## **ONE WEEK WITH ANJAN CHATTERJEE**



WHERE: TRNAVA UNIVERSITY OF TRNAVA, SLOVAKIA HOSTED BY: THE DEPARTMENT OF PHILOSOPHY AND THE CENTER FOR COGNITIVE STUDIES AT TRNAVA UNIVERSITY PROGRAM: NOVEMBER 6 - NOVEMBER 9, 2017 NOVEMBER 6, 2017 (MO), 09:30, ROOM 3P1: THE NEUROLOGY OF ART NOVEMBER 7, 2017 (TU), 09:00, ROOM 3P1: THE AESTHETIC BRAIN / 5TH INTERNATIONAL WORKSHOP ON COGNITIVE ASPECTS OF AESTHETICAL EXPERIENCE / COGNITIVE RETHINKING OF BEAUTY: UNITING THE PHILOSOPHY AND COGNITIVE STUDIES OF AESTHETIC PERCEPTION NOVEMBER 8, 2017 (WE), 10:00, ROOM ZO3 (UNIVERSITY OF SS CYRIL AND METHODIUS): FORMS OF ABSTRACTION: IMPLICATIONS FOR CREATIVITY NOVEMBER 9, 2017 (TH), 09:30, ROOM 3P1: SOME THOUGHTS ON THE EVOLUTION OF ART

ANJAN CHATTERJEE (born 1958) is a professor of Neurology in the School of Medicine at the University of Pennsylvania. He is a member of the Center for Cognitive Neuroscience. His research focuses on spatial cognition and its relationship to language. He also conducts neuroaesthetics research and writes about the ethical use of neuroscience findings in society. He is President of the International Association of Empirical Aesthetics and the Chair of the Society for Behavioral and Cognitive Neurology. Chatterjee obtained his BA in philosophy from Haverford College in 1980 and his MD from the University of Pennsylvania in 1985. After his internship at the Medical College of Pennsylvania, he trained in Neurology at The University of Chicago. He then completed two research fellowships, one at Case Western Reserve University with Peter Whitehouse and a second at The University of Florida with Kenneth Heilman. He was a member of the neurology faculty at The University of Alabama at Birmingham before returning to the University of Pennsylvania. He is a Fellow of the American Academy of Neurology and a founding board member of the International Neuroethics Society. He is also a board member for Haverford College, The Associated Services for the Blind and Visually Impaired, and Universal Promise (a non-profit educational organization). Editorial Activities: He is on the editorial boards of: The Journal of Cognitive Neuroscience, Cognitive and Behavioral Neurology, Behavioural Neurology, European Neurology, Neuropsychology, Empirical Studies of the Arts, and American Journal of Bioethics: Neuroscience.



CENTRUM KOGNITÍVNYCH ŠTÚDIÍ

## PROGRAM OF ONE WEEK WITH ANJAN CHATTERJEE AT TRNAVA UNIVERSITY NOVEMBER 6, 2017 (MO), 09:30, ROOM 3P1: THE NEUROLOGY OF ART

Since the late 19<sup>th</sup> century, neurology has played a critical role in advancing our understanding of large-scale human behavioral systems that underpin perception, language, emotions and attention. Its role in aesthetics, however, has been limited. The appropriate questions are still being defined, even as the appropriate methods and proper frameworks are being established. One striking observation is that brain damage can sometimes paradoxically facilitate art. What do we make of this peculiar phenomenon? I will review qualitative observations on how neurological disease changes and sometimes "improve" art production. I will also discuss quantitative methods assessing attributes of artwork that allow us to systematically characterize the effects of brain damage on the production, perception, and evaluation of artwork. These qualitative and quantitative observations suggest a different way to think about brain-behavior relationships.

**NOVEMBER 7, 2017 (TU), 09:00, ROOM 3P1: THE AESTHETIC BRAIN** (MAIN LECTURE) / 5TH INTERNATIONAL WORKSHOP ON COGNITIVE ASPECTS OF AESTHETICAL EXPERIENCE / COGNITIVE RETHINKING OF BEAUTY: UNITING THE PHILOSOPHY AND COGNITIVE STUDIES OF AESTHETIC PERCEPTION In the 19<sup>th</sup> Century Gustav Fechner, the father of empirical aesthetics, had three fundamental in-

sights relevant to contemporary neuroaesthetics. Properties of the world were systematically related to properties of the mind. Aesthetics could be an empirical science, or "an aesthetics from below." Finally, in addition to outer psychophysics, he speculated that there had to be an inner psychophysics. In this talk, I will offer a framework from which neuroscientists might decompose aesthetic experiences and frame questions experimentally. Fundamental to aesthetic experiences are the interactions between sensori-motor, emotional-valuation, and meaning-knowledge systems. I will discuss findings from cognitive neuroscience that reveal neural structures and networks engaged in our response to beauty and in other aesthetic encounters. Central to this enterprise is the goal of uncovering the biology of aesthetic experiences and how these experiences influence our interactions in the world. **NOVEMBER 8, 2017 (WE), 10:00, ROOM ZO3** (UNIVERSITY OF SS CYRIL AND METHODIUS):

## FORMS OF ABSTRACTION: IMPLICATIONS FOR CREATIVITY

The hypothesis that much of cognition is embodied is ascendant in contemporary cognitive neuroscience. However, strong versions of this view raises an obvious question, how do we abstract? I will focus on two kinds of abstraction that might be relevant to creativity. First, I will explore the psychological and neural reality of schematic representations. Such representations have an intermediate status between richly textured pictorial representations and purely symbolic lexical representations. Second, words themselves, despite being symbolic, can have concrete referents or be used figuratively as is the case for metaphors. I will discuss the neural instantiation of metaphor processing as they evolve in their use. In both cases, these abstractions invite flexibility and generativity that are critical to many forms of creative thinking.

## NOVEMBER 9, 2017 (TH), 09:30, ROOM 3P1: SOME THOUGHTS ON THE EVOLUTION OF ART

Two views dominate discussions about the evolution of art. One view is that art emerges as an epiphenomenal accident of our large brains, overflowing from other complex cognitive abilities. The alternate view is that art represents a fundamental human instinct. Art behavior is regarded as a "costly display" indicating fitness or as behaviors that binds communities together. The first view emphasizes art's cultural underpinnings, its tremendous variety, its local expression, and its "art for art's sake" property. The second view emphasizes art's universality across the world and as far back in time as we can record. Neither view is completely satisfying. We need a third way that acknowledges art's diversity as well as it universality. I will review the neuroscience of art and relate it to the evolution of a particular bird song, that of the Bengalese finch. The neural organization of the finch's song is analogous to what we know about human neural organization of perception and production of art and offers a novel way of thinking about art and its adaptive significance.