

Dr. Aaron Schurger awarded with the Kaloy Prize 2015



THE BRAIN MIND INSTITUTE
AT THE SCHOOL OF LIFE SCIENCES
THE KALOY FOUNDATION

BMI - Kaloy Prize 2015 ○

We have the pleasure to congratulate Dr. Aaron Schurger who is awarded with the international Kaloy Prize 2015.

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The Kaloy Prize is an international award administered by the KIFK in collaboration with an academic institution (<http://www.kaloyprizeinternational.com/>). Purpose of the Kaloy Prize is to compensate an exceptional and original scientific work, in Neuroscience, Cognitive Sciences, Biology, Physics and/or Psychology, relative to the brain

function research, which establishes, on a strictly scientific basis, the confirmation, rejection or elucidation of the philosophical theories of knowledge (Gnoseology) in Western or Oriental philosophy.

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Fifty years ago this year, in 1965, scientists discovered a slow buildup of neural activity that precedes the onset of spontaneous self-initiated movements (movements made without any cue telling you when to move). This buildup was dubbed the "readiness potential" or *bereitschaftspotential*. For the past five decades it has been assumed to reflect a process of "planning and preparation for movement". In the 1980s the readiness potential was used to argue that we do not have conscious free will, because the readiness potential appears to begin even before we are aware of our own conscious decision to act. Now Dr. Schurger and others have overturned that long-standing interpretation by showing that the early part of the readiness potential probably reflects sub-threshold random fluctuations in brain activity that have an influence on the precise moment that the movement begins. These fluctuations thus appear as part of the "signal" when the data are analyzed time-locked to the time of movement onset. This fundamental insight will change the way that researchers study self-initiated movement, and may also have important philosophical implications.

Source: [Center for Neuroprosthetics](#)

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EPFL

+41 21 693 11

Contact EPFL CH-1015 Lausanne 11

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