



Empathy Emulator

Prepared for: Think 66

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March 11, 2030

Proposal number: 201-4057

Purpose

The purpose of the Empathy Emulator is to facilitate a higher level of communication than has ever been possible previously. Even in person, a human's capacity to communicate is limited to just four senses: seeing (reading facial expressions, body language, etc), hearing (language, tone, volume, etc), touching (hugging, kissing, physical violence, etc), and, in a more limited sense, smelling (pheromones, sweat, research has shown that fear can actually be communicated through smell, etc).

Today's technology has opted to promote a higher volume of communication rather than encouraging meaningful interactions. iMessage, Facebook, Instagram, SnapChat, and even Skype and FaceTime have all detracted from the human ability to communicate. With the Empathy Emulator, we hope to move in the exact opposite direction. Possible real world uses include but are not limited to the following:

- Allowing those patients with serious medical issues or learning disabilities an alternative mode of communication
- Empathy training for patients who have demonstrated a lack of emotional aptitude (e.g. psychopathy, sociopathy)

Function

There are two components of the Empathy Emulator: the transmitter and the receiver. The transmitter is a white plastic cap which wraps around the head of the first patient. Wires surrounding the outside of the transmitter detect electroencephalographic signals (brainwaves) given off by the first patient — specifically from regions of the brain which handle emotional processes such as parts of the temporal lobe and the amygdala — and wirelessly transmit the data to a computer which parses, packages, and sends it to the receiver. The receiver is a black plastic cap which wraps around the head of the second patient. Electrodes covering the outside of the receiver receive signals from the computer and administer minor electrical shocks to the second patient's brain in order to simulate the brainwaves which caused the detected emotions to be felt by the first patient. The second patient should then be able to feel exactly what the first patient is feeling.

It is important to note that the lack of perfect transmitting from the transmitter to the receiver does not allow for two-way use of the Empathy Emulator. The artifact introduced by the imperfect signal, if allowed to multiply while bounding back and forth, will cause an effect similar to that which would occur while holding two phone's next to each other during a call between them. This could be extremely uncomfortable or even dangerous for both patients. In any event, this device should left in the hands of practiced medical professionals, as there are evidently some risks involved in the modification of human brain patterns.

Herein, the patient that wears the transmitter will be referred to as "the transmitter," and the patient that wears the receiver will be referred to as "the receiver."

Project Outline

The research phase of this project has already begun. Testing has confirmed that animal species with lower cognitive levels are able to transmit emotion to subjects of the same species (e.g mice, dogs, and chimpanzees). Interspecies emulation has yet to be attempted, but we suspect serious confusion might arise, as the brainwaves of the transmitter will likely have little to no meaning for the receiver.

The affects of the device seem to vary greatly between test subjects. With that said, most receivers did express high levels of curiosity and excitement. Some receivers display extreme reactions while observing everyday objects, similar to that of a child opening their eyes for the first time. At the conclusion of each session, it was common for receivers to attempt to remove a nonexistent cap from their head in sync with the transmitter. Interestingly though, and while the internal emotions of the transmitter and receiver were synchronized, their outward expression of those emotions was often quite different.

We are now moving on to human testing. Several willing volunteers have already come forward. One particular subject has requested to use the device in order to communicate with her comatose brother. This could be a perfect way to test the Empathy Emulator in a real life scenario.
