Audiological rehabilitation in sociological perspectives

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Ph.D. Dissertation

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Audiological rehabilitation in sociological perspectives

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Abstract

This dissertation investigates Danish hearing health care and the rehabilitation of working-age people with onset hearing impairment. The focus is on the structure and function of Danish hearing health care and its impact on the hearing impaired, in terms of their experiences of the impairment and their conduct in relation to the rehabilitation service offered. The dissertation is based on a report from the Danish National Centre for Social Research (SFI) on the effect of reduced hearing on labour-market attachment and working life, which raises the ostensible issues that there is a large group who seem reluctant to acknowledge their hearing impairment, and that many hearing-impaired persons do not continue to use hearing aids after the fitting, and that those who do use them continue to report communication difficulties in everyday life. By considering audiological rehabilitation from different qualitative sociological perspectives, the dissertation brings new insights into the continuing paucity of sociological literature around hearing disability, and into the construction of hearing disability and hearing disabled identities in clinical settings.

In the dissertation, I present five articles that explore the research question in different ways. The articles are based on empirical data constructed by means of text analyses, observations, and interviews at two public hearing clinics in Denmark.

In the first article, co-authored with Agnete Parving, we trace the history of those forms of rationality that comprise the present situation in hearing clinics. The article briefly describes the history of Danish audiology during the last 60 years, starting from the 1950s when audiology became a public service. The formation of the field of audiology is framed according to Bourdieu’s conception of fields, which means that there are medical, technological, and rehabilitative subfields with different agents, roots, and interests.

In the second article, I explore the patients’ reasons for attending the hearing clinic, as up to 40 % of hearing-impaired people do not use their hearing aid as prescribed. The article describes how the reason for people seeking help at the clinic is often due to significant others who assist them in defining their ‘need’. The theoretical basis of the article is theories of normality and meanings of normality, and is based on interviews with patients.

In the third article, drawing on Foucault’s theories on power/knowledge and Goffman’s theory of interaction rituals, the article analyses 41 video-recorded encounters between audiologists and first-time users of hearing aids in two public hearing clinics in Denmark. The article identifies a ritualised pattern in the interactions, which helps explain how only some of the patients’ experiences are allowed to be brought to the audiological encounter.

In the fourth article, I explore how governmental rationalities and techniques for mobilising the elective consumer translate into audiological practice by ‘studying though’ policy. The article investigates the way in which neoliberalism can claim empirical validity and concludes that, on the conceptual level, a change has occurred from having been viewed earlier as passive clients of welfare to now being mobilised as active consumers. In present-day hearing clinics a co-presence of multilevel ways of governance has transpired and few of the hearing-impaired patients feel able to embrace the new consumer ethos.

In the fifth article, I explore how working-age people confront and handle the medical diagnosis of the onset of hearing impairment, and what it means for their sense of identity. Based on interviews with hearing-impaired people, the article describes how, in order to overcome potential stigmatisation, ‘passing’ as normal becomes predominant for the impaired. Wearing a hearing aid works against the contemporary attempt to create socially ideal bodily presentations of the self, as the hearing aid is considered to be a symbolic extension of the body’s lack of functionality.

Résumé

Afhandlingen undersøger den danske høreforsorg og rehabilitering af hørehæmmede i den erhvervsaktive alder, der skal have høreapparat for første gang i deres liv. Fokus er på struktur og funktion af den danske høreforsorg og disses betydning for de hørehæmmede hvad angår deres oplevelse af det eventuelle høretab og deres håndtering af dette i relation til rehabiliteringstilbuddet. Afhandlingen er baseret på en rapport fra Socialforskningsinstituttet fra 2006, som har undersøgt effekten af reduceret hørelse på arbejdsmarkedstilknytning og arbejdslivet. Denne rapport rejser nogle problemstillinger; nemlig at der er en stor gruppe af mennesker som er modvillige til at erkende deres høretab, at mange hørehæmmede ikke fortsætter med at bruge deres høreapparat efter udlevering samt at nogle af de, der bruger det udleverede høreapparat, umiddelbart efter fortsat rapporterer om kommunikationsbesvær i dagligdagen. Ved at betragte audiologisk rehabilitering i forskellige sociologiske perspektiver, bidrager afhandlingen med ny viden indenfor et felt, hvor kvalitativ orienteret sociologisk forskning hidtil ikke har gjort sig gældende i særlig grad, nemlig hørehæmmedes oplevelser af deres handicap og adfærd i forhold til sundhedsvæsenet.

I afhandlingen præsenteres 5 artikler, som undersøger de angivne problemstillinger på forskellig vis. Artiklerne er baserede på empiri konstrueret på baggrund af tekstanalyser samt observationer og interviews på to høreklinikker i Danmark.

Den første artikel, som er skrevet sammen med Agnete Parving, er en analyse af audiologiens udvikling i Danmark fra 1950’erne, hvor audiologien blev en offentlig ydelse. Bourdieus feltteori danner et a priori udgangspunkt for analysen. Det audiologiske felt forklares som bestående af en række underfelter, medicinsk, teknisk og rehabiliteringsmæssigt med forskellige aktører, rødder og interesser. Hvert årti fra 1950’erne til 2000’erne beskrives med hensyn til de diagnostiske, teknologiske og behandlingsmæssige emner og udviklinger, som var på dagsordenen. Professionerne og den politiske udvikling beskrives og det konkluderes, at den medicinske logik har vundet status som altdominerende i dagens audiologiske behandling og rehabilitering af hørehæmmede.

Den anden artikel er en kvalitativ undersøgelse af årsager til, at personer søger behandling for høretab og af hvorfor de ikke bruger høreapparater. Op mod 40 % af hørehæmmede, som har fået

høreapparat, bruger det sjældent eller aldrig. Årsagen til at mennesker søger hjælp, er ofte pres fra nærtstående, som er med til at definere deres ‘behov’. Det teoretiske udgangspunkt er teorier om, hvordan normalitet forstås og betydningen af normalisering. Undersøgelsen består af observationer af konsultationer og af interviews før og efter at de hørehæmmede får udleveret deres høreapparat. De hørehæmmedes oplevelse analyseres og eksemplificeres med interviewcitater. Det konkluderes, at den medicinske forståelse af behov ofte ikke svarer til den hørehæmmedes.

Den tredje artikel er en undersøgelse af mødet mellem den hørehæmmede og sundhedspersoner I forbindelse med tilpasning af høreapparater. Materialet består af 41 videofilmede konsultationer på to høreklinikker i Danmark. Målet var at se, hvordan medicinske logikker og selvfølgeligheder påvirker de hørehæmmede. Hypotesen er, at det kan medvirke til at forklare, hvorfor så mange ikke anvender deres høreapparat. Det teoretiske udgangspunkt er Foucaults teorier om magt og viden og Goffmans om mødet mellem professionelle og patienter. Der identificeres et ritualiseret mønster i undersøgelserne, som medvirker til at hørehæmmedes viden, erfaringer og subjektive oplevelser af det at være hørehæmmet affejes som forstyrrende elementer i klinikker under tidspres, der bliver målt på produktivitet og effektivitet. Tilpasningen forestår derfor ofte som et teknologisk fix, der foregår langt væk fra den hørehæmmedes hverdagsliv, hvor rehabiliteringen skal stå sin prøve. Ansvaret for at få det hele til at fungere, at lære at leve med sit høretab og at vænne sig til de nye lyde og fornemmelser lægges uden nærmere anvisninger over på den hørehæmmede.

I den fjerde artikel diskuteres, om der er sket en markedsgørelse af høreapparatområdet og om de hørehæmmede optræder som forbrugere, der udnytter de forskellige valgmuligheder, der gives dem. Analysen viser, at høreapparater er en gratis gode i Danmark og omfattet af forestillinger om rettigheder og pligter samt af forestillingen om forbrug. Ud fra analyser af observationer på høreklinikker og interviews med nydiagnostiserede hørehæmmede i den erhvervsaktive alder konkluderes, at man ikke uden videre kan gå ud fra, at de udviklinger man ser i nogle lande, vil blive kopieret i andre. For mange af de nydiagnostiserede hørehæmmede agerer ikke som aktive forbrugere, der handler ud fra rationel viden og fornuft men derimod som mennesker, der handler ud fra følelser.

Den femte artikel handler om, hvordan voksne i den erhvervsaktive alder opfatter og håndterer diagnosen høretab, og om hvad det betyder for dennes identitetsopfattelse. Undersøgelsen viser, at en almindelig reaktion blandt hørehæmmede er at prøve at fremstå som normale, dvs. ikke hørehæmmede, selvom der ofte er problemer med at høre. Høreapparatet er med til at synliggøre et handicap, som de hørehæmmede ønsker at skjule. Høreapparatet associerer også til degenerering af den aldrende krop, hvilket er en medvirkende forklaring på, at høreapparatet fravælges. Undersøgelsen består af to interviews med i alt 41 hørehæmmede mennesker med høretab. Forskellige aspekter af oplevelsen af høretab, herunder identitetsfølelsen, beskrives med hjælp af citater og analyser af disse.

Foreword

When I told people about the topic of this dissertation, a common reply was: ‘I know exactly what you are talking about; I have an uncle/father/grandmother who has been given a hearing aid and has left it in the drawer’. Everyone also recognises examples of families, friends, or colleagues whose hearing had deteriorated with age but who insist that their capacity is ‘as good as it’s ever been’. During the past three years, I have broadened my understanding of what it means to be a potential hearing-aid wearer who instead chooses to leave the aid in the drawer. I have learned about the production and management of hearing disability. I have learned that the hearing-impaired person’s self-understanding can be constructed, negotiated, defended, and resisted. This group of disabled people faces exclusion from communication. It seems that the way hearing impairment is constructed historically and discursively grounds the possibility of exclusion in the first place. Thus, hearing disability is identified in society as an excludable trait, and this applies whether or not the hearing-disabled individual chooses to become a hearing-aid wearer. I have learned that becoming a hearing-aid wearer is hard work and not just a matter of being prescribed technical aids.

I have also learned that research topics are indeed linked to social origins and, above all, to educational trajectory. It has therefore been my challenge to choose a research topic that straddles several scientific disciplines with varying traditions, habits of thought, truisms, and classificatory dichotomies to determine what is ‘superficial’ versus ‘serious’ academic work, etc. As argued by Foucault, what is treated as true or false, in social research as elsewhere, is constituted through the exercise of power.

I am pleased to have this opportunity to thank all the people who have contributed to this dissertation. First, I would like to express my gratitude to Widex A/S who has made this dissertation economically possible. I also want to thank the patients and staff at the hearing clinics for choosing to join my project. I am very thankful to Agnete Parving for sharing her extensive and historic insight into audiology. I would like to acknowledge Jaber Gubrium, Lisbeth Haastrup, Charlotte Palludan, Ulf Brinkkjær, Tine Tjørnhøj Thomsen, Lone Friis Thing, Richard Jenkins, Tine Fristrup, Marianne Eilsø Munksgaard, and Philip Sibelle for reading prior versions of my manuscript and contributing significant and insightful comments. Beth Elverdam has read the complete dissertation in the final phase and has offered essential points and helped strengthen my

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Contents

Article 1: The Field of Danish Audiology: A Historical Perspective**.** Hindhede, A. L. & Parving, A. (2009). *Audiological Medicine*, *7*(2), 84-92.

Article 2: Everyday Trajectories of Hearing Correction. Hindhede, A. L. (2010). *Health Sociology Review*, *19*(3), 382-395

Article 3: Disciplining the Audiological Encounter. Hindhede, A. L. (2010). *Health Sociology Review*, *19*(1), 100-113.

Article 4: Health Care Policies and Resisting Consumers in a Prototypical Welfare State. Hindhede, A. L. *Journal of Health Organization & Management, 25*(5), *549 - 563*

Article 5: Negotiating Hearing Disability and Hearing Disabled Identities. Hindhede, A. L. *Health: An Interdisciplinary Journal for the Social Study of Health, Illness, & Medicine,* 16(2) 169–185

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Introduction

Focusing on the largest and, arguably, the least visible disability group, the hearing impaired, this dissertation explores views and understandings of hearing impairment and treatment in a Danish context, with particular focus on working-age adults with the onset of hearing impairment. I approach hearing disability as a complex phenomenon in which elements of scientific reasoning, policymaking, professional practices, and everyday life give rise to a diversity of experiences of hearing disability.

My interest in this topic stems from the reading of a report in 2006 from the Danish National Centre for Social Research (SFI) on the effect of reduced hearing on labour-market attachment and working life (Christensen, 2006). According to this report, hearing problems affect a significant segment of the Danish population, as the proportion of hearing-impaired people is approximately 16 %. For people of working age, the proportion is approximately 11 % (Clausen, 2001). These percentages are equivalent to the estimated prevalence of hearing impairment in USA, the rest of Europe, and Australia (Shield, 2006; Sorri, et al., 2001). However, only about 5 % of the Danish population wear a hearing aid and about 100.000 people are provided with hearing aids on a yearly basis. In calculating the costs to society in connection with reduced hearing in the age group 50-64, hearing problems are estimated to cause productivity losses of DKK 2.7 billion or approx. EUR 360 million on an annual basis[1], equivalent to a loss of 11.000 full-time jobs nationally (Christensen, 2006: 38).

As the numbers above indicate and as concluded in the report, there appears to be a large group who seem to be reluctant to acknowledge their hearing impairment, or who seem not to consider audiological rehabilitation in terms of being provided with a hearing aid to be a pertinent offer. The fact is that many hearing-impaired persons do not continue to use their hearing aids after the fitting, and those who do continue to report communication difficulties in everyday life (Hickson & Worrall, 2003; Kramer, Allessie, Dondorp, Zekveld, & Kapteyn, 2005; Stephens, 2001). These issues have been cause for speculation and are the focal points of the research.

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[1] In the report, the productivity losses are measured by use of a Cost Of Illness (COI) analysis (Rice, 1966, 2000).

The aim in this dissertation is to investigate the following research question:

> *What are the circumstances in which hearing-impaired persons seem to be reluctant to acknowledge their impairment yet seek audiological rehabilitation, but ultimately decide not to wear the hearing aids provided?*

When considering this research question, I want to emphasise that knowledge is situated in the sense that the observer's perspective is always limited and shapes that section of the world one can apprehend by the senses. No claim is made to exhaustiveness; on the contrary, my discussions will be extremely selective. I have actively delimited the field of interest in order to focus on certain aspects while excluding others. This is not to be interpreted as a failure of analytical rigour. Rather it is a precondition for all knowledge making, sociological and otherwise. In consequence, this dissertation does not engage in the recognising processes of hearing impairment. Hence, an unveiling of some of the factors that mediate the adjustment process has not been examined in this dissertation and is a theme worthy of discovery on its own.

Before I proceed, I will dwell on the notion of rehabilitation. A new way, both cultural and social, of addressing disability began at the time of World War I (Stiker, 1999), and contemporary principal issues for this subject are to be understood on the basis of this inception. This new awareness of disability and, with it, rehabilitation, meant that changes in terminology, i.e. from that of damage to that of replacement, emerge in conjunction with the war. Injured soldiers shall be restored, i.e. rehabilitated through *normalisation*[2] and *integration*. The development of the *'prosthesis'* dates from that period (1999: 123). Replacement and re-establishment of the prior situation becomes a possible language. The practice of 'rehabilitation' is constructed on the idea that the maladjustment at the starting point is to be compensated for, so that the end point is adjustment (1999: 143). The (hearing-impaired) body and *'(…) its constitution as labour power is possible only if it is caught up in a system of subjection (in which need is also a political instrument system meticulously prepared, calculated, and used); the body becomes a useful force only if it is both a productive body and subjected body'* (Foucault, 1995: 26). Hence, *integration* is one of the

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[2] Drawing on Foucault, Ian Hacking claims the notion of the 'normal' identity provides a powerful framework for social life and the experiences of the (hearing-impaired) individual. He states: *'The normal stands indifferently for what is typical, the unenthusiastic objective average but it also stands for what has been, good health, and for what shall be, our chosen destiny. That is why the benign and sterile sounding word 'normal' has become one of the most powerful ideological tools of the twentieth century'* (Hacking, 1990: 169).

most significant corollaries of *normalisation*, having vast programmatic implications. Whereas cure is a removal and relates to health, rehabilitation is situated in the social sphere and constitutes replacement of a deficit (Stiker, 1999: 124).

Based on the report from SFI, we learn that the estimated costs to the nation in terms of productivity losses are significant[3] when it comes to untreated hearing impairment. We are introduced to the concept of the functional hearing sense[4]; according to the report, this explains why two individuals with similar audiograms may present with differing degrees of hearing problems in their everyday lives and ascribe different value to their hearing sense. Thus, social, cultural, and psychological factors are important elements in the individual's negotiation of a hearing impairment. The interesting question is then how does society attempt to re-establish the former situation for the hearing impaired? How are the 'needs' of the hearing impaired assessed, and what are the strategies used to integrate them into the labour force and into the machinery of production, consumption, work, and play in everyday life? How are these strategies perceived by the target group? It is extensively documented that only one-third of chronically[5] ill patients *'adhere correctly to their regimens'*, another third is *'noncompliant because they adhere to a misunderstood regimen'*, and the last third is *'knowingly noncompliant'* (Clark, 1979; Donovan, 1995; Donovan & Blake, 1992; Fineman, 1991). Hence, patient noncompliance has been the subject of extensive research in medicine and social science (Trostle, 1988), investigating both the meaning of the problem and suggesting improvements, such as the development of more open, cooperative doctor-patient relationships – often argued for as being a way to reduce the 'competence gap' (Barry, Stevenson, Britten, Barber, & Bradley, 2001; Donovan & Blake, 1992; Fischer, 1984; Mishler, 1984; Strong, 1979). Since the 1970s especially, a central stance in sociological writings on the medical profession has been 'the medicalisation critique'

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[3] See p. 10 for the precise estimates of losses.

[4] In the report, functional hearing problems are defined as follows: '*Functional hearing… identifies several aspects concerning hearing problems in that a number of other factors beyond the purely factual hearing threshold are allowed to influence the responses. This might include how the hearing impairment is coped with, the person's own acknowledgement of the hearing problem, and the amount of dependency on hearing'* Christensen, 2006: 13-14).

[5] Hearing impairment, in both the social scientific and medical literature, is almost never considered a chronic illness. The reason may be that it is not politically correct, as from an illness perspective, the majority of people with hearing impairment do not wish to adhere to the position offered, as they do not feel ill. Physiologically, though, it is a disease, which for some is treated in terms of medicine or surgery. In this dissertation, the kind of hearing impairment that my participants have is like a chronic illness, something that is not curable and instead becomes an integral and durable part of the hearing-disabled life. This illustrates the complex nature of hearing disability. As described by Mol (2002), different technologies for imagining the body make very different bodies visible, and multiple bodies are created by the varying social practices within which they are embedded. For the hearing impaired, their disability is likewise created by the varying social practices in which it takes on different meanings.

contending that social life and social problems have become more and more ‘medicalised’, i.e. viewed through scientific medicine as diseases (Friedson, 1970; Illich, 1976; Zola, 1972).

Within audiological research, noncompliance has likewise attracted much attention (Gimsing, 2008; Kricos, Erdman, Bratt, & Williams, 2007; Meister, Walger, Brehmer, von Wedel, & von Wedel, 2008; Ovegård & Ramström, 1994; Parving & Philip, 1991; Piercy & Goldstein, 1994; Surr, Schuchman, & Montgomery, 1978; Tyler, Witt, & Dunn, 2004). Hearing aids are the most common intervention in audiological rehabilitation programs, yet investigations have shown that more than 20 % of hearing aids are very seldom, if ever, in use, and that 19 % are used only occasionally (Sorri, Luotonen, & Laitakari, 1984). Reviewing the different ways hearing impairment and noncompliance have been problematised in medical audiological research demonstrates that the focus has been on aural perception, visual perception, and speech (Danermark, 1998). Usually, one finds no explicit discussion of the ontological foundation for the impairment assessment. This approach tends to be ontologically reductionist, as it does not address the psychological and social mechanisms of impairment (Danermark, 2003).

From the middle of the 1990s to the present, however, there has been a slight change of focus in the audiological research of a marginal group of mostly nonaudiologists. Their concern has been less with the compensatory side of audiological rehabilitation and more with the ‘acceptance’ and ‘coping’ sides (Backenroth & Ahlner, 2000; Cox & Alexander, 1992; Hallberg, 1992, 1996; Helvik, Jacobsen, & Hallberg, 2006; Helvik, Jacobsen, Wennberg, et al., 2006; Hétu, Getty, & Quoc, 1995; Hétu, Lalonde, & Getty, 1993).

Turning to research in the social sciences, many studies of the deaf have been produced (Becker, 1981; Cumming & Rodda, 1989; Davis, 1995; Higgins, 1979; Nash & Nash, 1981; Smith & Campbell, 1997) and how they negotiate everyday life as an out-group organised around interests, political programs, and the claim for recognition as a linguistic and cultural minority. They are typically described as a group who refuse to accept a stigmatised label but instead actively and strategically position themselves within the dominant (and also the marginalised) discourses. Accounts of people who are born able to hear and who lose their hearing in adulthood along with the ways they respond to the rehabilitative interventions offered have been infrequently approached from a social science perspective (Olaussen, 2010: 10; Bisgaard, 2008: 32; Hansen, 2008: 13;

Stratton, 2003: 4). The number of deaf and severely hard-of-hearing persons is roughly estimated to be 0.05 % of the European population (Kyle & Allsop, 1997), whereas – as mentioned earlier – approximately 16 % of the adult population of Europe have a hearing impairment for which a hearing aid could, in medical terms, provide a benefit[6].

Sociological perspectives and perspectives from the peripheral regions of sociology bring a fresh focus to the issues described. Sociological perspectives are concerned with understanding the meaning of social action, the relationship between agency and structure, and something that has been centrally organised around the issue of social order[7]. A theoretically informed medical sociology draws attention to the role of choice, meaning, and agency in the experience of impairment and disability. It is also concerned with the role of social and natural constraints in the distribution and experience of health and illness, the character of the social construction of disease entities in the power relations of society, and a consideration of the role of medical values and institutions in the regulation of disease and disorder (Turner, 1995).

In the project, I use theory to interpret findings and focus on theoretical perspectives to move both forward in the light of the empirical research. From a palette of 'possible' theories, that for me would be variants of social constructivist analytical strategies as described by Esmark, Laustsen, and Andersen (2005a). I have minimised commitment to one specific theory but have 'discovered' theories that help explain my findings.

That being said, two main theorists drawn on in this dissertation are Bourdieu and Foucault. Both Bourdieu's and Foucault's work is rooted in, and an extension of, this school of 'historicist rationalism' (Broady, 1997; Wacquant, 2006) originally presented by Bachelard, Canguilhem, Cavaillès, Koyré, and others. Many of the affinities or convergences between Bourdieu and Foucault can be traced back to this common epistemological mooring strongly influenced by Canguilhem (and, through him, Bachelard). The influence of this fundamental orientation is considered by Foucault as follows: '*Take away Canguilhem and you will no longer understand*

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[6] A high rate of hereditary deafness was documented in Chilmark in Martha's Vineyard off the coast of Massachusetts, USA, from the early-18th century to the year 1952. Spoken and signed languages were used freely and easily by both deaf and hearing residents. People moving to Chilmark had to learn sign language in order to live in the community.

[7] In my dissertation, that would comprise P. Bourdieu, E. Goffman, C. H. Cooley, S. Hall, M. Featherstone, M. Hepworth, and T. Shakespeare, whereas perspectives in the peripheral regions of sociology would comprise G. Canguilhem, M. Foucault, N. Rose, and J. Butler. These writers are further discussed in the individual articles.

much about Althusser, Althusserism, and a whole series of discussions which have taken place among French Marxists; you will no longer grasp what is specific to sociologists such as Bourdieu, Castel, Passerson, and what marks them so strongly within sociology; you will miss an entire aspect of the theoretical work done by psychoanalysts, particularly by the followers of Lacan. Further, in the entire discussion of ideas which preceded or followed the movement of '68, it is easy to find the place of those who, from near or from afar, had been trained by Canguilhem' (Foucault's foreword in Canguilhem, 1991:8).

The school of historicist rationalism, which anticipated many of the ideas later popularized by Thomas Kuhn's theory of scientific paradigms, also has parallels in my ways of working and thinking. If we choose one single formula to characterise the school of historicist rationalism or historical epistemology, the best choice seems to be 'applied rationalism' (Broady, 1997). Scientific thought must be 'applied', corrected, and developed in confrontation with an object. Hence, it conceives truth as 'error rectified' in an endless effort to dissolve the prenotions born of ordinary and scholarly common sense. It teaches that theory necessarily suffuses facts, that laws are always but 'momentarily stabilised hypotheses' (in the words of Canguilhem), and that rational knowledge progresses through a polemical process of collective argumentation and mutual control (Wacquant, 2007). It insists that concepts are characterised not by static definitions but by their actual uses, interrelations, and effects in the research enterprise. Bachelard (2002) conceives of science as a distinctive cognitive realm and employs the concept of an epistemological break. The language of epistemological breaks suggests that there exists something that must be shattered. The sciences have, according to Bachelard, to achieve ruptures with all habitual forms of thought which serve as obstacles to the progress of scientific thought. The sciences and the philosophies of science progress slowly and discontinuously by means of incessant new confrontations with old mistakes '[…] *the new experience says no to old experience; without that, by any measure, it is not a question of a new experience'* (Bachelard, 1968: 9) meaning that the obstacles and errors are inevitable in the progress of science. Common sense is a major source of epistemological obstacles. In line with this idea, Bourdieu (1993: 54) states that sociologists need to examine *'the relationship between the categories constructed by science and the categories that ordinary agents implement in their practice'*. Rigorous scientific work means that the study of systems of relations takes precedence over the study of the related elements. The subject of scientific knowledge is historically situated, linked to a specific time and a specific place, incorporated into scholars of flesh and blood who are working within the realms of different specific and relatively autonomous scientific disciplines (Broady, 1997).

Hence, have the ideas of these chosen theorists been modified by me and adapted to the situation of hearing-aid users of the welfare state, who, like other patients, navigate between a range of opportunities and limitations. My research is perspectivist, i.e. I present a frame of interpretation or a theory, and the conclusion (the case) brings forth a new interpretation of a given phenomenon[8]. This interpretation is plausible if we presuppose that the frame of interpretation is plausible (Alvesson & Sköldberg, 2009; Danermark, Ekström, Jakobsen, & Karlsson, 2002). The frame of interpretation is one of several possible interpretations and reveals one choice among many. I, as the researcher, decide among a number of possible patterns and ideas, including patients' concerns and interests, and choose the focus of investigation. As a result, the findings foreground ways of understanding audiological rehabilitation and hearing-disabled identities that may be uncommon, and vice versa. The generality of the findings lies in the proposed understandings as frames of interpretation. The analyses are generalisable to the extent that the understandings identified are shared with other sectors of the public in Denmark, in other parts of the world, or in future scenarios.

My dissertation demonstrates that the group of people in focus involves different nomenclatures. In the UK, the term 'deaf' is often used to include both totally deaf and hard-of-hearing people. 'Hearing impaired' is the commonly used term to describe inclusively deaf and hard-of-hearing people. However, in other parts of the world, e.g. in North America, the use of the expression 'hearing impaired' is a derogatory term: people are categorised as either 'deaf' or 'hard of hearing'. They are also 'consumers', 'users', 'patients', and 'clients'. Words inevitably bring meanings along with them, and my preferred choice of the word 'patient' and 'hearing impaired' in the articles may bear negative associations; however, this is how they are addressed – in the news, in the health care system, by the politicians. By this choice, I attempt to emphasise the medicalisation of being a subject[9] of audiological rehabilitation. I am not suggesting that medicalisation is not a desirable state of being, or something that should be resisted in favour of some degree of demedicalisation.

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[8] For more information on my reflections on object construction, please see 'Reflections on the dialectics between theoretical and empirical knowledge', p. 55.

[9] 'Subject' is a poststructuralist term of art: persons are subjects because they are known and self-knowing through socially preferred, enforced, and often contested modes of knowledge.

Instead, I deliberately choose to magnify the power of the medical discourse, as it is the point of departure of the dissertation.

In retrospect and when considering my dissertation, generally, I find it fruitful to draw on a discursive framework, i.e. the concept of discourse as it is understood by Foucault, which differs from the variant of discourse analysis as described by Fairclough (2001), Schegloff (1999) and others. Instead of merely considering discourse as the detailed understanding of language in action, it concerns an interest in how discourse constitutes subjects and objects. This implies that learning to live with hearing impairment constitutes a work of personal reformation shaped by competing systems of meaning, social production, and power. The idea that physical things and actions exist but only take on meaning and become objects of knowledge within discourse is also at the heart of the constructionist theory of meaning and representation of the Birmingham School of cultural studies, as exemplified by Stuart Hall (1996a, 1997a, 1997b). From here, we learn that producing meaning depends on the practice of interpretation, and interpretation is sustained by encoding meaning. For hearing impaired, particular attention is made to those representational practices that we call ‘stereotyping’, which reduce, essentialise, naturalise, and fix ‘difference’ (Hall, 1997b). The question of difference and otherness is essential to meaning: the marking of difference is the basis of that symbolic order which we call culture (Hall, 1997a: 236). Binary oppositions are crucial for all classification as one must establish a clear difference between things in order to classify them. Moreover, there is always a relationship of power between the poles of a binary opposition. The ‘other’ is fundamental to the constitution of the self.

Thus, social constructivism has proven to be very fruitful from one of the earliest and most influential statements of social constructivist sentiments (Berger & Luckmann, 1966) and continuing with the conceptual and empirical developments produced over the past four decades. Actually, the term has been used to an extent that has prompted Ian Hacking (1999) to recommend that we take stock of what ‘constructionism’ can and cannot be in its analytic and empirical ambitions. In his gradation of constructionist commitment, I might be placed in the group of *unmasking* constructivism, i.e. one who does not seek to refute ideas but to undermine them by exposing the function they serve (1999: 19-21). In the dissertation, I demonstrate that constructionism also plays an important role in the study of phenomena with more obvious social aspects. For example, in one of my articles, constructionism questions the view that technological artefacts (hearing aids) take predetermined forms in response to hearing-impaired needs. Instead, I argue that the technologies stabilise in specific forms through processes of negotiation among a variety of social actors representing the interests of science, industry, government, and hearing-impaired people.

Hacking highlights three ‘sticking points’ whereby constructionist views are at odds with naive realism (1999: 33). The first sticking point is the issue of **contingency**, which means that constructionism is most recognisable by its fundamental assertion that objects and ideas might have been otherwise than they are. Where realism posits external constraints that prevent contingent modifications in the face of historical or cultural factors, constructionism emphasises exactly this contingency. The second sticking point is the issue of **nominalism**. Where realism posits that language is rooted in a correspondence between sign and world, constructionism – at its most relativistic – holds that language refers to nothing beyond its own web of circulating signs: language refers not to ontologically real objects in an independent world but to other elements in a universe the reality of which is entirely discursive and dependent. The third sticking point is the issue of the **stability** of representations and theoretical perspectives. Where in the realist account, representations and theories are stable if they correspond to an independent reality, in contrast, constructionism emphasises social and discursive factors in attempting to explain why some representations and theories are perceived as less transient than others are.

In my study, based on ideas from the school of ‘historicist rationalism’ and applying the unmasking approach, I seek to undermine ideas by exposing the ideological or socially interested function that they serve. In doing so, I adopt perspectives as represented by Cooley (2009), Goffman (1959, 1961a, 1961b, 1963, 1971, 1983, 2005), Emerson et al. (1977; 1983), and others. They are all a product of the ‘Chicago spirit’ that flourished in the USA throughout the early decades of the 20th century and culminating in the ‘second Chicago School’ after World War II (Jacobsen & Kristiansen, 2010). As for Goffman, he has been labelled a symbolic interactionist (Smith, 1988), although he did not perceive of himself as a devoted symbolic interactionist. What Goffman had in common with symbolic interactionism was the notion that human beings communicate with each other by way of symbols that are ascribed meaning. He is also inspired by Mead and the idea of the social self through taking on a role. However, for Goffman, the ongoing ‘externalisations’ and information management and the reliance on others is part of evaluating suitable behaviour in a particular situation. According to Bourdieu (1983: 113), Goffman *'grasped the logic of the work of representation; that is to say, the whole set of strategies with which social subjects strive to construct their identity, to shape their social image, in a world, to produce a show'*.

Given the social character of hearing disability in Western societies[10], I argue for 'moderate eclecticism' and 'theoretical breadth' (Køppe, 2008; Turner, 1995), rather than the generation of narrow and exclusive positions, which in a ritualistic fashion attempt to expurgate all previous analyses and conclusions. I seek to describe, clarify, and grasp some of the competing systems at stake when it comes to hearing disability and hearing-disabled identities.

My study involves several different kinds of data and several different sites: historical sources, audiological clinical literature, anniversary publications from medical societies and deaf and hard–of-hearing societies, hearing clinics at public hospitals, meetings and seminars for staff, interviews with different representatives of the educational system for the hearing health professionals, participant observation of staff and notes, videoed observations of interactions, taped semistructured interviews, scientific and journalistic articles, periodicals, books, official records of an administrative nature, consultation procedures, information pamphlets, marketing material, user manuals, television programmes, and websites. My primary sites, in terms of the observations and interviews, are two hearing clinics connected to the otolaryngology wards at two public hospitals in Denmark, and my research covers the immediate period near the acquisition of the hearing aids.

The preliminaries thus enumerated have been necessary for me in order to expose the range of discursive constructs of hearing disability. As suggested by Agar (1980), what I accomplished can be described as a funnel approach in which I start out on a broad basis that becomes increasingly focused as the research progresses. I am first and foremost an empiricist and, overall, the empirical construction carries the most weight in my considerations of what is presented in the articles in which I strive to unmask the common sense approach and illustrate the discrepancies between what is presented/said and what is practised/performed.

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[10] The definition of the West that is put forth by Stuart Hall is '*a society that is developed, industrialized, urbanized, capitalist, secular, and modern*' (Hall, 1996b: 186). Thus, the word *Western* is not merely an adjective, but rather representative of an idea, or a concept.

From the beginning, I knew that a major part of my research would focus on patients' perception of their impairment and attitude towards the branch of the health-care system where hearing aids are dispensed. However, I had to acquaint myself with many historical texts, documents, and audiological scientific literature before this could be done. This part of my research was done in close collaboration with a colleague, Agnete Parving, who had many years of experience in audiology. We had many discussions on the history of audiology and on recent political initiatives influencing Danish audiology. We ended up writing an article on the topic together (article I), and afterwards I found my appetite whetted for this mode of expression and I decided to produce an article-based dissertation.

The formal characteristics of this type of article-based doctoral dissertation mean that for each article to be published in an international peer-reviewed journal, they need to form self-enclosed argumentative entities. Due to the form and conventions of this being an article-based dissertation, one can view constituent parts repetitions, as they are considered in correlation with the purpose of the individual article. All articles making up the majority of this dissertation are based on the empirical material. They have neither been researched nor written in order to make up a seamless whole, empirically or theoretically. Rather, each of the five articles represents their own take on some aspect of the overall analytical inquiry. To rephrase Strathern (2004: xxix), partiality only works as a connection, meaning that each article taken alone is its own totality, its own argument. The continuity can be found at the level of theoretical language employed (primarily Bourdieu, Foucault, and Goffman). It can also be found in that each of the articles reflects my research question from different aspects (please see the table that illustrates the articles).

For each of the articles, after having identified my research question, I searched the existing literature and wrote a literature review. I reviewed the main ideas and the research relating to my chosen area of interest (evidence-based medicine, rehabilitation, physician-patient relationship, noncompliance, power, governmentality, disability, identity, stigma, consumerism etc.). The purpose of exploring the existing literature was a curiosity about an area about which I knew little. I knew that there were historical origins that had a bearing on how things are at present. I focused on the following: What concepts and theories have others used in this area? What methods and research strategies have others employed in studying this area? Are there any significant controversies? Are there any unanswered research questions in this area? How does this correspond to my findings?

Before describing in detail how I conducted my data construction, I will elaborate a bit on my access to the fieldwork[11]. Conducting fieldwork in a medical institution has some particular implications. The different positions often require professional knowledge and training that the researcher in most cases does not possess. As I had been working in one of the two clinics as a research assistant for a year, this meant that I was aware of how such hearing clinics operate, at least from a bureaucratic point of view. However, it may also have had the effect of blunting my early sensitivities to subtle patterns and underlying tensions in the hearing clinic (Emerson, et al., 1995), as long-term participation possibly dissolves the initial perceptions that arise in adapting to and discovering what is important to others. The staff members had assigned to me the role of colleague, but at the same time, one who was neither physician, audiologist nor the like, thus someone who did not know much about audiology. Concurrently, they did not have much insight into the work I had been doing as a scientific research assistant. Some amongst the staff probably have perceived my study as a threat, as an evaluation of the rehabilitation services offered, and a judgment in terms of their effectiveness or ineffectiveness. Nonetheless, I was given easy access to the field, to patients' journals, etc. by management. From the patients' journals. I read only the discharge summary of the consultation with the physician where it was stated whether the patient was a first-time user of hearing aids, and if the patient had needed an interpreter during the session[12].

