Faculty's Presentations

MARCELA PEÑA

Sunday, June 17th at 19:00-20:00

LASchool2018:
How to overcome the seven-year crisis

Faculty's Presentations

David Klahr — Monday, June 18th at 9:00-10:00

Building the Second Bridge:
from Cognitive Psychology to Instructional Engineering

Nora Newcombe — Monday, June 18th at 10:00-11:00

Cognitive maps, real maps and STEM learning

Daniel Ansari — Monday, June 18th at 15:30-16:30

Building blocks of mathematical competence:
evidence from brain & behaviour

It is well established that early math skills are a strong predictor of later mathematics achievement. Moreover, low numerical and mathematical skills in childhood have been shown to relate to low socio-economic outcomes in adulthood. Against this background it is critical to better understand the early predictors of numerical and mathematical skills and to use this information to inform early mathematics education. In this talk I will provide an overview of what insights have been gained from recent research in Developmental Psychology and Developmental Cognitive Neuroscience on the building blocks of mathematical competence. Specifically, I will discuss research that has shown that basic number processing (such as comparing which of two numbers is larger) is related to individual differences in children's arithmetic achievement. In this talk I will review evidence for an association between basic number processing and arithmetic achievement in children with and without mathematical difficulties. By doing so, I will also discuss whether individual differences in mathematical abilities are driven by innate differences in a 'number sense' that humans share with other species or whether such variability is related to the acquisition of uniquely human, symbolic representations of number (e.g. Arabic numerals). I will draw on evidence from both brain and behavior and discuss the implications of this research for assessment, diagnosis and intervention.

Josh Pasek — Monday, June 18th at 17:00-18:00

Information Processing in the 21st Century Media Environment:
Is Humanity up to the Task?

There are a variety of processes whereby individuals can reach biased conclusions about social, political, and scientific matters.This talk proposes that features of 21st Century society and the nature of our contemporary information environment exacerbate group differences in beliefs, attitudes, and summary judgments. I present data to catalog the scope of contemporary perceptual disagreements and to identify some of the ways that media-related and social factors that can deepen existing cleavages. Approaches to mitigating group differences and better socializing individuals to identify quality information are then explored.

Sidarta Ribeiro — Monday, June 18th at 18:00-19:00

Physiology and Formal Education:
A Focus on Sleep

Faculty's Presentations

Christophe Pallier — Tuesday, June 19th at 9:00-10:00

In search of syntax in the brain

Silvia Bunge — Tuesday, June 19th at 10:00-11:00

Experience-dependent plasticity of higher cognitive functions

Stanislas Dehaene — Tuesday, June 19th at 15:30-16:30

The Languages of the brain:
Language, Mathematics, and human singularity

Faculty's Presentations

Celeste Kidd — Wednesday, June 20th at 9:00-10:00

Rational approaches to learning and development

Kathy Hirsh-Pasek — Wednesday, June 20th at 10:00-11:00

Living in Pasteur's Quadrant:
Unlocking the potential of translational science through effective dissemination strategies

Faculty's Presentations

Nick Turk-Browne — Thursday, June 21st at 9:00-10:00

Rethinking memory systems for statistical learning

Ghislaine Dehaene — Thursday, June 21st at 10:00-11:00

Early organization and development of the visual pathways

In both human and non-human primates, the ventral visual cortex comprises multiple specialized subregions that are involved in the visual recognition of image categories such as objects, faces or places remarkably similar across individuals despite differences in cultural, linguistic, or socio-economic background. Even for culturally learned skills such as reading, similarly-localized activations are observed across writing systems and ages of acquisition revealing the weight of structural constraints on functional architecture. In this talk, we will examine how an early developing cognitive function, face recognition and a cultural acquisition, reading, settled in the ventral visual cortex, how they interact and what these observations teach us about human brain plasticity and on how education can take advantage of this particular plasticity.

Steven Piantadosi — Thursday, June 21st at 15:30-18:00

Learning and the language of thought

Faculty's Presentations

Juan Valle Lisboa — Friday, June 22nd at 9:00-10:00

Neuroscience and Education beyond hype:
an empirical and theoretical response to Bowers.

Cecilia Calero — Friday, June 22nd at 10:00-9:00

The good, the Bad and the Ugly:
Exploring Peer tutoring.

Alejandro Maiche — Friday, June 22nd at 15:30-16:30

Cognitive interventions at the beginning of school:
what do they tell us about the future?

Mary Helen Immordino — Friday, June 22nd at 17:00-18:00

Embodied brains, social minds, cultural meaning:
Interdisciplinary, cross-cultural, developmental studies of social emotion

Pooja Agarwal — Friday, June 22nd at 18:00-19:00

Unleash the Science of Learning:
Bridging the Gap Between Cognitive Science Research & Classroom Teaching

There is a lot to learn in the world. Students can't learn everything, and educators can't teach everything. Especially not over, and over, and over again each time students forget. What can we do to improve learning and reduce forgetting? How can we use our limited amount of classroom time and make learning stick? Based on more than 100 years of investigation, cognitive scientists have established powerful strategies that substantially improve learning for diverse age groups, subject areas, and education rigor. In this presentation, cognitive scientist Pooja K. Agarwal, Ph.D., illuminates key discoveries from the science of learning and describes current initiatives to collaborate with classroom teachers. Armed with evidence-based strategies, it's time to challenge our perceptions of learning and transform teaching in our classrooms.