Unstable Empathy 2011

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Unstable Empathy is a relational interactive installation in which the meanings of cooperation, entangling and consciousness are directly perceived at the physiological level.

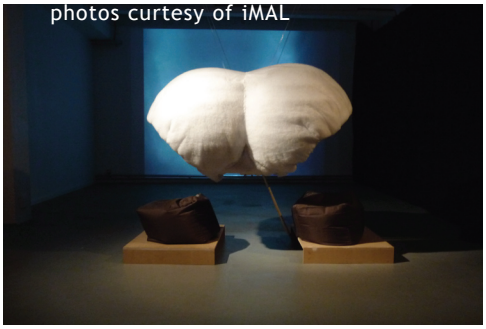
It's an intimate environment remediated in real-time by the mind activity of two players which are constantly forced to negotiate their emphatic state.

The aim of the project is to render sensible and tangible inter-personal interactions that lie behind the sensorial level.

At each session, EEG headsets are being mounted on the heads of two participants which will be positioned in front of each other in complete darkness. With the only prompt to "feel", the players develop their own methodology of interaction, to finally discover their own physiognomies superimposed and experience their selves as a single entity.

Each time the players reach the "empathic state" of superimposition, on the wall of the room their snapshot is taken and displayed with a visualization depicting the mental activities and the facial strategies they deployed to reach that empathic state. Each snapshot and relative superimposed visualization will be therefore different according to each couple, functioning as visual map of their mental efforts, an archeology of their emotions.

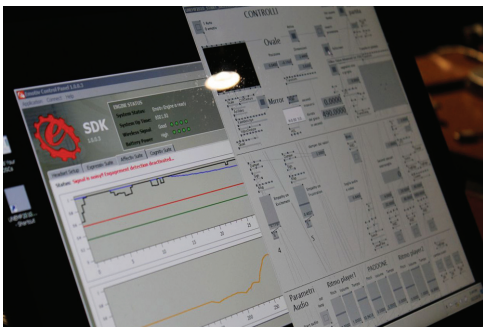
Project description



The installation consist of an intimate “sculpture-interface” and a wall-sized video projection functioning as background of the installation space.
The interface (size 140x80x100 cm ca) is hung from the ceiling and suspended at 80 cm ca. from ground. It’s equipped with a double-mirror, two pico-projectors and speakers, and it has the space to accommodate the players’ faces at about 10 cm from each size.

The EEG headsets (Emotiv Epoc) are being applied to the players which, upon entering the interface, are in the dark. Each player will hear two rhythmic sounds coming from the left and right ears, whose pitches represent his own and other’s emotional activation “level”.

According to the relative amount of emotional activation detected by the respective EEG, two small pico-projectors illuminate facial details between the two sides of the mirror.
The more the players are able to stay within the given “activation range”, the more their faces are lit snd superimposed . This consecutively lead to an increasing visual complexification rendering more and more difficult to maintain the shared empathic balance.