Presentation of the field – *sites, techniques, informants, and data construction*

The following is a short description of the different phases of data construction described chronologically. Participant observations occurred concurrently with the video recordings of hearing-aid fittings. Thus, it was the video recordings of first-time users of hearing aids that

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[11] With the notion of the field is assumed not a pregiven object that can be entered but instead something that emerges during the process of the research design.

[12] Later (a year after), I consulted patients' journals again to obtain information on their use of postrequisition offers.

determined when I could conduct observations. Next, I present a summary of the five articles. Later in ‘Reflections on the dialectics between theoretical and empirical knowledge’, I will present a more detailed discussion of the method of qualitative analysis, in particular in relation to the video material, to show how the themes emerged, and the limitations of the methodology. This will be followed by discussions across the articles of emerging themes emanating from my analyses to keep in mind while reading the articles, which remain, after all, the main body of the dissertation.

The three phases of data construction (where phase two and three intermingled temporally) are as follows:

1. The first half-year of my study time was spent reading historical texts concerning the articulation of hearing impairment to explore what kinds of connections and relations initiated contemporary ways of thinking, acting, and judging about the hearing impaired and hearing impairment. As the history of hearing impairment apparently was closely related to the development of otology and the knowledge of the physiology and pathology of the ear, this was also a focus in my readings. I found very little on deafness and its treatment in ancient civilisations. I gradually moved forward in time. I read almost everything I could get hold of concerning historical descriptions of the deaf, the handicapped, poorhouses, etc. Later, my reading also included information from the homepages of organisations for the disabled: recommendations, white papers, and minutes of meetings of the Society of Danish Otolaryngology (Dansk Otolaryngologisk Selskab), the Danish Association of the Hard-of-Hearing (Dansk Tunghøre Forening), Tunghøres Vel, and the Danish Medical Society (Dansk Medicinsk Selskab). Thus, in the beginning I was focused primarily on the Danish context.

   These analyses have taken up Atkinson and Coffey’s (2004) invitation to explore how documents are significant for what they are supposed to accomplish and for whom they are written. When reviewing the documents (a very heterogeneous set of data), I sought to examine the context in which they were produced and their implied readership. When analysing e.g. minutes of meetings, my focus was on issues raised at the meeting, the discussion of those issues, views of participants, and actions to be taken. Minutes of meetings are likely to be written with a prospective scrutiny by others in mind. Therefore, disputes may have been suppressed. Thus, documents have a distinctive ontological status in that they form a separate reality and should be recognised for what they are – texts written with distinctive purposes in mind.

Besides reviewing historical texts, I conducted a literature study with a cursory review of the journals *British Journal of Audiology* (published from 1967), *Scandinavian Audiology* (published from 1972), and *Journal of the American Audiology Society* (published from 1975). Later on, the journals *Audiology*, *American Journal of Audiology*, *International Journal of Audiology*, and *Audiological Medicine* were published. The aim of the review was to obtain an overview across the journals and within a span of time on topics that had been of interest, disputes, disagreements, etc.

2. The second half-year, I conducted participative observations, video recordings, and interviews. The video recordings will be described in paragraph 3 below. The participant observations took place over 1-2 days some weeks; other weeks were skipped completely[13].

3. In the part of the project where I expose the particulars of the dispensing of hearing aids, there are five points of entry. This part of my project has been reported to and approved by the Danish Data Protection Agency as it consists of patient referable data. It follows the specific technical, rational, and chronological way constructed by the system illustrated below, with the points of entry displayed as red arrows.

   When a person has been individually assessed and is considered to be a hearing-aid candidate by both their general practitioner and an ear, nose and throat specialist, the patient gets an appointment for the fitting of their hearing aid. The conditions under which the patient can be rehabilitated are in relation to World Health Organization (WHO) standard indications for the provision of hearing aids (WHO 2001), rationally set out by the state and the result of political disputes over the spending of money on health care. The process can be constructed as a model in 5 steps. Being diagnosed as having a hearing impairment that results in the prescription of a hearing aid is treated in a specific technical, rational, and chronological way where everything is connected:

   1: There is a **population with varying hearing function**. This information stems from epidemiology and the study of the distribution and change in diseases. This leads to:
   2: **Assessing this population by means of screening**. Adult-onset hearing impairment ranks 15th amongst the leading causes of the Global Burden of Disease (GBD), and 2nd in the leading causes

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[13] These observations were conducted concurrently with another point of entry, i.e. the observations and interviews with patients described under paragraph no 3. It depended on when newly diagnosed patients of part three of the project had time for consultation.

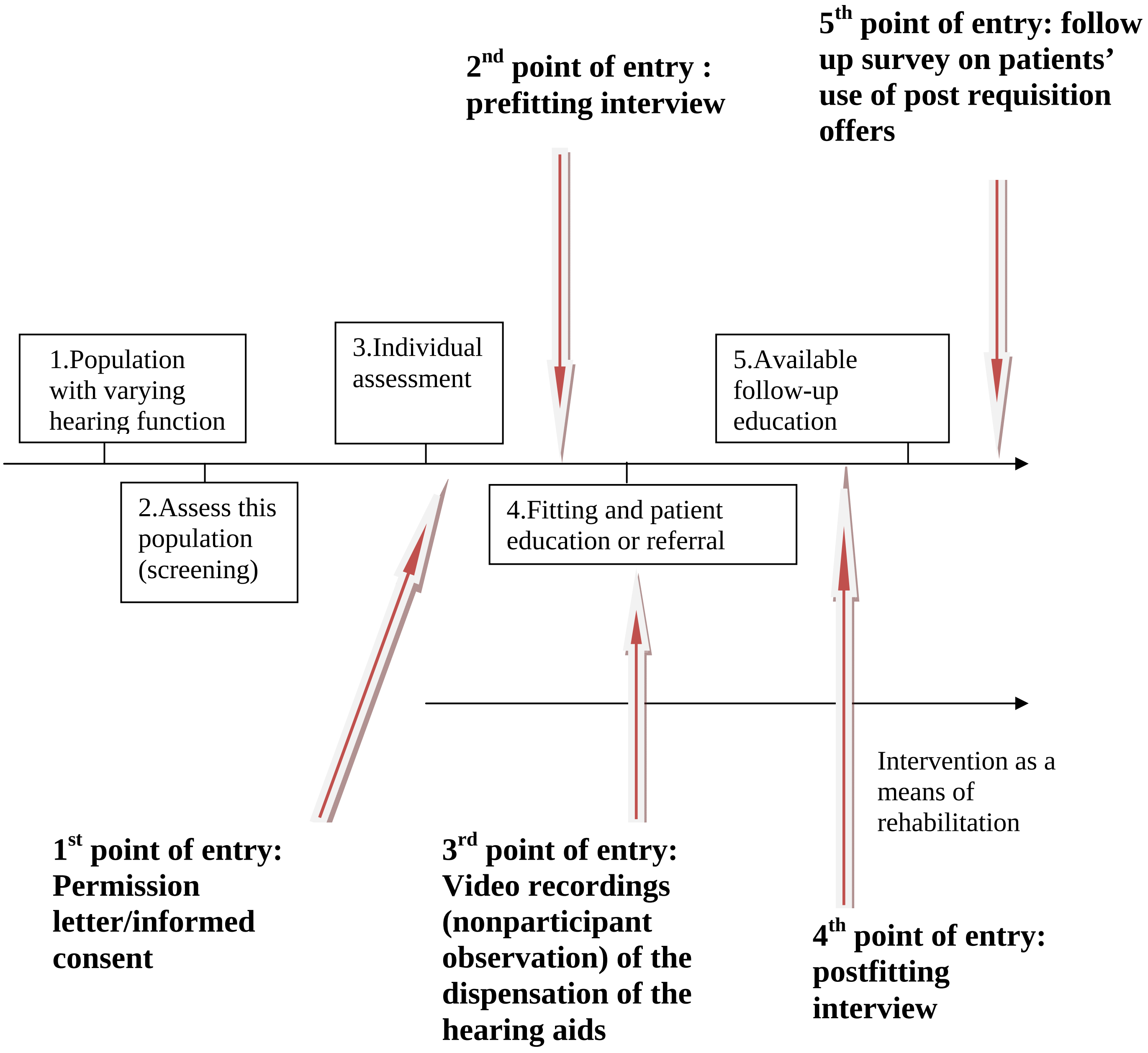
of Years Lived with a Disability (YLD) (Vio & Holme 2005; WHO 2002). However, the percentage of people with hearing aids is very much lower than the 16 % predicted to ‘suffer from a hearing loss’ from a clinical point of view (Sorri, et al. 2001). In other words, only part of this population chooses to go to the hearing clinic. This leads to:

3: Individual assessment from an ear, nose, and throat specialist with an examination of the ear (otoscopy), audiometry (measurement of hearing), and prescription for a hearing aid. This leads to:

4: Hearing-aid dispensing and fitting and patient education in the use of the hearing aid or referral. This may lead to:

5: Follow-up patient education

Figure 1: The implicit audiological trajectory of impairment and intervention



The five red arrows illustrate the different points of entry and consist of:

1. Approximately 8 weeks before the dispensing: Permission letter/informed consent
2. The same day of the dispensing: Prefitting interview (10-20 minutes)
3. Immediately after the prefitting interview: Video recordings (nonparticipant observation) of the dispensation of the hearing aids (45 minutes)

4. 6 weeks after the dispensing: Postfitting interview (20-60 minutes)
5. One year after the dispensing: Follow-up survey regarding patients' use of postrequisition offers

The following is a description of methodology concerning this part of the project. My reflections in relation to choice of methodology follow on page 53.

First point of entry: Permission letter/informed consent: Patients show up in the audiological clinic when referred from their general practitioner. In this pre-encounter, they are individually assessed, have hearing tests, and are provided with a diagnosis. If the physician decides that hearing aids are the appropriate treatment for their hearing impairment, they are placed on a waiting list. From that waiting list, I made a consecutive selection of patients. The criteria were that they were first-time users, of working age, and could speak and read Danish[14]. Patients were contacted by letter 4 weeks before the dispensation of hearing aids, and they were asked to join the project and to fill out a permission letter (informed consent). In the letter, I presented myself as a master in education and a Ph.D. fellow. Over the 6 months, a total of 58 people were contacted. Seventeen of them declined, and I have no data on reasons for not wanting to be part of the project.

I might have been able to paint another picture of e.g. the group of young first-time users, the group of women compared with men, or the group of immigrants, had I aimed at conducting a strategic sample instead of a consecutive. However, at the time I did not know what to anticipate. Hence, the random sample of 41 participants who chose to join my project ranged in age from 20 to 70 years, with a mean age of 56:

Age in years	20-30	31-40	41-50	51-60	61-70
number	1	4	8	7	21

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[14] In my project, I had not budgeted either for an interpreter(s) or for information material to be interpreted into several languages. Hence, participants' knowledge of Danish was decisive for their participation, since I consider a lack of language fluency to be a complicating factor with difficulties in separating the problems of hearing impairment from a lack of language comprehension.

The group consisted of 21 women and 20 men[15]. Two of the patients were immigrants from Eastern Europe, two patients were German, one patient was Dutch, and the rest were ethnic Danes. There were no criteria as to degree of hearing impairment. Some were classified as having mild to severe hearing impairment, while others had hearing impairment that differed for each ear. The functional and biological issues associated with hearing impairment are inconsequential to this project, as I was interested in patients' subjective experiences. In addition, it is well established that self-perceived hearing disability has little relationship to measurable hearing thresholds (Eriksson-Mangold & Ringdahl, 1992; Garstecki & Erler, 2001). Another aspect is length of time that this group had lived with their impairment. Within rehabilitation research, one finds discussions about the different phases in the receptivity and adaptation period (Engelund, 2006; Gullacksen, 2002). However, research has shown that there is no correlation between the onset of hearing impairment and self-reported problems in relation to this (Danermark & Coniavitis Gellerstedt, 2003: 136). My group varied from having no sense of having hearing problems to having been aware of hearing problems since late childhood, with a mean time for awareness of 5 years.

According to patients' journals, they had not entered the hearing clinic with a range of other diagnoses. Yet ten of the patients told me that they suffered from tinnitus to varying degrees. A consideration of this aspect is beyond the scope of the dissertation. They were all fully functioning working people and represented a range of socioeconomic backgrounds. As for the audiologists, ten were asked to join the project and two of them declined[16]. The eight remaining were six men and two women ranging in age from 29 to 58 years. On the day of the dispensing of the hearing aid, patients were allocated to those among the audiologists who had consented to being video-recorded.

Patients agreed to their data being used as long as anonymity was preserved, and to that effect, names and identifying information have been changed in the articles. Both staff and patients were advised that the recordings would be kept confidential and would be viewed by only my research colleagues, including my two supervisors, and myself. As mentioned in the report from the Danish

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[15] Men are often described as having auditory functions that are less sensitive than those of women (Gates, Couropmitree, & Myers, 1999), and they become progressively less sensitive as they age. These changes in the man's hearing have been attributed to greater exposure to environmental noise (Henry, 2004). This subdivision, though, is not reflected in my group of patients.

[16] Actually, a whole group of audiology technicians in hospital no 2 where I video-recorded hearing aid fittings decided collectively not to participate in my project. Two differently educated groups of staff were doing the same job (fitting hearing aids) and only those with a 5-year university degree accepted the invitation to join my project. This indicates that there might have been potential conflicts amongst the two groups regarding who was best suited to do the job and that having their work being video-recorded would put them in danger.

National Centre for Social Research (Christensen, 2006), many never seek audiological help, which means that the estimated prevalence and incidence of hearing impairment is higher than the number of people who show up at hearing clinics. Thus, my choice of selection procedure means that the group of people who do not seek audiological help, despite having a medically defined hearing impairment, are not considered in my dissertation.

Second point of entry: Prefitting interview: To follow up on the permission letter, I repeated that I was a researcher in social sciences and that I did not have much knowledge about audiology or hearing aids. Based on a semistructured schema (see attachment 1), I conducted a short audio-recorded interview (lasting approximately 15 minutes) with the patient in a vacant room in the hearing clinic just before the hearing-aid fitting. Not all questions were asked of all patients, and not all questions were phrased in the same way or delivered at the same stage in each interview.

As all patients had impaired hearing, this may be considered a practical challenge. Poor hearing e.g. might make a person less willing to be interviewed. However, I aimed at speaking slowly and clearly, and this worked out well. In these interviews, I sought to learn about the patient's decision about their commitment to, and experience of, the rehabilitation program on offer.

Primarily because of limited time (patients had told me that they would join my project as long as it would not extend their stay at the hospital longer than anticipated), I asked the patients to fill in a questionnaire about socioeconomic aspects of their lives[17]. In this questionnaire, they were also asked about social support resources, frequency of social interaction, and availability of a confidant/-e. This is a part of my research with which I have dealt only tangentially in some of my articles. The more biographical aspects of the patients are dealt with in the articles only where it is activated by the specific situation.

Third point of entry: Video recording of the fitting and dispensation of hearing aids: the hearing-aid fitting is where the patients are provided with hearing aids with the aim of reconstructing their soundscapes. I was concerned about the ability to simultaneously record both patient and audiologist interaction. Observation takes on different aspects according to how one is

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[17] Three of the patients chose not to fill out the questionnaire, as they considered questions on socioeconomic matters to be intrusive.

positioned within the room. Only by seeing the fitting encounter (which included a patient, sometimes a significant other, an audiologist, and sometimes a trainee) from the perspective of all patients could I come to understand the interaction order (in some situations also the motivations and meanings that underlie their participation). Thus, instead of using observation in the more traditional way with me in the room as an observer noting down what I saw, I chose to video-record the interactions. As the fitting rooms were quite small, it would have been difficult for me to be able to see both the face of the audiologist and of the patient without the use of cameras. Therefore, I placed two cameras in the room: one focusing on the audiologist (and the trainee if one was present) and the other focusing on the patient (and the significant other if one was present). I turned the cameras on once the patient was seated in the assigned chair, and then I left the room. After the recordings were completed, with the use of a software program (*Corel Video Studio*®), I mixed the audiologist and patient camera images into a split-screen video record in which the actions of the audiologist had an inset (top right-hand corner) of the actions of the patient at that particular time. This combined video record allowed the actions of the patient to be seen in relation to the actions of the audiologist.

Fourth point of entry: Postfitting interview: Subsequent to the prefitting interview and the interaction observed during the hearing-aid fitting on the video recordings, the postfitting interview was conducted 6 weeks later, following the fitting and dispensation of the device[18]. In Denmark, as I will demonstrate, the public sector considers this type of service audiological rehabilitation. As described by Kramer et al. (2005), it corresponds with similar services offered by most European countries in which audiological rehabilitation likewise is restricted to hearing-aid fitting only. Supporting this argument is Hogan (2001: xi), who recounts his experiences from the Australian continent. He describes in the introduction of his book concerning psychosocial rehabilitation for deafened adults how the hearing impaired he met: '*...had sought out every form of help they could find, and spent all they had on expensive hearing aids, but to no avail. They had been left to fare as best as they could in the world without adequate assistance and support. Hearing loss had*

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[18] The preliminaries unveiled that all patients are explained that becoming a new hearing aid wearer is a process requiring 6 weeks to take place and that prolonged and repeated exposure to amplified sound enables the brain to learn better and understand amplified speech during this time. It is emphasised that the patient should wear the aid long enough to allow the medically defined acclimatisation to occur, i.e. that the abnormal sound will eventually be perceived as the new normal sound. The arguments for increasing use are that without audio stimuli, the brain forgets how to interpret the meaning of sound. This information is based on the work of Stuart Gatehouse (1992) and by staff members who call this 'the Gatehouse effect'; it is treated in further detail in articles II and III.

devastated their lives and left them on the margins of society as impoverished, isolated, and broken people'.

The timeframe for what is considered audiological rehabilitation in a few other countries – e.g. in Sweden – might differ from this very short period (for further information on this topic, see attachment 2 concerning Stratton's dissertation on audiological rehabilitation in Sweden). Nonetheless, when I discuss rehabilitation in this dissertation, I follow a – if not global – then at least a Danish political-administrative construction of the concept. I will return to this issue in the conclusion.

I used a very flexible and responsive structure when questioning patients regarding the use of the hearing aid, benefits, problems, etc. These interviews lasted from 20 to 60 minutes. Those that lasted longer were with a female interviewee. The aim was to explore the everyday trajectory of impairment and intervention, and the video recordings were used as an opening for the interview to stimulate patients' reconstructive accounts of the encounter events: What did the patient receive from the training given and what did it mean to him/her? Specifically, in relation to the dispensation, which components were experienced as useful to the patient? Which phenomena were focused on? Were the aids used? How and when?

The postfitting interviews were conducted by telephoning the patients after working hours in their homes. Telephone interviews were chosen, as the piloting of three preliminary interviews showed that the patients gave consent provided that they did not have to come to the hospital. Thus, after having conducted the prefitting interview, I asked patients to provide me with a phone number and a time of the day when I could reach them. I told them that the postfitting interview would last up to one hour and all stated that they then preferred to be phoned at home in the evening and all gave me their home number. Some of the participants were called several evenings in a row before I finally reached them.

All postfitting interviews were tape-recorded by the use of special equipment provided by the hospital and transcribed by me over the following days.

Fifth point of entry: Follow-up survey on patients' use of postrequisition offers: By use of a database at the hospital, I tracked how many of the patients had contacted the hearing clinics a year after the provision of hearing aids. I was allowed to see the patient's journal of those who had made contact in which the purpose and the outcome was described by the health professional involved, whether that was a physician, an audiologist, a psychologist, or an ear mould technician. It turned out that one out of the 41 patients in my study had contacted the communication centre for additional instruction, and 8 patients had contacted the hearing clinic for a readjustment of their hearing aids. Thus, the number of follow-up visits was limited to 25 %.

Summary and discussion of the articles

The following is a table that illustrates the five articles. A concrete aim and focus is given for each of the articles. These different aims emanate from the issues emerging from the report and the overall research question. There flow a couple of cues on the theoretical perspective presented in the article, after which there is a short description of which part of the data construction is used in the article, and finally the major findings are presented. The idea of the table is to create an overview and to illustrate how the articles can be considered as a whole before presenting them in further detail one by one.

The articles are presented chronologically as they were produced. For each of them, the aim of the article is described, and which aspects of audiological rehabilitation I problematise in relation to the research question and how – from a sociological perspective – I provide the reader with a new and different perspective on the subject. Then – after a short description of my findings in the article – I discuss and elaborate on emerging themes. As these differ from article to article, the discussion length of each article varies.

Title	**Article I:** **The field of Danish audiology: a historical perspective**	**Article II:** **Everyday trajectories of hearing correction**	**Article III:** **Disciplining the audiological encounter**	**Article IV:** **Health care policies and resisting consumers in a prototypical welfare State**	**Article V:** **Negotiating hearing disability and hearing-disabled identities**
Author	**Anette Lykke**	**Anette Lykke**	**Anette Lykke**	**Anette Lykke**	**Anette Lykke**

	Hindhede & Agnete Parving	**Hindhede**	**Hindhede**	**Hindhede**	**Hindhede**
Journal	Audiological Medicine: 2009; 7(2): 84-92	Health Sociology Review: 2010; 19(3): 382-395	Health Sociology Review: 2010; 19(1): 100-113	Journal of Health Organization and Management (accepted)	Health: An Interdisciplinary Journal for the Social Study of Health, Illness, and Medicine (accepted and forthcoming)
Aim/focus	A description of the formation of Danish audiology during the last 60 years from the establishment of the national hearing health services. Focus is on the key technical developments affecting the clinical field, the roles played by consumers and politicians, and the accompanying development within training and education	The paper queries 'hearing impairment' and 'noncompliance' and explores diverging sound reasons for seeking audiological rehabilitation, and, in addition, the sound reasons for using the hearing aid or not	The study examines the everyday interaction between the audiologist and the patient when hearing aids are being provided	The study discusses whether the political logics of neoliberalism have supplanted the Danish hearing health care, as Denmark is originally based on ideas about rights and obligations as a welfare state	The study explores how working-age adults confront the medical diagnosis of hearing impairment and how they negotiate hearing-disabled identities
Theoretical perspective	Bourdieu's writings on fields with struggles over e.g. scientific reasoning	Emerson's writings on the micropolitics of trouble. Canguilhem's writings on the normal and the pathological	Foucault's writings on surveillance and disciplining. Goffman's writings on interaction rituals	Foucault's and followers' writings on governmentality. Mauss's writings on gift economy	Hall's, Butler's and Goffman's writings on identity. Disability theory (Shakespeare and Oliver) and ageing theory (Hepworth and Featherstone)
Methodology/data	Historical analysis	The article	By use of the	Policy analysis in	On the basis of pre-

basis	with focus on the emergence of audiological expertise as mode of authority. Historical texts and reviews of audiological scientific journals are used as data	examines two discursive frameworks (the implicit audiological trajectory and the everyday trajectory) and their constitution of (hearing) problems. Documentary material and prefitting and postfitting interviews are used as data	video recordings of the fitting encounter, an analysis is conducted of the structural level of rehabilitation practice where the audiologist becomes the translator between social needs and technical solutions; between the ear, hearing aid and patient's everyday life	terms of studying through policy between individuals positioned differently in relation to a Danish hearing health policy, and exploring the divergences as regards embeddedness in social practice and the policies' effects on their intended targets. Documentary texts, participant observations of everyday practice in the hearing clinic and physician/patient interactions plus prefitting interviews are used as data	and postfitting interviews, the paper explores hearing-impaired subjectivities ontologically (of habits, of will, of emotions) and how hearing impairment threatens the stability of social interaction
Findings	Formation in the diagnoses of hearing disorders and development of hearing aids is stimulated by conflicts in the audiological field based on the capital internalized in the	The paper concludes that norms of disease are complex and epistemologically contested and can help explain why noncompliance is dominant when it comes to hearing rehabilitation for	The epistemic standards in the clinical settings constitute the audiologist as the knowledgeable expert and facilitate the flow of authority and accountability. Bureaucratic time	In Denmark, there has been a process of reform that could be analysed as governing at distance. Many hearing-impaired patients resist the consumer role on offer	A common reaction among the patients is to pass as normal, i.e. not hearing impaired. The rehabilitation technology in form of a hearing aid visualises the disability that the patient attempts to

	actors and their positioning in the field. The modern hearing health care system has a strong reliance on medical scientific rationality	hearing-impaired adults	imperatives preclude patients' subjective experiences. It is very effective as everyone leaves with a hearing aid		conceal and are thus considered as stigmatising technologies

I. The field of Danish audiology: a historical perspective co-authored with Agnete Parving, is an attempt to trace, in very concrete and material form, the actual history of those forms of rationality that comprise the present in hearing clinics. Based on historical texts and reviews of audiological scientific journals, the contribution briefly describes the history of Danish audiology[19] during the last 50-60 years from the establishment of the National Hearing Health Services (NHHS) in 1951. Instead of a conventional historical analysis that presents events in a linear progression, celebrating grand moments and great individuals, we attempt to establish a historical knowledge of struggles and to make use of this knowledge as explanatory of present truisms. The aim of the article does not attempt to deny the kind of 'objectivity of knowledge' that is sought within audiology but instead to describe how such a construction acquires the status of truth[20]. The choice to describe the development over decades is not based on a comprehension of scientific medical practice as a constant and homogeneous progress of the accretion of knowledge. Instead, by drawing on Bourdieu, the aim has been to reveal the underlying conflicts and competition within the audiological field decade by decade, revealing those points in which different interests have been at stake. This approach allows for constructing results in a historical account whereby each section focuses on scientific developments emerging as alliances and conflicts between claims of authority and their subsequent impact on rehabilitative audiology and the different

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[19] The first published appearance of the words *audiology* or *audiologist* was in *'Journal of Speech Disorders'* in 1946 and in *'The Volta Review'* also in 1946 (Berger, 1976).

[20] I am standing on the shoulders of the giant Foucault and his tracing of the development of the medical profession and medical hospitals (*The Birth of the Clinic*). His most basic injunction is to think of clinical settings not as they present themselves – as places of treatment and cure – but as scenes in which subjects are being created, so as to fit into relations of power. Foucault describes regimes of truth as *'types of discourses which it accepts and makes function as true; the mechanisms and instances which enable one to distinguish true and false statements, the means by which each is sanctioned...the status of those who are charged with saying what counts as true'* (Foucault, 1980: 131).

conceptualisations of hearing impairment. They illustrate how the myth of present audiological scientific reason is not merely logical and rational but also complex and contradictory.

Following from the article, the social conditions of possibility for audiological knowledge to emerge are practical and institutional, involving a collection of persons in particular places and their organisation within particular practices. My argument is that what audiology and audiological rehabilitation is today is – cf Rose (1999: xv) – the outcome of controversies and disputes over truth that involve the deployment of arguments, prestige, cultural intelligibility, and practicability.

Discussion and perspectivism on article I

Audiology and scientific reasoning

This article stands out from the others, as it was written for a medical journal with a specialised readership (physicians and audiologists) and with specific, formal requirements, i.e. limited word count, which affected the product. One implication is that we have prioritised the description of social conditions of possibility of (formal) knowledge. This entails that Bourdieu's concepts are used a priori and not directly in the survey of the decades by mentioning the principles of logic and experimental methods that are called into question, together with the rules of argumentation and settling a conflict. Thus, I realise that the analysis indeed would have benefited from a more thorough analysis of both the theoretical aspects of the concept and of my findings in light of this application. I will discuss in more detail the struggles involved in the formation of the Danish audiological field in 'Reflections of the transformation of the audiological field' p. 76.

The evidence-based movement

The evidence-based movements introduced in the 1990s and presented in the article as a premise for the whole discussion have exerted strong influences within the health care profession in general codifications of practice, such as clinical guidelines with which physicians must comply. At present, governments in North America, Britain, Western Europe, and Australia fund institutions that commission research, collate evidence, and produce evidence-based guidelines, and physicians are encouraged to use these findings in their clinical practice (Wahlberg & McGoey, 2007).

When evidence-based medicine (EBM) was introduced by Cochrane (1972), contributing to the collecting and collating of ‘current best evidence’, it was concerned not only with ensuring that individual patients were offered the most effective treatment but also that the national health delivery systems worked as efficiently as possible. Therefore, treatment guidelines, i.e. those present in the hearing clinics are informed not only by ‘current best practice’ but also often by judgments about ‘cost-effectiveness’. EBM remains a professionalising strategy through its potential to control the indeterminate relationship between physician and patient. This article illustrates this indeterminacy. We learn that several struggles over clinical truth occurred in each of the decades during which the practices described represent particular standpoints in relation to other practices and were subject to negotiation, opposition, struggle, collaboration, or isolation. The results that were eventually accepted as evidence depended on the ontologies enacted in these particular practices.

Cochrane challenged diagnostic and therapeutic practice outcomes based on indeterminacy. His methodological strategies are developed within and have contributed to struggles over hegemony and authority in both medicine and health care. It was precisely this doubt that made the concept of evidence a basic concern (Jensen, 2007). From a field perspective, EBM’s rise can be linked to a shift from a form of collegiate control of autonomy to one exerted by the state. Thus, truth is the set of representations regarded as true because they are produced according to what is agreed on in terms of the principles of verification (Bourdieu, 2004: 72). We argue that EBM is a state-based control strategy that claims to reduce uncertainty by identifying economically effective interventions and by removing economically ineffective treatments from clinical practice. Therefore, it critiques and challenges physicians’ previously dominant ontological understandings of clinical practice in the audiological field. In addition, it can be seen as a mechanism for lending an illusion of objectivity to what are essentially ‘political’ decisions. This reallocation of power in the audiological field will be discussed in further detail in the section headed ‘Reflections on the transformation of the audiological field’ on page 72.

II. Everyday trajectories of hearing correction is an article based on documentary material and interviews with participants where I set out to explore patients’ reasons for attending the hearing clinic, as some seemingly decide in advance not to use the hearing aid they require. The article describes how, within audiological research, noncompliance has attracted much attention, as investigations have shown that more than 20 % of hearing aids are very seldom, if ever, in use and 19 % are used only occasionally. The article deals with this noncompliance by focusing on what meets the patient when he/she enters a rehabilitation program and submits their hearing to professional tests, assessments, and treatment by the provision of hearing aids. The result of the struggles described in article I is *'the implicit audiological trajectory of impairment and intervention'* comprising: 1) free access to a clinical examination by the general practitioner who 2) refers the patient to the ear-nose-throat specialist, who 3) assesses the hearing, followed by 4) the provision of free hearing aids, batteries, and assistive devices if they are considered the appropriate treatment following the patient's diagnosis[21]. Hence, the processes and practices, the cognitive and technical skills, the empirical investigations, and the ethos of inquiry and correction are put together and made to work in 'the implicit audiological trajectory of impairment and intervention'.

To consider audiological noncompliance from a sociological perspective, I suggest there might be a primary 'diagnosis' that is not medical. For the patient need is often not embedded in anything audiological, and she/he does not feel ill. This brings up the question of definitions: when is a disease not a disease? Is it valid to talk of a person being ill without having a disease, or of having a disease without being sick? These questions are addressed by Canguilhem (1991) who is the first to take up the theme of discontinuity as a critique of overly rationalistic views of history (Foucault, 1994: 470). According to Canguilhem, the normal is symptomless and is not perceived. Only the pathological draws our attention, and through disease, we appreciate the normal. Nevertheless, the pathological is defined as a deviation from the normal. What then is normal, and when does a deviation from it become pathological?

The criteria in relation to which hearing-impaired individuals come to be seen as a problem has to do with noncompliance in terms of their willingness to acknowledge that they have a hearing problem, rejection of wearing the hearing aids provided, or of their using them less than is prescribed. Normalisation is achieved by following the implicit audiological trajectory of hearing correction and adaptation to biomedicine, hearing aids, and the welfare support made available. As described in the article, when people present at a hearing clinic for assistance they are not just seeking a hearing aid, they are seeking assistance both for the dilemmas they confront in daily

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[21] Newly diagnosed hearing-impaired children are then enrolled in rehabilitation programs, but for adults there is nothing of this kind.

living and to normalise their lives. To be sure, they are not returned to the prior situation. Instead, they are rehabilitated into a new soundscape to which they must become accustomed.

Discussion and perspectivism on article II

The lure of objectivity

According to the aforementioned report from SFI and from '*the implicit audiological trajectory of impairment and intervention'* of hearing correction, it is clear that people's lives are quantified in terms of the cost to the nation. Such health service research relies heavily on statistical expertise in coming to know and intervene in the health and health care of populations. Numbers reflect – according to Porter (1995) – a technology of distance. Their authority derives from their capacity to create and overcome distance, both physical and social. Numerically based forms of knowledge are of growing popularity in health-care reform initiatives and have increased significance for the contemporary governance of social life (Mykhalovskiy, 2001). The ability to create new units of people and to construct relations amongst people and entities that have never before existed (e.g. noncompliance in relation to the use of hearing aids), and to absorb uncertainty and suppress distinctiveness are modalities of power. In remaking the world, numbers remake the subjectivities of those who inhabit it: once official statistics are in place (e.g. costs to the state in terms of lost productivity), it is expected that people's behaviour and identities will conform to their use. An example of a numerical orientation and a calculative practice of crucial impact is the amount of time (i.e. 6 weeks) that the new hearing-aid wearer should expect to elapse before acclimatisation to the new hearing soundscape occurs (the 'Gatehouse effect').

This also implies that if what the patient knows of a hearing disability is that he/she should go to the physician and get a hearing aid, that is also what the patient sees as his/her possible action once they sustain a hearing impairment. The patient is expected to be the active carrier of the medical discourse and through compliance, he/she subjects him/herself to the position that the medical discourse assigns to the individual. Viewed from the communication partner's perspective, the individual may appear to be in denial. However, for some it is not a question of denial but instead of lack of self-experienced hearing problems. Because the distinction between the normal and the pathological is both implicitly and explicitly normative, the potential stigma that surrounds hearing impairment has arisen in simultaneity with that clinical distinction. As described by Canguilhem:

‘*Every preference for a possible order is accompanied, most often explicitly, by aversion for the opposite order*’ (Canguilhem, 1991: 240). Thus, hearing disability becomes discursively constituted as a physical deficit and – simultaneously – as an invalid social position. Thus, when trying to normalise the hearing impaired through compensation for hearing loss, the hearing health professionals are involved in the execution of social control, as they engage in mechanisms that guide people’s adherence to norms of appropriate behaviour. Moreover, they endeavour to regulate which identities are socially appropriate. These situational constraints reflect macrosocial structures, meaning that patients are constructed in particular ways to allow them to pass through the system and be normalised by strategies of a political-administrative definition of rehabilitation.

A matter of motivation?

As mentioned in the article, Gatehouse (2003) suggests that an understanding and manipulation of motivations are part of the rehabilitative process. Is the collision between the two discursive frameworks simply a question of misrepresentation of the group of newly diagnosed adult hearing-impaired people? It may be that the group of people I surveyed gave a different assortment of reasons for attending the hearing clinic than I would have received had I chosen one public clinic and one private. Would I then paint another picture in terms of such factors as motivation, user satisfaction, etc.? Some might say that it is the worst possible group I could have ended up with: a group of people who accept waiting up to 2 years, who in terms of age are presumably less orthodox than the majority of older people who are being provided with hearing aids, etc. These aspects are dealt with in further detail in article IV in which I investigate the consumer ethos among hearing-impaired patients and their motivations for the choice of a public clinic instead of the private alternative.

III. Disciplining the audiological encounter builds on the findings described in article I where we concluded that the humanistic field – after extreme positioning – seemingly has been reintroduced. I set out to explore how the pedagogical focus is characterised: has it changed to comprise the lived experience of the disabled person?[22] Has the focus changed from the causes of

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[22] As described in article I, the International Classification of Functioning, Disability and Health, known more commonly as ICF is supposed to put the notions of ‘health’ and ‘disability’ in a new light. It: *‘acknowledges that every human being can experience a decrease in health and thereby experience some degree of disability. Disability is not something that only happens to a minority of humanity. The ICF thus “mainstreams” the experience of disability and recognises it as a universal human experience. By shifting the focus from cause to impact, it places all health conditions on an equal footing, allowing them to be compared using a common metric – the ruler of health and disability.*

disease and pathology to one of impact on the individual? The article presents a sociologically informed interpretation of this case. I draw on Foucault (2002) and his 'top-down' arguments about discursive formations that invite us to grasp the 'regularities' that link different manifestations of hearing impairment across different sites of representation. Foucault's notion of the 'gaze' (1973) is used to describe both literally and figuratively how the body and more precisely, the ears of a hearing-impaired person become subject to medical inspection. As illustrated, the 'gaze' helps to intensify regulation over the audiological encounter and controls what kind of information the patient is allowed to bring to the encounter.

