

# *JURY REPORT*

The Freud Medal Commission  
awarding the

**International Freud Medal in 2017**

to

*Professor Antonio Damasio*  
*MD PhD*

for his exceptional contributions to the scientific  
validation of psychoanalytic ideas in and outside of the  
Netherlands

Amsterdam, November 24th, 2017

Prof. Dr. D. H. Linszen  
Chair of the Jury

The “Breukvlakken” Foundation, founded by Rolien van Mechelen and Regina van Gelderen and currently chaired by Professor Jan Swinkels, The Royal Dutch Academy of Science and Arts, the Dutch Psychoanalytic Association, the Dutch Association of Psychoanalytical Psychotherapy and the Psychoanalytic Funds Foundation are pleased to announce that the International Freud Medal for the year 2017 will be awarded to Professor Antonio Damasio. In addition to the Freud Medal, € 5000 will be awarded to the laureate. The 2017 jury consisted of Professor Don Linszen (chair), Professor Mark Solms, Professor Jan Swinkels, Professor René Kahn (on behalf of the Royal Dutch Academy of Science and Arts) and Dr Rien Van (on behalf of the Dutch Psychoanalytic Institute).

Neuroscientific pioneer Antonio Damasio will receive the Freud Medal 2017 for his original and groundbreaking contributions to researching the neurobiology of the mind, and especially the neural substrate of emotions and the central role that feelings play in consciousness.

Antonio Damasio studied medicine at the University of Lisbon Medical School, where he also specialized as a neurologist and completed his doctorate. He is now University Professor, David Dornsife Professor of Neuroscience, Psychology and Philosophy, and Director of the Brain and Creativity Institute at the University of Southern California. He is also Adjunct Professor at the Salk Institute for Biological Studies in La Jolla.

### Background

Damasio’s approach to emotions has much in common with that of the early Freud (“Entwurf einer Psychologie” 1895, “Traumdeutung” 1900). Against the background of his neuroscientific research and neurological training, Freud sought to embed his clinical findings with psychoneurotic patients in a comprehensive model of mind, brain and body. He conceptualized the mental apparatus as an evolved “sympathetic ganglion” which – on the basis of underlying homeostatic principles -- registers the needs of the body as affective qualia, which, in turn, guide all of the organism’s interactions with (and learning about) the world. According to Freud, therefore, emotional feelings (of ‘Lust’ versus ‘Unlust’) defined the biological purpose of consciousness. This definition moved Damasio (1999) to say that Freud’s insights on the nature of affect were “consonant with the most advanced contemporary neuroscience views”. Damasio has also recognized Freud’s contribution to our understanding of the *limits* of consciousness, saying that “the mind, seen as a natural result of evolution, is largely unconscious and internal and unrevealed” and that “Freud seized on a wellspring of evidence for the unconscious when he concentrated on dreams.”

## Scientific work

### *Emotions and reason*

The first great achievement of Antonio Damasio, following his early work on the brain mechanisms of higher visual processes, was his integration of the neglected topic of affect into cognitive neuroscience. For Damasio affect includes emotions (drives, motivations and conventional emotions) and feelings. Damasio makes a principled distinction between *emotions* (which are affective action-programs) and *feelings* (which are the valenced mental experiences of the emotive process). According to Damasio, feelings are mental representations (literally ‘maps’) of body states and represent the homeostatic process by which the internal milieu is continuously monitored and regulated, and by means of which the internal milieu ultimately influences the behavior of the whole organism. Emotions and feelings were thus recognized by Damasio to be the means by which the internal body environment is represented in the brain, just as visual or auditory sensations are the means through which the external environment is represented. In evolutionary terms, the brain is primarily an organ for homeostasis, collecting and integrating feedback on body states, and acting to maintain constancy of the internal milieu.

In his early publications on this topic, Damasio based his conception of the neuropsychology of emotion upon case studies of patients with neurological damage to the ventromedial part of the pre-frontal cortex (VMPFC), just as he had grounded his earlier work on the visual system in the careful study of individual clinical cases. Damasio’s group investigated these patients with structural and functional neuroimaging (methods that were sorely lacking in Freud’s day), experimental neuroanatomy, experimental neuropsychology and psychophysiology. Patients with VMPFC damage were able to perform to a high level on most cognitive tests, but they showed severe impairments of future planning, decision making and social appropriateness. These defects were shown to be caused by their inability to respond emotionally to the cognitive demands of their thoughts.

