

FEEL:INSIDE

Contributed by Lizzie Muller
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A responsive self portrait which creates an emotional circuit between the artist and the audience

Concept: Tina Gonsalves/ Dr Hugo Critchley

Authoring: Tina Gonsalves/David Muth

Dates of Exhibition: 20 December 2006 – 31 January 2007

Free with entrance to the Powerhouse Museum

The audience enters a darkened room to find a large video projection of the artist's face. A camera senses the movement of the audience. The emotional expression of the artist's face reflects the audience's state, appraised in a general way through movement. If the audience is calm, her face becomes still and meditative. Rapid movement of the audience is reflected by the artist becoming anxious. Over time, continued anxiousness leads to the artist crying, and the audience is confronted with a private and intimate moment usually only revealed to close friends and family. The audience realizes they have caused the upset, but then are asked to work out how to cure it.

FEEL: INSIDE is a psycho-physiologically responsive video installation synthesizing art, neuroscience and technology. The project explores new, more embodied languages of interactive and emotional communication, investigating the inter-relationship of the internal body and the external world.

FEEL: INSIDE forms the initial investigations of artist Tina Gonsalves and affective neuroscientist Dr. Hugo Critchley. The collaboration extends research in the naturalistic embodiment of emotion, looking at what ways art, science and technology can converge to become agents that allow us to have a more intimate relationship with our own bodies; more embodied interaction, tools that crossover between art and wellness; tools that interplay between the external and internal.

Tina Gonsalves is currently AHRC/ACE international science and art fellow and artist in resident at the Institute of Cognitive Neuroscience at UCL, London. The engineering is a collaboration with David Muth.

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Artist's Biography

Tina Gonsalves, artist, Australia

<http://www.tinagonsalves.com>

Gonsalves practice centres on the shifting relationship between personal interior and the world through emotions. For a decade, she has explored the intimacies and vulnerabilities of human emotions, through video, wearable technology, and installation. Rich, painterly video abstractions create emotionally potent narratives often seduce or repel the viewer.

Searching for more empirical foundations to the emotional cues that drive her work, she initiated a collaboration with affective neuroscientist, Dr. Hugo Critchley, and was awarded an AHRC/ACE arts and science fellowship in 2005. Currently, through her role as Artist in Resident at the Institute of Cognitive Neuroscience, UCL, London, she is investigating the mechanisms through which emotions are triggered and shaped. Over the last year, Critchley and Gonsalves are discerning the physiological signatures of emotional states to create software and artwork that recognize and respond to internal emotions.

Her work has exhibited/screened at the PowerHouse Museum, AU; Banff Centre for the Arts; CYNART 06; Whitechapel Gallery, UK; Siggraph, USA; ISEA ; Artsway, UK; IAMAS, Japan; The Australian Centre For Photography, AU; Barbican, UK; Pompidou Centre, France; DEAF 2004; ICA, UK and was a featured artist representing the ACMI at the Melbourne Art Fair.

Her works have been awarded with fellowships and grants extensively. She has taken part in many Artist in Residence programs including The Banff New Media Institute in Canada, the Centre for Contemporary Art in Prague, Asialink artist in residence at the New Media faculty Chulalongkorn University, Thailand, (Pro) duction residency at Artsway, the Advanced Institute of Media Arts and Sciences residency in Japan.

Works by Gonsalves have been screened at many prestigious international and national festivals and events, and her music videos for labels BMG, EMI, and Festival Mushroom Records have been frequently televised worldwide.

Hugo Critchley

Hugo Critchley, UK

Critchley's neuroscientific interests focus on brain mechanisms by which human social and motivational behaviour is controlled, both in healthy individuals and people with physical or psychological disorders. He is funded by the Wellcome Trust via a senior fellowship in clinical science for a programme of research entitled: Psychophysiological mechanisms underlying psychological and physical morbidity.

A key methodology within his research is the combination of brain imaging techniques with physiological monitoring of autonomic states of bodily arousal (as reflected in changes in skin conductance (Galvanic Skin Response; GSR), pupil size, heart rate and blood pressure). In addition, he examines patients with different neurological problems to provide further insight into theoretical and clinical neuroscience questions. Emotion research continues to develop. Technical advances, such as functional brain imaging with magnetic resonance (fMRI), continue to identify and dissociate core processes, e.g. for regulating mood, perceiving emotional expressions, encoding and recollection of emotive information and guiding motivational behaviour. Critchley's studies contribute to this knowledge-base by characterizing brain mechanisms that control states of bodily arousal during behaviour. This work has increased our understanding of how emotional challenges, mental & physical stress, anxiety, motivational outcome (winning and losing) may alter the internal state of the body.

These studies, of healthy subjects and patients with localized neurological disorder, have identified discrete brain centres that drive changes in bodily responses during emotional and volitional behaviours. Other brain centres have been identified that represent the brain's remapping of changes in internal bodily arousal. Such brain regions are, theoretically, the substrate for emotional feelings that arise from changes in the 'physical self'. In a recent experiment, Critchley related the activity in one discrete brain region to the conscious perception of internal autonomic sensations and the experience of emotional symptoms that occur, for example, with anxiety. Biofeedback techniques have been used in a number of these studies to examine the interface between automatic (emotional) bodily responses and conscious processes. While my work has focused on individual internal responses, the work of others, such as Prof. ML Phillips, highlights the dynamic interpersonal nature of cues that influence emotional arousal and subjective mood, for example; the perception of facial or vocal expressions of disgust engender patterns of brain activity and autonomic bodily response that mirror those induced by ingestion of a disgusting food or proximity to (socially) nauseating act. A full account of emotion at biobehavioural level requires a mechanistic understanding of the intricacies of dynamic social interactions. At present my research group is engaged in neuroimaging experiments addressing the role of autonomic bodily responses in interpersonal emotion communication.