I also draw on Goffman (1959) and his 'bottom-up' insightful analyses of interaction norms, social hierarchies, and their constraining relationships to the self in order to explain how the specific setting – the audiological encounter – works to prompt 41 patients towards conduct that conveys impressions in accordance with the generalised impression for which the setting is designed[23]. The social world becomes what it also is: a theatre. The strategies made possible by the opposition between the limelight and the backstage workshop give meaning to these everyday interactions. The effects of classification of people are effects that cannot directly be observed in the actual interactions where the classification processes occur as they are *'inaccessible to the persons classified'* (Hacking, 2004: 297) and instead are *'incorporated into the rules of the institutions.. related to the interaction with institutions'*. Only by understanding how a particular institution like the hearing clinic came into being are we to understand their classification process (ibid: 278).

By the use of my participatory observations of the hearing clinics and my video recordings, the article focuses on the technical assemblies in the form of clinical audiological examinations and tests that take place in order to assess norms and normativities, the techniques of 'cure' (therapeutic and pedagogic), and the places within which intervention takes place. Whereas in article II, the focus is on the norms at play, as hearing impairment becomes configured as a problem experienced by an individual, this article considers in more depth the ways in which the norms are inscribed in

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Furthermore, ICF takes into account the social aspects of disability and does not see disability only as a "medical" or "biological" dysfunction' (http://www.who.int/classifications/icf/en/- accessed 15. February 2011).

[23] Goffman pays attention to the material arrangements of people and objects. He uses a restaurant as an example of a social setting that has clear boundaries between the back stage and front stage. The materiality of the setting – or the architecture of the different stages – is something to which Goffman closely attends; e.g. a particular material technology, a door, is crucial in understanding the mediation between front stage and back stage (Goffman, 1959: 118). Because back stage behaviour often contradicts front stage behaviour, we take great care to conceal it from the audience. Thus, according to Goffman, these material arrangements enable and constrain social interaction.

the technologies that the actors use. In the article, I present my video recordings not only in terms of who says what but also in terms of the sociomaterial conditions under which those sentences will have a definite truth value and thus are capable of being uttered.

The article demonstrates that the pedagogical focus has changed from formerly[24] aiming to teach the hearing impaired how to get along in everyday life with a reduced hearing sense to a strict focus on one particular body part – the physical ear – and on the technology intended to normalise that body part. Thus, the reintroduction of the humanistic field does not seem to be present in the audiological encounter. Instead, in the audiological encounter the hearing problem is disentangled from the patient's tangible, physical body and becomes an object that can be moved through computer networks and across space and time.

Discussion and perspectivism on article III

The gaze

According to Armstrong (1983, 1995), since the late-19th century, the transformation of the medical gaze has been marked by a new conceptualisation of disease. Whereas in the 18th century, the medical gaze was concerned with the anatomy of the individual diseased body, by the late 19th century, it '*identified disease in the spaces between people, in the interstices of relationships, in the social body itself'* (Armstrong 1983: 8). Related to this, medical subjects were no longer divided or classified according to whether they were 'ill' or 'healthy'; rather, they existed in a state of 'precarious normality'; meaning, if not ill, they were still regarded as having the potential to become so (Armstrong 1995: 403). This theorisation of gazing uses space and visuality to conceptualise the subject: '*He who is subjected to a field of visibility'*, Foucault's argument goes, '*assumes responsibility for the constraints of power.…He becomes the principle of his own subjection'* (Foucault, 1995: 202-3). A key feature of using the gaze as an analytic of power/knowledge is the inference that a combination of gazes forms the subject. Invisibility of the gaze, in fact, amplifies the automatic functioning of disciplinary power by creating permanent visibilities. In Foucault's arguments about the gaze, individuals come to internalize the norms of disciplinary power, thus making the functioning of the panoptic mechanism continuously effective.

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[24] By formerly, I refer to p. 83 and the description of the period in the recent past when hearing aids were of a poor standard and less accessible.

Both cases, then, engender what Foucault called ‘governmentality’, the arrangement whereby the reasoning individuals use in their own decision-making is tightly bound with the rationales applied in the administration of society. The attention paid by both patient and audiologist therefore – as described in the article – can be considered a form of governmentality.

The normative order

Goffman describes how normative regulation is built into the scripts we have learned and the norms for judging the role performances of the self and others. He does not address the ways the patient and the audiologist learn their roles but it seems that to explain this matter, one could draw on Bourdieu (1990b: 59) and his notion of habitus as the *‘conductorless orchestration’* of conduct[25]. The interaction is conceived as a production order with a commitment to maintain an order premised on the performative rationalities of the selves involved. The unreflective attachment to rules leads individuals to *‘constancy and patterning of behaviour; while this is not the only source of regularity in human affairs, it is certainly an important one’* (Goffman, 1971: 49). When social normalcy is seen to be threatened, the rules governing social interaction are eroded.

The concern with the normative order that shapes all social interaction becomes a theoretical link for me to combine Goffman and Foucault. For both, morality is built into the normative order and society is formed by patterns of regulation. For Goffman, they are manifested in the judgments that render performances as credible or not (Goffman, 1959). Normality, or normal order, is a collective achievement to which we all contribute by following interaction rules. For Foucault, they are attached to discourses and practices that change over time (Foucault, 2002) and the formal organisation of macrosocial order can be seen as the *modus operandi* of microsettings and as the largely unnoticed regulation of everyday life encounters. The ability to produce homogeneity is that, according to Foucault’s proposition, the ‘subject’ is *produced within discourse*. That is, the subject cannot be outside the discourse because he/she must be *subjected* to the discourse; furthermore, it exists within the knowledge produced by the discourse: the discursive formation of a particular period and culture[26].

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[25] Many types of knowledge give input to action but *habitus*, the active presence of past experiences, tends to guarantee the correctness of practices and their constancy over time and is more reliable than formal rules and explicit norms.

[26] This explains my arguments in the beginning of this dissertation in which I state that for me, as a researcher, there is a palette of ‘possible theories’.

Goffman and the self

Similar to Foucault’s analyses of the way in which humans are made objects of discourses, Goffman rejects the idea of an inner, real, stable self behind the social mask (Goffman, 1959). The self does not exist outside social interaction. As the self exists in performance and is easily discredited, it suggests that the self is a product of certain types of discourses and practices. It is worthwhile considering to what degree the individual is conscious of the performance that he/she stages, i.e. that he/she is playing a role. Goffman mentions two extremes at the ends of a continuum: the individual that may be taken in by his own acting, and the individual who is cynical about it (Goffman, 1959: 19). We can expect to find a natural movement between cynicism and sincerity; however, there might be a transitional point that can be sustained on the strength of a little self-illusion (1959: 21). If the mask represents the conception the individual has formed of him/herself, then the role becomes second nature and an integral part of the individual’s personality. When my participant as a hearing-impaired individual takes on an established social role as a patient, he/she usually finds that a particular front has already been established for it. Hence, whether his/her acquisition of the role was primarily motivated by a desire to perform the given task, or by a desire to maintain the corresponding front (Goffman, 1959: 27), in the audiological encounter the actor will find that he/she must do both. Back stage, on the other hand, the hearing impaired has a variety of roles to conduct and can choose to reject the role on offer.

IV. Health care policies and resisting consumers in a prototypical welfare state is based on the policy introduced in 2000, as mentioned in article I. This article focuses on the ways in which governmental rationalities and techniques of mobilising the elective hearing health consumer translate into practice or, more precisely, on the everyday handling of free choice.

By means of documentary texts, participatory observations, and the prefitting interviews, the article supports the thesis and illustrates that in Denmark, the mechanisms of control and regulation are not only a concern at a political level, but are also deeply institutionalised and embedded in the context and quality of service delivery and the hearing health service’s professional practice. In the article, Mauss (1990) is included to clarify the historical background and the underlying discourse on solidarity and universal entitlement to social welfare services, which, for the patient, mean that they should reciprocate the free gifts from the welfare state. To understand the state-specific significance in relation to this, it may help to recall that the theory is a generalisation of Durkheim and Mauss’s

(1975) classic analysis of ‘primitive classification forms’. It therefore has its origins in the analysis of primitive societies, demonstrating that the immediate social organisation is the basis for the mental categories and schemata of perception within which the social and physical world is perceived. My argument for including Mauss is that the modern gift economy remains invisible, because our concept of it is impoverished. The two words ‘gift’ and ‘market’ have been consistently pried apart and set out in a sequence (Strasser, 2003). The result is a story of progressive rationalisation of exchange. However, gifts are not some kind of precursor to commodities, nor do they provide a straightforward contrast to them. The key point is that gift economies provide an alternative transactional framework for our society, which simultaneously buffers, contests, and even complements the market.

In continuation hereof, Raffnsøe (2008) argues that historically and culturally determined practices precede and form the subjects. The individual is a product of disciplining power, and the contract of social welfare knits us into a network of close ties, each of which can be questioned individually, but which collectively can never be simultaneously severed. According to Raffnsøe (2006), the rules are never revealed or fully understood by the participants. We agree to maintain and develop this contract by confirming it in and through a whole range of daily activities. Thus, it supersaturates our discourse on economics and civil society.

Discussion and perspectivism on article IV

Transformation of the welfare state

The Danish Health Services have increasingly been a political theme. This change is an important topic in election campaigns. Further, it also reflects a pattern change in the types of diseases discussed, with more diseases seen as relating to lifestyles. In the last few decades, Danish health policy has been transformed, and new elements have been introduced into it, reshaping the subject and delivery of health care services. The Danish government’s approach to privatisation can be divided into three phases (Greve, 2003): from 1983 to 1989, the government was ideologically committed to privatisation but failed to get the legislation through Parliament. The boundaries between the administration and the citizen became the topics of many political discussions, and ideas for self-regulatory mechanisms for welfare recipients were sought (Andersen, 1995). In the 1990s, both the liberal-conservatives and the social democrats endorsed a policy of corporatisation and privatisation. Attempts to import ideas from the Anglo-Saxon[27] countries about ‘more market, less state’ (Rasmussen, 1993) flourished. Denmark had become very service heavy, with up to 35 % of the total social outlay going to services, compared with 10 % on the European continent. As a consequence, Denmark started privatising the public sector, resulting in some 14 public enterprises being reconstituted as companies, several of which have been privatised (Greve, 2003: 275). The right in principle of the patient to choose to go to a hospital in a different county was introduced by national legislation in 1992 (Green-Pedersen, 2002), and ‘free choice’ was extended throughout the 1990s. Subsequently, patients were given the right to choose providers outside their county of residence with their home county obliged to pay for the treatment at Diagnosis Related Group (DRG) rates[28], which are often higher than the fixed rates used to compensate for the within-county providers. In 1994, the hospital law was modified in order to address the problem of long wait times. A guarantee was given limiting patient’s waiting time to a maximum of 3 months. In 2000, the government decided to allow the subsidised purchase of hearing aids in private hearing clinics resulting in ‘The Private Hearing Aid Treatment Act’. In 2002, the 3-month guarantee was changed to a 2-month guarantee combined with an extended free choice allowing access to private hospitals and hospitals in other countries (such as Germany and Sweden). Alongside this choice, the financing of the hospitals was altered towards an activity-based funding (money follows the patient). The introduction of free choice of hospitals was assessed as a type of quasi-market, one publicly made and integrated into the public system (Vrangbæk, 1999). Although the counties are responsible for financing and delivery, Parliament has the overall legislative responsibility for the otherwise decentralised health sector. It is national law that frames decentralised activities. For example, the law regulates who is entitled to services. General practitioners act as private enterprises in accordance with agreements between their professional organisations and the Health Insurance Negotiating Committee, receiving fixed prices for their services. Thus, the annual budget agreements among politicians illustrate an increasing interference of the national government; hence, policy making has moved in this more indirect direction and the opposition between state and non-state is inadequate to characterize these transformations.

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[27] The term Anglo-Saxon refers to the English-speaking world, and is a term used, e.g. by two of the leading interpreters of the work of Foucault, namely, Donzelot and Gordon (2005).

[28] The Diagnosis Related Group is a method of funding hospitals, which classifies groups of patients who have been given a similar diagnosis

The policy has achieved more people being fitted with hearing aids today than 10 years ago[29], e.g. in 2002, N= 89.870 were fitted with hearing aids in contrast to N= 108.228 in 2007, which has raised the costs for the combined NHHS. The cost due to the reimbursement of private clinics has taken an especially interesting course with an increase from 65 million DKK in 2002/3 to 223 million DKK in 2006/7 (http://www.amgros.dk/Documents/PDF/AmgrosNyt%20-%205%20web%20 (2).pdf – accessed 15. February 2011). The private clinics are not expected to document how great a proportion of the total costs is the cost of the hearing aid, and they are not conducting any research in the subject[30]. Thus, the policies have been less transformative than envisioned initially, as they have not proven more cost-effective. The hearing aid comes within the service law and is defined as an assistive device, despite the fact that according to EU-standards it is a ‘medical device’. The implications of defining the hearing aid as a remedy, rather than a medical device are that the municipalities are responsible for the payment. Under the intergovernmental reform of 2007, five new regions replaced the county authorities, and the number of municipalities was amalgamated. Now, the residence county must pay for the hearing aid and therefore a social worker must ensure that the conditions for the subsidy are fulfilled. As the general costs have risen due to partial privatisation and increased dispensing of hearing aids, recently some communities have themselves begun to specify strict entitlement criteria by prioritising between working-age populations and people who are retirement age when placed on waiting lists for hearing tests and hearing aids in order not to exceed the yearly budget. Thus, the activity of work life itself is depicted as the desirable final goal beyond the state of impairment as someone in the workforce gets an appointment ahead of someone who has retired. As mentioned in the article, some of the implications of neoliberal policy making in the hearing health care sector have been that certain otologists have received kickbacks for referring the patient to specific private clinics, illustrating that the choice of available treatment option is rather indiscriminate.

Generally seen, in the last 2 years, there has been an intense debate regarding surplus payments to private hospitals in Denmark. In order to cut down the waiting lists on several types of operations, in 2006, the Danish government fixed prices for various operations, which could then be performed

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[29] According to statistics on demographic development, the increase in the number of older people does not take effect until after 2010 (http://www.oem.dk/publikationer/fore_pens/kap07.htm - accessed 15. February 2011). This means that the number of older people has been quite stable until now and does not explain the increase in people who are fitted with hearing aids.

[30] According to a presentation at the Audiological Annual Meeting in Copenhagen, March 2010 by the Swedish professor in audiology Claes Møller, no audiological research is conducted in Germany, which is totally privatised. This supports the conclusion in article I.

at a private hospital. Several of these took over the operations. In the ensuing years, there has been increasing criticism of price levels from the opposition. In 2009, the reimbursement to private hospitals was reduced by 25 %. Rigsrevisionen (the national audit agency) entered the case and conducted an investigation as to whether the government had overpaid the private hospitals for operations. When the audit agency asked for material from the Ministry of Health, it was not provided right away. Meanwhile, a secret internal report prepared by the Ministry of Health concluded that, indeed, the prices were up to 25 % too high. The secret report was send to the audit agency after it had finished its report. The criticism from the opposition and Rigsrevisionen is twofold, 1) there had been overpayment up until 2009 (http://politiken.dk/politik/ECE733512/privathospitaler-har-faaet-overpriser/ - accessed 15. February 2011) and 2) the government had avoided giving sufficient material to the authorized auditor of the Danish State (http://politiken.dk/politik/ECE1075388/rigsrevisor-skal-bevise-sin-kritik-af-regeringen/ - accessed 15. February 2011).

Empowering patients?

The analytical tools in governmentality theory can help us understand that lay concepts of health and the body are not more authentic than those of medicine and the state – they are affected by medicine and the state. Moreover, they help us understand that the oppositional structures of public/private, lay/professional, freedom/submission, etc. do little to describe the complexities of Danish hearing health care practices. The ‘free individual’, e.g. is a construction of power/knowledge and not its antithesis. Within the consumer discourse, the hearing impaired are empowered by choice, however, the choice is limited to saying ‘yes’ or ‘no’ to an already existing product range. It is choice constrained by specific temporal, spatial, institutional, and medical situations in which the experience, knowledge, and aspirations of the hearing-disabled people themselves are not considered. The implications of the ideal consumer are that new understandings are produced which make governing possible. The liberal ideology of choice goes hand in hand with the rationalisation of care. The rubric of ‘consumer freedom’ is used to justify cuts in state care and to legitimise the private sector. Similar to the notion of empowering patients to take back control over their own health, another way of understanding this empowerment is in considering the challenge it attempts to solve. In fact, it allows politicians achieve agreement of arguments, and legitimises them as well. The agenda might be empowerment, but at the same time, it concerns resources and ways of controlling and governing.

By privileging regulation through local autonomy, neoliberalism (in theory) is forced to retreat from intervention in medical acts and to let the consumer determine his or her own need (Osborne 1993: 354), thus displacing clinical truth as the basis of need. However, in practice the Danish government has – since the establishment of the National Hearing Health Services (DHHS) – intervened directly into the distribution of medical acts themselves and continues to do so. Governmental technologies, such as audits of hearing aid fitting strategies, are considerations that clearly apply when the resources are provided by the Danish government sector, exerting pressure on the hearing clinics to reduce waiting lists and call forth the highest possible number of patients through the system (Surr & Fabry 1991; Arlinger 2006).

Accordingly, choice and consumerism are discourses that have no meaning apart from the way in which they are articulated in a given historical and institutional context. Our present-day's situation can be traced to the not-so-reputable early days of hearing aids, when they were sold door-to-door like encyclopaedias or vacuum cleaners (Ewertsen, 1976). Today, hearing aids can be dispensed only by audiologists who have degrees in the field or by hearing aid dealers who are licensed by the state. However, allowing the private act of hearing aid dispensation brings back the top-down, sales-oriented approach, leaving patients vulnerable at a time when there is an ever wider array of devices from which to choose. The *Journal of the American Academy of Audiology* devoted an entire issue in 2005 to making hearing aid provision more 'evidence-based'. Van Vliet, writing in that issue, said, *'The distinction between sales and science is often blurred for the consumer and practitioner alike'* (Van Vliet, 2005: 417).

V. Negotiating hearing disability and hearing disabled identities represents a look at the matter of noncompliance and takes as its outset that communication based on hearing and speech is part of the taken-for-granted rules of daily practice, and that this does not change by the provision of hearing aids. To consider this issue sociologically, I draw on disability theory, identity theory, and Goffman's work on stigma (1963).

As described in the introduction, disability has historically been viewed as the domain of the medical sciences and has been built upon a medical terminology that views the issue of disability as an individual matter: a personal tragedy following accident or disease. Normalisation comes by following a rehabilitation program in order to be reintegrated into society. The more recent social model of disability developed and promoted by disabled people in the context of identity politics is a critique of this medicalisation and focuses instead on struggles against the oppression of disabling environments. In the article, I draw on the social model as it enables the identification of a political strategy, namely barrier removal.

Nonetheless, a critique of the social model has been that it opposes the medical, individualistic approach by stressing commonality at the expense of difference. The result is that impairment is completely bracketed. However, as illustrated, people are disabled both by social barriers and by their bodies. Thus, according to Shakespeare and Watson (2001), there is no reason why appropriate action on impairment cannot co-exist with action to remove disabling environments and practices. The middle ground between the medical model and the social model is that disability is a social construction, and that it neither refers to, nor represents, essences of particular individuals or of a certain population at large. But it is a social construction out of something, as hearing impairments are real and have effects. It is a construct of a reality existing independently of what the constructions look like at a given moment. The reason for this is that hearing impairment – due to a loss of a sense – interferes with daily practice for many people and for those with whom they interact, because often their way of communicating does not follow the prescribed rules for everyday activities. To ask for things to be repeated, as though one were deaf, attracts anger and insult, and one is identified as incompetent for breaching the social assumptions about everyday communication. Hence, impairment is viewed through the lens of disabling social relations. Impairment (bodily difference) and disability (social creation) are not dichotomous, but instead describe different places on a continuum or different aspects of a single experience (Shakespeare & Watson, 2001: 22).

Based on the postfitting interviews, the article describes how hearing-impaired people seek to ensure a smooth flow of social interaction to maintain their social bonds and that contested identity is among the factors that prolong the period before help is sought. Part of the reason for this is that hearing aids are offered to rehabilitate the patient back to normal. What is special about these prosthetic technologies compared with glasses is that both compensate for the deficiencies of nature, but hearing aids supply the deficiencies as they signal deafness while facilitating hearing. The article draws on theories of ageing to describe patients' reluctance to hearing aids, as they are icons for ageing and the loss of physical and cognitive abilities. The main function of the hearing aid, after the amplification of sound, is, therefore, to conceal the disability and prevent social stigmatisation to which the wearer would otherwise be exposed. Being rehabilitated by the use of a hearing aid is a turning point in the vision of able-bodied bliss and challenges the sense of self.

Discussion and perspectivism on article V

Passing as normal

In the article, I draw on Goffman, as he helps explain how the nature of interaction practices structures social participation and access to culture (1963). The interaction order (1983) is constructed around systems of enabling conventions that provide a basis for social order. It is a substantive field in its own right engendered by social situations, interactions in which at least two actors are co-bodily present and contains the most powerful moral obligations to the self and others: responsiveness, availability, and emotional involvement. Goffman implies that the management of the emotions primarily by embarrassment and shame as they most often arise from a threat to the social bond, no matter how slight a difference can be sensed or anticipated. In contexts where the stigma concerns a bodily attribute there is no possibility of deselecting the contexts that create feelings of embarrassment. The choice for the hearing impaired is not linked to the stigmatisation that is context dependent, but instead it is a physical condition that is stigmatised. There is, therefore, a compelling relationship that differs from other types of interactions. The hearing impaired cannot deselect that which in certain contexts prompts stigmatisation. The stigmatised can, however, to a certain extent control by means of varying strategies the situations where shame and embarrassment occur. These strategies entail ‘passing’ and imply that the risk of being socially isolated is considered less important than the risk of being exposed as hearing impaired with the shameful and embarrassing emotions that brings with it (Hétu, 1996).

Regularised control of the body is fundamental to the maintenance of self-identity and the appraisal of others. The hearing impaireds’ face-saving practices (Goffman, 2005: 13), conducted when pretending to have heard what has been said, guard against possible threats to the presentation of the self and threats of being discredited. These face-saving practices might be considered to correspond to the panopticon effect in Foucault’s work. It means that we are not the directors, actors, and audience in our own private dramas. The individual who has become hearing impaired is, because of communication norms, configured as dysfunctional in social interactions. The interaction itself is not. Patients' positional strategies and their attempts to pass as hearing are just another way of producing disability. If patients are undoing disability, this is just another way of doing disability. Thus, the site of difference is located within an individual body, whereas the impact can be established only within that body's social relations. Hearing impairment demands a change in behaviour that throws into dispute the nature of interactions, and imposes the hearing-impaired person's needs on to others, i.e. tell the communication partner where to sit/stand, adjust the lighting to suit their needs, modulate the speech of the communication partner, have things rephrased and seek clarification/confirmation, and so on (Hogan, 2001). There is no need to change disabling environments when individuals carry the burden of adaptation. In such situations, the normalisation discourse does not eliminate hearing impairment. Instead, the individual responsibility to adapt to the use of a hearing aid is what constitutes disability.

Goffman, Butler, and performativity

In the article, I draw on Goffman's ideas of performance and strengthen my arguments by comparing Butler's writing on performativity. However, Butler finds in Goffman's *Presentation* (1959) a presocial, interior, prediscursive self that directs the public presentations of self, and he uses this as grounds for dismissing his theorising: *'I am suggesting that this self is not only irretrievably "outside", constituted in social discourse, but that the ascription of interiority is itself a publicly regulated and sanctioned form of essence fabrication'* (Butler, 1988: 528). I find this a rather narrow reading of Goffman, as his method was to deconstruct the assumptive reality of society (Scheff, 2006) and challenge any perspective that isolates individuals from the social matrix in which they function: *'The self…can be seen as something that resides in the arrangements prevailing in a social system for its members. The self in this sense is not a property of the persons to whom it is attributed, but dwells rather in the pattern of social control that is exerted in connection with the person by himself and those around him'* (Goffman, 1961a: 168). Another description of how the self is an image formed by social arrangements is the following: *'The self… is not an organic thing that has a specific location, whose fundamental fate is to be born, to mature and die; it is a dramatic effect arising diffusely from a scene that is presented'* (Goffman, 1959: 252-253).

The self depicted by Goffman is contradictory and incoherent when compiling different performances. Behaviour is not governed by explicit rules. Instead, our everyday behaviour is supported by an overwhelming normativity. This normativity maintains the social order through a constant disciplining of individuals to perform dictated tasks according to their differing roles. Before entering the hearing clinic, the patient is a husband complying with his wife's concern for his hearing. In the waiting area, he is a number. In the fitting room, he is graph in an audiogram. When leaving the hearing clinic, he becomes the private person trying to fit hearing aids into his everyday life, etc. For Goffman, the ongoing 'externalisations' and impression management (1959), and the reliance on others, are part of evaluating suitable behaviour in a particular situation. Thus, it seems that he sees behind the structures that invisibly govern activity (Gonos, 1977). It was always the social interaction and never the individual on which he focused. The individual human actor received little attention: *'I personally hold society to be first in every way and any individual's current involvement to be second'* (Goffman, 1974: 13).

For the hearing impaired, the response to the external pressure is – as described in article II – to get a hearing aid but not necessarily to use it. Some use it to their own advantage. They have been engaged in this adjustment process for a long time, as typical for this group is the fact that the hearing loss onset is generally gradual, which makes it very easy to ignore at first because one actually does not notice it. Then when one starts to notice it, one starts to adjust. This group of people do develop what they perceive from their point of view to be perfectly adequate coping strategies. The crunch comes when other people cease to find these coping strategies adequate. My point is that there is something about having actually developed a way of being in the world that, from your own point of view, is perfectly adequate. That is why it is external pressure that generally makes the change. These people have adjusted as they think fit.

The overall result of the articles

The audiological (sub)field has served the Danish community for 60 years (article I). Whereas at the establishment level, teaching tactics to cope with hearing impairment is considered the appropriate way to rehabilitate, the use of technology to compensate for hearing loss has gradually supplanted teaching as the 'truth'. By building on a sociological approach to hearing impairment that reaches beyond the medical definition, we see another picture emerging. Some patients embark on the process of getting a hearing aid and come to the hearing aid fitting as a response to social pressure from relatives or colleagues (article II), or they can relate to particular situations (hearing impairment is not a general disability but can be problematic in certain situations, however, the patient rarely feels ill). On entering the hearing clinic for the first time, many patients express discomfort when confronted with becoming partners in decision-making concerning the choice of hearing aid type (article IV). They are content to trust the health professional and leave decisions to the experts. Dependency as part of the illness experience prevents some patients from participating fully as consumers. Thus, on the day of the dispensing, some patients do not understand their medical diagnosis or how a hearing aid is meant to help (article II) and know in advance that they do not intend to use the one they have chosen. In the fitting room (article III), patients confront the hearing-levels audiological science has established as normal and reasonable. The audiologist operates with a dominant medical discourse, manifesting itself in the audiologists' spoken language, body language, and technologies in the room. Similar standard vocabulary holds sway in these situations. Interaction rituals help explain why and how the patient complies with the way he or she is positioned by this discourse during that encounter. In the becoming of a patient, the individual therefore moves somewhere into a vulnerable sphere between being the pathological body and having a pathological body (article V). Most of the hearing impaired in this study do not want to see themselves as disabled, either in terms of the medical model or the social model. Moreover, they do not have a political identity, because they do not see themselves as part of the disability movement.

Physical discomfort often begins when starting to use the hearing aid and is one of the circumstances in which patients are reluctant to acknowledge that they need the hearing aid (articles II + V). The professional understanding of audiological rehabilitation objectifies subjective experiences and rationalises difficult life situations. Reducing complexity may foster efficiency but leaves little opportunity for the kind of rehabilitation envisioned by ICF that takes into account the social aspects of disability and does not see disability only as a 'medical' or 'biological' dysfunction (article I). Instead, for most patients, the hearing aid is the only rehabilitative support they receive.

In the articles, I do not discuss in detail the differences ways women and men feel who have impaired hearing, how this affects their working lives, and whether there are differences between the various job types and having a hearing impairment. I am, therefore, unable to conclude whether people with a hearing impairment have difficulties in one job versus another. All participants were asked if they knew anyone with a hearing impairment and whether they were aware of any of their colleagues having hearing impairments. Some did, but I am not able to comment on the potential impact of the individual's sense of work-related problems. In relation to this, I will return for a moment to the research report from SFI that initiated my own research, as it engaged with these questions. One of the suggestions in the report was that many hearing-impaired people are unaware how of their hearing problems affect both their working life and their social interaction in the workplace. Instead, the impact of hearing on one's working life is claimed to be of a very indirect nature[31].

Reflections

Research environments and research design

As a researcher, I am part of what I am studying and will always be part of the outcome of the research. From the standpoint of a more general theory of science, a well-known argument is that a particular theoretical approach leads to a certain analytical focus (Mik-Meyer, 2009). Due to my background as a researcher and the research environments to which I have been attached for the past 10 years, the idea of approaching the analytical object with a neutral, unbiased stance makes little sense to me. As a researcher, I construct the object of sociological research and my choice of theories and methods have conditioned the specific analyses I present.

Assuming that it is possible to work from some atheoretical approach in which the theory is developed from the data – the fundamental in original grounded research approaches (Glaser & Strauss, 1967) where the analysis feeds into subsequent sampling, further data collection and the testing of emerging theories – for me is quite problematic. I think it blinds the researcher to the paradigmatic assumptions he or she carries around and that will show up, for instance, in the categories chosen and used in analyses. The original grounded theory has, however, also split into two directions (differing in the emphasis on the meaning of prior theoretical knowledge for research) that are evident in the later work of Strauss (1987) and Strauss and Corbin (1990). This later position takes into account that social research and the development of theory are necessarily always already guided by theory. It allows for the fact that the researcher must be in a position to modify or even reject concepts during and due to data construction. With this logic of research,

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[31] The participants in the SFI report apparently felt doubtful more often about their job assignments, and they were consulted less often by their superiors on questions regarding the jobs. Moreover, they did not have as positive an experience of their social working environment as the participants with normal hearing did. Finally, it was concluded that the participants with functional hearing problems also felt more mentally fatigued when they got home from work than those without hearing problems.

grounded theory falls into the realm of abductive research logic, although Strauss never explicitly linked his considerations to those of Pierce (1997). The strength of this later perception of grounded theory is that it does not exhaust itself in coding and the risk of merely doubling the data on a more abstract level.

The following justifications on the particularities of method techniques sit somewhere between formalised rules-of-thumb and post-hoc reflection. In this dissertation, most work of method justification is done at the level of the actual articles, as – apart from article I – the rest of them contain brief accounts of the technical methods employed. However, I will expand on what is already explained in the articles, and share some my reflections on method techniques and how on the one hand they became embroiled in many sorts of real-world practicalities, and on the other hand were combined with the wider issues of the overall trajectory of inquiry.

Reflections on the dialectics between theoretical and empirical knowledge

Conducting observation

The question concerning the extent to which a researcher can become a participant rather than an observer in a field site is greatly contested. To me, observation is always participation. There is no way to escape becoming a participant and, as such, co-producer of the observed phenomenon. The distinction between observer/participant is beside the point. How the observer participates – expressed for instance in terms of involvement – is another matter.

Considering involvement, then, neither the term 'participant observation' nor the term 'ethnography' has a single agreed-on meaning (Savage, 2000). Participant observation has, e.g. been almost synonymous with the work of the anthropologist and is often used interchangeably with the term ethnography (: 326). Grbich (1999) argues that ethnography and participant observation cannot be used interchangeably, because ethnography, as '*the description and explanation of regularities and variations within a culture'* (: 121) is a methodology, whereas participant observation is a way of generating data and no more than a technique.

Goffman describes how participant observation means '*subjecting yourself, your own body and your own personality, and your own social situation, to a set of contingencies that play out a set of individuals, so that you can physically and ecologically penetrate their circle of response to their* *social situation, or their work situation, or their ethnic situation, or whatever*' (Goffman, 1989: 125). What he means is that the researcher should stay close to the objects under study: this is what he calls 'tuning your body up', i.e. forcing oneself to be tuned into a social situation and thus becoming an observer. This corresponds to the idea of 'immersion' (Emerson et al, 1995: 2), which has to do with seeing from the inside how people lead their lives, how they carry out their daily rounds of activities, what they find meaningful, etc. My role as researcher has been in flux throughout my time in the field, during which I constantly negotiated my role as I carried out my fieldwork. In my way of conducting *participant observation,* I concentrated on a particular setting in the hospital for 6 months. My observations were conducted during morning and afternoon sessions (the clinic was only open during the day), on different days of the week, and in different months. I shifted between observing particular aspects of the setting (e.g. the reception area) and particular individuals for a fixed period and then moved on. The focus was on the hearing clinics' day-to-day life, how staff in the audiological clinic did things (studying practice), how they made sense of the formal (and informal) practices in which they were engaged, how they were rationalised, and how the staff gave accounts of these. What was occurring in what order? How, exactly, did those involved do this? What specific means did they use? What did they talk and gossip about? I also attended staff meetings and had lunch in the cafeteria several times a week. I spent days writing down details about the physical setting, including the size, space, noise, equipment, and movement of equipment. Other days were spent writing down impressions of the people in the setting (number, gender, race, appearance, dress, and movements across the locations). I accompanied a total of 7 of the employees (audiology technicians, ear mould technicians, audiologists, physicians), as they went about their daily work routine (hearing tests, physical examinations, hearing aid fittings, etc). For example, I would be placed next to the hearing health professional in order to see them operating their computers, to see and ask them to demonstrate and explain their use of technologies, and to see them taking care of the patients. They would talk throughout each step of the task they were currently performing. Such explanations were valuable to the research, as they provided me with an understanding of the intricacies of their work. Peer-to-peer training was a common occurrence for the experienced audiologists, and I observed such training as well. I took part in discussions during lunch breaks with the staff on the political and organisational framing of audiological rehabilitation.

I did not take notes while following the staff. Taking out a notebook would most likely have generated deep discomfort to the observed. Instead, I tried to remember the situation and once I had the opportunity, I withdrew to a room provided for me with a desk and jotted down my observations. As explained by Emerson et al. (1995), it is important to recognise that field notes involve *inscriptions* of social life and discourse and that such *inscriptions* inevitably reduce things to written words. The social discourse is turned from a passing event that exists only in its own moment of occurrence into an account, which exists in its *inscription* and therefore to which it can be referred.

The process of analysing the participant observations

Formally, the process of analysis starts when one starts writing in the field logbook. Informally, it is '*embodied in the ethnographer's ideas and hunches'* (Hammersley & Atkinson, 1995: 205), meaning that it pervades all phases of the research process. It is a complex task to account for the specificities of the analytic process. As expressed by Bourdieu (1988:7): '[W]*hen we act without entirely knowing what we are doing, we make it possible to discover in what we have done something of which we were previously unaware*'. I conducted several careful readings of the corpus of field note data. I studied the data and sought to identify interesting patterns, looking to see whether anything stood out as surprising or puzzling. As an example, this may be understood in the different ways the staff sustained their medical model in their daily work and the variance among the staff's reaction in the face of patients' doubts. I sought to identify how the data related to what I had expected from both my common sense understanding and my theoretical understanding of the issues. Theoretical categories can be shown to have a presence in everyday talk (Mik-Meyer, 2009). As the wider contexts frame processes that are not necessarily made visible by the actors under study, they can be made visible by the inclusion of sociological categories stemming from sociological analyses of Western societies (ibid: 141). I searched for relationships across the whole corpus of data. I compared and related what happened at different places in the clinic. I found that some of the everyday categories of perception in the hearing clinic related to categories of neo-liberal discourse, namely, patient's capacity to show initiative and be responsible.

Conducting video recordings of interactions

As for my video-recorded observations, I will start with some initial reflections on choosing a video-based method for this part of the data construction. Researchers construct video data in various ways. In health, video methods have been deployed as observational recordings whereby researchers follow interactions between practitioners and patients (Caris-Werhallen, de Gruijter, Kerkstra, & Bensing, 1999; Fossum & Arborelius, 2004; Greatbatch, Luff, Heath, & Campion, 1993), education of health professionals (McKinlay, Potter, & Feldman, 1996), and safety and quality aspects of care delivery (Michaelson & Levi, 1997). Observational recording, as conducted in this dissertation, may be considered as objectifying; I agree. There is no doubt that the cameras had an impact on the dynamics of the interactions. For instance, the recordings showed that the audiologist reacted to the camera's presence by looking directly into the lens from time to time, indicating that he/she might have felt the need to act more 'correctly' were the appointment not have been video-recorded. Some researchers have therefore sought to cross this objectifying divide and use recordings in a more subjective way by using video as a reflexive approach to communication with health professionals as a collaborative tool for practice improvement. This kind of video-reflexivity in which the ethnographic footage is played back to clinicians for review and discussion is increasingly used as a tool to stimulate clinician learning and practice change in hospitals (Iedema et al., 2006; Carroll et al., 2008). In my opinion, there is a fine line between video as a method of objectification and as an empowering clinical practice improvement tool. Visualising and reviewing oneself in practice might be considered as part of surveillance and control that aims at strengthening existing norms and replicating dominant conducts.

