

Stanford



Nikhil Sawe

Lecturer

Psychology

Bio

BIO

Nikhil Sawe grew up in the San Francisco Bay Area, receiving his BS in Biology at Stanford. Nik's two great loves have always been biology and writing, and in high school he published a fiction novel, *Wolf Trails*, about the trials of a wolf pack reintroduced into the wild. As an undergrad, he worked in the Sapolsky and Zhao labs as a neuroscience researcher, examining intracellular cell signaling pathways that protected against stroke. This paved the way for a career in medical writing, crafting journal papers on new research for doctors and biotech companies. But Nik wanted to return to ecology, and eventually struck upon a potential crossroads between neuroscience and environmental science in the budding field of neuroeconomics.

Through functional MRI, neuroeconomics analyzes the financial decision-making process at the level of discrete brain structures, allowing insights into the way we think about and route information. Nik's research adapts neuroeconomics techniques to assess decision-making in environmental questions.

Mobilizing successful conservation efforts to preserve both local and global resources and ecosystems requires a new way of thinking. Our brains' innate wiring favors short-term rewards over long-term planning, familial and individual concerns over global ones, and hinders our ability to perceive gradual change in our environment. These tendencies confound our ability to evaluate trade-offs between our own personal convenience and the sustainable future of the Earth. Obtaining a clear picture of how we evaluate long-term environmental risks on a neural level is an important step in characterizing how and why we make unsustainable environmental decisions, and can help inform new approaches in environmental economics, policymaking, and education.

At the heart of Nik's research is environmental risk perception and its impact on philanthropy and behavioral changes, and upstream of that, how framing effects, education, and semantics impact our environmental risk perception. This will hopefully yield a clearer view of how media & language influences perception, and ultimately, proactive environmental behavior.

ACADEMIC APPOINTMENTS

- Lecturer, Emmett Interdisciplinary Program in Environment and Resources

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

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Teaching

COURSES

2020-21

- Capstone Project Seminar in Environment and Resources: ENVRES 290 (Aut, Win)
- Environmental Decision-Making and Risk Perception: ENVRES 240 (Aut)
- Environmental Research Design Seminar: ENVRES 315 (Win)
- Research Approaches for Environmental Problem Solving: ENVRES 330 (Spr)
- Topics in Environment and Resources: ENVRES 280 (Spr)

2019-20

- Capstone Project Seminar in Environment and Resources: ENVRES 290 (Aut, Win)
- Environmental Decision-Making and Risk Perception: ENVRES 240 (Spr)

2018-19

- Environmental Decision-Making and Risk Perception: ENVRES 240 (Win)
- Psychological Insights for Science Communication: ENVRES 245 (Win)

2017-18

- Environmental Decision-Making and Risk Perception: ENVRES 240 (Win)
- Environmental Governance: ENVRES 250 (Spr)

Publications

PUBLICATIONS

- **Neural valuation of environmental resources.** *NeuroImage*
Sawe, N., Knutson, B.
2015; 122: 87-95
- **Dual roles of the MAPK/ERK1/2 cell signaling pathway after stroke** *JOURNAL OF NEUROSCIENCE RESEARCH*
Sawe, N., Steinberg, G., Zhao, H.
2008; 86 (8): 1659-1669