This work led Damasio to formulate his highly influential ‘somatic marker hypothesis’: emotion-based bodily responses through the autonomic nervous system are integrated in higher brain regions, in particular the ventromedial prefrontal cortex, as emotions. Partly unconscious, partly conscious as feelings, emotions interact with the cognitive representations through interoception. Humans are aware of their bodies, their ‘bodily selves’, and this inner-directed attention forms the root of all consciousness. Damasio argues that that awareness of inner states evolved because this enables us to use somatic states (i.e., emotions) to ‘mark’, and thereby ‘evaluate’, the biological meaning of external perceptual information. This interaction of cognitive

representations occurs in working memory. Current work on the biology of moral decisions, neuro-economics, social communication, and even drug-addiction, have all been strongly influenced by this hypothesis.

According to Damasio's teachings, emotional processes target both body and brain: they are rooted in brain nuclei primarily concerned with managing the life processes – regulating cardiovascular function, mediating pain, controlling respiration, and the like - and are closely connected with those concerned with attention, arousal, sleep and reward/punishment centers. Thus, the fact that the regulation of life processes and of consciousness are so intimately connected is not due to an anatomical accident, but it is rather to an evolutionary adaptation of profound biological value.

#### *Consciousness:*

According to Damasio, affect and consciousness as a whole are evolutionary adaptations aimed at ensuring the organism's survival; they are rooted in the representation of the body. There are three stages in the process, beginning with a state which is an organism's somatic response to perceptual information, proceeding to a state of feeling in which the organism perceives the changes thus manifested, and finally, to conscious awareness of the feeling as a feeling. Emotion is vital to processes of reasoning and decision-making; either too much of it or too little can interfere with our ability to make good decisions. However, the combination of feelings and consciousness with our reasoning processes is, for Damasio, the key to our success as a species. Like the late Jaak Panksepp, Damasio eventually concluded that the whole of human consciousness emerged out of affect. According to Damasio, feeling an emotion is a simple matter, consisting as it does of mental images arising from the neural patterns that represent changes in the body. But having consciousness of that feeling, feeling the feeling as one's own, is the crucial step in the development of human consciousness, underpinning our fantastic adaptive success as a species.

#### *Publications:*

Professor Damasio has published several hundred scientific papers in peer reviewed prestigious journals. He is a Highly Cited Author, over 156,525 citations with an h-index of 149. He also brought the neural relationship between affect and cognition, and their link to the body, to the attention of a broad public, as the author of best-selling books such as "Descartes' Error" (1994), "The Feeling of What Happens" (1999), "Looking for Spinoza" (2003) and "Self Comes to Mind" (2010); translated and taught worldwide. His latest book, "*The Strange Order of Things:*

*Life, Feeling and the Making of Cultures*” is being published this Fall in Europe and in the US in February.

### Influence

Damasio has inspired neuroscientists and psychoanalysts, and created cross-disciplinary projects with scholars from philosophy, neuropsychology, cognitive science, psychiatry, biology, economics, education and the arts. These collaborative efforts are expected to have an ongoing impact in the management of both brain diseases and psychiatric disorders. He and his wife, neuroscientist and neuroanatomist Hanna Damasio, have created the Brain and Creativity Institute where an interdisciplinary group of researchers are using biology as a tool for scholarship in the social sciences and humanities.

Numerous students of Antonio and Hanna Damasio are now academic leaders, among them Daniel Tranel, Antoine Bechara, Ralph Adolphs, Thomas Grabowski, Josef Parvizi, Brad Hyman, Mary Helen Immordino-Yang, Jonas Kaplan, Kaspar Meyer, Kingson Man, Assal Habibi, Morteza Dehghani, Alexandre Castro Caldas and José Ferro.

### Honors

Antonio Damasio is a member of the American Academy of Arts and Sciences, the National Academy of Medicine, the European Academy of Sciences and Arts. He is the recipient of numerous distinctions, amongst them the American Psychoanalytic Association's Presidential Medal and the International Psychoanalytical Association's Outstanding Scientific Achievement Award, the Grawemeyer Award, the Honda Prize, the Prince of Asturias Prize in Science and Technology and the Nonino, Signoret and Pessoa Prizes, as well as numerous honorary degrees, most recently from the Sorbonne (Université Paris Descartes), and the École Polytechnique Fédérale de Lausanne (EPFL) which he shared with his wife Hanna Damasio. Recently he was listed among the top 100 psychologists by the American Psychological Association.