Whereas the studies referred to in the above paragraphs have focussed on comparing local practices with external standards and recommendations, my recordings examine the situated complexity of interactions as they are embedded and enacted within a specific organisational setting. My reason for choosing this method when conducting observations of the fitting encounters is that it can generate complementary accounts of the event. It has provided me with the opportunity to focus on the concrete, observable movements in comparison with what is being said and to further enhance my understanding of how the body and physical objects are featured, along with discussion in the production and intelligibility of everyday interactions and activities when hearing aids are being dispensed. As described by Jordan and Henderson (1995), video observation provides '*a shared resource to overcome gaps between what people say and what they in fact do. Video observation provides optimal data when we are interested in what "really" happened rather than accounts of what happened'* (p. 50).

Analysing the video recordings

Initially, I had viewed each of the video recordings as a basis for the postfitting interviews that would follow. After having recorded all 41 encounters over 6 months, resulting in 500 gigabytes of recorded media, I viewed the entire recording twice, systematically searching for recurring themes and items of interest, whilst pausing to take notes. Next, I began again with a minute-by-minute coding of the video, comparing incidents that were common to each fitting to each other in the recordings. I asked myself questions such as: What is happening? What is the main concern of the audiologist? What is the main concern of the patient? What accounts for the continual resolving of these concerns? These questions encouraged a focus on patterns amongst incidents that yielded codes. My initial interpretations produced considerable uncertainty and ambiguity in my mind. I commenced thinking that one way to approach the analysis of the video recordings would be to utilise key concepts coined by Bourdieu. Specifically, I looked towards his concepts of capitals (economic, social, and cultural), habitus, and the field, and thought to 'test them' (for further explanations on these concepts please see p. 76-77). The three fundamental forms of capital outlined by Bourdieu can be sources of social advantage and social class differentiation. Moreover, they interact in different ways, diversely affecting social positions. For Bourdieu, theoretical concepts are *'polymorphic, supple, and adaptive, rather than defined, calibrated, and used rigidly'* (Bourdieu & Wacquant, 1992: 23). Thus, the concept of capitals can be regarded as a set of 'thinking tools'. However, when attempting to probe Bourdieu's categories, it seemed that 'capital' was not a meaningful or productive construction. Those amongst the patients with e.g. cultural capital, also accepted being reduced to voiceless material in the audiological encounters. Bourdieu and Wacquant (1992) argue that part of the 'construction of the object' is the process that suggests which methods to pursue in empirical investigation, rather than the choice of a particular method consistently providing superior evidence. However, I had problems defining in my material the sources and processes of social advantage when considering the interaction between the patient and the audiologist[32]. Capital, for Bourdieu, either as possession or accumulation, does not imply a specific social relationship between agents. As remarked on by Skeggs (1997), if one's cultural capital is delegitimised, it cannot be traded as an asset. Instead of forcing interpretation of the data

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[32] I most likely would have found them if I had searched outside the encounters, i.e. in patients' everyday life.

into the mould of the chosen framework, I found that other theories offered me better resources to make sense of the data.

Examples of my initial sensitising concepts or open codings when considering ‘the logic of practice’ (Bourdieu, 1990b) are: ‘balanced hearing’, ‘audiogram’, ‘responsibility’, ‘ski slope loss’, ‘age-related loss’, ‘acclimatisation’, ‘frequencies’, ‘hearing with the brain’, ‘wait and see’, ‘clinking keys’, ‘echo’, ‘we can always fine-tune’, ‘bluetooth capabilities’, ‘like a highway’, ‘get used to...’, ‘remote control’, ‘this is quite normal’, ‘the normal sound’, ‘background noise’, ‘self-regulating’, ‘hard work’, ‘open fitting’, ‘telecoil’, ‘listening programs’, ‘word recognition test’. At this point, some were understandable, others, not. These gave me a general sense of reference and guidelines in approaching the instances in the recordings. I sought to analyse whether some of these codings framed broader theoretical categories that had then become incorporated into everyday discourse. For example, the term ‘responsibility’ is also a central category of neo-liberal discourse with its capacity to show initiative and be responsible. I therefore focused on whether ‘responsibility’ in the broader meaning framed the conversation even though this was absent from the conversation itself. The conceptual ideas emerged through constant comparison (and with my research question in mind). I had already compared interactions in which the patient was socioeconomically well constituted and where the patient was less socioeconomically constituted. I then compared recordings across the two clinics in order to identify stable features that transcended the two geographically different contexts (to my surprise, there were striking similarities in their actual functioning although they differed in their declared purposes). I compared the whole fitting session with one audiologist to the other[33]. I compared sessions wherein the patient was male to those in which the patient was female, as well as sessions with younger and older patients. I compared interactions that had a significant other present in the fitting room with those who had none. I discovered a kind of regularity in the interactions, and a pattern into which the activities were organised. There seemed to be a striking uniformity across the material, although I sought to conduct a change of perspective in order to spot unanticipated findings. My analysis gradually focused on various rationalities that regulated patient and audiologist interaction. It did seem that in their conversations, some forms of knowledge were considered as ‘viable’, whereas others seemed ‘unviable’ or ‘unnecessary’. I also focused on the ways in which topics were discussed. I focussed on the timing and taking of turns and how a specific turn was obtained by the current speaker. I

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[33] There were a total of 41 sessions. There were a total of 8 audiologists conducting them. I have compared each session for variations from one audiologist to the other.

found it seemed that the audiologists were saying the same things over and over, regardless of who sat in front of them. When patients were saying things such as '*now it seems that I am talking in a barrel'* or *'well it still doesn't sound like my voice'* or '*is my voice supposed to sound so loud?*, the answer or comment from the audiologist was: *'you have to be persistent in the beginning even though it is annoying'* or *' suddenly it is part of everyday life and it will be normal'* or *'in the beginning, you will think that everything is too loud'*¸ or *'this is something you have to get used to'* or *' well, in the beginning you should use them at least 4 hours per day; otherwise your brain won't get used to the new sounds'.* Patients seemed frustrated by the unnatural quality of the sounds coming through the hearing aids and the difficulties they had explaining why they were wrong. In addition, the audiologist seemed to have difficulties in persuading the patient of the positive effects of the hearing aids that would accrue to them if they could get through this phase.

It also seemed that the audiological artefacts used in the measurement were setting the agenda for the meeting. They were referred to as something that gave the audiologist visual and audible evidence of a patient's hearing impairment and were the objects upon which the audiologist's gaze was fixed most of the time. Little by little, it seemed that the focus of attention of both audiologist and patient formed a kind of pattern on which patients gradually rested their glance at the same things/in the same direction as those the audiologist had fixed his/her attention. I observed this finding from one encounter to the next and across the two hearing clinics, indicating the audiologist's ability to define what was of interest and what was not. Patients' subjective experiences were not of interest in this specific context.

My analysis proceeded by shifting between data and theory. This dialectical mode of working resulted in my studying literature and research on normality, comparing, and applying previous findings in my analysis. In particular, I turned to Foucault and his notions of 'disciplining power' that I had read earlier and from which I remembered the form of the gaze that simultaneously objectifies and controls. This helped shed light on the regularities in the recordings. Then, I considered the reasoning and practice of the audiologists: instances were noted when either the audiologist or the patient made statements that conveyed mechanisms of normativity, such as encouraging the patient's adherence to norms ('the normal sound'), conformity, and compliance. In addition to noting these elements, shifts in tone of voice, silence, and unresponsiveness to questions were noted. This led to subcategorisations, such as 'pauses', 'contrasts', 'interruptions', 'silence', ‘control’, and ‘focus’. The previously coded data was re-coded to see if they contained any examples of the new codes. I worked with these recurring motifs that seemed likely to be central to my analysis to ‘test’ their relevance and workability, and compared each of the coded sequences of video during which the audiologist was gazing at the computer screen or at some of the other machines in the room to see how the patient responded to this behaviour. I also compared each of the coded sequences when patients expressed discomfort about the situation in one way or another. I noted the similarities with and differences to other sequences that had been similarly categorised, along with plausible alternative links to those made in the emerging analysis and tested these (e.g. how the patient responded to the audiologist’s reactions.). A few of the patients fell into the group who took a countercultural or other oppositional stance towards the authority that met them, whereas others seemed to regard the setting as the audiologist’s legitimate area of control. I teased out the variations among the instances of different strategies in order to signify the boundaries that patients considered the audiologist’s legitimate area of control. It turned out that in every case, patients eventually stopped what they were about to say. Naturally, my initial assumptions and theoretical ideas played a key role in this sifting and comparison. The issue of context did seem to be at the heart of the conflicting interpretations of patients’ behaviour; what I mean by this is that I watched carefully to spot any apparent inconsistencies or contradictions among what patients had said to me in the prefitting interview and how they performed behind the closed door before the audiologist. Opposition seemed to occur before entering the fitting room and after when deciding not to wear the hearing aids. Again, in a dialectical course of action/approach, I was led to Goffman and his writing on interaction rituals. What puzzled me was that some of the patients had told me in the prefitting interview that prior to fitting there had been no notification of the content of this consultation. They did not mention this to the audiologist during the fitting session. Drawing on Goffman, I could explain this as an example of the type of audience to which the accounts or actions are directed, meaning that I as a researcher am one type of audience, while the audiologist is another. Colleagues, significant others, children are other types of audiences. This information I could not glean from the recordings but instead from the prefitting interviews during which patients had told me about their reasoning for coming to the hearing clinic; that they were forced by a significant other or by a colleague. Video passages in sequences lasting up to 5 minutes were screened for deviant cases that ran counter to the Goffmanian theory and the categories in order to explore these further. I moved back and forth between the original data and the emerging interpretations – again in a dialectic way. Recording the frequency with which particular words or phrases appeared was very illuminating. The passages were divided into recurring motifs that were established, once they seemed to account for a large portion of the variation in a pattern of interactions.

I noted some of the exemplars amongst the interactions and these were transcribed ‘verbatim’ (a transcript is never a verbatim rendering of discourse, because it represents an analytic interpretation and selection of speech and action (Psathas & Anderson, 1990: 75)). I also noted a few of the interactions that seemed to be in opposition to the more overall picture or to my theoretical suppositions, and these were also transcribed ‘verbatim’. I used a notation system inspired by Conversation Analysis (Silverman, 1993) where pauses, sighs, intonations, and laughter were included. These are part of the verbatim quotes presented in the articles. They correspond to but are not as detailed as describing people’s ‘front’, as suggested by Goffman. According to him, the front comprises (1959: 24): *‘insignia of office or rank; clothing; sex, age, and racial characteristics; size and looks; posture; speech patterns; facial expressions; bodily gestures; and the like’.*

It is important in this context to note that a transcript selects particular dimensions and contents of discourse for inclusion, while ignoring others. Moreover, the video recordings capture but a slice of ongoing social life in the hearing clinic, and – even more important – this slice easily may be rather insignificant in a patient’s life. The quotes presented in the articles represent only a select few taken from the many pages produced. They are chosen for their exemplary quality in support of the arguments in the articles. Clearly, the orderliness read out of my recordings are dramaturgical productions (Goffman, 1959). Nothing speaks for itself and there are only performances. As argued in article III, the audiological encounter is a theatre that shapes subjects, audiences, and performers. Hence, patterns, processes, and interconnections seen in the audiological encounter from another point of view – e.g. that of UPIAS-supporters[34] – might as well be considered as exemplars of disorder and unruliness.

My presence in the setting inevitably has implications and consequences for what is taking place as, whether in the form of my physical presence or of video cameras, it has an impact on those studied. Emerson et al. (1995: 3) talk about ‘consequential presence’. This relates to the effects that the researcher’s participation has on how members talk and behave. I do not consider my presence and

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[34] The Union of the Physically Impaired Against Segregation-supporters are the ones who are behind the social model of disability as described in article V.

contribution to the information produced to have been incidental, immaterial, or contaminating. Significant differences between the staff's practice-oriented understanding of what they are doing and the researcher's theory-based presentation of the same are highly probable (Järvinen & Mik-Meyer, 2005). This is because when I, as the researcher, focus on the social conditions of possibility, i.e. how what is or is not being uttered is determined by the conscious wishes of the speakers, then it easily leads to the informants feeling that they are loyally represented by me. However, the purpose of the analysis is precisely to reach an understanding that moves beyond the particular and the local, and beyond common sense. If the subjectivation proves successful, it might have to do with its strong structuring as an action embodied over a long period and thus adapted to more easily. These effects are cumulative and staggered, and so are more difficult to comprehend for both the participants and for us than the effects we normally sense due to our actions. There are indeed structural constraints to which the staff must respond. As such, they 'acted out' their work at the same time as completing it. Their work became more than just a functional task – they articulated the logic of their work and the problems they faced, as these issues were occurring. During their interaction with a patient, they could suddenly make a telephone call to a hearing aid producer to obtain technical details about the hearing aid they were programming, leave the room to get assistive devices, etc. Thus, a single instance recorded by the camera gave me an appreciation of the everyday challenges that the audiologists faced. These accounts might easily contrast with those that would have been produced if I had interviewed the audiologists about their work. They were both retellings/reperformances of prerehearsed scripts learned from peer-to-peer training, and at the same time experiences that emerged in the here-and-now as they performed their everyday practices. In this way, the knowledge that they were being recorded affected their actions and enabled them to produce particular types of understandings about their work. As for these understandings, Goffman offers a notion of information control: *'A basic problem for many performances, then, is that of information control; the audience must not acquire destructive information about the situation that is being defined for them'* (Goffman, 1959: 141). Hence, the individual (both the patient and the health professional) can engage in what Goffman calls 'information control' regarding the self, but the information remains prey to encoding by others.

What follows from this is that neither the subject matter of the pre- nor the postfitting interviews would have been revealed from the fitting encounter alone. The prefitting interviews revealed systematic differences between how patients presented in the audiological encounter and how they presented in the research interviews. In general, patients’ agendas went unvoiced in the audiological encounter, as they went along with the procedures without protesting (article III), whereas outside the encounter they expressed their own ideas concerning their problems to me (article II). This demonstrates that there is a difference between what people say and what they do. While viewing the video recordings for the first time, I was guessing at how the interaction would proceed. However, I was mistaken from time to time. My prefitting interviews had suggested that there would be struggles in the fitting room, due to the lack of prior information experienced by many of the patients. I was, therefore, very surprised over the diversity of responses to the strategies of medical power and the contradictions that existed in the way the patients responded to the system e.g. the group of people who had told me that they had decided in advance not to use the hearing aid did not give any indication of this to the audiologist during the fitting. When calling the patient 6 weeks after the dispensation, I was often wrong about ‘the outcome’. For example, a patient who in the prefitting interview had seemed very reserved about what was about to happen, in the postfitting interview described himself as a happy hearing-aid wearer, and vice versa in the case of another patient. Others surprised me, because they had seemed quite confused that a routine check-up was not part of the package, as explained to me in the postfitting interview. However, they had not contacted the clinic with the problems related to the use of their hearing aids after the fitting.

Reflections on interviewing

Depending on the extent to which patients are willing and able to describe features of their social life, an interview may prove a valuable tool. I chose not to conduct the postfitting interview with patients in their homes, even though without a doubt this would have helped me to clarify the circumstances surrounding how the hearing aid ended up in the drawer. It also might have removed the factor of my continuing to be perceived as representing the clinical setting. (I called from the hospital, as they had special equipment for recording the calls). When talking to the patients about their rehabilitation program experiences, some expressed shame and offered excuses about not wearing their hearing aids, thus positioning me as a controller and representative of the health care system, even though I had presented myself earlier on as an external researcher. Others, however, talked for a long while about numerous aspects of their everyday lives relating to their impairment, their hearing aids, their impression of what had happened at the clinic, etc. Hence, after the provision of their hearing aids, patients had much more to tell me and were, indeed, open to a chat about the circumstances of their hearing impairment at home and work, how their hearing aid did and did not fit into their daily life, and whether and how they felt audiologically rehabilitated. My role was to listen and not to give advice and this was, to my surprise, explicitly appreciated by almost all of the patients by the end of the interview. It seemed that the interviews offered them a chance to position themselves as active agents in the story of their life. Another possibility is that the participants had more to say about the hearing aid experience after 6 weeks, particularly if they had complaints and a person willing to listen to them.

The analysis of the prefitting interviews was conducted by identifying the predefined themes from the interview topic guide and the research question. As for the postfitting interviews, the analysis entailed reading and re-reading all the data to identify an initial set of themes or categories. The data were searched systematically for recurring themes and items of interest, such as views that seemed unusual, noteworthy, or contradictory. In article IV, the predefined themes concerning the consumer ethos were used to direct the search. This article was slightly more structured from the outset than the others were.

From a Goffmanian perspective, I recognise that the interview itself is the front stage for the performance of identity, on which participants – both patients and hospital staff – negotiate their representations[35]. The interesting part in interviewing is not only what is being said but also the background for what comes out of the interview. By taking full and serious account of the performativity of social life, it clearly does not make sense to assume that any action is inherently authentic, and thus grant it priority. This means that neutrality is neither necessary nor achievable, for knowledge is not conceived as existing in some pure form apart from the circumstances of its production. The transcripts presented in the articles are my selections, interpretations, and presentations of interviews conducted during a limited time, talking about a limited part of the interviewees' experiences. This means that the interviews do not provide any form of direct access to the 'truth' of participants' actions, experiences, feelings, and thoughts. An important observation when researching how the hearing impaired deal with their situation is – according to Danermark and Gellerstedt (2003: 32) – that many tend to minimise their problems and that one can expect understatements of problems and difficult situations. I recognise this, because if I asked directly about the impact of the stated hearing problems on their working life, a typical reply would be: 'A

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[35] The project of giving voice as a channel to 'authentic' experiences has also been criticised by poststructuralists who state that in interviews, the topic is not only about the topics of the interview, but also about the interviewee who produces him/herself as a specific type of person in relation to this question. In this sense, the interview may be more a reflection of the interaction encounter between me as a researcher and the participant than it is about the actual topic itself.

problem? – No. I can always just ask. Or pretend they aren't talking to me' or 'the hearing impairment didn't cause any problems at work – at least nothing that couldn't be laughed off'.

According to Holstein and Gubrium (2003), we can readily view the individual interview as one of the most distinctive technologies of the self (Foucault, 1988a) and thus part of modern governmentality (Foucault, 1991a). *'Subjects are repositories of facts, feelings, and the related particulars of experience'* (Holstein & Gubrium, 2003: 12): information that the interviewer wants to know. Thus, individual interviews of all kinds can be considered as 'scientific surveillance' (ibid: 9) which has created the experiencing and informing participant we now take for granted. Panopticism (Foucault, 1995) in the modern sense is impressed upon us by myriad inquiries into our lives. These serve as democratising agents by giving voice to individuals and formulating public knowledge and opinion, among these thoughts on being hearing impaired.

Reflections on structure/agency

Based on the findings presented in the articles, next I present a coherent theoretical discussion of power and the kinds of agency the empirical material reveals. I will start with Foucault's description of agency, followed by Goffman's perception, as their approaches are related to my empirical findings. Then follow my reflections on the agency of materiality. A final section is presented that considers the staff and the ways they engage with the medical discourse within which they operate.

Foucault, structure and agency

Foucault argues the modern regime of power incorporates all of sovereignty, discipline, and government (Foucault, 1991a: 102). 1) *Sovereignty* relies on the prohibition of punishment of acts using repressive forms of power; that is juridical power. When power is conceived of in this way, the primary sphere in which power is seen as operating is that of the state. 2) *Discipline* refers to a type of power Foucault explored in his analysis of prisons in which apparatuses of security intervene to secure the efficient management of docile bodies. This kind of power does not take the visible form of hierarchy and sovereignty. Instead, in regimes of discipline, the norm has invaded the juridical area (Kristensen & Hermann, 2009). As Foucault puts it, *'It conceals itself as power and gives itself out as society'* (Foucault, 1979: 65-66). His view is that the social is synonymous with the 'disciplinary' and the product of relations and strategies of power. Article III offers a description of how patients in the fitting room are constructed as objects of knowledge to be observed, compared, and corrected in terms of their hearing function. They are considered to be docile bodies – calculative, manageable, self-monitoring – characteristics that are necessary in order to accomplish the work in a certain amount of time. In this way, power can be considered to be 'productive'[36], and also as political tactics, for these specific acts, procedures, and processes possess their own 'specificity' within 'the more general field of other ways of exercising power' (Foucault, 1995: 23).

Whereas bio power, the discipline of the body, which refers to the practice of modern states and their regulation of their subjects through *'an explosion of numerous and diverse techniques for achieving the subjugations of bodies and the control of populations'* (Foucault, 1998: 140), Foucault extends and reworks the concept in 3) pastoral power and '*governmentality*' in which the double-sided aspect is retained but now connects the way authorities govern populations with the 'technologies' individuals employ to shape themselves. Pastoral power must filter through the consciousness of the subject, and, in doing so, it necessarily creates a basis for resistance. Governmentality is thus a form of rationality that seeks to align individual choices with governmental goals.

Hence, the general idea of government as used by Foucault is **in continuity with and not contradictory to** his analysis of power in *Discipline and Punish* (1995). It can be understood as a way of acting to affect the ways in which individuals conduct themselves. Whereas in *Discipline and Punish,* Foucault emphasised the subjectification of individuals through their subjection to techniques of power/domination, the perspective of government establishes a relationship between these and other techniques of the self in the subjectification of individuals. Thus, within the perspective of government, the introduction of techniques of the self seems to imply **a loosening but not a severing** of the connection between subjectification and subjection (Burchell, 1996). The irreducibility of one to the other implies that their interactions are not necessarily harmonious or mutually reinforcing (: 21). Pastoral power can understand, manipulate, and control consciousness in a way that mirrors the impact of discipline of the body. In continuation hereof,

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[36] It is important to understand that when Foucault encourages us to focus on the positive effects of punitive mechanisms (Foucault, 1995: 23), he does not mean an effect of which we might approve. Instead, he means something produced rather than something repressed or excluded. An example of this is the normalisation of appropriate behaviour among the population that can be considered a positive or produced effect of the new penal regime.

Foucault (1980: 107-108) maintains that juridical and disciplinary power also are integral constituents of the general mechanism of power in contemporary Western societies. He strives to expose the ways in which the notion of sovereignty has been superimposed upon disciplinary techniques in such a way that the nature of these techniques has been obscured. In the modern era, sovereign power has been democratised and transformed into the foundational and legitimising power of the people. Disciplinary power is – metaphorically speaking – the seamy underbelly of such democratised, sovereign, juridical power. Therefore, it is the intertwining of the productive and repressive aspects of power that is the key to understanding the relationship between power, subjectivity, and agency.

In my study of the hearing clinics, the different aspects of power seem productive in varying ways. Disciplining power makes it easier for the audiologist to get the work done in the allotted time, as certain interaction elements are singled out as relevant, whereas others are excluded. It is the physical ear of the patient that is the focal point and the abnormality – identified on the basis of the audiogram – that tells the audiologist which areas can be worked on in order to reconstruct the patient’s ability to hear. Disciplining power therefore makes it more difficult for patients to voice their agendas. Disciplining power and governmental power both help explain how a patient’s objectification in the audiological encounter involves his or her active participation and is managed by the patient as crucially as by the audiologist. Considering that for many, this objectification promises to bring about the desired changes in their ability to hear, such governmental and sovereign power incites patients to choose to have something done about their hearing impairment. In article IV, Foucault’s work on power as the conduct of conduct is drawn on in order to explain how the hearing health consumer is expected to exhibit responsible behaviour and rational choice. Thus, positive consumer outcomes in this regard are mutually related to wearing the hearing aids as prescribed. In the interest of health, individuals are largely self-policed and not fined for their failure to conform. However, they are punished through the mechanisms of self-surveillance – the disciplining aspect of governing – that evoke feelings of guilt when they fail to comply with the prescribed regimen and do not use their hearing aids.

Whereas discipline operates as a form of domination when hearing aids are being fitted and thus attempts to extinguish the capacity of the subject for agency, pastoral power recognises the value of the subject as an agent – a consumer. This power comes into play only when people have a capacity to act, perhaps even a capacity to act freely. The exercise of power '*is always a way of acting upon an acting subject or acting subjects by virtue of their acting or being capable of action*' (Foucault, 1982: 789). Therefore, the question is whether the consumer position 'on offer' is something that the hearing-impaired person can choose or reject freely.

In a late interview, Foucault defines relations of power as the '*means by which individuals try to conduct, to determine the behavior of others*' (Foucault 1988b: 18). Here, Foucault seems to view power in strategic terms, which means that it is a matter of giving oneself the rules of law, the technique of management, the practice of self, and the appropriate ethos that will allow the games of power to be played with a minimum of domination. A strategic way of performing, for the hearing impaired, might be to comply with the interaction order. In Foucault's terms, resistance is '*something which in some ways escapes the relations of power; something in the social body, in the classes, in the groups, in the individuals themselves which is not at all the more or less docile or reactive raw material, but which is the centrifugal movement, the inverse energy, that which escapes*' (Foucault, 1979: 52). Hence, resistance lies not outside of power relations, but rather represents their limit, indicating that the system of discipline or normalisation, the programs and technologies, are exercised upon an inherently resistant human behaviour. What follows is Foucault's conception of society is not that of a subjected totality populated by docile individuals.

The question then is what constitutes a worthwhile form of agency? Foucault insists that '*the political, ethical, social, philosophical problem of our days is not to try to liberate the individual from the state and from the state's institutions but to liberate us both from the state and from the type of individualization which is linked to the state*' (Foucault, 1982: 785). He further argues that the subject '*constitutes himself in an active fashion, by the practices of the self*'; however, '*these practices are nevertheless not something that the individual invents by himself. They are patterns that he finds in his culture and which are proposed, suggested, and imposed on him by his culture, his society, and his social group'* (Foucault, 1988b: 11). Thus, the freedom we attain in ethical conduct is not liberation from all social influences but rather an ability to modify ourselves in the context of the social influences at work on us. The ways subjects actually challenge or take up programs and policies – applying the bottom-up antidote to the top-down problem – might open up the governmentality agenda to the possibility of a stronger version of agency (Petersen, 2003).

Foucault’s concept of an aesthetics of existence can be considered an assertion of the importance of using the capacity for agency to question all received identities, e.g. the hearing-disabled identity. But then again, the hearing impaired can question identities and norms only from their particular locations. If subjects are mere products of regimes of power/knowledge, presumably, they cannot transgress all social rules. Yet if they are able to transgress due to a capacity for innovation, then freedom is tied primarily to this capacity and only indirectly to the transgressions that express it (Bevir, 1999). To explain the possibility of transgression, we therefore need to portray it as an expression of agency. However, as illustrated in articles II, III, and IV, agency is rather fragile when confronted by normalising power.

In my research, I found that patients mobilise different discursive and material elements and combine them to perform visions of themselves. They have agency in terms of choosing to reject or accept the provided hearing aids, however, in the fitting encounter they do not present themselves as self-determining or autonomous meaning-makers resisting the grip that power has on them. Instead, they re-emerge as active agents in other contexts of their lives. There is thus an interdependence of objectification and agency. Objectification in one context can enable subjectivity in others. For many of these patients, the experience of agency might be related to the extent to which the rehabilitation offered manages to maintain a link between ears, hearing aids, and everyday life.

Goffman, structure and agency

Gouldner has criticised Goffman’s dramaturgy for being nothing but *‘a complexly articulated theoretical expression that resonates the new experience of the educated middle class’* (1970: 389) and has accused Goffman’s actors of being primarily concerned with the cynical, calculative surface-maintenance of their own selves. In opposition to Gouldner who seeks to rebut Goffman’s claims, this article’s material lends some empirical weight to his diagnosis of interaction rituals functioning on all levels, as the patients’ varying socioeconomic advantages did not seem to have an impact on the process observed. In the specific institution, the relationship between the audiologist and the patient is unequivocally structured, i.e. manifested in timing, pacing, language, control, etc.

While he probably was not interested in analysing interaction to learn how it contributed to the mobilisation of collective action aimed at social change, Goffman’s perspective on agency for hearing-impaired patients can be found, e.g. in his descriptions on face-work (Goffman, 2005: 5-46). In this work, he describes the subtle bonds that keep us complying with authorities, even when no obvious sanctions are involved. This means that face-to-face interactions operate to curtail any challenge to the interaction order. Every social situation is predicated upon a working consensus among the patients with the premise that once all agree upon a situation’s definition, it shall face no challenge. Challenging authority requires creating a scene, which means disrupting interaction’s smooth flow, with an awkward confrontation the most likely result. However, these face-work problems might not be insurmountable for all the hearing impaired. A challenger of the interaction order can invite agents to establish what Goffman calls ‘role distance’ (Goffman, 1961b: 106-110), whereby the individual is allowed to detach him/herself from the role he is performing.

In his work on frame analysis, Goffman’s aim was *‘to isolate some of the basic frameworks of understanding available in our society for making sense of events and to analyze the special vulnerabilities to which these frames of reference are subject’* (Goffman, 1974: 10). He calls attention to the fragility of the frames in use and their vulnerability. This vulnerability of the framing process makes it a locus of potential struggle. In article III, I describe how the hearing aid fitting can be viewed as an encounter with a specific kind of authority. A frame analysis perspective could be useful in thinking of an unstated legitimising frame that governs the encounter and ensures compliance (Gamson, 1985). Thus, if hearing-impaired people seek to resist authority, they need to adopt an alternative frame as a context for what is happening. Goffman describes how every strip of ongoing activity has a larger context in which it is embedded called its *rim* (Goffman, 1974). In encounters with authority, ‘rim talk’ has a particular meaning, involving some implicit or explicit questioning about the authorities’ conduct (Gamson, 1985). This means that potential challengers to the interaction order could be referring to the establishment of both the ongoing activity and certain conditions. In this way, they could make their cooperation a matter of negotiation rather than something taken for granted.

Material agency

The continued rapid technological advancement in hearing aids aims to facilitate improved communicative functions. These include preprogrammed sound levels that fluctuate to compensate for the amount of background noise, so that they function more sensitively in quiet rooms and less so at parties, etc. Digital hearing aids can also cancel out feedback[37], and use directional microphones that tune out competing sources of sound. Some hearing impaired were surprised by the agency to which the hearing aids had given rise, e.g. ‘I did not realise how deaf I was’. Material agency of a modern hearing aid thus articulates in the way in which it is able to both amplify and suppress sound simultaneously, and it has built-in programs for different soundscapes. Thus, many of the hearing aids provided are closed systems. These products emphasise user-friendliness in terms of simplicity of use. Patients are told that when they adjust the volume, the hearing aid remembers and registers what the program and environment readings were at the time of the manual change. If the hearing aid experiences a consistent pattern of manual change, it will adopt the volume adjustment into the program. This means that once the hearing aid has learned the patient’s listening comfort levels in all environments, it will adjust to this so that the patient no longer needs to adjust the volume. Where some patients described how they considered this an advantage, others felt objectified by the hearing aid and instead wanted to regain agency through a remote control device.

Put a different way; for the patient, agency is delegated to the experts in the hearing clinic and from these to the hearing aids; thus, agency is delegated from humans to artefacts. The hearing aid wearer must rely on the expertise of the professional who has adjusted and fitted the hearing aids and will have to become accustomed to what they perceive and in turn, eventually what the hearing aid perceives. This also means that if the patient wishes to have the hearing aid modified, an audiologist must reprogram the unit by means of special software. Thus, this approach to rehabilitation promotes the uptake of a particular technology. Some of the patients told me in the postfitting interview that they found it stressful or even painful to listen to the world through their hearing aids. Typically, hearing-impaired people are aware of their bodies due to inadequacies or changes that have occurred. However, the hearing loss has taken place over a number of years and therefore is no longer sensed, although its loss is probably ‘alerted’ or ‘activated’ as a possibility in certain contexts. They sense their loss when they experience the nuisance of hearing high-pitched frequencies or the discomfort of having a foreign object in the ear. The problem with increased

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[37] A hearing aid has one input: the sound comes in through the microphone. It has one output: the sound goes out of the speaker into the ear drum. But sound moves in all directions unless something blocks it. Feedback occurs when sound coming out of the speaker travels back into the microphone and is amplified again. Feedback results in annoying whistling or squealing sounds.

sensitivity decreases a patient's capacities for action in other places and at other times. The work of Bisgaard (2008) and Olaussen (2010) suggests that even for experienced users, this degree of annoyance is difficult to translate into an operable command in the fitting software. While being fit with the hearing aids, the patient reports likes/dislikes to the audiologist for immediate changes. However, the experienced, too, find it hard to contribute critically in these settings. Assessment and treatment occurs without leaving the clinic[38]. The result is that technology is the main decision-maker in the audiological encounter, not the patient's needs and aspirations. The desirable outcome of this kind of interaction is to give people an experience of sound. Thus, what happens is that – due to the difficulties about how to render experiences of hearing understandably in intersubjective terms means that the annoyance is not taken seriously[39].

Nonetheless, the patients did not express any dissatisfaction about the fitting encounter when I questioned them about this topic 6 weeks after the dispensation. They did not express any kind of alienation resulting from the specific interaction with the audiologist (compared with their experience concerning the interaction with the physician when the diagnosis and the treatment offer was presented to them – also probably a 'natural' reaction to the one bearing the bad tidings). Turning to my empirical material, as stated in article V, it is important to acknowledge that the sociomaterial environment has the power to both enable and disable the hearing impaired. For them to change their situation and reject the dominant discourse is to risk further stigmatisation by disrupting every social interaction in which they engage: having people change the way they sit or stand, altering the pace at which they speak, restructuring what they say, and even suggesting that people be told to shave off their beards (Hogan, 2001: xiv). It means rearranging rooms and furnishings and restaurant seating arrangements. It means developing a repertoire of skills, attitudes, behaviours, and technologies that work for them both in the technical as well as the social sense (Hogan, 2001: 44).

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[38] Instead of leaving the clinic, different listening situations are simulated. These simulations are done in order for the audiologist to try to define the everyday life in which the patient is about to be reintegrated: There is a testing of the sound of the hearing aid where the audiologist grabs his pen and drops it on the table. Then he picks up a piece of paper and crunches it between his hands. Then he stands up and talks to the patient with his back towards him/her.

[39] Patients often lack words when explaining the different sound perceptions. If they are not able to translate sound experiences and annoyances to something that the audiologist can use for reprogramming the software of the hearing aid, then the patient with this kind of annoyance is often considered as a grumbler/quarrelsome person.

Agency amongst the staff

The rationalisation of public provision described in article IV provides an example of how hearing health professionals make sense of their actions in a wider political context. In practice it follows the arguments by Miller and Rose (2008: 60) that the regulation of conduct is dependent upon more than political statements; it is dependent upon the forging of alliances through the activities of independent agents such as physicians and others in the health care sector. My fieldwork showed that the competitiveness practised with 'The Private Hearing Aid Treatment Act' did influence the staff in the public hearing clinic as regards talking collegially throughout the day and with the patients about the new private clinics that surfaced everywhere and all the rumours that spread concerning publicly dispensed hearing aids being of lower quality than the ones dispensed in the private hearing clinics. The staff stressed the importance of the noncommercial prescription of hearing aids, implying that in the private sector, patients who do not need hearing aids, receive them anyway. They also advocated the perspective that involving hospital specialists ensured a more thorough examination of the patients. Concurrently, hearing clinic management explained to me that if they did not fulfil the yearly budgeted flow of patients, the staff would be reduced by the hospital management, which again would result in longer waiting lists. Thus, among the staff – spoken of during lunch breaks and between patient appointments – they expressed an awareness of the gap experienced between policy and practice in their daily work. They seemed to acknowledge by their expression of awareness that some of the patients would benefit from more time, although they themselves were subject to intensified forms of regulation and control. The way they negotiated could be seen in the interactions with patients that unfolded in different ways within the same program setup, exposing varying degrees of empathy and recognition. Choosing a suitable hearing aid and choosing listening programs[40] traditionally have been tasks performed by the hearing clinic staff. The positions to which they are assigned dictate that they make the choice. This is a working principle at the habitual level. They know that some hearing aids are small and rather discrete, whereas others are larger and easier for older people to handle. A way of negotiating these structural constraints is to pass on their experiences from patient to patient. They know that it takes time to provide patients with information and to sit and talk with them in order to get to know them

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[40] Often hearing aids have listening programs stored in the hearing aid circuit. Each program is intended for specific listening situations. These comprise master programs, music programs, TV programs, telecoil programs, etc. A telecoil is a special circuit inside the hearing aid. It is a small coil of wire designed to pick up a magnetic signal. While the microphone on a hearing aid picks up all sounds, the telecoil will only pick up an electromagnetic signal. It turns off the hearing aid microphone, picks up the signal and the hearing aid converts it to sound. This magnetic signal is created from hearing aid compatible telephones and assistive listening systems.

as individuals beyond their medical diagnosis. It can be easier and the appointment will go more quickly if one does not ask for opinions from the patients. On the one hand, they demonstrate professional expertise. On the other hand, these reflect principles accompanying relations of dominance.

