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**From:** Joscha Bach <[REDACTED]>  
**Sent:** Friday, June 8, 2018 11:25 PM  
**To:** Jeffrey Epstein  
**Subject:** Emotion as deception

Dear Jeffrey,

Recently, I realized that emotional expression did not evolve as a readout of the mental states of people, but via adversarial deception. As soon as people (or social animals) started to evolve the ability to infer the attitudes and mental configurations of others by observing their posture, gaze and face, the observed ones evolved the ability to fake that modeling. Emotional expression is a hack on emotion recognition. In turn, the observers evolved the ability to take this into account, and now expected that certain emotional states would be accompanied with default expressions, and they'd have to look for the subtle deviations from the defaults if they wanted to infer the actual mental state. The result arms race is probably what is responsible for the expression archetypes.

I wonder if it is possible to simulate the adversarial evolution of emotional expression in a game theoretic setting. (I thought you might like the idea that useful differentiation of communication may have evolved from deception.)

Unrelated: The Science of Consciousness Conference folks have published a short interview, this time with a better shirt: <https://youtu.be/mkROH1QIDi0?t=13m33s>

Also, the IRS has written a letter demanding to get paid; could we please do something about that?

Bests,

```
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