

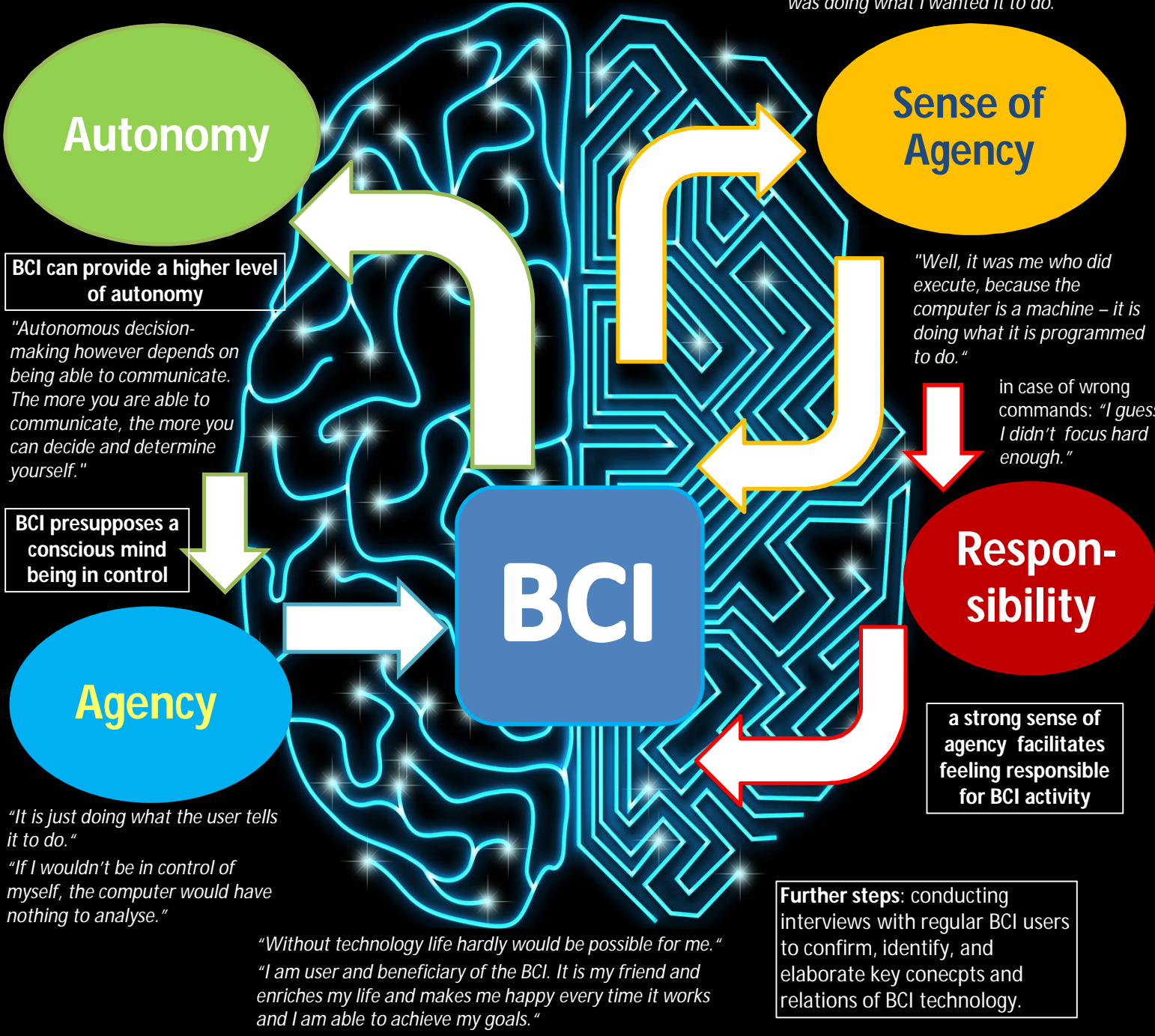


Conceptual Relations of Brain-Computer Interfaces – Provisional Findings

Overview: The diagram portrays relations between BCI technology and several philosophical concepts illustrated by quotes from interviews conducted with disabled and impaired BCI users.

successful BCI use implements a sense of agency

"The more focused you are and the less distraction there is, the better it works. (...) Due to a high success rate, I did have the feeling that I did execute the BCI activity myself (...) Or, in other words, I did have the feeling that the computer or the program was doing what I wanted it to do."



Autonomy

BCI can provide a higher level of autonomy

"Autonomous decision-making however depends on being able to communicate. The more you are able to communicate, the more you can decide and determine yourself."

BCI presupposes a conscious mind being in control

Agency

"It is just doing what the user tells it to do."

"If I wouldn't be in control of myself, the computer would have nothing to analyse."

*"Without technology life hardly would be possible for me."
"I am user and beneficiary of the BCI. It is my friend and enriches my life and makes me happy every time it works and I am able to achieve my goals."*

Sense of Agency

"Well, it was me who did execute, because the computer is a machine – it is doing what it is programmed to do."

in case of wrong commands: "I guess I didn't focus hard enough."

Responsibility

a strong sense of agency facilitates feeling responsible for BCI activity

Further steps: conducting interviews with regular BCI users to confirm, identify, and elaborate key concepts and relations of BCI technology.