Reflections on the transformation of the audiological field

With article I as a starting point, now I will explain more about the struggles involved in the formation of the Danish audiological field and describe more fully the different agents in the field, their organizational locations, education, funding, links to state and private sectors, and the degree to which the audiological field can claim autonomy.

First, the bureaucratic field is a way of rethinking the state. One of Bourdieu's main points – in continuation of the school of historicist realism – is the necessity to break with preconceptions and presuppositions inscribed in the obviousness of ordinary experience. As a consequence, it is also necessary to break with state-thought, which is present in the most intimate of our thoughts (Bourdieu, 1994). The efficacy and effects of the state are strongest where we least expect them to be: in our categories, constructions, and assumptions about the human being and the social world. The naturalness with which people in general perceive the social world – including its inequalities and injustices – is according to Bourdieu the result of accordance between mental categories and objective social conditions that are prompted by this incorporation. This thesis is a central part of the theory of habitus and corresponds to what Mauss expresses in the idea of '*primitive classification forms*' and also what Raffnsøe expresses in the idea of '*the social contract*' (see p. 44). The state is not only something that exists '*out there'* in terms of different institutions, bureaucratic processes, etc. It also exists '*within us*' and adherence to the existing order operates primarily not through the mediation of ideas and ideals, language games, and ideological conviction but through the '*double naturalization*' of the social world '*resulting from its inscription in things and in bodies'* and through the silent and invisible agreement between social structures and mental structures in terms of mental categories, it forms a system of beliefs acquired through our education and our social life (Wacquant 2004).

Habitus designates the system of durable *dispositions* through which we perceive, judge, and act in the world. The system of dispositions people acquire depends on the positions they occupy in society, that is, their particular endowment in *capital*. The position of any individual, group or institution, in social space is charted by two coordinates, the overall volume and the composition of the capital they detain. The various spheres of life (art, science, medicine, politics etc.) tend to form distinct microcosms endowed with their own rules, regularities, and forms of authority – what Bourdieu calls *fields* (Mik-Meyer & Villadsen, 2007). Where ‘field’ is the centrepiece of Bourdieu’s entire relational approach, autonomy and heteronomy are its keystones. By autonomy, we mean the extent to which the field has developed its own norms and fundamental rules that differ from the fields that surround it. A field with high autonomy is one whose structure and state are relatively resilient to, and little influenced by developments that occur outside of that context, although forces external to a given field are always refracted therein at one level or another. In contrast, heteronomy of the field is affected by the values of other fields, e.g. towards economic and political success (such as generating research income or wielding administrative power).

Figuratively speaking, underneath the bureaucratic field is the medical field. According to Larsen (2003), the medical field can be considered both as a 200-year-old socially prestigious activity and as a symbolic system, oriented towards maintaining or raising the profession’s social position. Those who legitimise the field – primarily the physicians – possess exclusive (socially accepted and achieved with difficulty) competencies that are legitimised partly via the state’s authorization. In this field, medical and administrative knowledge about examinations and treatments constitutes the desired and monopolised capital. That the medical field has a relative autonomous nature means the values and markers of achievements generated in the field are not alone in shaping the field; economic and political power also play roles.

Audiology in Denmark is a subspecialisation of ear-nose-throat (ENT), which is a specialisation within medicine, thus a part of this larger relatively autonomous medical field that again is challenged by the bureaucratic field. However, not all specialisations are equally prestigious. The concept of a prestige hierarchy in medical specialities is well documented, and this ranking also applies to the diseases within the specialities (Album, 2008). Factors related to characteristics of the disease such as organ location and treatment possibilities are of importance, along with factors related to characteristics of the patient such as age and ‘immoral risk behaviour’ that influences the prestige (Norredam & Album, 2007). Considering audiology, some types of hearing impairment can be cured by means of operation. This is done by ENT surgeons. Amongst these is the highly prestigious sensorineural hearing loss that is treated with cochlear implants, surgically implanted, small, complex electronic devices that can help provide a sense of sound to a person who is severely hard of hearing or deaf. Other types – such as presbyacusis[41] – cannot be treated but instead palliated with hearing aids whereby sounds are amplified so that the residual hearing can be utilised. The average age for the new hearing-aid user is around 70 years. Hence, the condition of this type of hearing loss is associated with advanced age and therefore not found on the upper rungs of the prestige ladder of specialisation.

If we think of audiology as a subfield to the medical field, within this (sub)field is an autonome pole where the practice of the field is cultivated by its own logics. This concerns the left pole of the field and is characterised by struggles amongst physicians (and engineers) through which agents seeks to preserve the existing distribution of capital (manifested by the ranking of institutions, theories, methods, journals, prizes etc.). She who wants to succeed as an audiological physician has no choice but to acquire the minimal ‘scientific capital’ required to abide the regulations enforced by the scientific milieu of that time and place. Fields are historical constellations that arise, grow, change shape, and sometimes wane, over time (Wacquant, 2007). Nonetheless, the classifications of audiological medical knowledge are inscribed in the associated materiality and representations that illustrate the power held by physicians and engineers in defining distinctive capitals and categories that impinge on this field. These are reflected in the hearing clinics and their internal design. The right pole of the field is heteronome and structured by nonmedical power such as economics, politics, and legislation.

Article I contains a diagram illustrating the agents in the field of audiology at the onset of the NHHS. Positioning all mentioned agents within the 50-year period in a more traditional Bourdieuan diagram gives rise to the following expanded version of Figure 1:

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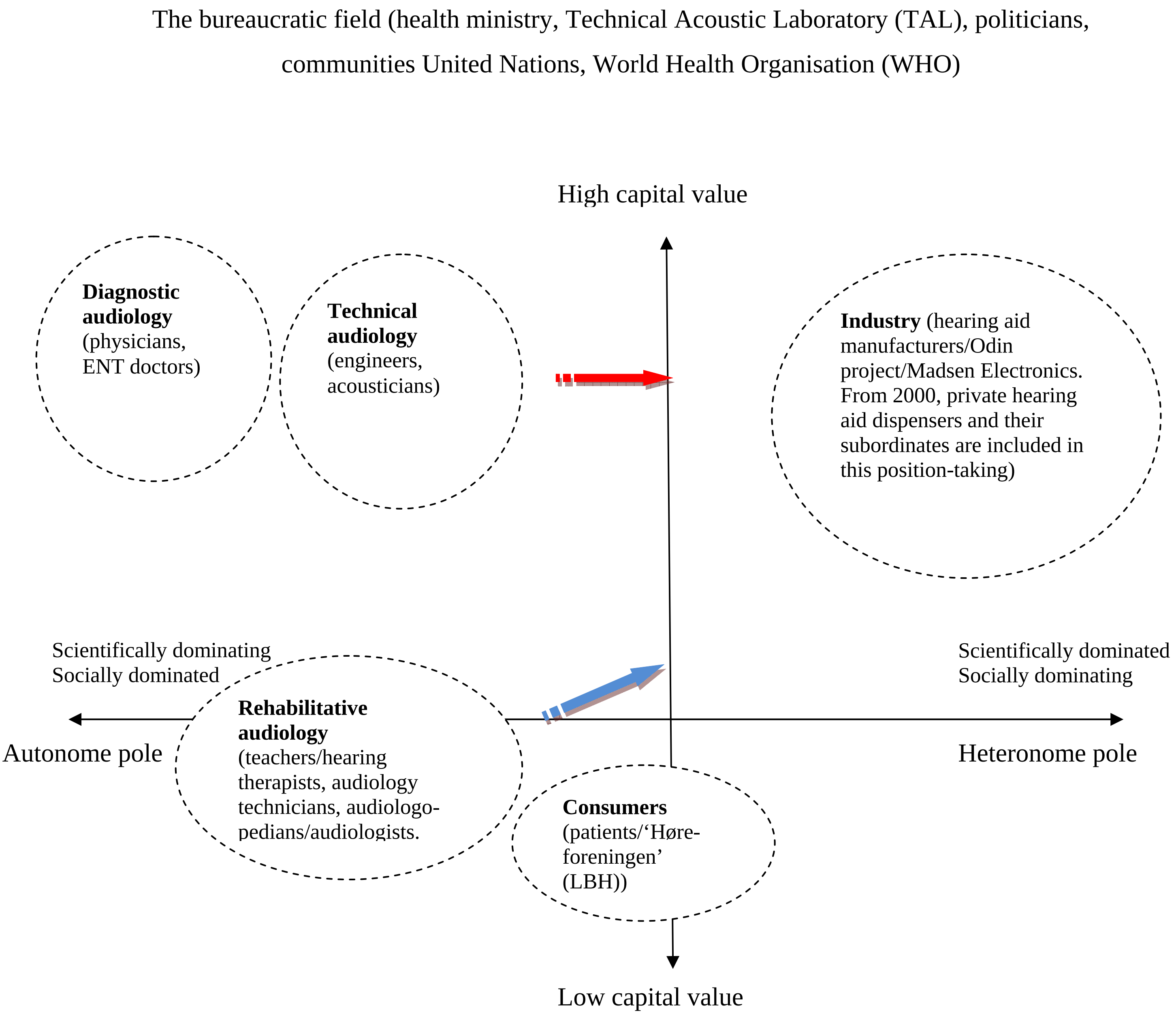
[41] Presbyacusis, or age-related hearing impairment, is the cumulative effect of aging on hearing. It is defined as a progressive bilateral symmetrical age-related sensorineural hearing loss. The hearing loss is most marked at higher frequencies.

Figure 2: The audiological field



The audiological field is organised by two crosscutting principles of differentiation, whose distribution defines the oppositions that undergird major lines of cleavage and conflict in advanced society. The first, vertical, division pits agents holding large volumes of either capital – the dominant against the dominated. The second, horizontal, arises between the scientifically dominating with a high degree of autonomy against the socially dominating with a high degree of heteronomy. The profiles of agents in the audiological field are as follows:

Left above: ‘Diagnostic audiology’: physicians, ENT doctors/private practitioners
‘Technical audiology’: engineers, acousticians. This is where recognition is directed towards diagnostics, increased knowledge about audiology, ‘breakthrough’ knowledge. Characterised by a high degree of autonomy. With the privatisation of hearing-aid dispensation, some of these agents move towards the above-right pole (illustrated by the red arrow head), as it is strengthened with increased privatisation (where key values include: cost/benefit, profit performance, optimisation, etc). The autonomy of the audiological field is therefore reduced

Right above: ‘Industry’: the hearing-aid manufacturers. Characterised by high degree of heteronomy. Are relatively strengthened by privatisation as demands for hearing aids increases - although Denmark probably does not compose a very large proportion of the total market for the Danish hearing-aid manufacturers

Left below: ‘Rehabilitative audiology’: the first group of rehabilitative staff was the teachers who became hearing therapists. Then the physicians initiated the education of audiology technicians who both performed the work that the physicians had previously done and slowly took over the job of the hearing therapists. Then the hearing therapists initiated the 5-year university degree of audiologopedians, which is the equivalent of audiologist and is the name used in my articles. Neither teachers nor hearing therapists remain in present-day hearing clinics. Since 2000, an increasing number of those relegated to subordinate locations have deployed strategies of subversion of the existing distribution of capital by moving towards the right pole where rehabilitation tasks are designated and made operative (illustrated by the blue arrow head). This diminishes those remaining in the position representing the public sector of audiological rehabilitation

Right below: ‘Consumers’: patients, patient organisations. They are low-positioned and because of their minimal investment in the field, they are not able to change the rules of the games within the field but instead plead for their position by defining the situation in a slightly different matter – they take a patient’s perspective and argue with reference to the ‘particular’ or the ‘unique’ about an individual’s situation (see also ‘The impact of patient organisations on the audiological field’ p. 85). As they have no autonomy or legitimacy within the field, they claim their position with reference to a ‘holistic view’ of the patient. From this position, some patients/consumers feel empowered by the increased options following privatisation, but some do not and instead defy such technologies and, perhaps surprisingly, demand to be treated and disciplined in a more traditional sense.

As illustrated, many profiles have entered and exited the audiological field over the past 50 years. Because of the rise in dominance of the economic/heteronome pole vis-à-vis its scientific/autonome counterparts, physicians and engineers on the upper left of the diagram are constrained to think in terms of the economic drive to maximise profits and secure a market share for their ‘products’: their knowledge of audiology and ‘best practice’ of audiological rehabilitation. Notions about EBM assume an increasing role when new audiological knowledge is being tested and new audiological interventions are tried out. The influence from the state has meant that an alliance between the highly positioned on the left side of the diagram towards the heteronome pole is attempted. Thus, when audiological scientists are applying for research resources, they must relate their findings to evidence and clinical trials.

Audiological physician and professor Dafydd Stephens (2009) has commented on the difficulties in terms of recruitment that the hearing clinics have experienced (as described in article I). In an editorial concerning article I, he underpins Bourdieu’s thinking on fields and emphasises how positions in the field are also comprised by individual agents. In the editorial, he points out seven pioneers who, as struggling agents, have been quite central in the development within the audiological field. The first generation of pioneers who occupied the dominant positions in the field was Harald Ewertsen, Christian Røjskjær, and Ole Bentzen who ran the State Hearing Centres in Copenhagen, Odense, and Aarhus, respectively. Stephens explains: ‘*While there were frequently conflicts between them, they worked together to support and develop a fine system’* (:82), and he notes that the struggles and competition for legitimacy intensified, creating a cultural climate in which the three pioneers were compelled to display and ‘make a virtue’ of their individual differences and dispositions in order to carve out novel, distinctive positions. The reward was recognition for ‘*developing a fine system’*. This striving for distinction was made possible by high levels of structural autonomy within the field.

The second generation of pioneers who tended to pursue strategies of conservation of the existing distribution of capital was Gert Salomon, Kurt Terkildsen, and Bjørn Blegvad. The two last mentioned both died prematurely. The third generation included only one person, Agnete Parving, who is the only professor ever of Danish audiology. According to Stephens, ‘*She fought over the years to improve the service and provisions, but was able to achieve little in improving services for* *adults without support from capable colleagues*' (: 83). Hence, the 'decline' in Danish audiology is not due to an influence from the bureaucratic field. Instead, it can be ascribed to the fact that eventually only one person remains who is fighting for the sacred devotion to audiological reasoning. The diminishing dedication to provide still better quality hearing care to the public; this more or less unthinking commitment to the logic, values, and capital of the field corresponds to what Bourdieu calls 'illusio' and is also a premise for the degree of autonomy in the field. Stephens concludes: '*We must remember that the key people for whom the services are important are the Danish people with hearing problems'*. He is alluding to present audiological and rehabilitative practices that are what Bourdieu refers to as 'doxa', the unquestioned and prereflexive ways of experiencing and negotiating the world. A phrase like this is most likely produced out of good intentions. It might also be descriptive of reality. However, it could contradict it and perhaps mask the absence of such a service. According to Larsen (2003), one might say that the more prevalent the rhetoric of '*the key people for whom the services are important are the hearing impaired*', the more grounds we have to fear that the patient's needs are marginalised, which is demonstrated in my fieldwork (article II).

What Stephens does not engage in is the fact that these 'personalities' with their capitals and their positions are possible only within a specific field configuration in which the capitals are potent and are worthy of struggle. This also means that the social structure of a field is emergent from but irreducible to such constituent agents and their practices; the relational whole is more than the sum of its parts. The relations comprising a field are therefore not limited to interactions between agents.

Presently, there are very few among the structurally dominated groups who assume the role of 'position-taking' in a situation wherein the logic of this particular cultural pole is increasingly usurped by that of the economic counterpole. As claimed by Bourdieu (2005: 44), in the highly competitive context of a field whose autonomous logic is increasingly undermined by the exogenously imposed dictates of the market, paradoxically this does not lead to the differentiation of products but instead to their homogenisation. In this dissertation no comparisons are made of the services offered by private dispensers with those offered by the public clinics. However, the material depicted in the work of both Bisgaard (2008) and Olaussen (2010 – see also attachment 2) lends empirical weight to Bourdieu's diagnosis of this homogenisation.

How then can it be explained that despite reorienting the rehabilitative audiological agents towards a humanistic faculty, we have witnessed little effect on the preponderance of scientific reasoning dominating the field? First, for the audiological field to claim autonomy, it must have its own rules of entry into the field. These could be cultural capital in the form of educational opportunities, career opportunities, or far-flung networks to other fields in which one could also gain and produce capital. The term ‘professional dominance’ originally formulated by Friedson (1970) posits that the traits that identify professions are internal control over the technical aspects of its work and the power to organise, supervise, and regulate subordinates. Thus, subordinates refer to occupations wherein the work is organised and ultimately controlled by physicians. Early on, hearing aids had been of a poor standard and were less accessible, and the pedagogical focus until around 1950 was dominated by the use of hearing tactics aimed at teaching the hearing impaired how to get along in everyday life with a reduced hearing sense (Forchhammer, 1904; Poulsen-Vad & Laursen Ellekrog, 1976; Vognsen, 1980). Thus, when DHHS was founded, the initial heterogeneous social composition of agents was met by new agents that gave rise to clusters of field-specific position-takings. After 20 years and gaining encouragement to compensate for ascending physician shortages, the physician-leaders – as mentioned in article I – founded the official educational course for a group called ‘audiology technicians’. This course comprised a considerable amount of knowledge of physiology, pathology, audiology, and similar clinical subjects (Bentzen, Ewertsen, & Salomon, 1976: 268). The audiology technicians were delegated functions formerly considered the prerogative of the physician and were the more mundane, everyday segments the physician had carried out that could be delegated to a trained technician with a restricted scope for autonomy. This transformation illustrates that the hierarchy of expertise is also a hierarchy of resources; hence, the external policy requirements of efficiency and cost-effectiveness were delivered. As an example of this process – as described in article I – is how brainstem response audiometry (BRA) has become the predominant choice for threshold testing and retrocochlear evaluation compared with the more sophisticated electrocochleography (ECoG), as BRA is less time consuming and does not require medical assistance but can be performed by the group of subordinates.

Moreover, increasingly, physicians delegated to audiology technicians functions that had been considered the prerogative of hearing therapists and teachers, thus sounding the death knell for these layers of staff in many of the hearing clinics. The academically educated audiologists who entered the field from 1980 onwards also were delegated functions on a par with the audiology technicians. Pursuing a credentialist strategy by obtaining state licensure from humanistic disciplines therefore has not mitigated the downward exercise of power through subordination of audiologists, whose skills depend on physicians' assessment. The capital gained from social science knowledge is not considered worthy of a struggle nor is it valorised. Hence, the physicians retain control of the interactions with patients both in the physical examinations and in the fitting encounters during which the subordinates persuade the patients to become hearing-aid wearers. Presently in fitting encounters, patients are categorised based on their biomedical problems and the sets of tasks needed to accomplish their disposals controlled by physicians. That medical and acoustic knowledge resides in the artefacts (such as the computer software used when fitting the hearing aids or the other technical equipment) means the subordinate/dominated worker has limited room to improvise. Rapid technological development is a challenge for this group of staff. Following the increased complexity of equipment, they have chosen to rely on the producers and their software when conducting the hearing-aid fitting. Thus, the producers have become the repositories of the relevant knowledge in these encounters.

To sum up, the audiologists have not been able to promote their own concepts, classifications, and logics (e.g. hearing tactics). Rather, their position is impeded by the embedding of these very concepts, classifications, and logics within the discourse of medical science. Bourdieu notes that *'in the struggle between the attitudes, the attitude which is socially recognised as scientific, that is, true, contains a purely social force'* (1996:90). The medical power functions on the basis of symbolic violence – the subtle imposition of systems of meaning that legitimises and thus solidifies structures of inequality. The medical language, the medical object, and the medical classification are disseminated and viewed as natural, universal, and self-evident in the medical field. As dominated agents, the audiologists inscribe the arbitrary as self-evident and indisputable. As their on-the-job training advances, they become blind towards considering patients as people who bring valid experiences, who have lived with hearing impairment, and who also can disseminate relevant knowledge to them. Over time, physicians have developed an increasingly specialised language to treat many aspects of hearing loss, i.e. the notion of acclimatisation, background noise, open fitting, feedback sounds. This language, along with scientific logics, is socialised to the subordinates who also reproduce/advance the medical ideas of impairment and rehabilitation. The possession of technical competence, such as being able to fit hearing aids, does not in itself represent capital. Recognition builds upon the group's beliefs, which are constituted over time, within a social context, and especially through a struggle between beliefs. That the legitimacy is so strong results from everyone, including the audiologist, mentally and bodily perceiving and acting in the world according to this model.

The impact from WHO/ICF

In the late 1990s, disability came to be considered contextually instead of categorically as a handicap. Hearing impairment was conceptualised by WHO and its ICF as hearing disability, one now recognised as an emergent force between the hearing impaired and his/her context[42] (WHO, 2001). It is important to understand that WHO and ICF are merely ideologies and not active agents in the field. For ideologies to manifest in the audiological field, they need to trigger changes in the perception of what constitutes audiological rehabilitation. This can be done only by matching the doxa in the field. Expressed another way: If money is given to realise a holistic approach to audiological rehabilitation or if WHO has the power to impose sanctions, it will be possible to influence the doxa of the field and initiate a shift in focus from cause to impact for the individual. Otherwise, change will not occur. So far, no trace can be found of any political efforts to change the general objective for Danish hearing disability policy based on a more relational understanding of disability.

The impact of patient organisations on the audiological field

In article I, patients are called consumers and are represented by 'Høreforeningen' (LBH). These changes might be due to other players in the field, e.g. patient support groups. As described in the article, the establishment of the NHHS was based on the creation of policies. The first law, passed in 1950, established a Hard of Hearing Committee and hearing centres, to which the deaf and hard of hearing could apply for help. The Hard of Hearing Committee consisted of just five members, of whom two were appointed by the Danish Association of the Hard of Hearing – in other words, they were representatives of users/consumers. In 1951, another law introduced an insurance plan that provided for a hearing aid, batteries, and assistive listening devices to be dispensed at no charge to the wearer. As in England, a centralised form of political institutions and a centrally regulated charity sector has encouraged the Danish hearing-impaired patient group to use conventional channels, such as cooperative work with professional organisations and paying close attention to the

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[42] Since an individual's functioning and disability occurs in a context, the ICF also includes a list of environmental factors. These 'make up the physical, social, and attitudinal environment in which people live and conduct their lives' (WHO, 2001: 12).

mainstream political process (Allsop, Jones, & Baggott, 2004). The very existence of the NHHS must be partly ascribed to the argumentation that the hearing-impaired representatives themselves were able to put forward in a Government Commission, which *'at any rate at the beginning was extremely unwilling to listen to the requests of the hard of hearing'* (Thuesen, 1976: 28).

Today, less than 1 % of the hearing impaired are members of Høreforeningen (the Danish hearing-impaired patient group) (http://www.hoereforeningen.dk – accessed 15. February 2011), far fewer than are members of other social activist movements; hence, there appears to be no struggle to resist oppressive accounts of their identity (see also article V). Instead, groups are organised by various sorts of 'proxies' for patients. It means that Høreforeningen does not necessarily represent the 'public understanding of hearing impairment' but instead functions as a specific and concrete entity. This kind of activism, however, does not seem to have prevented the extension of medicalised frameworks of understanding.

The explicated goals concern improving the quality of life for the hearing impaired, the development of practical advice for managing one's impairment, the raising of funds for research, and encouraging the experiential knowledge of hearing-impaired patients themselves (www.hoereforeningen.dk – accessed 15. February 2011). Høreforeningen does not consider privatisation of the hearing-aid market as an asset, because it means that hearing aids are no longer provided free of charge to the individual. Moreover, it means a decrease in hospital-related research, as private dispensers make no profit on these activities. Hence, audiology as a subfield lost part of its autonomy, while other neighboring fields such as plastic surgery, biotechnology, etc. gained ground as subfields in the medical field, managing to attract agents who shared an interest or invested in the stakes of the struggles within these subfields (Larsen & Larsen, 2008). This may have led to a decreased value and interest in audiology. Presently, audiology no longer is seen as a field in which the 'craftsmanship of a physician' (Larsen, 2005) can or does occur. Instead, it has been co-opted by engineers, with audiological knowledge gradually accumulating and culminating in an artefact. According to Bourdieu, those relegated to subordinate locations are more liable to deploy strategies of subversion and seek to introduce heteronomous standards because they need the support of external forces to improve their dominated position in it. The Danish government's approach to privatisation can be considered as an intrusion from the bureaucratic field where scientific originality has been challenged by commercial profit and/or political rectitude.

Hearing-aid manufacturers have established their own research centres. In addition to competing in the consumer market attracting potential users/wearers/patients, they continue to collaborate. Three of them, Oticon, Widex, and GN Resound, co-finance a research group at Technical University of Denmark (DTU) called the Centre for Applied Hearing Research (CAHR). According to the centre's mission statement, its purpose is to promote research and education in the field of acoustic communication.

Conclusion

At the level of meta-theory, I have positioned Foucauldian and Bourdieuan epistemological history as an analytically fruitful approach to social inquiry. With their bases in historical epistemology, their work can help to destabilize a present that is unaware of its contingency by historicising those aspects of our lives that appear to be outside history. Within a normalising order, elements of hearing, hearing aids, the welfare system, audiological procedures, and patient roles seem to stand in a logical relation to one another. On their own, however, they mean little. The ways in which patients ask questions and audiologists or physicians answer them are not easily understood. Instead, they are grounded both in discourses (of the self, of medicine as results of struggles over scientific reasoning etc.) and in interaction rituals.

Whereas Bourdieu was a sociologist, Foucault was a philosopher. In an attempt to sociologise the writings of Foucault, his theories on power are positioned as an avenue for understanding interactions in audiological encounters. This permits an understanding of formal knowledge, such as that of audiology, as emerging from a broader array of ambiguous irrational sources, competing scientific disciplines, and social conditions of possibility. Thus like Bourdieu, Foucault produces a construct of 'truth' as the product of ongoing contestation between dominant and marginalised discourses, in which certain ways of talking and knowing have emerged as privileged and normative, while others have been silenced. In Foucauldian archaeological terminology, the field of audiology was able to emerge after the Second World War as a formal discipline due to *connaissance*[43], or a set of changes in concepts, practices, procedures, institutions, and norms, i.e. a

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[43] *Connaissance* includes only formal knowledge such as 'scientific books, philosophical theories, and religious justifications'. *Savoir* thus refers to the broad discursive conditions that are necessary for the development of connaissance (Foucault, 2002: 202).

change in *savoir*[44]. It is questionable, though, whether audiology is an area of social life that lends itself to the kind of complex discursive structures that Foucault addresses in his archaeologies or whether it can be considered a field that Bourdieu would have addressed in his field theory.

On the methodological level, I have reflected on the conduct of participant and videoed ethnographic studies. I have attempted to site my qualitative inquiry practices within a number of ongoing debates on social science methods. These include debates on how to video-record interactions in hospital settings and the degree to which I am contributing to a panoptic situation by placing cameras in the room in which the staff might feel that that their conduct is being judged in terms of correctness and incorrectness. In a self-critical manner, I have discussed the implications of having conducted postfitting interviews with patients over the telephone instead of in their homes, which might have provided a more productive glimpse of how the hearing aid did or did not fit into their daily life.

My material provides an example of how the history of professions crystallises in artefacts and materialises in variant ways. Hearing clinics have an inevitable material dimension, and, in the course of time, subjects produce and reproduce the material dimensions of these clinics. Technologies of visualisation and examination have been crucial for the establishment of a biomedical monopoly over the construction of bodily reality and have confirmed medical practitioners as the knowledgeable experts on the body. The process of employing technology to make hearing visible (quantifiable, measurable, a thing able to be visually understood via charts and graphs) is – in other words – what constitutes the audiological profession. For the hearing impaired, hearing loss is transformed from a troublesome bother in the patient’s everyday life to something measurable on a curve, indicating an anatomical characteristic bringing it into a field of visibility where it is compared against an established norm that then governs what kind of treatment is offered.

To understand how technologies enable and constrain social interaction, it is important to consider both how technologies could be different from how they present themselves and how social interaction built around technologies could be different as well. In other words: the challenge becomes to understand how technical objects themselves are socially constructed. Technologies

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[44] *Savoir* includes formal knowledge such as philosophical ideas but also everyday opinions, institutions, different bodies of learning, (Foucault, 1994a: 261).

acquire meanings in the social world, and these meanings shape and constrain their development. Often – in the initial stages as stated in article I – different meanings of a technology will co-exist, some in contestation with one another. Then, one meaning comes to predominate, and closure is brought about upon another. These matters are drawn into the analysis of how competing interpretations of experiments are something very typical in (audiological) scientific controversies. For audiology and other medical specialisations, standardisation entails routinised social actions (Pinch, 2008) and has been shown to be of great importance, not as a simple technical matter but as a powerful way of bringing a resolution to debates encompassing the different social meanings of a technology.

My research contributes to the existing literature on the subject by suggesting that some of the answers to the question of why patients are reluctant to acknowledge their hearing impairment and seek audiological rehabilitation seem to lie in the start of the individual's trajectory, with the initial medical diagnosis. I propose that the type of need that makes people embark on the audiological trajectory can be a response to social pressure from relatives or colleagues or can relate to particular situations.

My data suggest that in everyday life, hearing impairment seems to occupy contradictory and shifting positions between discourses and the competing worlds of work and family life; individuals are working on their own ideals of a 'good life' and their hearing impairment is situational and occurs when the hearing inability is notable, or made notable by miscommunication or misunderstanding. Technologies in the form of hearing aids are widely implemented in audiological rehabilitation programs, and they have a bearing on this notability. One of the points of the social model is its focus on the ways technologies and the material environment can also function as barriers for the inclusion and participation of disabled people. In my study, these technologies represent possibilities for both improving and exacerbating problems encountered by the hearing impaired. My data also suggest that materiality produces abilities and inabilities. According to the patients, there are settings in which the inability to follow standards for communication singles one out as different, inducing a provision of special needs; thus these settings produce disabilities. In daily interaction, most of the hearing impaired, with some variation, seem to be guided more by what they would avoid than by what they would attain, making them minimisers of risk rather than maximisers of gain. My data illustrate how these people are trying to normalise themselves, so that people do not learn this discreditable fact of their biography. Thus, the interaction norms of everyday life greatly advantage those most interested in maintaining existing hierarchies of identity and make challenging those hierarchies exceedingly difficult.

Compared with other work in which Foucault is used to explain data, this dissertation connects his notions on the production of subjectivity with the meeting for the hearing-aid fitting, as it is a situation where the hearing experience suddenly changes for the new hearing-aid user: a new quality or sense of hearing is introduced to the hearing-aid wearer and how he or she attempts to convey the difficulties inherent in speaking of sound while trying to judge this new hearing-aid hearing. The focus is on the production of subjectivity in a context whereby technology, sound, and the ‘normal’ clearly have a bearing, and a focus on the kind of auditive subjectivity to which the hearing aid use gives rise. Whereas there has been considerable research conducted on the interaction between patient and physician, very few studies of the interaction between the audiologist and the hearing impaired have been produced. In addition, my research differs from the extant work, as I use video-recorded observations. As a result, I am able to conclude that uniformity does exist in the manner of dispensing hearing aids. Although I have not observed the same interactions in private clinics, the observations of Bisgaard (2008) in private clinics support my findings. In my video recordings, it has not been possible to clarify how the responses are mediated through factors such as gender, age, and socioeconomic aspects, which was one of my preliminary hypotheses when I started the empirical work. In my opinion, the reason for this is that what patients can say is clearly grounded in and circumscribed by the meanings available to them in their discursive, material, and technological environment. The kind of seeming irrationality on display in the audiological encounter makes sense in an interaction ritual and from a performativity perspective.

In the same way I have done, other researchers (e.g. Hansen, 2008; Hetú, 1996) have drawn on Goffman in order to explain the stigma attached to hearing impairment. Where my work diverges from early research is by drawing on Goffman’s analysis of the ordering of interaction when considering the hearing-aid dispensing process. Goffman helps support an understanding of the manageable body, with his insights into how individuals control their bodies. Compared with Foucault, Goffman also helps us comprehend the relationship between the body, self-identity, and social identity, thus recognising that the body is a physical component of the individual. However, he does not link an individual’s body management to the wider social norms of body idiom. For both Goffman and Foucault, the body’s significance is determined by sources such as shared vocabularies of body idiom or discourses located outside the body that remain out of reach of the individuals subject to them (Shilling, 2003). This means that we get less of an idea of how the body is an integral component of agency, the significance of the body being determined by the mind’s receptiveness to shared vocabularies of body idiom. Hence, as described by Shilling, the mind becomes the site in which the body’s meaning is inscribed.

My claim is that hearing impairment is an impairment that is socially constructed into a disability[45]. The disabled body is embodied through the senses. The patient is impaired by the lack of the hearing sense. Yet, paradoxically, it is through the senses that disability is perceived (Davis 1995). To say that impairments are socially constructed is to say that they are artefacts; it is not the claim that a specifically discursive practice accounts for their existence. Calling the objects of knowledge artefacts or constructions says something about their conditions of existence, but it does not follow that the primary construction or practice of knowledge is discursive.

Foucault says that *‘in becoming the target for new mechanisms of power, the body is offered up to new forms of knowledge’* (1995: 155). Thus, from a Foucauldian perspective, disability and impairment neither refer to, nor represent, essences of particular individuals or of a certain population at large. On the contrary, these terms refer to a decentred subject position produced by discourses. Some critics have argued that insofar as Foucault claims that the body has no fleshy, prediscursive content, corporeality disappears from his work (Lash, 1991: 259; Shilling, 2003: 80). I am not quite sure about this belief, but I do think that Bourdieu is able to explain how corporeality is in fact part of discourses; he states that ‘*the body is in the social world, but the social world is also in the body’* (Bourdieu, 1990a: 190) and how this manifests in ways of ‘*standing, speaking, and thereby of feeling and thinking’* (Bourdieu, 1977: 93-94). This indicates that a synthesis of phenomenological and social constructivist epistemological perspectives is a fruitful way that sociological analysis views the (hearing-impaired) body.

In audiology, pedagogy operates as the transmission of medical scientific knowledge to an individual. The pedagogical relationship consists of a transmission of truth, the purpose of which is

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[45] Some impairments are not socially constructed into disabilities (e.g. myopia or short-sightedness).

to modify the very being of the subject in question. Scientific knowledge about brain training is used in order to convince the patient that their hearing sense – having degenerated slowly over the past 10 to 15 years – can be restored in 6 weeks, if only they resist possible annoying sounds from amplification and the uncomfortable feel of the hearing aids. Hence, it is the individual who must conform to the technology and not the other way around. To benefit from hearing aids requires adaptation on the part of the user, senses must be rediscovered, and daily routines must change. Understanding this kind of pedagogical relationship in terms of government means that the audiologist is directing the hearing impaired, teaching him/her to care for the self (self-formation), to work on oneself to become a hearing-aid wearer. They are not providing the hearing impaired with information on how to do this. Rather, the information and tools existing in audiology target the staff.

For the patient, prior to fitting. there is no notification of what this consultation will entail. Patients are not taught how to communicate subjective hearing in words. They are not guided in becoming aware of needs and aspirations for hearing aids. When hearing aids are dispensed, no procedures are offered to the patient for subsequent domestic assessment. Thus, patients are not educated in what to expect from the hearing aid or how to identify potential obstacles for optimal use and whether there may be room for further refinements available concerning its programming.

At the same time, the audiological encounter is cut off from yet connected to patients' everyday life. It is cut off due to constraints of time and space, and consists of a short visit that for most is not followed up by a revisit. At the same time, it is connected, because attending audiological rehabilitative services means complying with the wishes of significant others, children, colleagues, and for some, gaining access to a rehabilitation program that can prove helpful in their everyday lives. Strategies for managing hearing impairment are thus rooted in local, experience-based, and context-specific knowledge about what works in everyday life. The rehabilitative pedagogical challenge is that there is not one everyday life but many; there is not one pattern of reaction to being diagnosed as hearing impaired but many, there is not one single understanding of hearing impairment and hearing disability but many. The rehabilitation program in Denmark is not built on recognising that hearing-impaired people are the experts in the context for the rehabilitation process, namely, their own lives. The knowledge and aspirations of the patient are not the starting point for service provision, with the result that programs are not tailored accordingly.

