



Implantable Brain Technologies and The Creation of Cyborgs

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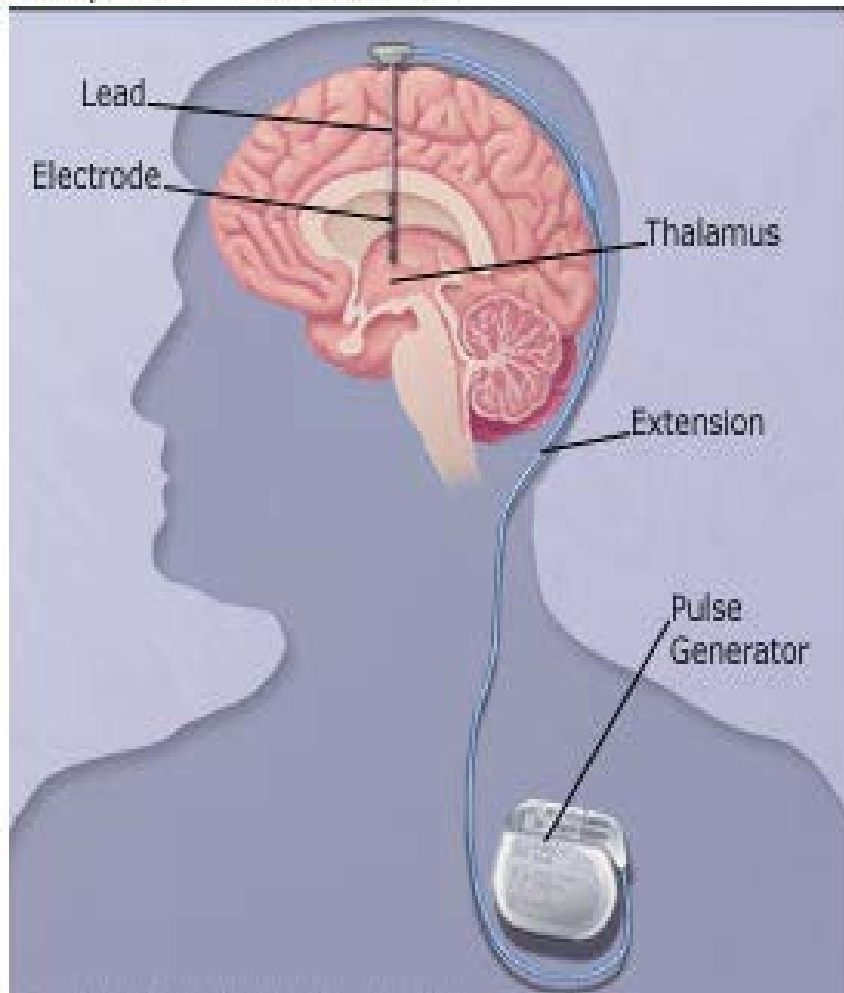


What is a Human?

- Equated with the body: biological skin-and-skull boundaries (Buller, 2013)
- Establishes a normalcy & authenticity - “organic” self
- I refer to this view as “body essentialism”
 - Corporeal integrity = human identity
- Hierarchical boundary: privileges internal over external
- Fear: Tech inside body = fundamental personality change
- Recent bioethics study: over 60% of DBS patients felt: “Strangeness and unfamiliarity regarding their view of themselves” (Johansson, 2014)

DBS: Feeling...*Different*

Deep Brain Stimulation



Why might patients feel differently post implant?

- Maybe just aware of having implant?
 - Maybe able to live a more “normal” life?
 - Maybe identity as a person changed because of non-organic technology implant?
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Question: what does it *mean* that they felt differently?



Therapy vs. Enhancement

- Approve of the use of implantable technologies to cure disease or disability
- Restores someone back to their *original* self
 - Enables having a “normal” body
- Unlikely to label self or be labeled a “cyborg”

- Support using technologies to enhance or extend traditional human abilities
 - Okay to use these technologies on “normal” bodies
 - Body Hackers: create specialized technologies & self-label as cyborgs
 - Human right to do with their body as see fit



DBS and Implant Ethics

- **DBS socially accepted even if transcend skin-and-skull boundary - therapeutic use**
- **If therapeutic uses result in patients feeling differently about their identities...is it still okay?**
- **Doesn't there use alter what defines a human?**
- **If either type of use alters human identity, then why is there a limit to their social acceptability?**
- **Even if use is socially accepted...aren't we still creating cyborgs?**

Cyborg: To Be or Not To Be...

- **Cyborg: “a hybrid of machine and organism”**
- **Regardless of social acceptance, DBS creates a fusion between human and machine**
- **Identity changes complicate the ethical debate**
- **Anytime a technology is incorporated into the body it creates something new (Shildrick, 2015)**
- **Not just “replacing” or “adding” something but creating a new embodiment (Bennett, 2009)**
- **Does using therapeutic implants signal a type of human evolution?**
- **Skin-and-skull boundary - still use as ethical justification for limiting the use implants?**

