Conference
Body Image(s): what challenges from anthropo-technics?
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Abstracts:

Anna-Maria Georgarakis, ETH Zürich (engineering sciences)
Robotic technology for body-restoration and assistance in daily life

Mobility impairments of the upper and lower extremities are caused by various disorders such as stroke or myopathies. For individuals affected by these disorders, activities of daily living become challenging and quality of life suffers. At the SMS-Lab at ETH Zurich, researchers develop soft wearable robotic technology – called exosuits – to assist people with mobility impairments in daily life. Exosuits are active, garment-like exoskeletons that can restore or assist mobility and promote independence in impaired individuals. To this end, exosuits need to work in concert with their wearer's body. As result of ongoing efforts, an assistive exosuit for the lower extremities, the Myosuit, was successfully transferred to the SMS spin-off Myoswiss. The Myosuit is currently tested extensively as part of the development and research at the SMS-Lab. Additionally, the concepts of the Myosuit are extrapolated to the upper extremities. The latest prototype – the Myoshirt – follows a two-fold design approach, supporting both shoulder stability and mobility in a simplistic manner. The device is now tested and further developed in close collaboration with clinical partners. In her talk, Marie will present the human-centered design considerations behind rehabilitation technology with a specific focus on the Myosuit and Myoshirt. To illustrate the current status of the technology, preliminary experimental results and feedback from participant tests will be shared.

Melike Sahinol, Orient Institut, Istanbul (sociology)
When children with 3D printed prosthesis feel like super heroes

Often evoked and facilitated by the so-called human enhancement technologies, practices of body modification occur simultaneously as enabling technologies for vulnerable groups (beyond the notion of an enhancement culture). In doing so, cultural practices and societal circumstances shape the understanding of (health) technology and body and have an effect on the dynamics of current and (non) medical body

modification practices. An example of such an enabling technology is the 3D printed prosthesis for children, provided by the e-NABLE community, who "create 3D printed hands and arms for those in need of an upper limb assistive device" (http://enablingthefuture.org / about /). In order to make those children feel special through their identification with the superstar these 3D printed prosthesis come with a personalized and colorful design. Based on an ethnographical study in the makerlab "Robotel" (an e-NABLE chapter in Turkey) and interviews with volunteers, parents and children, I argue, that the 3D-printed prostheses acts as socio- (bio-) technical intermediate agent, an entity, between the being a body and the having a body. It has an external (socio-technical) and inwards (bio-technical) influence on the self. That is why we must concern ourselves with 3D-printed prostheses as technologies of the self. The following article discusses how the self (re)stabilizes itself with the 3D printed prosthesis and its material-semiotic significance. In this context the question when children with 3D printed prosthesis feel like superheroes is of special interest.

Sadaf Soloukey, Erasmus University of Rotterdam (philosophy/ neurosciences)
Phenomenological embodiment in patients with spinal cord injury receiving
temporary neural implants: a qualitative study into patient perception

The field of Neuro-Engineering seems to be on the fast track towards accomplishing its ultimate goal of potentially replacing the nervous system in the face of disease. Meanwhile, the patients and professionals involved are continuously dealing with human bodily experience and especially how neuro-engineering devices could become part of a user's body schema. This focus on embodiment, however, is not sufficiently reflected in the current literature on ethical issues in neuro-engineering. In a previous publication we developed a theoretical framework for embodiment in neuroengineering and defined three concepts that might facilitate 'transparency': functionality, sensorimotor feedback and affective tolerance. As a follow up, we performed a series of in-depth interviews with five patients receiving temporary neural implants as part of a clinical trial. Patients were questioned on domains including 1) body image, 2) expectations of the neural implant, 3) their judgement on the possibility of incorporation of the device and 4) their 'ideal' implant. Interviews were performed both pre- and post-implantation, subjected to thematic analysis and compared against the backdrop of our previous theoretical framework. In the current paper I will discuss the most striking results extracted from this unique patient setting, informing us on patient perception of implant incorporation.

Helma Korzybska, Université Paris Nanterre (anthropology)
Retina implant re-education: A case of sensory instrumentalization towards a certain perceptive type

Observing the re-educative process following retina implantation essentially means observing the introduction of particular perceptive techniques, resulting in a certain perceptive type. Since these devices don't allow participants to retrieve vision, only giving access to a sensory experience which is fundamentally different from "seeing", the new bodily and sensory skills and modes of attention aim at using other senses (touch, hearing, smell…) as well as cognitive techniques, as an optimal way towards capturing sensory information. In this very particular medical procedure where body "reparation" (after sensory loss) is often intertwined with the creation of something else, I will try to show how interactions between the therapist and the participant lead to a specific sensory experience, and a certain way of "being" in space, anticipating and interacting with the environment. This sensory instrumentalization which aims autonomation in everyday life, represents a certain pragmatic rationalization of perception. Finally, through patient experience, I will also try to show how technological failures bring out the conflictual adaptation between the biological body and the artificial object, and particularly within intimate relations between humans and prosthetic technologies.

Tobias Boll, Johannes-Gutenberg-Universität Mainz (sociology)
Imagining, imaging, embodying: relating images of the body and body image

Body image is often conceptualized, in a narrow sense, as a socially informed, yet very personal affair: the correlate of a person's perception of and attitudes towards their own body. In this talk, I want to explore the relations of body image in this sense to two other instances of body image(s): cultural body ideals and visual body representations. My argument is that the kind of bodily reflexivity entailed in the concept of body image is produced in practical processes of relating these ontologically different kinds of body images. Body images come in different material and semiotic states. Cultural ideals about how a body should look, feel and what it should be able to do are generally abstract conceptions, yet in social practices, they take different material forms. In advanced media cultures, especially technically produced visual images of bodies have become ubiquitous. They (re)present not only ideal(ized) bodies but everyday bodies of everyday people to ever-growing audiences. Drawing on ethnographic data from a study on nude embodiment in webcam-sex and first observations from an ongoing project investigating sexuality and disability, I show how bodies evolve by materially relating and interacting with different body images, becoming themselves media and materializations of them in the process.