Instead, at present, the audiological field is dominated by the medical model with medical experts who conceptualise hearing disability as an impairment of the normal body function. The state is involved in the reproduction of medical dominance by regulating the conditions for the licensing of medical practitioners, meaning that a compensatory process is instigated entailing obligatory referrals for the use of hearing aids. With no alternative route towards rehabilitation, it remains the medical practitioners' privilege to conceptualise hearing problems and formulate solutions. The lack of social science studies of people with acquired hearing impairment might, therefore, simply be due to the fact that hearing impairment and its rehabilitation has become a low status area and the domain first of physicians and now engineers.

In the area of hearing health care, the use of governmentality is seen quite clearly, as governments spend less and less on individual health care and instead try to substitute a network of self-financing, competing providers in a system called managed competition. My data suggest that prior to entering the hearing clinic, very few of the patients appeared to have much insight into the nature of the hearing-aid treatment regimen. Then, they are confronted with tight schedules and when invited to be a 'partner' in decision-making as well as a 'consumer', the patient is often not prepared to do either. Patients are faced with a bewildering array of choices, and if the choices turn out badly, they feel that they have only themselves to blame. Through problematising the population (as not healthy enough, not productive, not compliant, etc.), the state develops new techniques of management in order to promote the efficiency of its internal organisation. In other words, it shifts the burden back to the people. My research corresponds to the findings by Olaussen (2010) in that the consumer discourse does not challenge the medical idea of hearing impairment as being something that only concerns the physical ear but instead looks for ways to profit from it.

Thus, the rehabilitation program on offer in Denmark – i.e. the political-administrative construct of the concept – is a rehabilitation program that expects the patient to become acclimated to a new soundscape after 6 weeks. This is a brief period, and one can easily imagine how this directive differs from the ideologies set up by WHO and its International Classification of Functioning, Disability, and Health (ICF). I have used this official political administrative construction as a guideline when planning the temporal parts of my points of entry. From this, I have concluded that only 37 % used their hearing aid as prescribed by the staff. However, other research suggests that the incidence of non-use seems to increase with the length of the observation period (Gimsing, 2008).

Therefore, it does not seem that the historical transformation of the medical gaze, with its extension in the 20th century to a wider interest in the psychosocial status of individuals, has yet reached Danish audiology. Although the Danish State seeks to define and regulate hearing impairment, this does not in the end control what people do with the state's findings and regulations, which bring us back to the issues emanating from the SFI report from 2006 that initiated this study. In order for patients to comply with the requirements of the rehabilitation process, a rethinking of current models of service delivery seems necessary, as some of the contextual issues impact on compliance.

It is my contention that this summation in terms of meta-theory, methods, and social embedding offers a fruitful answer to the problem posed in the opening section: *What are the circumstances in which hearing-impaired persons seem to be reluctant to acknowledge their impairment and to seek audiological rehabilitation, and ultimately decide not to wear the hearing aids provided?* To reiterate, each of the 5 articles represents its own situated engagement with particular aspects of this wider problem without claiming to exhaust the fields of possible knowledge. Only by reading across the articles, as I have done in this introduction, do we get a sense, however partial, of the circumstances in which newly diagnosed hearing-impaired persons seem reluctant to seek audiological rehabilitation and decide not to wear the hearing aids provided.

From the articles, I have amassed a significant amount of constructed material and analyses that I have not discussed or have treated only tangentially. There are many potential avenues for further investigations. One area beyond the confines of this dissertation that could be pursued is the various trajectories that people follow as they move through the recognition process, as there might be a connection between satisfaction and these trajectories. The impacts of becoming a hearing-aid wearer potentially could be fruitfully analysed by engaging with science and technology studies literature regarding the social implications of living and working with technical artefacts and that hearing aids are not simply 'social constructions', articulated within 'discursive frames', but rather should be considered as material-semiotic social actors in their own right. This would imply that the idea of human beings and technology is interwoven. The American philosopher Don Ihde (2002), an influential theorist in the field of science and technology, has explored the (post) phenomenology of hearing and the role of technical artefacts in sensory experiences. According to Ihde (:XI), we are our body, in the sense of our motile, perceptual, and emotive being-in-the-world. We can directly touch, see, hear, and smell the world around us. Ihde considers technology as a mediator through which we can experience the world. Following Ihde, hearing aids can be considered as an extension of the body, enabling hearing-aid wearers to further engage as hearing individuals in their everyday life. On a descriptive level, this idea of a fusion of the human and nonhuman worlds seems to be an interesting and fruitful approach. However, it was not present in my material. On the contrary, quite a few users saw it as a relief to remove the hearing aids when they came home from their various activities, thus considering the hearing aids as a foreign body.

Another possible way of investigating the changing geography of responsibility in audiological rehabilitation is to consider a research project based on institutional ethnography (IE). What IE provides is methodological and conceptual resources for coming to know the active and social character of formal discourses of knowledge. The term does not designate a bounded organisational space. Rather, it refers to a complex of ruling relations (the multiple activities of individuals, organisations, agencies and the discourses they produce and circulate) that are organised around a particular function such as health care (Mykhalovskiy & McCoy, 2002). As argued by Dorothy Smith (2001), a prominent aspect of IE is the recognition that the materiality of text-based forms of knowledge and discursive practices are central aspects when analysing institutions and organisations. As people in an institutional setting most often describe their work using the language of the institution, the challenge is to recognise when the informant is using institutional language, as it conceals the very practices IE aims to discover and describe. Thus, exploring the ordering of an institution from an IE perspective involves a focus on how a range of professional and managerial practices are carried out, how they are discursively shaped and connected with one another, and how they hook people's activities into extended social relations. IE sets out to explore how our day-to-day lives interface with such institutional relations.

Ethical aspects in the dissertation

I will now elaborate briefly on ethical aspects that have preoccupied me on occasion during the analysis. One of these aspects concerns what it means to focus on one particular part of an individual's life, which might not be of great importance to the individual. As a researcher, I conduct an intervention into other people's lives and thus might make a problem loom larger than what it would otherwise. Another ethical aspect is the question 'Does one size fit all?' This is concerned with being context sensitive. Participants in qualitative studies are vulnerable to invasions of privacy, unwanted identification, breach of confidentiality and trust, and misrepresentation (McNamee, Olivier, & Wainwright, 2007: 145). The protection of the research participant is a key element of research ethics. I think that it is incumbent on the researcher to make sure that the cost to the participant is minimised, and this can be obtained by keeping within the objectives of the research. In my study, the topics of the interviews are quite intimate for many of the patients. The fact is that the *personal* point of view is exactly what is required, and this cannot be acquired from the outside (Hastrup, 2009). The aim is to understand the patients' and staff's points of view, and to show how these points of view are 'made obvious'. When making a person the centre of investigation, it is important to reflect upon how the person is constituted as a subject (Taylor, 1989). What do the patients have in common, besides having a hearing impairment, since they are grouped and categorised together. Lisa Cartwright (2000) has warned that sometimes it may be quite problematic to assume that disease is the great leveller, since: *'the experiences and cultures of illness ... are always lived through identity positions and arenas of public and professional discourse that exceed the frameworks and cultures of disease'* (p. 122).

Their experiences of hearing impairment cannot be accounted for in deterministic terms, as a group feature, but all members of the group have had some organic pathos categorised by the system, and they are all being categorised as patients. However, not all reacted to being treated as patients when they were not sick, not all reacted to being reduced to body parts and impairment categories in matters with complex effects on their lives, and not all reacted to the asymmetry practised in the hearing clinics. A further ethical challenge is to temporarily involve oneself with, and to try to create confidence in, the person who is part of the field of research and therefore by definition an object of study. It is a double positioning requiring simultaneously a necessary closeness to, and distance from, the object of study. These are epistemologically basic terms and, in fairness, can be considered as the establishment of a kind of instrumental involvement with the informants (Hastrup, 2009).

Investigating the interaction between staff and patients placed me in a particular situation in order not to break patient confidentiality, which was an integral part of the field in which I conducted my fieldwork. I did not tell the staff what the patients had told me. At the same time, I knew details about the patients from having been allowed access to the patients' journals. To prevent this from causing me too many problems, I made the purpose of my presence in the clinics obvious to all patients. Patient confidentiality was undoubtedly crucial in determining how patients viewed me and from which positions I was allowed to observe and interview them (Hastrup, 2003: 410). Some of my field notes were descriptions of people in situations wherein they might not have been aware that what they said was being written down. Hence, in the analysis, a central question for me was which part of the data could be brought into the public domain. In my work with making anonymous both staff and patients, I sought to omit descriptions of persons that I found compromising for those involved and restricted myself to relating detached sentences. What they have told me instead has been used indirectly as something that allows me to comprehend the field better, as something that I can describe in more general terms, and as something that I can use as a lead into further research.

As my study has been qualitative and explorative, I have not been able to provide a full presentation of the research endeavour to the staff. Regularly, I have presented the main points delivered in my articles to audiences in the hearing health sector and to the staff involved. In each case, the feedback from these events has been used to further develop the analysis.

It has not been my intention to present the staff as a group of people who are either unable to understand or to resist structural restrictions. I could have given them a greater voice in the articles and thus have represented the group in a more nuanced manner in terms of their reflections on the rehabilitation offered to the patients. A few of them actually did express that they experienced limited room for manoeuvring, which might be a reason for allowing me into their worlds to record and analyse their practices. Ideally, one should describe participants' different views as locations within a field of differential 'relations' and as such, they should be understood not as fixed substances but as entities defined 'relationally' in terms of their position within a field of conflicting relations (Bourdieu & Wacquant, 1992). Perhaps this too could be another paper's topic.

The study was funded by Widex on the basis of the project description presented to them in April 2007. I provided Widex with regular updates regarding the research findings, once I had completed the articles. At no point has Widex interfered with the process, the chosen methodology, or choice of theory of the project. Thus, there has been no involvement from its side that might raise the question of conflict of interest.

Attachment 1: Prefitting interview questionnaire

1. The story up until attending the service (pressure/motivation by a colleague, relative or spouse)?
2. Do you think you have difficulties hearing? If so, how long have you sensed this? In which situations?
3. What did the physician say about your hearing impairment?
4. What did the physician say about the possibilities and limitations of hearing aids?
5. What were the circumstances around the choice of type of hearing aid?
6. What are your expectations of the rehabilitation program?

Attachment 2: Overview of the social science literature on the subject of audiological rehabilitation

In order to identify social science literature on audiological rehabilitation, the following search engines were accessed using the phrase ‘audiological rehabilitation’: PubMed, Medline, CINAHL, JSTOR, Sociological Abstracts, ISI Web of Knowledge, and ERIC. My screening criterion was that the research was focused on individuals with acquired hearing impairment, that the research was qualitative[46] and there was an explicit reference to social science theory.

In **PubMed, MEDLINE,** and **ISI Web of Knowledge,** I searched on the following subject headings:

audiological rehabilitation OR hearing rehabilitation OR auditory rehabilitation AND compliance
audiological rehabilitation OR hearing rehabilitation OR auditory rehabilitation AND noncompliance
audiological rehabilitation OR hearing rehabilitation OR auditory rehabilitation AND adherence
audiological rehabilitation OR hearing rehabilitation OR auditory rehabilitation AND satisfaction
audiological rehabilitation OR hearing rehabilitation OR auditory rehabilitation AND benefit

In **JSTOR, CINAHL,** and **ERIC,** I searched on the following subject headings:
‘audiological rehabilitation’
‘auditory rehabilitation’
‘hearing rehabilitation’

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[46] I should stress that my preference for a qualitative style of inquiry is tied to its ability to better elucidate my research question. As described in article I, patients’ subjective experiences are often framed as medicalised problems by using quantitative surveys of quality of life measures such as the SF 36. The Short Form (36) Health Survey is a survey of patient health. The SF-36 is commonly used in health economics as a variable in the quality-adjusted life year calculation to determine the cost-effectiveness of a health treatment. Likewise, the IOI-HA inventory (International Outcome Inventory for Hearing Aids) is a seven-item questionnaire designed to be generally applicable in evaluating the effectiveness of hearing aid treatments. The inventory was developed to facilitate cooperation among researchers and program evaluators in diverse settings (Cox & Alexander, 2002). It has its attention on clinical signs, thus the more complex elements of the patient’s subjectivity are consequently not part of the research. In a review of the psychosocial effects of hearing impairment in the working-age population, Danermark (2005) concludes that in the body of research he had traced, most of the studies were quantitative.

In **Sociological Abstracts,** I searched on the following subject headings:

‘hard of hearing’, ‘hearing impairment’, ‘hearing loss’, ‘audiological rehabilitation’, ‘hearing rehabilitation’

Theses, dissertations, and other published research based work on audiological rehabilitation:

I offer the following short annotations of theses and dissertations located by reading the references of others’ published journal articles, theses and dissertations or through consultations with colleagues. These works do not show up in search engines; therefore, the following most certainly does not comprise a complete list of what has been published or is available.

Hallberg, Lillemor R.-M. (1992): ‘Hearing Impairment, Coping, and Perceived Handicap in Middle-aged Individuals with Acquired Hearing Loss. An Interactional Perspective’. Doctoral dissertation, University of Göteborg, Sweden

The investigation included 71 hearing-impaired people ranging in age from 40-60 still working, despite their impairment. By means of interviews, the study shows that the hearing impaired adopt a variety of coping strategies in demanding auditory situations. Those strategies comprised either controlling or avoiding behaviours. Hallberg investigates the correlation between type of hearing impairment (e.g. noise-induced hearing loss), acceptance of hearing problems, social support related to tinnitus, degree of hearing loss, years of education, and coping strategies. She concludes that both environmental accommodations and individual coping capacity are needed for a minimised perception of handicap.

Morgan-Jones, Ruth A. (2000): ‘Hearing Differently: The Impact of Hearing Impairment on Family Life’

Morgan-Jones’ work is a qualitative, psychosocial study conducted in Great Britain and discusses the complex interaction between the hearing world and the world at large. It was initiated as a response to the author’s personal experience with profound hearing loss and her roles as wife, mother, social worker, and counsellor. Morgan-Jones explores and analyses 150 in-depth interviews with hearing-impaired people, including 11 couples in committed relationships in which one partner is hearing and the other is hearing impaired. Detailed information was obtained about the way each couple managed conflict, decision-making, household chores, communication, and their perception of the hearing impairment within their relationship. Morgan-Jones finds that hearing impairment can facilitate relationship development, in as much as the strategies required to communicate successfully with hearing-impaired persons can also lead to a deeper understanding of the partner and more intense dialogue, instead of the more superficial and quick forms of everyday communication.

Gullacksen, A. C. (2002): 'När hörseln sviktar – om livsomställning och rehabilitering'. Malmö : Centrum för handikapp- och rehabilitetsforskning (Harec), Sweden
The work draws on interviews with 33 hearing-impaired working-age individuals over a period of 5 years from 1990 to 1995. Central to the interviews is how to learn to live with a hearing impairment as an adult, regardless of whether the onset occurred early or late in life. Gullacksen describes how when hearing impairment begins to create difficulties and problems in everyday life, the respondents must adapt their lives, their roles, and their personal image in ways that meet the personal wish to have a fulfilling life. A major task of this conversion involves learning to deal with their surroundings. Respondents describe how the physical environment must be made more available and the human environment must be informed and 'educated', due to the new situation. The rehabilitation that is necessary at this stage includes several elements, such as trying hearing aids, understanding what hearing loss means, and adapting in new ways to family life, work situations, and leisure time. It is in this context that the hearing impaired meet with different rehabilitation professionals who offer support with each of these tasks. The rehabilitation efforts come at a time when the hearing impaired have not yet figured out the significance of the ways hearing loss will impact their future. The author draws on theories of coping strategies to explain how, for some, the hearing impairment leads to new challenges, while for others, to setbacks and disappointment, but for most, to an adequate adaptation of life.

Stratton, Alison (2003): 'The cultural work of hard of hearing in Sweden'. Anthropological doctoral dissertation, Columbia University, USA
Stratton's research is carried out in Sweden, and it describes societal efforts to define and regulate people with hearing loss. Data were collected in 1998-1999 during multi-sited anthropological fieldwork in Sweden and Denmark: at hearing aid examinations, hospitals, labs, schools, manufacturers' offices, governmental institutions, research and training conferences, and

universities. It covers the period around the acquisition of the hearing aids. Stratton draws on the work of Foucault, Garfinkel, science and technology studies (STS), etc. Being hearing impaired is considered as a social position – a series of moments and places in which hearing difficulties become marked and remarkable, and in which action is taken by a variety of personnel to define, regulate, and maintain hearing difficulties in culturally relevant ways. Stratton describes how Sweden as a welfare state provides cradle-to-grave health care. According to Stratton, the state-organised construction of hearing impairment is difficult to escape. However, her findings illustrate that the state cannot control the strategies the individual employs in order to live with the loss – strategies that include ignoring, hiding, or embracing the loss.

Loeser, Cassandra (2005): 'Embodiment, Ethics and the Ear'. Philosophical doctoral dissertation, University of South Australia, Australia

Loeser's interdisciplinary research project explores the ways that young men with moderate to profound hearing disabilities, who communicate primarily through spoken English, construct their masculinities in and across the sites of everyday interaction, the arts, friendship relations, secondary school, paid work and sport. Drawing on Judith Butler, Michel Foucault, Friedrich Nietzsche and Maurice Merleau-Ponty, her project identifies and analyses everyday practices and techniques used by the men that are significant for understanding the ways masculinity and disability intersect in the construction of embodied subjectivity.

Engelund, Gitte (2006): 'Time for hearing – recognising process for the individual'. Doctoral dissertation. Dept. of Nordic Studies and Linguistic Audiologopedics, University of Copenhagen, Denmark

Drawing on the grounded theory method of Barney G. Glaser, the dissertation links various types of knowledge, i.e. audiological, linguistic, psychological, and sociological, and it looks into emergent hearing impairment and the problems individuals often have recognising the loss. Engelund defines four stages in the process: the first is 'attracting attention', when people with emergent hearing loss start to draw attention to themselves because of communication disturbances. The second stage, 'becoming suspicious', is characterised by the affected individual's increasing awareness of the hearing loss. The third stage is 'sensing tribulation', when people recognise the consequences of hearing disturbances and experience emotional and behavioural reactions. The fourth stage, 'jeopardizing fundamental self', implies that people must seek help for their condition in order to preserve who they are. The study gives examples of the perception of loss of status, attractiveness, and youth, as well as the conflict potential of hearing impairment expressed by the respondents. Engelund concludes that people with an acquired hearing loss should be treated as people in process rather than people in a state of stigmatisation, denial, or malaise.

Hansen, Niels-Henrik (2008): 'Hva' så? Høretab, emotioner, trivsel og integration blandt unge hørehæmmede i et sociologisk perspektiv'. Sociological doctoral dissertation. University of Copenhagen, Denmark

The dissertation examines the ways young people with hearing impairment cope with their disability and how it influences their daily life and interactions within their surroundings. The fundamental issue of this dissertation is how the lives of young people, aged 18-35 with hearing loss, can be defined with special regards to the processes that influence social inclusion and exclusion. Hansen draws on theorists such as Johan Asplund, Erving Goffman, Arlie Russell Hochschield, Randall Collins, and Niklas Luhmann. An internet-based survey with more than 430 young hearing impaired was conducted, along with 25 interviews with young hearing impaired. The main concept of 'the ability to discern sounds' and how this can be understood in a sociological frame is discussed, and the dissertation posits the invisibility of a hearing impairment as a central issue. Such invisibility means that, to a considerable extent, it is up to oneself to define what it means to be hearing impaired. The work calls attention to the fact that young Danish people who happen to be hard of hearing do very well in many areas. There are, however, several problems. One is that the integration into primary school, which despite the generally positive evaluation, appears problematic for the group of hearing impaired who have difficulties following along in class. They experience being met with a lack of knowledge about, and understanding of, their challenges. These young hearing impaired have difficulties in obtaining lasting and full social integration. They can employ several strategies to cope with the communicative problems that derive from the hearing loss, but each of these contains different potential benefits and trade-offs for the young hearing-impaired person.

Bisgaard, Susanne (2008): 'Coping with Emergent Hearing Loss'. Anthropological doctoral dissertation, Johann Wolfgang Goethe-University, Frankfurt am Main, Germany

Bisgaard's dissertation has three focus of loci: 1) the interaction between the new users and the 'lifeworld', including the strategic contemplations in the process of becoming and being hearing-aid users; 2) the interaction between new users and technology; and 3) the interaction between new users and the hearing health care system. Over a period of one year from 2003 to 2004, Bisgaard contacted 41 new users between the ages of 42-92, 24 of whom were retired and 17, still working. She followed them as they went to examinations and adjustments at the dispensers in both public and private clinics. The aim was to examine the factors that seem to be decisive for the extent of failure or success of the adaptation process. She draws on an analytical tool provided by STS and combines with the work of other theorists such as Arthur Kleinman, Gregory Bateson, and Fredrik Barth. The dissertation includes an investigation of participants' reasoning concerning the choice of private and public dispensers. Here, Bisgaard interprets respondents' choices as based on coincidence, since the procedure followed its own course depending on whomever they happened to speak to at the time. Bisgaard concludes that being hearing impaired is not a static, objective condition. Instead, it is dependent on the soundscape, the personal knowledge of the communicated themes, the knowledge of the spoken language or dialect, the individually ascribed meaning of hearing, and whether the hearing impaired in the situation has the necessary energy to understand what is being said. Moreover, she concludes that it often takes a high degree of perseverance and determination to become a contended user and that the dispenser – private or public - in that process may deem the user cantankerous.

Olaussen, Irene (2010): Disability, Technology, and Politics: The Entangled Experience of Being Hard of Hearing. Doctoral dissertation, University of Oslo, Norway

This is a dissertation that I learned about just before finishing my own and which I find particularly interesting. Based on empirical material from the Netherlands and Norway where Olaussen has followed experienced hearing-aid wearers in fitting encounters, she explores how visions for an inclusive society are sought and realised in audiological practice. The research project is positioned in and between two interdisciplinary research traditions, disability studies, and STS. With disability studies, hearing loss is denaturalised and politicised and, as a culturally complex and socially situated phenomenon, made operable for social science analysis. With analytical tools from STS, Actor Network Theory in particular, Olaussen explores the material enactment and ordering of hearing impairment in practice. In Norway, audiological rehabilitation is a public service, whereas in Holland, it is completely privatised. The analysis focuses on the discourse on solidarity underlying the two welfare systems, the conceptualisation of disability, the disabled subject emerging in political debates, and the outlined geography of responsibility between individuals, technology, and society. Some of Olaussen’s findings correspond to the findings in my work. Both in Norway and in the Netherlands, the only rehabilitative support users receive is the hearing aid. However, Olaussen did not follow these patients outside the clinic setting and therefore is unable to conclude whether they experienced agency or alienation resulting from the consultations. Olaussen concludes that from a social justice perspective, access to work, and use of technical aids does not undo disability, as such aids implied that her informants had to actively position themselves as disabled and hence produced negative results with regard to their collegial social status.

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Abstract
This contribution briefly describes the history of Danish audiology during the last 50–60 years from the establishment of the National Hearing Health Services (NHHS). Progress within the field is framed according to the theory of Bourdieu which challenges the present concept of evidence based medicine and health technology assessment (HTA). The humanistic field has recently been re-introduced due to the international impact of the WHO-ICF, in contrast to the former exclusion of this field from the NHHS. The major impact from the political field, resulting in a partial privatization, is regarded as potentially leading to a reduction of future research and training within audiology. In contrast, the political field considers it as an improvement despite the substantial increase in costs for the state.

Key words: *audiological discipline, fields, conflicts, HTA, evidence based medicine*

Introduction

In 1934 several organizations formed by hearing impaired and deaf people merged into 'Dansk Tunghøreforening' – the first unified group within the hearing impaired that could be an advocate to politicians for the establishment of public hearing health services. This unification was presumably due to an understanding of the political potential and influence of a larger and thus more powerful group, rather than to identical parameters and attitudes among the various groups. Thus the 'Tunghøreforeningen' achieved political awareness and managed by lobbying to improve the situation for their members in collaboration with influential ENT doctors, finally resulting in the establishment of the NHHS in 1951, based on the Act of Parliament No. 21 of 27th January 1950 (1). Since then the objectives of the services have been to evaluate hearing disorders and perform hearing rehabilitation by the fitting of hearing aids (HAs).

The organizations of the consumers, which were directed towards improvements for both their child and adult members, have changed names several times over the years. The conflicts between the deaf and the hard of hearing have resulted in the introduction of several organizations in relation to age and degree of hearing loss. Recently, conflict between adherents of cochlear implants (CI) – especially in children (2,3) – and the deaf community, has resulted in an organization of parents of children with CI named 'Decibel'. In addition the 'Dansk Tunghøreforening' – forming an umbrella organisation now named 'Høreforeningen' (LBH) – has expanded its activities into financing consumer surveys of the public and private services as part of politically directed activities (4).

Present situation

The public NHHS services have, since their establishment, enjoyed high esteem internationally, particularly for being directed towards all age groups and being completely free of charge. Moreover, the services have benefited from the national development in acoustic measurement equipment and hearing aids (HAs) based on a close collaboration with the industry and the manufacturers (1). Since the 1990s it has been increasingly difficult to maintain and develop this high level of service. Population surveys have shown that approximately 18% of the adult population suffers from hearing impairment (5,6) and the needs and requests for hearing rehabilitation have never been met since the establishment of the NHHS. The increasing waiting lists, with a waiting time for evaluation of up to two years in some clinics, became an increasing political issue. In the 1990s this resulted in the appearance of private dispensers of HAs with partial reimbursement from the local community of the costs covering audiological evaluation, and HAs based on an obligatory referral from a local ENT doctor.

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However, irrespective of the reimbursement of 5830 DKK/HA (777 EUR/HA), the hearing impaired person may have to pay an additional amount of money if he/she is provided with HAs from a private dispenser, as the intention has always been only partial reimbursement. The private sector is run by audiology technicians or ENT doctors, and as the salaries in the private sector are much higher for performing diagnostic acoustic measurements and HA fitting than within the public services, many of the audiology technicians prefer the private sector. This has resulted in further waiting lists in the public sector due to an insufficient number trained. In addition, an insufficient number of doctors in audiology is available, predominantly due to missing recruitment among young doctors trained within ENT from where doctors in audiology must be recruited. This is because the medical audiological discipline is part of the ENT speciality in Denmark. It should also be noted that there is a general shortage of doctors in the country, also affecting audiology.

The scope of the present report is to describe the history of the audiological discipline in Denmark from its start as a public service in 1951. The description will be based on the various clinical developments generated from the field of acoustics, as these have had a major impact on the related areas within medical and rehabilitative audiology. This is substantiated by the fact that less than 10% of research within the Danish audiological field has been based on the social or human sciences (7). Only key technical developments affecting the clinical field will be mentioned and, in relation to these key issues, the history will be divided and described in decades. Apart from the factual, and brief, historical description, progress will also be analysed within the framework of a social theory.

The important roles played by consumers and politicians will be briefly described in separate paragraphs, as will the accompanying development within training and education.

Material and methods

The social theory proposed by Pierre Bourdieu (1920–2002) is used to describe the progress and interaction between the various fields of audiology. This includes the basic concept that humans cannot be identified in some primordial natural state separate from their social relations. Their specific humanity lies precisely in their social existence (8).

Bourdieu considers society as consisting of different 'fields', their relationship to each other based on social positions maintained by powerful interactions. The social fields have structuring effects on the attitudes, dispositions, and practices of their members (9,10). Thus, the total audiological discipline is considered as the main area with separate subfields or 'positions' such as the medical, technical and rehabilitation subfields. The subfields' position in relation to each other is often based on conflicting attitudes or disagreements on professional issues, training, importance and legitimization of knowledge. Even within the subfields, as is shown in the results, discussions and struggles between doctors and between doctors and engineers concerning diagnostic sensitivity/specificity and evidence, have been all-pervading in the history of audiology, leading to improvements and progress in some areas and stagnation in others.

While clinical and technical audiology has its origin in the natural sciences, rehabilitative audiology has its origin in the humanities. In the natural sciences the traditional belief is that the history of scientific medical practice has always been a constant and homogeneous process of accretion of knowledge. Bourdieu's theory is in contrast to this and provides a potential for another explanation by unfolding the underlying conflicts or competition between the fields where different interests are at stake. These include professional issues for improved services within diagnostic as well as rehabilitation services, professional competence and control, positions in the various hierarchies, power issues and encouragements to economic growth. By detecting the social strategies of investment aimed at maximizing the specific profit in the field, various explanations may evolve:

- Medical doctors and technicians have an interest in professional control/power in the area of diagnoses and HA fitting.
- Private industry has an interest in technological developments and economic growth.
- Politicians desire re-election that may be obtained by political measures offering short waiting lists for evaluation and HA fitting through high production and low costs.
- Consumers expect professional treatment, quickly and free of charge. In addition, they expect satisfactory services with benefit from the HAs.

Thus, according to Bourdieu's theory, the audiological discipline can be depicted with its various different professional fields, the consumers and the industry as important and influential fields exchanging information and collaborating with the clinical professionals in the public and private sectors (Figure 1).

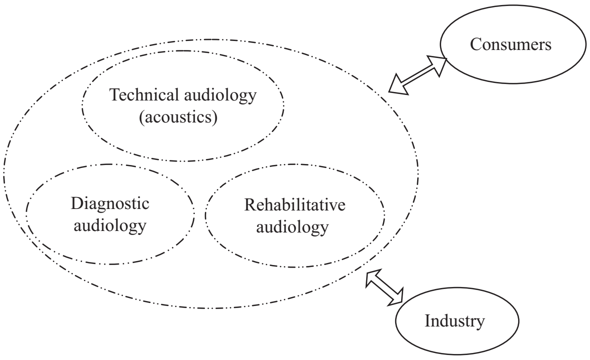

Figure 1. The audiological discipline illustrated as separated fields.

In order to demonstrate and apply the theory, three examples from the early days of Danish audiology are described:

1. A symbolic controversy within and among the different fields is illustrated by the role of the government in relation to the manufacturers of HAs. In Denmark there were three manufacturers of hearing aids and, instead of introducing a state produced hearing aid, as introduced in Great Britain in 1948 after discovery of the transistor, politicians decided to stimulate the manufacturers to produce increasingly effective products via competition. In addition, the consumers (LBH) obtained hearing aids, earmoulds and assistive listening devices free of charge from the NHHS, which would buy the HAs from the three manufacturers, competing on benefit and price.

   Hence the discipline of audiology in Denmark emerged as a result of political will, consumers' current needs, influential medical doctors, the discovery of the transistor minimizing the size of HAs, and an acoustic industry and manufacturers with interests in HA production obtaining a national monopoly.
2. Another example is discussions about whether the leader of the hearing health centres should be a teacher or a medical doctor, and also the physical location of the centres. Doctors won the battle over hearing therapists and were nominated the leaders/managers. The centres were in general placed in relation to the local hospital ENT departments. This went against the views of patient organizations that did not consider hearing impaired persons as patients and thus thought that they should not be part of outpatient clinics in the hospitals (11). Many hearing therapists agreed with the consumers and only in two of the three original hearing centres were hearing therapists employed (12). For a more detailed description of early Danish audiology the reader is referred to 'Danish Audiology – 25 years' (1).

   To summarize, this example shows how the foundation of the NHHS, from its very beginning, was a field of strategic possibilities, and that the medical doctors held an amount of capital sufficient to enable them to wield power over the capital held by others in the field (the hearing therapists). In this way a specific scientific capital, emanating from the natural sciences, became all-important. This had both very fruitful and, at the same time constraining, effects on ideas.
3. A third example is the struggle for a reduction in the price of HAs and batteries. In 1952, the Tribunal of Disablement Insurance requested tenders from the three hearing aid manufacturers in order to obtain discounts based on quantity. Thus, tenders were developed with technical specifications suggested by acousticians, assuring the quality of the instruments.

   Whereas hearing aids were provided free of charge, it was decided in 1951 that the hearing impaired were to meet 25% of the costs of the requisite batteries themselves. The local authorities refunded the rest of the amount. Seven years later and, under large protest from the industry, the hearing centres established a battery centre where batteries were purchased by the state in bulk at considerable discounts from the price that the consumers originally had to pay. The State, therefore, took over the market, creating a monopoly system (1).

These examples show that the sociological theory as outlined by Bourdieu is a challenge to the ideology that progress may be the result of evidence based medicine.

Results

1950s

In the 1950s speech audiometry became routine, as part of diagnostic testing using word lists (13). The word lists were produced in collaboration with linguists having a fundamental knowledge of language. However, there were ongoing discussions concerning redundancy, phonetically balanced/non-balanced, list variances, word/phoneme scores and validity (14,15). The discussions resulted in fully standardized word lists, the so-called Dan-tale lists, which are still used in clinical speech recognition testing (16), although discussions have continued (17). Apart from diagnostic testing, the speech tests are used as part of the HA fitting procedure and are presented in the sound field in quiet and background noise and with various S/N ratios. The word lists are presented without and with the HA and indicate the immediate benefit of the device (18). However, the sensitivity/specificity of speech audiometry as part of the assessment of the topical site of the hearing disorder has remained poor, irrespective of the speech material, but is still used, e.g. as a measure of hearing function in cases of compensation for noise induced hearing loss (19). In addition, the standard clinical setting cannot simulate the daily situation of the hearing impaired and cannot be a reliable indicator of the benefit/non-benefit of the HA fitting.

The diagnostic and key rehabilitative developments in relation to decades are listed in Table I.

1960s

In the 1960s impedance audiometry became available as a routine clinical procedure. Already in 1946 the ENT doctor, Metz (20), had demonstrated that the acoustic impedance in the middle ear could be measured. However, equipment feasible for clinical measurements was not developed until 1960. Thereafter, it was possible to measure middle ear pressure, stapedial reflex thresholds and compliance – procedures for assessment of middle ear lesions and cochlear hearing loss with recruitment (21–23). As the NHHS could not produce the equipment, collaboration was set up with an engineer who founded the company Madsen Electronics. Thereafter, impedance audiometers were mass-produced and the procedures became a routine in clinical diagnostic evaluation. Within rehabilitation an emphasis on total communication emerged. It was no longer hearing alone that was important, and visual cues and training in lip-reading, in combination with hearing, became a major issue within hearing rehabilitation for hearing therapists in the school system (24,25). The tests are today predominantly maintained as part of the evaluation of communication ability in legal compensation cases (19).

1970s

In 1958, Geisler et al. had been able to record extracranial responses to acoustic stimuli in man forming the basis for the introduction of clinical electrophysiology (26). Thus, in the 1970s, clinical procedures included both electrocochleography (ECoG), brainstem response audiometry (BRA) and late cortical response audiometry (CRA) (27–29). It was obvious that medical doctors alone could not develop these procedures and an extensive collaboration with acousticians was established in some ENT departments. These electrophysiological methods proved to be of immense importance for hearing threshold assessment in non-cooperative subjects – predominantly infants and small children (30).The testing also appeared sensitive for the distinction between cochlear and retrocochlear lesions, and became an important tool in the diagnosis of acoustic neuromas (31) until the development of sophisticated imaging techniques in the 1990s.

The conflict between the methods was apparent from the beginning, as a clinical procedure for BRA was less invasive than ECoG and the placement of electrodes for BRA did not require medical assistance. In general, the BRA was less time consuming than ECoG (32). Although the ECoG technique has been maintained for electrical stimulation of the cochlea in some cases considered for cochlear implantation, BRA is the predominant choice for threshold testing and retrocochlear evaluation. CRA never became a routine procedure; however, the

Table I. Technical developments affecting the clinical field.

	Technical subfield	
	Medical	Rehabilitative
1950s	Speech audiometry	- Provision of analogue HAs on a larger scale - Broader understanding of hearing tactics
1960s	Impedance	Integrating hearing, vision and speech in rehabilitation
1970s	Electrophysiology, auditory brainstem response (ERA; BRA)	Hearing tactics
1980s	Otoacoustic emissions (OAEs)	Insertion gain
1990s	Auditory steady state response (ASSR)	- Digital hearing aids - The ecological approach to rehabilitation
2000		- Proportion of fully digital HAs is growing rapidly - Open fit hearing aids

recording of cortical responses has been revitalized by introduction of steady-state response audiometry (ASSR) (33).

As early as in 1948, the theory of the presence of an active cochlear process involving electromotile elements to enhance the cochlea's response to sound vibration had been proposed by Gold (34,35). He addressed an audience of otologists, who were the only ones doing any kind of research in this field (36). He was largely ignored and it took auditory science 40 years to catch up with Gold's theory of an active cochlea filter. Having been predicted by him, its existence was first demonstrated experimentally by Kemp in 1978 (37). He developed an extremely sensitive low-noise microphone whereby a clinical procedure for acoustic emissions recording could be established. Extensive clinical research internationally and, in Denmark by Johnsen et al. (38), has since shown that recording is the preferred method for hearing screening in neonates either alone or in combination with BRA (39). Again, controversies between methods emerged, i.e. OAE versus AABR, and this methodological struggle is ongoing within neonatal hearing screening (40).