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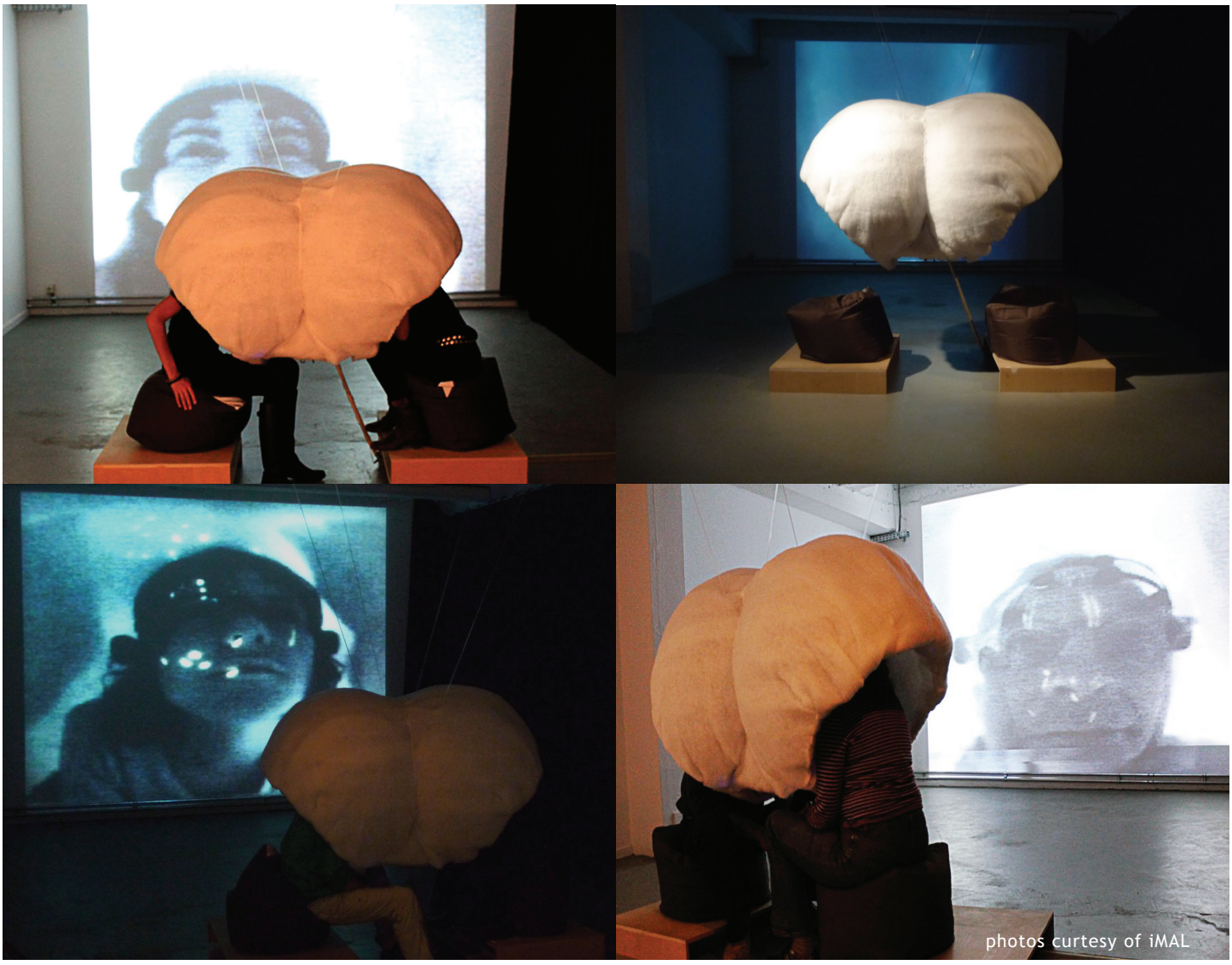
Screen shoots from live interaction



Theoretical overview

Empathy is the capacity to recognize or understand the state of mind or emotion of another person. It is often characterized as the ability to “put oneself into another’s shoes”, or to in some way to experience the outlook or emotions of another being within oneself. It may be described metaphorically as an emotional kind of resonance or mirroring.

Research in recent years has focused on possible brain processes as neural correlates of empathy (Preston & de Waal, 2002). Functional magnetic resonance imaging (fMRI) has recently been employed to investigate the functional anatomy of empathy (for reviews see Decety & Jackson, 2006; Decety & Lamm, 2006; deVignemont & Singer, 2006).
These studies have shown that observing another person’s emotional state activates parts of the neuronal network involved in the processing of that same state in oneself, either for disgust (Wicker et al., 2003), touch (Keysers et al., 2004), or pain (Morrison et al., 2004; Jackson et al., 2005, 2006; Lamm et al., 2007; Singer et al., 2004, 2006; Gu & Han, 2007).

The study of empathic neuronal circuitries was inspired by the discovery of mirror neurons in monkeys that fire both when the creature watches another perform an action as well as when they perform that action.

Mirror neurons represents a possible neural mechanism for mapping others' feelings onto one's own nervous system. Based on some of this works, the simulation theory of empathy has been developed during the past decade.

In Unstable Empathy, the individual state of emotive and attentional activation is measured, among others, by an important and well known psychophysiological index: alpha wave amplitude. This index, easily and precisely measurable by simple EEG equipments, has been often employed in various neuro-feedback techniques, since the human ability to indirectly control it, intervening on the individual level of relax or activation (For an introduction review see Batty et al., 2006).

Unstable Empathy is a project by
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and
Enzo Varriale (LanVideosource)

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and Nuit Blanche in Brussels, Belgium.
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Video shooting: Rafael Abril
Video editing: Kristina Ianatchkova
Photo documentation: iMAL

further info:
http://www.imal.org/en/activity/mff-2010-unstable-empathy