôpital Pitié Salpêtrière*, ²University College London, ³Hôpital Pitié Salpêtrière

09:10 - 09:30

The neuroimaging analysis replication and prediction study results: Variability of neuroimaging results across analysis teams and over optimism in prediction markets

Tom Schonberg¹, Rotem Botvinik-Nezer¹, Felix Holzmeister², Colin Camerer³, Anna Dreber⁴, Jürgen Huber², Magnus Johannesson⁵,

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| 09:35 - 09:55 | <p>Michael Kirchler², Russell Poldrack⁶ ¹Tel Aviv University, ²University of Innsbruck, ³California Institute of Technology, ⁴Stockholm School of Economics and University of Innsbruck, ⁵Stockholm School of Economics, ⁶Stanford University</p> <p>Translational neuroeconomics in addiction: Species-specific similarities and differences in dysfunction between wanting vs liking among humans and mice.</p> <p>Brian Sweis¹, Jazmin Camchong¹, Samantha Abram², Sheila Specker¹, Kelvin Lim¹, Angus MacDonald¹, Mark Thomas¹, David Redish¹ ¹University of Minnesota, ²San Francisco VA Medical Center</p> |
| 10:00 - 10:20 | <p>Large-scale evidence for neuroanatomical and genetic associations with risky behaviors</p> <p>Gökhan Aydogan¹, Remi Daviet², Richard Karlsson Linnér³, Todd Hare¹, Joe Kable², Henry Kranzler², Reagan Wetherill², Christian Ruff¹, Philipp Koellinger³, Gideon Nave² ¹University of Zürich, ²University of Pennsylvania, ³VU Amsterdam</p> |
| Poster Spotlights III | |
| 10:25 – 10:50 | |
| 10:25 - 10:30 | <p>Increasing honesty with "smart drugs": The effects of methylphenidate and atomoxetine on cheating behavior</p> <p>Andreas Kappes¹, Molly Crockett² ¹City, University of London, ²Yale University</p> |
| 10:30 - 10:35 | <p>Medial forebrain bundle structure is associated with impulsivity in humans</p> <p>Kelly MacNiven¹, Josiah Leong¹, Brian Knutson¹ ¹Stanford University</p> |
| 10:35 - 10:40 | <p>Efficient noisy sampling and decision behavior</p> <p>Joseph Heng¹, Michael Woodford², Rafael Polania¹ ¹ETH Zurich, ²Columbia University</p> |
| 10:40 - 10:45 | <p>Investigation of the role of the ventro-medial prefrontal cortex local morphology in its functional organization</p> <p>Alizee Lopez-Persem¹, Lennart Verhagen¹, Celine Amiez², Michael Petrides³, Jerome Sallet¹ ¹University of Oxford, ²University of Lyon, ³McGill University</p> |
| 10:45 - 10:50 | <p>Enhancement of the reward prediction error signal of midbrain dopamine neuron by the cost of obtaining the reward</p> <p>Masamichi Sakagami¹, John O'Doherty², Shingo Tanaka³ ¹Tamagawa University, ²Caltech, ³Niigata University</p> |
| Poster Session III | |
| 10:50 – 13:15 | |
| <p>Coffee/Tea served Please visit our poster presenters.</p> | |
| 13:15 – 14:15 | |
| <p>Buffet Lunch (hotel restaurant, main floor)</p> | |

Session V
14:15 – 15:25

Choice and Choice Mechanisms

14:15 - 14:35

Towards a space of behavioral interventions

Wenjia Joyce Zhao¹, Aoife Coady¹, Sudeep Bhatia¹

¹University of Pennsylvania

14:40 - 15:00

A novel circuit architecture for choice: Local disinhibition generates normalized value coding, persistent activity, and winner-take-all dynamics in value-guided decision making

Bo Shen¹, Kenway Louie¹, Paul Glimcher¹

¹New York University

15:05 - 15:25

Multiple memory traces of choice and reward in macaque frontal cortex

Marco Wittmann¹, Elsa Fouragnan², Davide Folloni¹, Bolton Chau³, Mehdi Khamassi⁴, Matthew Rushworth¹

¹University of Oxford, ²University of Plymouth, ³The Hong Kong Polytechnic University, ⁴Sorbonne Université

Session VI
15:30 – 17:05

Attention

15:30 - 15:50

Visual attention modulates the accumulation of goal-relevant evidence and not value

Pradyumna Sepulveda¹, Marius Usher², Ned Davies¹, Amy Benson¹, Pietro Ortoleva³, Benedetto De Martino¹

¹University College London, ²Tel-Aviv University, ³Princeton University

15:55 - 16:15

The role of attention in opportunity cost neglect

Stephanie Smith¹, Stephen Spiller², Ian Krajbich¹

¹The Ohio State University, ²UCLA

16:20 - 16:40

Distinct mechanisms underlie mean reward and reward variance in risky decision making: Evidence from behavior, eye-tracking and fMRI

Sai Sun¹, Rongjun Yu²

¹South China Normal University, ²National Singapore University

16:45 - 17:05

How contextually irrelevant values influence choice and vmPFC activity in humans

Nir Moneta¹, Hauke Heekeren², Nicolas Schuck¹

¹Max Planck Institute for Human Development Berlin, ²Freie Universitaet Berlin