

Evens Science Prize 2020 – Stress and Resilience

The Foundation and its Science Prize

The Evens Foundation aims to contribute to rethinking and building a European reality committed to the values of diversity, freedom, responsibility and solidarity. We identify and support innovative ideas and award achievements through our prizes and calls. Furthermore, we foster experimental projects that bridge the gap between research and practice and facilitate knowledge exchange through lectures, seminars, debates and publications. The Evens Foundation awards prizes in four broad domains: the Arts, Journalism, Education, and Science.

The Evens Science Prize supports researchers by acknowledging their importance in exploring major challenges in our societies and in finding ways of addressing them. Since the establishment of the Prize in 2007, the Foundation has focused on **Cognitive Neurosciences**, a vast domain aimed at furthering our understanding of the mechanisms through which the activity of the brain produces our mental states and behaviour. Congruently with its goals, the Foundation places special emphasis on cognitive neuroscience research that has an ethical and societal impact.

The insights of cognitive neuroscience

Neuroscience encompasses the various scientific disciplines dealing with the structure, development and function of the nervous system, as well as the study of its chemistry and its impact on human behaviour (including pathology). Appearing about thirty years ago with the development of powerful new imaging methods, cognitive neuroscience merged insights from cognitive psychology, artificial intelligence, and neuroscience to begin addressing the profoundly interdisciplinary challenges that characterise the ancient mind-body problem:

How does the activity of the brain produce mental states? Which mechanisms shape our behaviour and decisions? Is it possible to build conscious machines? What is the self? How does collective behaviour depend on individual choices? What is the interplay between rational thinking and emotions? Should our neuroscientific knowledge guide our perspective on ethics?

All such questions probe fundamental issues that have interested philosophers for centuries. The cognitive neurosciences, in their drive to naturalise mental life, now make it possible to explore such issues from a resolutely scientific and profoundly interdisciplinary perspective that involves fields as varied as mathematics, linguistics, computer science, psychology philosophy of mind, and anthropology.

A new understanding of individuals and society

More recently, the neurosciences have expanded their reach even further. Cultural neurosciences, for instance, look at how beliefs, practices and cultural values are shaped by the neural bases of the brain over different periods. Social neurosciences (i.e., how biological systems subtend social processes and behaviour) have inspired new hypotheses for the understanding of society. Neuro-ethics studies the ethical, legal and sociological implications of neuroscience, and also applies neuroscientific methods to approach individual and social questions. Neuro-aesthetics seeks to understand the biological roots of our appreciation of beauty. And the affective neurosciences, along with emerging disciplines such as computational psychiatry, have prompted new interdisciplinary approaches to our understanding of the role that the body play in higher cognition, so merging clinical practice with a more fundamental endeavour directed towards exploring the physiological and neural bases of mental states such as desire, affect, and emotion as they shape our decisions.

The Evens Science Prize 2020: Stress and Resilience

The Evens Foundation is particularly interested in such developments and discoveries. In 2020, the Evens Science Prize will be focused on research that furthers our understanding of **stress and resilience**.

Stress is a highly complex, multifaceted phenomenon, the study of which engages disciplines as varied as biology, neuroscience, affective neuroscience, psychology, the social sciences, and neuro-ethics. Stress can be chronic or acute. It may concern individuals, families, organizations, or entire social groups.

Not only can the very same state of affairs (i.e. loud music) be experienced as enjoyable or as stressful, but different individuals may also respond to it in very different ways — some exhibiting resilience in the face of traumatic situations, others developing long-term pathological conditions such as post-traumatic stress disorder.

What are the mechanisms that drive responses to stress (e.g., freeze/fight/flight)? What are the cultural, neurobiological or hormonal factors that modulate resilience? Which interventions are most effective? What ethical considerations should drive the design of our social structures? More generally, how do emotions and cognition interact when facing a stressor?

The **Evens Science Prize 2020** will be awarded to research that contributes, from any relevant perspective, to the study of such questions. Only completed or ongoing research, to the exclusion of future research projects, will be considered.

Procedure

Candidates should be tenured academic staff members of a university or a research centre linked to a university located in a European Union member state.

The laureate will be selected by an international expert jury and will be awarded a €25.000 prize by the Evens Foundation. The jury meeting will take place in fall 2020.

Applications should be provided in English, using the electronic application form available at <http://www.evensfoundation.be/prizes/sciences>, and should be sent before **30 September 2020** to Mrs. Myriam Vanvinckenroye to whom any pre-submission queries may also be directed.

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Liaison Officer