Throughout this decade the introduction and implementation of hearing tactics became part of the rehabilitative field. Hearing therapists gave instruction to the hearing impaired and the outcome of this combined use of hearing and vision was found to have a beneficial effect (24).

1980s

Within HA fitting as part of rehabilitation, the demand for validation of the amplification and frequency response in the ear canal was evident and thus in situ measurements were introduced and implemented in clinical HA fitting (41,42). New types of HAs, such as in-the-ear HAs (ITE-HAs) and in-the-canal HAs (ITC-HAs), were added to BTE-HAs and introduced during the 1980s – predominantly for cosmetic reasons, while the benefit of HAs was still insufficient according to consumer surveys (43).

1990s

Already in the 1970s a focus on the evaluation of hearing handicap had emerged (44) and an increasing interest had developed in the attitudes of consumers. Thus, the ideology of the Human Rights Declaration (1948), with its impact on institutions such as the UN and WHO, stimulated discourse concerning people with handicaps within the audiological field (45,46). The International Classification of Functioning, Disability and Health (ICF) was developed by the World Health Organization during the 1990s and was implemented in 2001. The ICF's main innovation was to incorporate a social understanding of disability and it was developed in cooperation with international disability organizations.

Central to the ICF definition of disability is the relationship between the individual (with an impairment) and environmental factors (physical, social and attitudinal). If a person with a given impairment lives in an environment characterized by barriers at every level, their performance and participation will be restricted, but if a person lives in a facilitating environment this will reduce the constraints.

Traditional audiological rehabilitation had focused on aural, visual and speech perception as previously described, and this gradually changed from the compensatory aspect of rehabilitation to the acceptance and coping aspects (47,48). Within this 'new paradigm', hearing disability and handicap were recognized as an interaction between features of the person and features of the context, with England and Sweden as the predominant researchers in the field (49,50) – for overview see (51).

However, with medical doctors and technicians representing the scientific authority in the audiological field, the patients' subjective experiences were framed as medicalized problems by using, e.g., surveys of quality of life measures such as the SF 36 (52,53). The self-assessment of the benefit of HAs and the introduction of various inventories resulted in an internationally accepted outcome inventory, the IOI-HA, which offers potential comparisons, and is now widely used and translated into many languages (54). The IOI-HA inventory is also now used on a nationwide basis in Denmark. As such it represents a legitimate solution to the aforementioned problem within the clinical and technical fields, with its definition of knowledge based in the natural sciences. With the attention on clinical signs, more complex elements of the patient's subjectivity were consequently not part of the research.

The involvement of the consumers and the insufficient benefit of HAs resulted in the introduction and implementation of fully digital signal processing HAs (DSP-HAs) in 1996 based on an extensive research among the Danish HA manufacturers (The ODIN project). With the implementation of the DSP-HAs, the procedures for HA fitting changed completely as various softwares from the manufacturers, with different and unknown prescription strategies, were used to adjust the HAs. The implementation of DSP-HAs has led to other struggles in the audiological field where some have called it a revolution, but others have demanded more scientific documentation for the claimed improved benefit of these aids and their higher costs (55–59).

2000 and onwards

The potential to assess hearing thresholds in non-cooperative subjects by ASSR offers further information on hearing ability, especially in the low-frequency area and has, since 2000, been implemented as a supplement to BRA in some clinics. However, in spite of the introduction of national neonatal hearing screening in Denmark in 2006, after an experimental period of two years, there is still a conflict between the choice of screening method in programmes (39,60). Although the implemented neonatal hearing screening results in earlier identification of congenital hearing impairment, the development of the ability to localize and identify gene mutations causing hearing impairment, may introduce a conflict as geneticists are outside the audiological field and have a different scientific outlook which has an impact on hearing impaired people (61,62). The identification of specific genes causing hearing impairment will improve the aetiological evaluation and thus the potential for prevention, which in itself represents a conflict to the deaf community (2,3).

Impacts from the technical development on training and education of professionals within the audiological field

Originally, hearing therapists were trained as school teachers with a supplementary course which made hearing therapists formally competent in HA fitting, instructing in the use of HAs and general counselling of the client with a hearing impairment. However, the establishment of the NHHS resulting in an increased number of subjects fitted with HAs, and advances within the technology caused controversy between the teachers and the medical doctors. They found that the necessary competency and skills were not met by the hearing therapists and that the training of this group needed to be improved, both theoretically and practically. The conflict resulted in a training programme for young people performing assessment of hearing and, later, HA fitting. This gave a stimulus to the formation of training as audiology technicians (1), an education that lasts three years and has its focus on technical aspects. The audiology technicians are now the backbone of all clinical diagnostics and HA fitting in collaboration with, and in the public services under, the supervision of medical doctors.

Thus hearing therapists were moved onto the periphery of the NHHS and from that position they advocated for a university degree connected to a humanities faculty. Hence the original school-teachers, instead of a having a diploma, have now to be university educated as 'audiologopedians', which compares fairly well to the American system for the education of an audiologist. The formal education became a reality in 1982 lasting six years, having an extensive curriculum within medical, technical and rehabilitative audiology. Controversies/conflicts between the various professionals concerning competency, skills and tasks within the NHHS and the private sector are continuing under the leadership of the ENT doctors, without any obvious solutions in the near future.

Politics affecting the audiological field

One of the major organizational changes in the NHHS occurred in 1980 when an administrative reform initiated by the government as part of 'Socialreformen' replaced the responsibility for handicap groups from the state to the local communities, including persons with hearing impairment. The key words behind the reform were: decentralization, normalization, and integration. Thus the NHHS, represented by the diagnostic, rehabilitative and technical professional fields, were divided into three separate administrative sectors – the health, education and social sectors with the hearing health sector providing diagnostics and fitting of hearing aids, the educational sector offering additional training in HA manipulation and special courses in communication strategies (lip-reading, sign language and hearing tactics), and the social sector providing the economic resources for the free HA, as well as batteries and assistive listening devices (63). Since then a HA has been defined as an assistive device and refers to social acts ('Serviceloven') although it is a 'medical device' according to EU standards. The implications of defining the HA as a remedy rather than a medical device, are that the municipalities are responsible for the payment. Some municipalities in Denmark have decided that they have to approve whether the hearing impaired will have the aid granted even though a medical doctor/audiology technician may already have approved it. A unified sector directed towards the hearing impaired and their needs has never been established and thus the audiological fields and their controversies persist.

In the 1990s the increasing demands on the economy and introduction of cost/benefit analysis within the medical field in general, resulted in requests for health technology assessment (HTA) before new principles for treatment are implemented in the clinic, as part of evidence based medicine

(64). Audiology has not been subject to these principles yet.

As mentioned in the introduction, the government decided to allow subsidized purchases of hearing aids in private hearing clinics in year 2000. The Act ('Serviceloven') was intended to reduce the pressure on the public clinics. As a consequence, private dispenser clinics emerged and the lack of trained audiology technicians became evident with the transfer of these to HA dispensers (Table II).

The health ministry ensures that international standards for acoustic equipment in the private sector are controlled by the Technical Acoustic Laboratory in Odense (TAL). With approval, the dispensers are allowed to fit HAs and receive reimbursement from the local community.

To date the majority of HAs are fitted in the NHHS (59%) with ENT doctors still being an obligatory part of the diagnostic examination, as a referral from an ENT specialist is required before HA fitting can be performed by hearing aid dispensers. The Act was intended to lessen the pressure on the public clinics; however, the waiting time for the provision of HAs in the public system is still a median of 42 weeks (range 14–120) (65). Fewer people are fitted with HAs in the public sector (Table II), resulting in a cost reduction of 10% (224 million in 2007, in contrast to 249 million in 2002). However, the combined costs in the public and private sector at present are 481 million DKK, showing a substantial increase in the expense of HAs.

Comments

Bourdieu offers a set of concepts that can be employed to elucidate a range of social phenomena – among these, progress within the audiological field, as outlined briefly in the history from 1950. Using Bourdieu's concepts, an alternative to the traditional view of the historic development as a linear accumulation of knowledge, is demonstrated.

The theory helps to demonstrate that progress in the diagnosis of hearing disorders and benefit of the HAs is stimulated by conflicts between the fields based on the capital internalized in the actors and their positioning in the fields. The modern health care system has a strong reliance on applied research and scientific rationality. Attempts to intrude into the space of competition from the humanities have had impact neither on the medical nor the technical fields. The humanistic concepts of science have only recently been reflected in the discipline of Danish audiology with the introduction of the ICF, and have been reflected from an evidence based practice with effectiveness as the main focus. The ICF does not seem to have had any impact on the work of the hearing therapists on the periphery of the NHHS, as the courses the hearing therapists offer to the hearing impaired are predominantly within hearing tactics (66).

In contrast, the superior bureaucratic field with its present political ideology has had a large impact on the audiological field, weakening the public audiological services. Equal access to the NHHS, irrespective of income, is no longer guaranteed with the establishment of a private sector as described and, in addition, the potential for valuable clinical research and development is jeopardized. To date, no research has been conducted in the private sector, nor is it expected to be, due to the costs of research.

Although HTA has not been performed within the audiological discipline, progress has taken place during the last 50 years. No HTA has been requested in the private sector and one can suspect that the political demand of HTA is only a mainstream phenomenon with, however, a vital impact on policy-making in other countries (66).

Table II. The change between the public and private sector for 2002 compared to 2007.

	2002	2007
Number of hearing aids provided by private clinics	12,748	44,058
Number of private clinics	57	99
Number of hearing aids provided by public clinics	77,122	64,170
Number of public clinics	17	18
Private clinics proportion of hearing aids provided with governmental subsidy	14%	41%

Reference: Amgros (a public company owned by the five Danish regions. Amgros publishes tenders and purchases hearing aids on behalf of the 98 counties).

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Everyday trajectories of hearing correction

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ABSTRACT

This paper reports on a qualitative study of the onset of acquired hearing impairment. The focus of attention is why a person seeks treatment. The Danish welfare state serves the population 'in need' such as those with an audiological need and gives them guidance on becoming hearing aid wearers in order to rehabilitate them back to 'normalcy'. However, within audiological research, noncompliance has attracted much attention as investigations have shown that more than 20 percent of hearing aids are very seldom, if ever, in use and 19 percent are used only occasionally. As shown in the paper the form a problem takes is in large part a product of micro-political struggles. Hence, at the onset 'need' is often embedded in social pressure from significant others. The paper examines these two discursive frameworks and their constitution of (hearing) problems and concludes that norms of disease are complex and epistemologically contested and can help explain why noncompliance is dominant when it comes to hearing rehabilitation for hearing impaired adults.

KEYWORDS: sociology; normalisation; rehabilitation; noncompliance; hearing impairment

INTRODUCTION

Within sociological research there have been many studies of the deaf (Becker 1981; Cumming and Rodda 1989; Davis 1995; Higgins 1979; Nash and Nash 1981; Smith and Campbell 1997) and how they negotiate everyday life as an out-group who refuse to accept a stigmatised label but instead actively and strategically position themselves within the dominant (and also the marginalised) discourses. Accounts of people with acquired hearing impairment, their daily lives and how they negotiate them have generally been absent from the literature. The number of deaf and severely hard of hearing persons is roughly estimated to be 0.05 percent of the European population (Kyle and Allsop 1997) whereas approximately 16 percent of the adult population of Europe have a hearing impairment where a hearing aid could, in medical terms, provide a benefit (Sorri *et al* 2001).

Whereas acutely ill patients are often passive recipients of medical care, the treatment of a chronic illness and disability requires the patient to make daily life-style adjustments, such as taking medication, following a diet or wearing a hearing aid. Here, health is often beyond the patient's reach, and has been replaced by the ideal of a 'good life' (Mol 2008). But what counts as a 'good life' is not clear. It is extensively documented that only one third of chronically ill patients adhere correctly to their regimens, another third are noncompliant[1] because they adhere to a misunderstood

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[1] Noncompliance is the failure or refusal to comply. In medicine it is used particularly in regard to a patient not taking a prescribed medication or following a prescribed course of therapy.

regimen, and the last third are knowingly noncompliant (Clark 1979; Donovan 1995; Fineman 1991). Hence patient noncompliance has been the subject of enormous amounts of research in medicine and social science (Trostle 1988), investigating both the meaning of the problem and suggesting improvements such as the development of more open, co-operative doctor–patient relationships (Barry *et al* 2001; Donovan and Blake 1992; Mishler 1984). Within audiological research, noncompliance has likewise attracted much attention as investigations have shown that more than 20 percent of hearing aids are very seldom, if ever, in use and 19 percent are used only occasionally (Sorri *et al* 1984). Gatehouse has concluded that 'a substantial proportion of hearing-impaired people who[m audiologists] are required to manage actually do not want to [take part in the exercise] at all' (2003:2S80) and suggested that an understanding and manipulation of motivations are part of the rehabilitative process. The way the clientele are constructed indicates that the problem lies in the patient's behaviour, and that the solution lies in patient education and strong, deliberate attempts to change that behaviour (Ramström and Ovegård 1994; von Wedel *et al* 2008).

Considering the narratives used in advertisements by private dispensers of hearing aids, the audiological advantages of a hearing aid appear to be great. It may, therefore, seem surprising that a large number of people who – in audiological terms – would benefit from wearing a hearing aid often wait years before seeking help (Carson 2005) and after the dispensation often end up not using it.

Aims

This is part of a larger study of audiological rehabilitation whose aim is to add a dimension to previous audiological rehabilitation research by viewing patients not only as objects of audiological interventions but also as people who have an everyday life or, according to Mishler (1984), 'a lifeworld'. I wish to discuss what might easily be considered a paradox: that some people seemingly decide in advance not to use the hearing aid they require. I suggest that there might be a primary 'diagnosis' which is not medical. The purpose of this paper is not to resolve debates about the reality of hearing impairment. Instead of only defining hearing impairment in medical terms and interventions, it is also considered as being part of another discourse which seeks to define hearing impairment in sociological terms. Thus the aim of the paper is to query 'hearing impairment' and 'noncompliance' and explore diverging sound reasons for seeking audiological rehabilitation, and, in addition, the sound reasons for using the hearing aid or not. The issues of the process of adjustment to hearing impairment are beyond the scope of the paper.

Conceptual framework

In order to understand the way problems become a medical diagnosis, one must return to the concept of the norm and the normal body (Davis 1995). The problem of definition and the decision as to whether a disease is a disease or not come into the play. In the work of Canguilhem (1991) can be found a useful way of recognizing the specific character of scientific reason and its ethos and techné of truth telling. Canguilhem defines the state of health as 'a state of unawareness where the subject and his body are one. Conversely, the awareness of the body consists in a feeling of limits, threats, obstacles to health' (1991:91). Essentially, pathology implies 'pathos' which means 'suffering' (1991:137). Thus, it is the suffering of an individual that raises awareness of the normal state. And the normal state is normal only because life is capable of instituting new norms. Canguilhem has demonstrated how the epistemological foundations of modern medicine are intertwined with political, economic and technological imperatives. He describes that:

> Between 1759, when the word 'normal' appeared, and 1834 when the word 'normalized' appeared, a normative class had won the

> power to identify – a beautiful example of ideological illusion – the function of social norms, whose content is determined, with the use that that class made of them (1991:246).

Canguilhem helps to explain how the implicit audiological trajectory of impairment and intervention (Figure 1) has the power to identify hearing impairment as something abnormal that needs to be the subject of action. The process of problematising hearing impairment is based on two premises: (1) Normality is preferable to abnormality; (2) Normality is a synonym for health and abnormality a synonym for pathology (Canguilhem 1991:55). Once a hearing impaired person is judged 'abnormal' the normalising official system that meets the person will typically draw upon a range of technologies and rehabilitative techniques in order to restore the 'normal' (Hogan 2001). Thus normalisation of the hearing impaired is the principal aim of the implicit audiological trajectory of impairment and intervention and centres on the use of prostheses – hearing aids – to overcome impairment (Yardley 1997) and lead to a restoration of normality.

Diseases constitute ways of discovering the norms of life which we are 'in the silence of the organs' (Canguilhem 1991:91) normally inattentive to. This means that there is a period before a problem end up becoming a medical diagnosis. In people's everyday life problems originate with the recognition that something is wrong and must be remedied (Emerson and Sheldon 1977:121). In this period the vague perception that 'something is wrong' might coalesce and consolidate into more concrete, specific forms within relationships between people. Naming something as a problem has implications, prefiguring some solutions and removing others. Naming the problem as a diagnosis has further implications, as an organic cause for the problematic behaviour means that the relational dimensions of the problem disappear and it becomes intrapersonal (1977:123). As Canguilhem's idea of disease involves the consciousness of an affected individual the implications magnify if the disease, i.e. the hearing impairment, exists outside the awareness of the individual. The processes around remediating the problem shape the direction of the intervention (1977:126) – in this case, triggering health care services to bring about hearing rehabilitation by the provision of hearing aids.

The implicit audiological trajectory of impairment and intervention

Closely linked to the normalisation discourse is the rehabilitation discourse; a practice that in everyday situations constitutes what it means to be an 'able' and 'competent' person. The notion of rehabilitation emerged in conjunction with the First World War and underwent a rapid growth after the Second World War (Alaszewski 1979). The notion gave rise to new ways of understanding disability. The shift represented

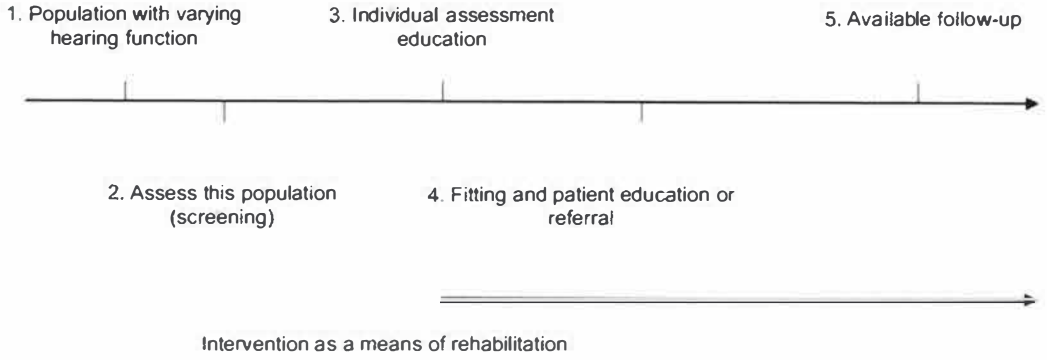

FIGURE 1: THE IMPLICIT AUDIOLOGICAL TRAJECTORY OF IMPAIRMENT AND INTERVENTION

a response on part of Western societies to the number of wounded and disabled soldiers. A rapid development in prosthetics was accompanied by the rise of more general notions of replacement and compensation of a prior situation. Injured soldiers should be restored, that is, rehabilitated through normalisation and integration. Hence, integration is one of the most significant corollaries of normalisation, having vast programmatic implications (Wolfensberger 1972). Hearing impaired patients are also evaluated with reference to others and have become a target group for rehabilitation and normalisation. The practice of rehabilitation entails according to Stiker (1999:136) fusing abnormality with the normality that is established and recognised by social consensus. Figuring disability as an anomaly to be made to disappear through integration into social conformity is to represent society, empirically given, as a norm capable of assuming, through annulment, all differences (1999:143). In order to declare a person disabled, and to measure the degree of the disability, the disabled person must become the object of discourse so that he/she can be counselled on the necessary type of rehabilitation program (1999:154).

In Denmark, audiological rehabilitation is focused on publicly financed and administrated hearing rehabilitation clinics with strong ties to the social security system as Denmark is one of the Scandinavian welfare states which take responsibility for people with hearing problems (Hindhede and Parving 2009). The Danish National Hearing Service has, since its establishment in 1951, served all age groups and provides hearing aids and accessories completely free of charge, but applicants can often spend two years on a waiting list. Here, the rehabilitation focuses on behavioural components of rehabilitation while the psychosocial fundamentals of adjustment remain unaddressed (Hindhede 2010).

When a person has been individually assessed and is considered a hearing aid candidate by their general practitioner and ear, nose and throat specialists, the patient gets an appointment for the fitting of the hearing aid. The conditions under which the patient can be rehabilitated are established in relation to WHO standard indications for the provision of hearing aids (WHO 2001), rationally set out by the state and the result of political disputes over the spending of money on health care.

The process can be constructed as a model in five steps. Being diagnosed as having a hearing impairment that results in the prescription of a hearing aid is dealt with in a specific technical, rational and chronological way where everything is connected:

1. Initial problematisation. There is a population with varying hearing function. This information stems from epidemiology and the study of the distribution and change in diseases. This leads to:
2. Assessing this population (screening). Adult-onset hearing impairment ranks 15th amongst the leading causes of the global burden of disease (GBD), and second in the leading causes of years lived with a disability (YLD) (Vio and Holme 2005; WHO 2002). However, the percentages of people with hearing aids are very much lower than the 16 percent predicted to 'suffer from a hearing loss' from a clinical point of view (Sorri *et al* 2001). In other words, only part of this population chooses to go to the hearing clinic. This leads to:
3. Individual assessment from ear nose and throat specialists with examination of the ear (otoscopy), audiometry (measurement of hearing) and prescription for a hearing aid. This leads to:
4. Hearing aid dispensing and fitting and patient education in the use of the hearing aid or referral. This may lead to:
5. Follow-up patient education.

In this process, statistics is a technology that plays a major supporting role for defining norms and deviations from the norm with its curves of normal distribution (Hacking 1990:2). Individuals are normalised by comparison with the average ensuring that the abnormal is eradicated. This means that numbers transform things being measured, i.e. hearing impairment is transformed into its statistical indication. As illustrated, the processes and practices, the cognitive and technical skills, the empirical investigations and the ethos of inquiry and corrections are put together and made to work in the implicit audiological trajectory of impairment and intervention. These practices produce the problematisations around which 'truth' will flow (Rose 1998). However, as follows this audiological scientific reason does indeed break from everyday life and its obviousness.

METHODS

Sampling

From the list of newly diagnosed patients with acquired hearing impairment awaiting hearing services for the first time I made the consecutive selection. A total of 58 people were contacted by letter four weeks before the dispensation of the hearing aid and asked to join the project. Seventeen of these refused. Participants ranged in age from 20- to 70-years old with a mean age of 56. The participants were sampled randomly after having given their written informed consent. They were guaranteed anonymity in the presentation of the findings and could withdraw from the research project for any reason, at any time.

A filter for inclusion in my study was that individuals spoke and read Danish. There were no criteria as to degree of hearing impairment. Some were classified as having mild to severe hearing impairment while others had hearing impairment that differed for each ear. The functional and biological issues associated with hearing impairment are inconsequential to this project as it is well established that self-perceived hearing disability has little relationship to measurable hearing thresholds (Garstecki and Erler 2001). According to patients' journals they had not entered the hearing clinic with a range of other diagnoses. They were all fully functioning working people.

Procedure

In order to expand the implicit audiological trajectory of impairment into the context of everyday life, the focus was on how patients' sense of normality and normal hearing was constructed before they became the objects of amplification as well as after. To do that a combination of observation and interviewing was used.

As regards the observations, permission was obtained from both patients and audiologists to access the fitting process. Here I video recorded the procedure when patients saw their hearing aids for the first time, had them inserted in their ears, had them activated in the ears and were encouraged to wear them at least eight hours per day. As for the interviews, they were conducted individually as people in general, come on their own to the hearing clinics. Thirty-eight of the 41 patients had a significant other but only two of them had their significant other with them. The coding of the material has involved a thorough reading and rereading of the transcripts and a comparative scanning for recurrent statements and topics using the chosen theoretical framework as a springboard for themes where I sought to be culturally sensitive (Silverman 2001:8–9) to how patients' experiences are shaped by given forms of representation. Representation is an essential part of the process by which meaning is produced and exchanged between members of a culture. For instance, the notion of 'responsibility' is a culturally given way of understanding the world that might differ from person to person. The scanning resulted in the broader thematic types of trajectories that will be presented and discussed in the findings.

Prefitting interview

A tape-recorded semi-structured face-to-face interview of 15 minutes was done with patients before the fitting at the hearing clinic. The purpose of the prefitting interview was to identify patients' construction of hearing impairment and hearing aids, and to trace how their problems and troubles became a medical diagnosis. I asked them why they were here and who had initiated the contact. Moreover, I asked them if they felt they had hearing problems and in which situations. They were asked if they had any experience with a hearing aid and were asked about their expectations of the hearing aids soon to be provided.

Postfitting interview

Approximately six weeks after the dispensation of the hearing aid, a tape-recorded telephone interview took place. These interviews lasted longer, i.e. from 30 to 90 minutes, which might indicate that the interviewees were less distressed about answering when I was not present. Another option could be that the participants had more to say about the hearing aid experience after six weeks, particularly if they had complaints and a person willing to hear them. They had met me before and therefore seemingly more open to a chat.

On the basis of the interaction during the hearing aid fitting, the purpose of the interviews was to elicit stories about the patient's everyday life with questions about the use of the hearing aid, benefits and problems experienced, etc. What did the patient get out of the information given and what did it mean to him/her? The postfitting interviews were done by phoning the patients after working hours and in their private homes. Telephone interviews were chosen as the piloting of three preliminary interviews showed that the participants gave consent provided that they did not have to come to the hospital. There is some evidence that there are differences in the kinds of response that one gets when asking questions by telephone rather than in person (Bryman 2008:457). Compared to the prefitting interviews, in the telephone interviews it was not possible to observe body language to see how interviewees responded in a physical way to the questions posed. The excerpts presented are from verbatim transcription of taped interviews. I sought to set patients' comments in the wider context of their lives. Hence, the primary focus of the postfitting interviews was on meanings, understandings and contingencies in different circumstances after having a hearing aid. I did not seek overt respondent validation as this is only possible if the results on the analysis are compatible with the self-image of the respondents (Abrams 1984:8). I do recognise, though, that instead of validation an access to their transcripts could have been treated as yet another source of data and insight (Fielding and Fielding 1986:43).

In addition to the information collected on the initial visit to the clinic where the hearing aid fitting took place, the subjects were asked to fill out a questionnaire containing questions about their housing situation, the composition of their families, their education and their work settings. They were also questioned about social support resources, frequency of social interaction and availability of a confidant/-e.

Neither the subject matter of the pre- nor the postfitting interviews would have been revealed from the fitting encounter alone. The prefitting interviews revealed systematic differences between how patients present in the audiological encounter and how they present in research interviews. In general, patients' agendas went unvoiced in the audiological encounter as they went along with the procedures without protesting whereas outside the encounter they expressed their own ideas on their problems to me: *I really don't think I have a hearing problem and I know these hearing aids won't help me.*

FINDINGS

At the prefitting interviews the patients were asked if they felt they had a hearing problem. Twelve answered definitely yes, 19 answered somewhat and 10 answered definitely no. All of the 41 participants mentioned being cajoled into the hearing assessment by a partner, a relative or a significant other to varying degrees. This indicates that it is a shared experience and that everyone's life changes when hearing impairment enters a relationship. Amongst the ones who definitely thought they had a hearing problem, almost all said that they considered the hearing aid 'a necessary evil' to avoid half-understood and confusing conversations.

As for the total of 29 who answered 'somewhat' or 'definitely no', the majority said that they only had occasional difficulties with their hearing, that their hearing impairment was not disruptive to life, and that their family was overstating their need: *I might have a problem when I'm at a party but it doesn't bother me. I just avoid parties.* Their attitudes to hearing aids were influenced by different factors: some had histories of hearing aid wearers who were not very satisfied or had said that it was hard work becoming a hearing aid wearer, others had stories of people who had left their hearing aids in the drawer. A few mentioned the positive things that the hearing impairment had brought into their lives, i.e. that they were naturally insulated from a lot of irritating or unpleasant environmental noise. Beliefs and attitudes about hearing impairment and hearing aids did not vary with age or gender and the degree of negativity was not – as one might think – inversely related to age but slightly related to educational level. The group differed only marginally in terms of number of social support resources.

In the video recordings the patient is told about a time-dependent adaptation to the new amplified sound provided from the hearing aids. It is explained to patients that it is a process which requires six weeks to take place and that prolonged and repeated exposure to amplified sound enables the brain to learn better and understand amplified speech during this time. It is emphasised that the patient should wear the aid long enough to allow the medically defined acclimatisation to occur, i.e. that the abnormal sound will eventually be perceived as the new normal sound.

In the postfitting interviews 15 patients proclaimed that they used their aids on a regular basis, 11 did not use their hearing aids and 15 used them occasionally, i.e. 1–2 hours per week. Willingness to wear hearing aids did not vary by gender. The reasons stated for rejecting the hearing aids provided or using them less than prescribed included disappointment about these apparently very advanced hearing aids not being able to restore their hearing; that they could not get used to the abnormal sound of their own voice; that the annoyance of the amplification had prompted the individual to stop using the hearing aid as he/she felt overloaded with metallic sound; the poor fit of the ear mould; and that there were interaction problems despite amplification.

A small group of three people from among those individuals who had said at the prefitting interview that they did not consider themselves to have a hearing problem changed their minds about hearing aids: *I recognise how deaf I was – a flat battery makes me realise that.* As for the rest of those patients who did not anticipate their hearing health care 'needs', two alternative sociological oriented trajectories of 'need' could be constructed and described as follows:

Everyday trajectory no. 1: The patient's sense of correction/need is embedded in social pressure/suggestion and sustained after the suggestion of a fitting. People in this trajectory go to the individual session – not because they are members of the population who are in need, i.e. they have been screened as in need – but they go because their wife or co-worker says so. The reason has nothing to do with the audiological understanding of need which is primarily organically focused: *You have a hearing impairment; we will assess it and improve it.* Instead of stemming from the assessment based on organic need, need is embedded in social pressure or social suggestions.

Patients in this trajectory go through all the stages of the implicit audiological trajectory of impairment and they are cooperative.

Everyday trajectory no. 2: These patients included both people who, before being provided with hearing aids, considered themselves to have a hearing problem and those who did not think they had a hearing problem. Six weeks later this group might see themselves as having a need for hearing amplification. However, it is a situational sense of need *(I benefit from the aid when I watch TV but it is useless when speaking on the phone).* Like people in everyday trajectory no. 1 they go through all the stages and are cooperative.

Everyday trajectory no. 1: Need embedded in social pressure or social suggestions

When questioned at the prefitting this group of patients did not think they had a hearing problem. Nine refused to accept the suggestion that hearing impairment limited their life and two refused to accept that they even experienced any sense of breakdown in communicative performance. At the postfitting interview all 11 in this group explained that they had used the hearing aids for a short time only, deciding that they were not sufficiently effective to put up with the disagreeable bodily side effects and were easily able to return to the view that their problems were environmentally based: *It's my children who mumble* or *my wife has a tendency to speak in a low voice* and that hearing aids would not be their salvation. Hence, they remained focused on a negative ascription of the device and all rejected the remediating efforts. It is the patient's suffering that enables a science of medicine. Without troubles or dysfunction, there is no knowledge. However, following Canguilhem, the experience of suffering is not an individual subjective 'feeling' understood in opposition to the objective world. Instead, for this group the experience of pathos is established by the individual's social relations and their need for remediation of the pathology. From a micro-political point of view the hearing impairment is inherently a relational trouble (Emerson and Sheldon 1977:124), and often a more or less open issue in the relationship. As described by Hallberg (1996), the consequences of hearing impairment affect the significant other in various ways and the ability to manage the consequences differ. She has defined four different approaches of the significant others as 'pretending there is no problem', 'playing down the problems', 'controlling, steering or advising the hearing impaired' or finally by 'distancing or separating themselves from the person as far as possible'. The following example is of a person who maintained that he did not have a hearing problem but was 'steered' by his wife indicating that his way to the hearing clinic was in large part a product of micro-political struggles between him and his wife (Emerson and Sheldon 1977). He is a 61-year-old male, married with no children, and works as a superintendent. At the prefitting interview he does not think he has a hearing problem. His wife, however, thinks he does and *she has driven* him to have something done about it. '*You shout when you're on the phone', my wife says to me.* The patient has been told that he will get the type of hearing aid that fits behind the ear. He would have preferred the smaller type that fits into the ear canal *so you don't notice them as much.* He hopes that the hearing aid will make him shout less as his 'shouting' is a nuisance to his wife.

This is the beginning of the postfitting interview. It has been six weeks since the patient was provided with the hearing aid:

> Me: How are you doing with your hearing aid?
> PJ: Not so good.
> Me: Not so good?
> PJ: No there is too much metallic sound in it.
> Me: Hmm? You said before the fitting that you wanted the one in the ear instead?
> PJ: But that's not the problem. It doesn't matter whether they are placed in the ear or behind the ear. There is a metallic sound, which is unbearable and abnormal to me.
> Me: So you don't use it?
> PJ: Well, I don't wear it at work. But when I come home, I try to use it, right? But I must admit that I am very dissatisfied with that sound, right? Because it is very annoying (...)

> I am outdoors most of the time and then I get that buzzing in the ears all the time.
> Me: It's better to take it off?
> PJ: Exactly.
> Me: But your wife thinks you hear better with the hearing aid on?
> PJ: Yes. And she reminds me all the time.

This patient has been rehabilitated with a hearing aid to bring back his level of hearing to the normal standard and, according to Stiker (1999), to relocate him in the machinery of production. However, he does not use them at work *because I am outdoors most of the time and then I get that buzzing in the ears all the time.* He had hoped for something less noticeable and that this would make his wife think that he shouted less. After six weeks of amplification this is shoved into the background: *It doesn't matter whether they are placed in the ear or behind the ear. There is a metallic sound which is unbearable.* Thus, the remedy sought and applied by his wife does not work for him. It illustrates that the use of the remedy, while following from a particular definition of the problem, simultaneously serves as a test of that definition. For this patient the test has failed.

His comments reveal what an enormous social project the 'management' of hearing impairment is. When the audiologist is talking to this category of patient, where need is embedded in social pressure, it might not be the voice of the individual but the voice of the family or the significant other he hears as she has taken the role as remediator and makes what turns out to be the first effective move which leads to treatment. She participates in the husband's passage from civilian to patient status. The reason why this man is diagnosed has to do with social expectations. He has been able to deal with his wife in the two years he has been on the waiting list for a hearing aid. Now legitimatisation of the problem from an official agent has made him hearing impaired. The audiologist and the wife are relating to the discourse of normality and they assume that he has an interest in normalising his hearing impairment. If he has not, he has not understood that it is for his own good. Hence, strategies for constructing the hearing impaired as biological citizens from above tend to represent the science itself as unproblematic. Instead, the way in which the hearing impaired might misunderstand science is problematised as noncompliance. Not feeling a diagnosed need for hearing amplification has to do with lack of motivation and/or patient recalcitrance (Cox and Alexander 1992; Hickson and Worrall 2003). The pathological condition consists on the lack of motivation to care properly for the self. Ignorance, then, is a pathological problem to be solved. For the patient, however, normality is more than the baseline on a hearing diagram. *..a sound (..) unbearable and abnormal to me* means that he does not feel that his hearing has been normalised by the use of a hearing aid, and he does not want to listen to metallic sounds when he is at work. For him, unwillingness to acknowledge hearing problems as well as a tendency to minimise hearing problems can be seen as a coping strategy that aims at maintaining his own perception of a 'normal' self-image.

This patient's judgement of what is normal is informed by he his past and his familiar surroundings when he enters the hearing clinic. These contribute in defining what is normal and what is surprising or unbearable to him. These are aspects that fall outside the limits of the medical discourse as they have to do with the hearing impaired person's 'lived body', and not only the body as an object within which processes of disease can be mapped.

Everyday trajectory no. 2: Situational sense of need

The second group of patients did not comply with the audiologist's assignation of wearing the hearing aids many hours per day. Instead, they used the hearing aids in specific situations amounting to 2–4 hours per week or less. They had been provided with medical advice in the shape of scientific facts and a map *of* reality. However, they were not provided with maps of ways of living *with*, or *in*, reality (Mol 2008:46). This map was created by the patients themselves. By seeing the hearing aid fitting as an intermezzo in the patient's everyday life, another picture is revealed which means that there are different layers within the frame of compliance. Noncompliance can be the behavioural result of many motivations (Trostle 1988). Many of the patients interviewed in this group constructed their hearing problem as something that is at the periphery not in the centre of their life and only occurring partially. Hence, whereas the implicit audiological trajectory of correction dictates the use of a hearing aid and defines the continued use or nonuse as compliance or noncompliance, the patient's everyday life involves the specific way he/she uses the hearing aid taking into consideration his/her different needs and finding a balance between them. An example of this is the following patient: female, 54-years old, married with two children living at home, working as a teacher at a music academy and *sometimes misses what the students say which puts me in a very awkward position*. Her husband and two teenage sons think she has a hearing problem. The patient explains: *I think they tend to mumble when we talk at the dinner table*. The patient hopes that the hearing aid will provide her with more energy in her daily life.

