

Bio on David Perrett, winner of the 2020 HBES Lifetime Career Award

David Perrett has made outstanding contributions in two distinct areas of research. His early career was focused on primate neurophysiology, where he conducted ground-breaking work on the anterior portion of the superior temporal sulcus (STSa), revealing that single cells in this region respond to social cues in non-human primates, including facial identity, facial expression, gaze-direction, and attention. This work was pivotal in the development of ideas concerning the widely accepted “social brain” hypothesis. More specifically, the social cues and neural responses identified by Dave clearly form the basis for the behavioral strategies that animals employ to navigate their social worlds. As such, his work offers key evidence in favor of the notion that the primate brain is highly specialized for social interaction.

In addition, Dave has produced seminal work showing there are also neurons in the STSa that are selectively activated by various kinds of body movements, such as stretching the arms, turning the head, and most intriguingly, that there are cells that are responsive only to goal-directed behaviors (e.g., cells that do not respond to, say, the static presentation of hands but only to meaningful, active hand-object interactions). This work thus anticipated many of the findings associated with the discovery of so-called “mirror neurons” and, along with this latter work, forms the basis for theories concerning the sub-personal underpinnings of empathy, and the evolution and development of distinctively human psychological traits, such as the ability to ascribe mental states to others.

The second area of research in which David Perrett has excelled, and the one for which he is now most widely known, is human face perception. With his colleagues and students, Dave has, over the years, developed a number of computer graphics programs that enabled him to conduct a rigorous, thorough scientific program on various aspects of human facial perception, and leaving the pseudoscientific days of physiognomy far behind. The earliest technical developments produced by Dave’s lab could produce composites of several facial images (a high-tech version of Francis Galton’s multiple exposure method for photographic plates), as well as produce transformations with respect to facial shape, color, and texture. Using these methods, Dave and his group confirmed Galton’s finding that, as the number of faces in a composite is increased, the image becomes more attractive, and demonstrated that this was due to an increase in facial averageness. His group also showed that greater facial symmetry was perceived as attractive, and produced very interesting work on sexual dimorphism that showed not only that feminized female faces were perceived as more attractive, but so too were feminized male faces. Increasing masculinization of male faces reduced positive perceptions of parental investment potential but increased perceptions of dominance, and negative traits such as dishonesty. From here, Dave and his lab have produced a vast array of work investigating, among other things, health cues in skin color and texture, their effects on attractiveness, whether personality traits are detectable in faces, the effects of parental age on ratings of attractiveness, and whether cues to body weight and height are detectable in faces. He has published over 300 articles over the course of his career, and his work has appeared in the most well-respected and distinguished journals in his field.

Dave’s work is thus remarkable for the breadth of topics he has investigated over the course of his career, the high degree of technical innovation that has accompanied each empirical

investigation, and the fact that he has made seminal contributions to two distinct areas of research. His achievements in either one of these areas alone would justify a lifetime career award, but his ability to pioneer and develop two entirely distinct fields of research is truly extraordinary.

In addition to his great skills as a scientist, Dave is also a wonderful mentor—supportive, kind, and endlessly enthusiastic. Engaging with Dave always leaves one feeling more curious about the world, and he is always interested to discover what other people are working on (whether within or outside his own field), and to think deeply about what they tell him. Despite his vast accomplishments and brilliant mind, Dave is extremely humble and always willing to lend a helping hand. Dave has mentored over 40 PhD students, in addition to his numerous masters and postdoctoral students, many of whom have gone on to have highly successful academic careers of their own.

David Perrett is also held in high esteem by his peers and colleagues. Among his many honors, he has been elected as a Fellow of the British Academy, received the British Psychological Society President's Award for Distinguished Contributions to Psychological Knowledge, and the Golden Brain Award of the Minerva Foundation. Further recognition of Dave's intellectual contributions to science and to British life in general, is signaled by the fact that his portrait has been displayed in the National Portrait Gallery in London!

In sum, David Perrett has made significant and enduring contributions to the fields of comparative evolutionary neuroscience and the study of facial perception. His thoughtful, rigorous, and precise work will stand the test of time, and its impact will continue to grow for many years to come. Therefore, we are delighted that Dave has been chosen to receive HBES' prestigious Lifetime Career Award.

- Carlota Batres & Louise Barrett