

Chapter 6

A Cyborg Perspective: The Cochlear Implant and Actor– Networking Perception

Markus Spöhrer
University of Konstanz, Germany

ABSTRACT

The paper focuses on the man-machine relationships between the cochlear implant and its wearers as a contemporary form of cyborgization. The research object will be Michael Chorost's biographical account of his implantation and adaption to the implant. In a theoretical section an effort is made to argue that Actor-Network Theory can function as a "cyborg perspective," which allows for describing the symbiosis between the implant and Chorost as a practice of reciprocal "tuning" and the processual production of perception as a complex relationship between technical object, human body and environment. Based on Actor-Network theory's concept of "symmetry," technical object, the biochemical activities of the human body and their relation to a presumed "outside" environment are equally involved and constituted. Finally, the chapter suggests that this specific relationship can be paralleled with the concept of mediality as it has been discussed in the German-speaking academic context.

INTRODUCTION

The cochlear implant (short CI) is an acoustic subcutaneous neuro prosthesis that was designed as a techno-medical object to "restore" hearing in deaf or hard-of-hearing persons. The cochlear implant, which is inserted into the auditory canal and the cochlea in the course of a complex operation, functions as a replacement of dysfunctional inner ear hair cells. The implant consists of an outer part (microphone and speech processor) that is connected to a subcutaneous part (receiver) by a magnet implanted into the skull of the patient. Sound, which enters the external component, is processed and transmitted to the receiver, which then stimulates the cochlea with the help of specific electrodes.

Since its development in the 1950s and its successful application and commercialization since the 1980s,¹ the implant has been subject to a range of controversies. Especially the opposition between the

DOI: 10.4018/978-1-5225-0616-4.ch006

euphoric affirmation of the implant by manufacturers, medical experts and restored hearing subjects and the protest brought forward by Deaf communities generated a lot of media attention (cf. Blume, 2010). In some cases, this ethical conflict between radical and contradictory positions was even called a “Cochlear War”.²

It is not my concern to reproduce the discourses on the “discrimination” of Deaf culture (cf. Lane, 2005), the biosocial implications of hearing prostheses and the subsequent eradication of sign language (cf. Sparrow, 2005), or the presumed capitalist production of hearing subjects put forward by *Deaf* and *Disability Studies* (cf. Valente, 2011). Rather, I will focus on a discourse that recently has caught the attention of academic research: The man-machine relationships between the cochlear implant and its wearers as a contemporary form of cyborgization. The research object will be Michael Chorost’s philosophical and automedial³ account of his implantation and adaption to the cochlear implant. I will show how Actor-Network Theory can function as a “cyborg perspective,” which makes possible to describe the symbiosis between cochlear implant and Chorost as a practice of reciprocal “tuning” (Pickering, 2001) and the processual production of perception as a complex relationship between technical object, human body and environment. Based on Actor-Network Theory’s concept of “symmetry” technical object, the biochemical activities of the human body and their relation to a presumed “outside” environment are equally involved and constituted in the course of this process. In contrast to linguistic or neurological studies, I’m not concerned in how this relationship conditions and enhances “understanding” and “comprehending” of spoken language, sound or music respectively – although these are highly interesting questions. Rather, my thesis is that in the course of this process of reciprocal translation and negotiation, the fundamental condition of a subjective and individual perception of reality is produced. Additionally, in a last prospective paragraph, I will suggest that this specific relationship can be paralleled with the concept of “mediality” as it has been discussed in the German-speaking academic context.

MICHAEL CHOROST’S *REBUILT*: FROM HARD-OF-HEARING TO COCHLEAR IMPLANT HEARING

During the course of its history, the cochlear implant has both been praised as a technological “wonder,” an enhancement technology that is capable of restoring “normal” hearing in “deaf” people and criticized as a means of eradicating the rich culture of Deaf communities (cf. Niparko, 2002; Sparrow, 2004). The first perspective corresponds with the belief that most people are born with a “normal”, “healthy” and functioning body – namely the ability to hear and communicate via oral language. From this perspective, being incapable of hearing is an undesired, unnatural and “disabled” state of existence and thus needs treatment in order to prevent non-hearing people from social exclusion or psychological harm and to help them “communicate” (cf. Spöhrer, 2013a). This perspective appears to be common sense for hearing people at first glance. Thus, as philosopher Robert Sparrow (2005) puts it, “[i]t comes as a great surprise to most people in the hearing community to learn that a sizeable and influential section of the deaf community has reacted with hostility and dismay to the development of this technology” (p. 135). These Deaf communities dismiss hearing and oral speech as the “natural” and “normal” conditions of human communication and consider such an assumption a mere medical and discursive construction. In this respect, the cochlear implant as a means of normalization is a biopolitical tool of asserting power over Deaf people. According to the “Deaf perspective” (cf. Archbold & Wheeler, 2010, p. 227) hearing and deafness should both be considered social constructions alike and thus not treated as essentialist

14 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/a-cyborg-perspective/164083

Related Content

Digitalization in the Public Management: Turkish Public Institutions Example

Salim Kurnaz, António Rodrigues and Osman Nuri Sunar (2024). *Advancements in Socialized and Digital Media Communications* (pp. 135-150).

www.irma-international.org/chapter/digitalization-in-the-public-management/337945

Designing Ambient Media: A Philosophical Viewpoint of Universal Design

Moyen Mohammad Mustaqim (2014). *Digital Arts and Entertainment: Concepts, Methodologies, Tools, and Applications* (pp. 1507-1522).

www.irma-international.org/chapter/designing-ambient-media/115087

An Efficient Policy for Vertical-Handover-Based Multi-Attribute Utility Theory in Heterogeneous Wireless Networks

Mohamed Lahby and Abderrahim Sekkaki (2018). *Advances in Data Communications and Networking for Digital Business Transformation* (pp. 1-20).

www.irma-international.org/chapter/an-efficient-policy-for-vertical-handover-based-multi-attribute-utility-theory-in-heterogeneous-wireless-networks/205220

Media-Education Convergence: Applying Transmedia Storytelling Edutainment in E-Learning Environments

Stavroula Kalogeras (2014). *Digital Arts and Entertainment: Concepts, Methodologies, Tools, and Applications* (pp. 353-364).

www.irma-international.org/chapter/media-education-convergence/115024

Students' Privacy Concerns on the Use of Social Media in Higher Education

Laura Aymerich-Franch and Maddalena Fedele (2014). *Digital Arts and Entertainment: Concepts, Methodologies, Tools, and Applications* (pp. 1327-1348).

www.irma-international.org/chapter/students-privacy-concerns-on-the-use-of-social-media-in-higher-education/115076