Philippe Liotard, Université Claude Bernard Lyon 1 (anthropology)
Create yourself: make your own body

In 2000 took place in Avignon, France, an event called Art-Kor 00, organized by the French performer and bodmoder Lukas Zpira. Many people met there during six months around art and photo exhibitions, body performances, conferences about the mutations of the body. Piercing, tattoo, implants, scarifications but also body suspensions and body rituals were the main themes. The limits of the body were pushed and have led to questioning the legal, aesthetic, ethical and epistemological levels of this new body practices. Art-Kor 00 will be my starting point to discuss the process of making the body beautiful in new ways with new tools, jewelry and marks, on three levels:
1) The contemporary body modifications take place in a « Do Your Body Yourself » process
2) This process can be realized thanks to what I call craftsmen and craftswomen of the flesh
3) From transgression to normalization, a new corporal order can be seen, which is always fought against by actors who create new images and invent new practices of modification.

Kristina Grünenberg, University of Copenhagen (anthropology)
Body-cartographers and infrastructures of security

This presentation focuses on the work that takes place in a biometric laboratory where different kinds of biometric technologies, based on the digitalization of body parts, such as finger veins and facial features, as well as body sounds and rhythms constitute the object of research and development. In the presentation, I argue that for example wrist veins are distilled from their fleshy messiness into a form of 'body maps' that are engendered through minute detailed practices of biometric researchers. I argue, that the vocabulary applied in biometric research related to this modality, draws on cartographic and landscape metaphors, which is rooted in an understanding of a one to one correspondence between maps (representations of bodies) and territory (live bodies). Seen from this perspective the researchers could be understood as a form of 'body cartographers' in their continuous mapping of new and unique body landscapes, and the ways in which such particular landscapes are linked to identities. What is in fact important for the researchers is the constant creative tinkering with (new) body-parts and their characteristics, with algorithmic precision, relations to soft- and hardware programs, sensors, and, at times, user bodies. In the context of this work, the lab is configured as a playground and a site for creative exploration, but it simultanously forms part of a particular type of security and identification infrastructure.

Martin Huth, Messerli Forschungsinstitut, University of Vienna (philosophy)
The body as editable Urnorm? Bodily existence, body schema and body image between technical production and recalcitrant experiences of vulnerability

In this paper, I will analyze the interrelation between the body as primal norm (Urnorm, Husserl 1950: 154), the social co-constitution of this norm (taken with and against

Husserl also as normative), and technical strategies to change bodies. First, according to Husserl and Merleau-Ponty, the lived body forms the basic I can, which can be understood as closely linked with its significance as Urnorm. The possibility of a transition into an I cannot (anymore) can be identified as vulnerability. Secondly, drawing from Butler's insight that perceptions and notions of vulnerability are socially framed, I will argue that notions of vulnerability, but also of normalcy and images of desirable constitutions imbue our (reflexive) body schema. Technological possibilities of changing bodies (anthropo-technics) interact with these frames of recognition, which, in turn, interact with individual body schemas. Thus, notions of normality, health and vulnerabilities shift (as visible e.g. in the contingency of the border between therapy and enhancement). The Urnorm is thus neither "individual" nor "natural" and in a constant flux. However, thirdly, these socio-technologically constituted frames of bodies and vulnerabilities exert power/force of normalization on us (e.g. Foucault's studies on normalcy and recent analyses in the dis/ability studies). Anthropo-technics and its social power inevitably oscillate between increasing existential possibilities and being intrusive. But, as I will argue, recalcitrant ("pathic") experiences of vulnerability thwart a straightforward socio-technical production of body schemas and connected body images.

Dorothée Legrand, CNRS Archives Husserl, Paris (philosophy)
Anorexia: The writing body

Anorexia threatens the subject of disappearance. Thus, it could be described as a manner of putting the body into absence. Yet, understanding the strength of this suffering requires to recognize another dimension of anorexia: in anorexia, what the subject suffers from is (also) the reverse of absence, the absence of absence, the over-presence which stuffs her, swallows her into a totality where no one is singular. To survive to this, she must cut, pierce, fragment the totalitarian presence that reduces any singularity to "One". Thus, anorexia is not only a way to kill oneself, but also, and at the same time, a way to give birth to one's singularity. Such anorexia would be a manner of using the body as a manner of writing, i.e. a manner of inscribing, incising a difference, a heterogeneity, a singularity. As clinicians, we must accompany the anorexic subject in this process, from a self-destructive jouissance where no others can ever be met, to the desire of a singular body for another one.

Fredrik Svenaeus, Södertörn University, Stockholm (philosophy)
Body images and affective schemas: Why empathy is hard to achieve in digital life

The testimonies of emotionally enflamed and disrespectful behaviour towards other persons in discussions facilitated by social media platforms such as Facebook are multifarious. In this presentation, I would like to make a phenomenological contribution to the debate about how and why this so easily happens by focusing upon the concept of body schema versus body image and the related phenomenon of affective resonance, which, according to phenomenologists such as Edith Stein, is crucial to establish an empathic understanding and relationship between two (or more) parties facing each other in a communicative situation. The lived body of a person picks up and attunes to the bodily expressions of others in a way that facilitates higher level understanding and respect for him or her in a conversation when we meet face to face. In the digital world of avatars and commentator fields this understanding and respect is much harder to achieve for the reason of lack of affective resonance. How should

this phenomenological concept be understood more in detail and what could serve as the replacement of lived bodily resonance schemas in the digital world?