This is the beginning of the follow-up interview. The patient has had the hearing aid for six weeks by now:

> Me: How has it been with your hearing aid?
>
> LC: I thought about it this morning. Well, I haven't used it every day – but I use it – it tires you out, sort of..
>
> Me: So it hasn't provided you with the energy you hoped for?
>
> LC: Well I just have to – I have to wear it a bit more. I simply haven't used it enough, as a matter of fact. I think this coming summer vacation I will concentrate on using it a bit more. I have been in various situations where I thought 'why did you forget to put your hearing aid on?'. I simply need to get into the habit of using it. It has to do with – you are liable to forget it, although it seems quite alright, but you have to spend time putting it into the ear – shuffling it forwards – and then you have to get it in the right place and so on – it is a bit difficult to get it placed right. And then you have a tendency to say 'well, I am in a bit of a hurry. I have to leave the house now' and then you forget to put the little hearing aid on. It's something like that.

Initially, for this patient, there was an agreement about what the problem was. Her experience of pathos follows from the description of how painful it was for her not to be able to hear what her students said. However, she also identified the behaviour of those surrounding her as part of the problem: *My hearing loss is not too bad, but my children mumble*. As the above case shows it is often 'outside parties' who are brought into the problem in very central ways (Emerson and Sheldon 1977:126). The husband and sons are the ones who retrospectively appear to have initiated the visit to the hospital and thereby announced the presence of the problem by seeking remedial action to rehabilitate her lost ability to hear according to normal standards.

This patient had told me that if a hearing aid was to be the solution to her problems, it should provide her with more energy. Now, six weeks later, she focuses on the unexpectedly limited benefit from hearing aids and stresses the need to lead a life without more complications than necessary by saying: *I simply need to get into the habit of using it* and *it is a bit difficult to get it placed correctly*. When she says *it tires you out, sort of*, she is describing the new sounds as a disruption to what used to be her normal state which she has difficulties in adjusting to.

She is not using the aid as prescribed. Hence, the therapeutic efficacy is considered low as it implies a certain critical minimum level of use to be effective. She negotiates around her medical problematisation and rationalises why she does not wear the hearing aid for at least six hours per day: *I am in a bit of a hurry*. She shifts between states of unawareness where she and her body 'are one' (Canguilhem 1991:91) and to other states of awareness where she senses the pathos, i.e. the limits of her hearing ability. The hearing aid is a product of the aim to eliminate pathology. Her hearing ability is medically adjusted: now she also has to adjust her habits and hopes. Her perspective on her 'problem' does not refer to a three-dimensional object: it is not localised in the body but is linked up with something historical, her everyday life perspective (Crawford 1980). This is not taken into consideration in the fitting encounter as, in the medical trajectory, there is an idea of causal conjunctions and that the patient, being calculating and rational, will change her attitudes and comply if given the 'right' information, i.e. information based on a specific scientific reason. This woman will have to, not to regress to a state of life that was present before the diagnosis, but rather to transgress the norms of the old life and institute a new order (Canguilhem 1991:200) which involves a substantial amount of techniques, exercises, practices of the self.

CONCLUDING REMARKS

The paper describes how the implicit audiological trajectory of hearing impairment and correction is in diagnostic terms concerned as far as possible to localise the problem of the disease in the individual body to give it a singular organic form. It is a practice situated in the midst of conformed manifestations of the normal. Hence, patients' social situations are not explicit parts of the problem, the illness or disease.

Hence, the hearing clinic is not perfectly adjusted to the 'needs' of the population and the individuals it serves. In this study, some of the participants perceive they have a 'problem' and come to decide that their 'problem' is pathological, and that they 'suffer' from a level of misery requiring medical intervention in the form of a hearing aid, whereas others decide that their problem is not solved by medical intervention. The data shows that the norms of disease are complex, multifaceted and epistemologically contested. Thus when considering patients' perspectives the biomedical 'truth' is pluralised, met with doubt and controversy and science is relocated in the fields of experience and politics (Claeson *et al* 1996). This means that the relational dimensions of patients' problems do not necessarily disappear upon the application of the medical model (the implicit audiological trajectory of impairment and intervention), i.e. upon the discovery of an organic cause for the 'problematic' behaviour.

Canguilhem helps to foreground the subjective and qualitative nature of disease before the prevailing lure of objectivity. He also helps to understand how it is the suffering of an individual that raises consciousness of the normal state. However, for many individuals the impairment is not consciously experienced and not immediately associated with the discomfort that makes pathology a vantage point for epistemic awareness. Thus, instead of a purely biological matter, pathology for hearing impaired individuals is indeed also a social matter. Here, Emerson and Sheldon (1977) are especially helpful in explaining how differences in acknowledging the factuality of the problem, or its magnitude, in large part are a product of micro-political struggles for the support and legitimisation of official agents, such as audiologists. What we accept as a social fact – in this case the factuality of hearing impairment – can be considered as the result of one or another powerful group successfully instituting its particular version of truth. Even when there is no dispute about the presence of impairment (as in an audiogram), the role of social expectations and human judgment has an exclusively social origin meaning that the perspective on the disease is not localised in the body but is linked to the individual's everyday life perspective (Crawford 1980), and it cannot be identified as being at a single place or time, but is part of ongoing practices.

The analysis illustrates that subjects are never constituted by one hegemonic discourse, be that the rehabilitation or normalisation discourse. It suggests two trajectories that provide alternative explanations as to why people go to the audiological encounter without having an audiological need: (1) Need can be embedded in social pressure and (2) Need can be a situational sense of need. In everyday life, hearing impairment seems to occupy contradictory and shifting positions between discourses and other competing worlds of work and family life where individuals are working on their own ideals of a 'good life' and where their hearing impairment is situational and occur when the hearing inability is notable or made notable. Thus, the individual's everyday life and attitudes of significant others have a major bearing in the impairment experienced depending on, e.g. their gregariousness and communicative needs.

Therefore it is hard work to insist that someone has hearing impairment and to convince that person to behave as such consistently (Gatehouse 2003). From a professional point of view it is a difficult population to deal with. Even if the patient will never use a hearing aid or accept the diagnosis, they go through the appointments and prescriptions as rationally set out for them by the state and by medical experts. But compliance in the everyday trajectory of hearing correction also involves the specific way the patient is using the hearing aid, taking different needs into consideration and finding a balance between them. Even though the Danish state seeks to define and regulate hearing impairment, this does not in the end control what people do with the state's findings and regulations. In order for patients to comply with the requirements of the rehabilitation process a rethinking of current models of service delivery seems necessary. Moreover, further research is needed into the various trajectories that people follow as they move through the recognising process as there might be a connection between satisfaction and various trajectories of recognition.

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Disciplining the audiological encounter

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ABSTRACT

This article addresses the social power variations in the context of audiological rehabilitation. The empirically based study examines the everyday interaction between professional medicine and the patient when hearing aids are being provided. By the use of video recordings an analysis is conducted of the structural level of rehabilitation practice for hard-of-hearing working age people in two outpatient clinics in two different public hospitals in Denmark. It is shown that the hearing aid fitting consultations are conducted in a ritualised manner which makes it possible to control what kind of experiences patients are allowed to bring to the audiological encounter. Bureaucratic time imperatives preclude patients' subjective experiences and standardised, normative accountabilities based on scientific knowledge work as an effective structuring principle to get the work done in the appropriate time.

KEYWORDS: sociology; physician-patient relationship; impairment; disability; rehabilitation; stigma; power

INTRODUCTION

There has been abundant literature on the physician–patient relationship with critiques of medical authority in the 1970s and 1980s (Friedson 1970; Strong 1979; Waitzkin 1979; Cicourel 1987; Beisecker 1990). Advocates of these critiques have called for the de-medicalisation of repressed lay people and a shift towards individualised, patient-centred relationships (Mishler 1984). Encouraging individuals to 'take control' from physicians and to acquire medical knowledge for themselves assists in shifting responsibility for social welfare from the state to the 'individual' citizen (Miller and Rose 2008:262).

The interaction between the audiologist and the patient in the audiological encounter[1] remains relatively understudied. Here subjects with adult onset hearing impairment[2] and seeking technological assistance in order to retain a 'normal' level of hearing are confronted with specific constructions and classifications of hearing disability and hearing disabled identities. However, as with many other patients who in medical discourse are labelled as 'non-compliers'[3] as regards the prescribed regimen (Guimn 1995; Conway *et al* 1996; Javors and Bramble 2003; Cocosila and Archer 2005; Cortet and Bnichou 2006; Small and Dubois 2007), many hearing impaired people do not continue to use their

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[1] 'The audiological encounter' is the meeting between the patient and professional medicine when hearing aids are being provided. Despite increasing recognition of patient's context in the success or failure of the interventions, audiological rehabilitation in most European countries is predominantly restricted to hearing aid fitting only (Kramer *et al* 2005:256)

[2] All participants in this article have adult-onset hearing impairment of the mild or moderate type. The classification of the hearing impairment provides an indication of the severity of the problem and is divided between mild, moderate, severe and profound hearing impairment

[3] 'Non-compliers' refers to those who do not comply with the prescribed regimen where there is an expectation for the individual to wear their aids in an attempt to hear 'normally' and thus communicate in a manner that is socially acceptable

hearing aids after the fitting, and that those who do use them continue to report communication difficulties in their everyday life (Stephens 2001; Hickson and Worrall 2003; Helvik, Jacobsen and Hallberg 2006). This also indicates that medical and clinical discourses which prescribe hearing technologies as the main solution to resolving communication difficulties are potentially problematic. The importance of the impact of medical discourses thus seems to surpass the medical encounter as these micro-level issues take place within a larger sphere. Approximately 16 percent of the adult population of Europe have a hearing impairment where the provision of a hearing aid according to the medical discourse would provide a benefit (Sorri *et al* 2001) and for people of working age, the proportion is approximately 11 percent. Hearing impairment is associated with an increased rate of non-participation in employment of approximately 12 percent (Hogan *et al* 2009) and, among those who are employed, a higher percentage of hearing impaired people are in the lower grades of employment (Mohr *et al* 2000). In this way, hearing impairment and the resulting discrimination cause problems in all aspects of working life, including obtaining work and functioning at work (Ruben 2000).

The aim of this paper is to better understand how the medical discourse with it's classifications of hearing impairment impact upon the people classified as hearing impaired in the audiological encounter (Hacking 2004). This is because non-compliance with hearing aid treatment may coincide with patients' perspectives being at variance with medical construction of hearing disability and hearing disabled identities. Through the analysis of empirical data, the paper will provide insight into the audiological encounter and hearing impairment rehabilitation strategies. It will show how medicalised institutional frameworks impact on the audiologist/patient encounters, reproducing the structural patterns of domination to the subordination of the patient subject. It will be shown that medical knowledge is enacted on premises that are not always explicit. What is said in the audiological encounter, what can be said, what is possible, what is meaningful, what knowledges 'count' as viable and the kind of experiences and knowledge that patients are authorised to bring to the audiological encounter are explored (May *et al* 2006).

The paper is divided into four sections. First, there is a presentation of theories helpful in explaining how the formats of audiologists' talk and actions reflect relations of knowledge/power (Foucault 1973, 1980), and how people are constituted, can define themselves and are understood by others in such interactions (Goffman 1959, 1963, 2005). Secondly, a description of methods follows. Thirdly, a presentation of what can be considered to be a reading of the practice from 'top-down' concerning the *production* and *regulation* of bodies within the context of disciplinary surveillance and the medical regimen (Turner 1997:xv) is explored through analyses of a number of 45-minute hearing aid fittings. Fourthly, there is what can be considered to be a reading of the practice 'bottom-up' with an analysis of how the interaction order in the audiological encounter is disciplined by mechanisms of social control with a focus on the education that is undertaken. It will show how the educational knowledge imparted by the audiologist to the patient is exclusively about normalities of the ear. This is seen to be the only possible logic in the audiological discourse, allowing few opportunities for agency where the subject speaks and attempts to refuse their reduction to voiceless clinical material.

THEORETICAL ASSUMPTIONS

Hacking (2004) has argued that Michel Foucault's 'archaeology' and Erving Goffman's interpersonal sociology are complementary and both necessary for understanding how classifications of groups of people impact upon those people classified. Foucault's fundamental concern is the question of discursive assumptions by showing how every utterance is a specific utterance with certain rules and acceptability within a discourse and that 'discourse is really only an activity, of writing in the first case, of reading in the second and exchange in the third. Discourse thus nullifies itself in reality, in placing itself at the disposal of the signifier' (Foucault 1971:21). Any discourse involves excluding procedures such as denouncing groups of people as sick. Thus, Foucault wrote of discourse in the abstract dissociated from its author in order to characterise a system of thought or a discursive formation. Missing in this approach is an understanding of how the form of discourse affects everyday interactions between people (Gouldner 1970; Hacking 2004:278; Scambler 2009). Goffman is concerned with how people are constituted and understood by others in terms of social interactions. However unlike Foucault he did not engage in how institutions came into being and what their formative structures were. Goffman has been criticised for the fact that the structure of interaction suffers from a lack of attention to power, whereas others propose that face-to-face interactions are attempts to monitor communication and control information (Rogers and Ditton 1980; Jenkins 2008). Thus the paper draws on the Foucauldian 'top-down' perspective of medicine as an institutionalised system of knowledge and surveillance that keeps 'bodies' in line (Foucault 1973, 1980) and with formative structures that allows the repetition of ways of action sustained by normative accountabilities of 'good audiological practice'. Foucault's concept of knowledge/power as an irreducible relation will be used in the context of this paper to explain how medical knowledge and the knowing gaze of the audiologist 'expert' entails constraint, regulation and the disciplining of the audiological practice. This is because 'there is no power relation without the correlative constitution of a field of knowledge, nor any knowledge that does not presuppose and constitute at the same time, power relations' (Foucault 1977:27).

Goffman's theories (1959, 2005) about the order of the face-to-face interactions between professional medicine and the patient are drawn upon to analyse the empirical data. By the use of theatre metaphors, Goffman's framework challenges us to look at the dramatic, enacted features of daily life (Goffman 1959) and help generate attention to the ways that both actors in the audiological encounter maintain ritualised roles and play out the social relations according to precise rules of staging.

Drawing on Goffman, the everyday audiological encounter will be considered a strategic encounter in which the actors involved are attempting to 'sell' a particular self-image or identity that is largely shaped by dominant medicalised discourses of hearing disability and rehabilitation. These practices are referred to as 'face-work' (Goffman 2005:5–45) where the patient regulates the self and makes it possible for them to manage the presentation of the front stage role (Goffman 1959) despite what they may be thinking or feeling. On the front stage, the patient's and audiologist's social roles and interactive behaviours are brought together in accord with the expectations of the audience, in this instance the Danish welfare state that has financed the setup. Goffman defines stigma as a relationship between attribute and stereotype whereas 'important attributes (…) almost everywhere in our society are discrediting' (Goffman 1963:4). The concept of stigma will also be used to help understand the 'back stage' problematics of these interactions. The negative social meanings or stereotypes assigned to people wearing hearing aids emerge as a key theme of analysis, particularly when the patients are preoccupied with, and reveal in varying degrees, characteristics and responses that contest the unspoken but taken-for-granted rules that structure the audiological encounter.

METHODS

The empirical data used in this paper emerges from a more extensive research project on the Danish National Hearing Service (DNHS). Participants were selected as follows: A total of 58 people from audiological encounters in two public outpatient hearing clinics in different hospitals in outer Copenhagen were asked to join the project. Seventeen of these declined. Participants ranged in age from 20 to 70 years, with a mean age of 56, and represented a range of gender and social class backgrounds. They were of working age, Danish speaking and reading, and diagnosed as hearing impaired with acquired hearing impairment where a physician had decided that the provision of a hearing aid was the appropriate treatment. As for the audiologists, 10 were asked to join the project and two of these declined. The eight remaining were six men and two women aged from 29 to 58 years.

This selection procedure was designed to see whether there were any differences when it comes to the principles of rehabilitative practice for the hearing impaired in Denmark. The study focused on the practices utilised in the audiological encounter, with specific focus on various discursive rationalities that regulate patient and audiologist interaction and create some forms of knowledge as 'viable' and others (particularly the patients questions or questions) as 'unviable' or 'un-necessary'.

To capture as much of the unfolding verbatim detail of interaction as possible, the full sample was video-recorded by cameras placed at two different angles enabling us to see both the audiologist and the patient. A software program (Corel VideoStudio®) was used to sample the two camera angles in one picture. I was not present in the room but there is no doubt that the cameras had an impact on the dynamics of the interactions. For instance, the recordings showed that the audiologist looked directly into the lens from time to time indicating that audiologists might feel the need to act more 'correctly' than if not video-recorded.

In order to read the practices 'top-down', the focus was on the regularity of the interactions, and on the pattern into which the activities were organised. Both verbal and nonverbal features of the video recordings were conveyed. A time schedule was made to measure the average time spent on the various themes of the encounter and a coding scheme was used to capture the nuances of the interaction.

In order to read the practices 'bottom-up' and outline the reasoning and practice of the audiologists, instances were noted when either the audiologist or the patient made statements that conveyed mechanisms of normativity, such as encouraging the patient's adherence to norms ('the normal sound'), conformity and compliance. In addition to noting these elements, shifts in tone of voice, silence, and unresponsiveness to questions were noted to depict how the medical discourse processed contextual issues. These passages were divided into two recurring motifs. The first theme framed *knowledge/power,* and the second theme framed *information control* as the way to make sure that the work was done in a certain amount of time. In the findings section I will present one case from each theme.

The participants responded to questionnaires used to collect data on their demographic characteristics, attitudes, and elements of their social context (work, family, living situation, household incomes and so forth) enabling the characterisation of the participants as coming from family backgrounds of either mid- to high social and economic status, a lower status, or comparatively disadvantaged background. However, it appeared that there were no obvious sources of social advantage in this particular setting due to age and class status.

Ethics

According to Danish law, ethics approval is not needed for qualitative studies. This study does, however comply with Danish guidelines for conducting ethically responsible research. All persons included in the study were asked for informed consent, were guaranteed anonymity in the presentation of findings and could withdraw from the research project for any reason, at any time.

The hearing aid fitting

Danish public health agencies recognise hearing impairment as a priority and a national rehabilitation program is set up to assist the disabled. DNHS was established in 1951 and offers hearing services for all ages free of cost. Approximately 5 percent of the population wear a hearing aid and about 100,000 persons are provided with hearing aids annually (Barton *et al* 2003), a proportion significantly lower than the 16 percent who apparently would benefit from some amplification of their hearing.

The video recordings revealed that the hearing aid fitting is an encounter which in all 41 cases – despite variations in hospital setting and hospital staff – is very formalised and structured with a clear regime where patients are fitted within the 45 minutes of time allotted. The general organisation of hearing aid fitting consultations is comprised of the following activities with varying proportions of conversational exchange devoted to the different subjects between patients and audiologists:

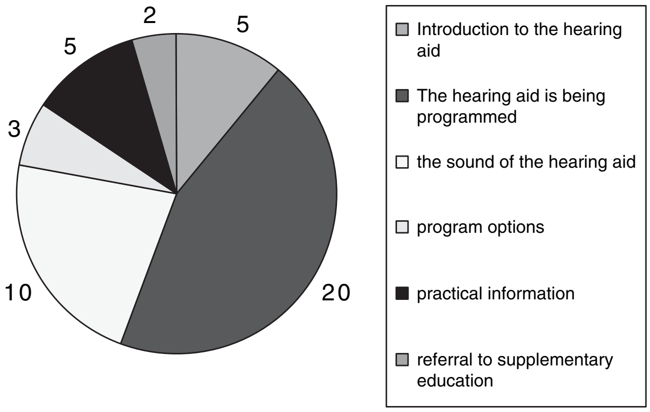

Figure 1: The predictable 45 minutes divided in fixed themes

The fitting room is small, roughly 15 m^2 and contains only technical equipment and machinery of different kinds. There is a magnification lamp, a shelf with a lot of small white boxes and wires. There are normally one or two tables and two chairs. There is always a computer and the computer screen is placed in the centre of the desk. The computer is turned on and data about the patient is displayed. For the patient there is only one chair available.

The introduction to the hearing aid (average five minutes) is the first thing on the agenda. The hearing aids are placed in advance on the desk in front of the patient and are presented with regard to brand and functionality. With the hearing test as a point of reference, the audiologist explains to the patient that he/she has a particular scientifically sanctioned type and degree of hearing impairment. The degree is revealed by science visualised to the patient in the form of an audiogram (a computer-generated visual representation of the hearing impairment). The patient learns and *sees* in graphic form how much he/she is hearing impaired. The starting point is to show the patient that 'normal' classification of hearing, and then to define to the patient the degree of deviation from this norm.

The details from the patient's hearing test are used to create a prescription for the hearing aid. The next step is to insert a hearing aid into the patient's ear canal. This is done while the patient sits still and looks straight ahead. Then the hearing aid is programmed (average 20 minutes) to the prescription. Once all the programming has been done, the audiologist gives the patient advice regarding acclimatisation, and warns about the unfamiliar sounds the patient is about to experience as a consequence of the amplification. The patient is told that they will need time to readjust to all the everyday environmental sounds and there is a strong emphasis on the patient's own responsibility in the rehabilitation process 'it will be hard work for you to get used to wearing hearing aids. Within the first couple of weeks it will be like living next to a highway and you have to overcome that discomfort'.

The sound of the hearing aid (average 10 minutes) is then tested with the assistance of the patient who reacts and relates to the hearing aid provided in order that some minor fine-tuning of the aid can be carried out. This is almost always necessary even though the patient is often at a loss for words to express his perception. Program options (average three minutes) are next on the agenda. Variations on the same theme are delivered when the audiologist talks about different possible program settings for different listening situations. Practical information (average five minutes) occurs once all the programming has been completed. In this session the patient is instructed in the care of the hearing aid.

Referral to supplementary education (average two minutes) is provided to the patient in the form of a variety of handouts explaining what to do after the fitting ends. No appointments are made when the hearing aid is delivered in order for the user to return for readjustment. The number of follow-up visits during the acclimatisation process is in this way kept to a minimum. Of the 41 patients in the study, a six month follow up showed that only one patient had contacted the communication centre and seven patients had returned to the hearing clinic to have the aids adjusted.

KEY FINDINGS AND EMERGENT THEMES

In accordance with institutional expectations, the fittings are generally conducted in a polite and rather impersonal manner. Actions are constrained by the interests and resources of the actors and the range of role formats available to them (Goffman 1959:9–10). These roles with the audiologist as a 'medical expert' and the patient as 'voiceless clinical material' are discussed in the following sections. The encounter involves ceremonial order: 'Through the ceremonial order that is maintained by a system of etiquette, the capacity of the individual to be carried away by a talk become socialised, taking on a burden of ritual value and social function' (Goffman 2005:114–115).

The architectural staging of the audiological encounter includes the furniture, décor, physical layout, forms to be filled out, and other background items which supply the scenery for the subjects to act within. The room, the architecture and the material artefacts relate to other medical specialisms in the hospital and to many years of close cooperation with engineers concerning development in acoustic measurement equipment (Hindhede and Parving 2009). The invisible hearing impairment is made visible through the development of technologies enabling one to *see* variations of hearing (Hogan 1997:797). The audiological encounter can thus be considered as a ritualised interaction that is institutionalised and maintained by medical specialties and high technology which creates meaning and structure for the actors involved.

Instances involving the explanations about hearing impairment rehabilitation given by the audiologist, the level of technicality and medical jargon (medical/technical terms) employed were also counted. An analysis of the 45-minute fittings saw two themes emerge in the way patients' i.e. lay peoples', accounts or stories are dealt with in the audiological encounter. The first theme frames knowledge as the structuring principle of practice. The second theme frames information control as the way to make sure that the work is done in the allotted time.

Theme 1: Knowledge/power as a structuring principle in the audiological encounter

Generally all 41 encounters can be characterised as information giving sessions, rather than as sessions for communication. Speech is completely standardised with identical sentences and, as the same notions of time span are used, the same preconditions are assumed. Both the location and the audiologist differed in the sessions, but the message is always the same with regards to knowledge about adjusting to the sound of the new hearing aid: the brain needs to store the information, therefore the patient has to 'wait and see' and 'learn to ignore the intrusive daily sounds'. Information is given as standardised facts in a ready-made repertoire and in preconstructed language with a reference to 'the truth' (Foucault 1980:131). This knowledge or series of 'truths' come out of the computer in the form of medical/scientific facts and with the expert having 'the right answers' for the patients:

The audiologist (AUD) sits in front of the computer and has just explained about the degree of hearing impairment in terms of 'frequencies', 'decibels', 'bass', 'treble' etc. The patient (PT) sits at the end of the table not directly able to see the information displayed on the screen with hearing aids just inserted in ear canal:

> PT: I must say; it is VERY clear (…)
>
> AUD: You are supposed to hear stuff like this because these sounds exist in the real world and normal hearing people can hear these sounds very clearly. Maybe after an hour or two you will have gotten used to it, so let's wait and see. This will eventually become normal for you.

What this illustrates is that a specific discursive frame of reference and configuration of power/knowledge is presented in all 41 cases with very few struggles against this form of subjectivity. An example of a patient who struggled against the impositions of law of truth on her (Foucault 2000:331) is the case of a 48-year-old white female with a male cohabiting partner and two children living at home in a rich suburb of Copenhagen. She is a university graduate and works as a chief clerk in a ministry. She is one of the very few amongst the 41 participants who in the interaction acts as an engaged co-player (Goffman 2005:31).

At the outset the patient expresses scepticism about the aid she is about to be provided with as she has read on a webpage that other hearing aids provide 'natural sounds'. She is upset about not being presented with a variety of hearing aids. The patient leans forward towards the audiologist. He, on the other hand, leans back in his chair with his arms crossed.

Vertical lines denote interruptions; extra periods (…) indicate pauses.

> AUD: I have adjusted the aid to the recommended level according to your hearing impairment (----) be aware of the fact that in the beginning the noise level is very high and maybe a bit sharp and 'loudspeaker like' and there will be a lot of noise. The hearing aid amplifies all sounds – not only speech (…)
>
> PT: Is it not possible to have normal hearing or normal sound through the aid? It is always amplified sound?
>
> AUD (leans forwards and gazes at the screen): It is always amplified sound
>
> PT: /because I have read a bit about it and the aids behind the ear provide normal sounds in the ear?
>
> AUD: Yes if you do an open fitting.
>
> (…)
>
> AUD: So you weigh up the options. The biggest disadvantage with these (holding the aids in his hands) is that you will hear your own voice more clearly than with the others.
>
> PT: Ok?
>
> AUD: You will always hear your voice in an unfamiliar way when using a hearing aid.
>
> PT: Ok?
>
> AUD (gazes at the screen): /which you have to get used to.
>
> PT: Ok?
>
> Silence for 10 seconds.
>
> AUD: So this means that when you wear your hearing aid you have to get used to hearing your voice differently. Like hearing yourself on tape
>
> PT (laughs tensely and changes tone of voice)*:* hmm?
>
> AUD (with visual attention on the patient): / (…) it's you and your hearing centre (points to the brain) that has to make sure that these sounds are filtered and find out what the brain needs and doesn't need as information. It takes a couple of months sorting that out given

> you use your hearing aid many hours per day. When you have gotten used to wearing the aid and use it from dawn till dusk, then there will be a period of time when it (the brain) has to decide 'what do I do with this sound information?' 'How do I dissociate it?' So it takes time, and it requires motivation and that you really make sure that you use the aid in a lot of different settings while allowing yourself to take it off when it becomes 'too much'.

The patient participates actively in the technical discussion which is in contrast to what the audiologist is used to, as it only happens with two of the 41 patients, the rest being quite passive. When asking whether she could be provided with a hearing aid without amplified sound, she refers to the information she has picked up on the internet. However, by answering: *'it is always amplified sound'*, the audiologist finds himself committed to the necessity of taking face-saving action against her (Goffman 2005:37), showing that he has professional knowledge and is in possession of the 'truth' of how the subject's experiences should be shaped. This has the effect of positioning the patient as unlearned. The answer '*yes if you do an open fitting'* exemplifies how the expert-layperson dyad reproduces conceptions of scientific knowledge incomprehensible to her as a layperson[4]. Whenever this patient enunciates their own explanations or requests, their voices are corrected in order to become consistent with established medical knowledge concerning what technologies they 'should' use and what their experiences 'should' be. Power is exerted through language as it produces authoritative and subordinated knowledges in the audiological encounter. Moreover, the front stage performance of the patient involves specific characteristics comprised of ritualised subordination to the audiologist.

The audiologist makes a virtue of scientific facts: '….*it's you and your hearing centre (points to the brain) which has to make sure that these sounds are filtered and decide what the brain needs and doesn't need as information'*. This 'brain-training' regime relates to the latest in brain research about 'acclimatisation' and is used as evidence to make the patient understand and use the hearing aid accordingly. When saying: '*which you have to get used to'* the patient is constructed as an 'active' subject. Mastery and awareness of the body is acquired through the effect of an investment of power in the body (Foucault 1980:56): the patient must train the brain in order to normalise his/her hearing. The logic of the discourse considers her to be a rational individual who makes informed choices based on established wisdom accessible through the acquirement and utilisation of knowledge about 'acclimatisation'.

According to Goffman (1959), maintenance of the definition of the situation and adherence to both role and rule is enormously important to people and helps explain why this patient does not ask the audiologist for clarification in non-technical terms. As the audiologist has scientific facts displayed on the screen, the patient cannot completely control the information about herself that becomes available in the situation. The setting also has an effect as it constrains and restricts, as well as constituting a specific form of social activity: hearing aid fitting. The patient's self as a kind of player in a ritual game is able to cope honourably and diplomatically with the judgemental contingencies of the situation (Goffman 2005:31), and this helps to explain why she leaves back stage issues back stage. The process of establishing identity becomes closely allied to the concept of the front stage and is especially problematic for the patient who, during the length of the encounter, is expected to change from 'hearing' to 'hearing impaired'. The ritual order of the interaction constrains the patient from outright rejection of the hearing aid and she does exactly as told. However, the audiologist

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[4] 'Open fitting' is a technical term which refers to the latest types of hearing aid which are promoted in commercials as providing 'natural' sounds

maintains control of the patient's hearing identity only for as long as they are in the room, as a postfitting interview divulges that back stage this patient chooses not to wear the provided hearing aid. Hence although medical power is pervasive and predominant in these clinical settings, opposition and resistance to such power are not precluded in everyday life.

Theme 2: Gaze as information control in the audiological encounter

According to Foucault 'the observing gaze refrains from intervening: it is silent and gestureless' (Foucault 1973:131). The order of visibility is what is seen whereas the invisible is the practices involved in making visible that which is not yet visible (Crossley 1993:401). Audiology understands hearing impairment as a physical deficit and focus its gaze on the audiological gap (Hogan 1997). By making the invisible deficit hearing impairment visible, subjects can be observed and kept under surveillance, at least during clinical encounters. However, as an interaction ritual the organisation of the gaze also controls what kind of experiences and knowledge patients are authorised to bring to the audiological encounter. In general, the patient (the hearer) gazes at the audiologist (the speaker) rather than the other way around. Gaze direction makes the audiologist's focus of attention clearly observable and gives the computer status as the third and most important actor in the room. Moreover, the utterances and the gaze do not necessarily function together. The audiologist has a variety of sources of involvement (Goffman 2005:130) which patients reacts to. As an example of this, patients do not interrupt while the audiologist gazes at the screen. While side-involvement is performed without threatening the simultaneous maintenance of the main involvement, it is the audiologist, who controls the action in the encounter by deciding what is main involvement and what is side involvement, thus limiting the amount and kind of attention he is able to give to the patient.

Within this format information control in all 41 encounters is systematic, all pervasive and almost unquestioned. Talk in general during the sessions is confined exclusively to medical/technical matters. For example, aspects of patients' everyday life are not on the agenda. Questions from audiologist to patients are of a distinct type: '*is the sound too high?*' or *'do you have a sense of echo in your head?'* and does not warrant general discussion. The majority of patients' answers are brief and to the point: *'yes, it sounds ok*'.

Some patients have concerns about the possibility of the aid generating whistling sounds or being visible: '*I have skipped a haircut to make sure that the hair can cover the hearing aid'*. In more than half of the cases of a patient voicing a personal question or remark, the audiologist does not respond or comment on it. Instead, he/she gazes at the computer screen showing what is appropriate subjects for the fitting and what is not and showing that the gaze refrain from all possible intervention (Foucault 1973:133).

An example of the organisation of information control is demonstrated the following case. The patient (PT2) is a 59-year-old white male who is the chief executive officer in a large software firm. He is married, has two children living at home and lives north of Copenhagen in a prosperous area in a large house. This patient has conveyed in the pre-fitting interview that he has hearing problems when talking on the cell phone which is a large part of his job. He does not exercise to keep himself fit as he works long hours every day. He thinks that responsibility for one's own health is important.

Ten minutes have passed in the fitting session. The audiologist (AUD) is standing behind the patient inserting first the left hearing aid then the right. The aids are connected to wires, which are connected to the computer.

PT2 (touches the left ear with the aid in it): Fortunately I don't have to wear those wires (laughs)

AUD (smiles): Oh no.. After all, they are not part of the package

Inserts the right hearing aid and returns to his seat. Looks at the screen and clicks the mouse

(…..)

AUD: Right now they (the hearing aids) have recognised that we are in a quiet room and are talking nice and quiet and there's not a lot of background noise. Well – there are no loud noises which have to be compressed while at the same time accentuating speech. You see, it constantly assesses the sounds and decides where to put the amplification

PT2: But it sounds like you are wearing a loud speaker and that I am wearing a loud speaker

Silence for 10 seconds

AUD: (looks at the screen, and then looks at the patient): I will adjust it in a minute. And then I need to say: point one: you need to think that I am talking to you through a loudspeaker

PT2 (points to his ears): Yes?

AUD: Because I am talking through a microphone, an amplifier and a loudspeaker.

PT2 (leans back in the chair and looks frightened): But then I suppose this sounds ok.

AUD (gazing at the screen): Good to hear

PT2: Well, there is a lot of equipment. Glasses, hearing aids. What next? (Laughs)

AUD (smiles): Yes, that's it (leans back in his chair, his hands folded in front of him). You also have to get used to the idea, right?

PT2: Yes exactly. I really feel old now. (Breaks his gaze at the audiologist by a brief glance away, voice lower). But that's another matter altogether (starts fiddling with the wires). One might need a psychological course? (looks at the audiologist)

AUD (hunches his shoulders and smiles at the screen): Maybe

This patient circles around widespread prejudices about hearing aid wearers: they are slow on the uptake, old, less-gifted. An urgent need to reduce the possible negative impact of the diagnosis is created '…*fortunately I don't have to wear those wires* (laughs)'. For this patient the materialisation of the hearing impairment reveals something which he hitherto might not have had to deal with. His remarks reveal that he sees the devices as a disqualification which could be even worse if they included wires. The audiologist does not follow up on the remarks. Instead he answers '*Oh no. After all, they are not part of the package'* and looks at the screen which in the discourse is defined as where he should have his main involvement. Bureaucratic time imperatives prevent him from getting into a long conversation with the patient. He is a function of the system with a fixed manuscript. When the patient says '*One might need a psychological course?'* the audiologist gives a cue by answering *'Maybe',* showing a lack of readiness to spend further time on the subject. This causes the patient to stop talking about this intimate subject. He controls his impulses systematically by use of the rational part of the self which makes it possible for him to manage the presentation of the front stage role.

The patient faces great challenges in managing his feelings: '*I feel really old now*'. He has had an invisible condition and is now faced with technology helping to repair his suboptimal organism. His comments indicate a shift in identity and relate to how he felt about himself previously. Wearing a hearing aid makes his invisible condition become visible to the 'normal' observer, and he is visualised as a disabled person possessing visible marks of unacceptable difference associated with old age and slow-wittedness (Goffman 1963).

The patient is well educated and holds a high position both occupationally and economically. Whereas this might have been a source of social advantage helping him to challenge the information control exercised, it seemed that the audiologist's power is tied to the ways he can mobilise the privileged discourse of medicine (Foucault 1980). In this way he is able to enforce his version of 'true' knowledge in the audiological encounter and the patient looses as he does not even know the basics of a hearing aid – that from now on when he communicates he will have to get used to people '.. *talking through a microphone, an amplifier and a loudspeaker* '. The audiologist does not rule within the institution but instead determines which ideologies are in focus. Backstage points of agency are demonstrated as this patient decides to decline the audiologist's version of the problem and not to use his provided hearing aid.

CONCLUDING REMARKS

This sociological inspired empirical study has examined the structural level of rehabilitation practice for hearing impaired working-age people in two public hearing clinics in Denmark. The audiological encounter is an episodic encounter in which the audiologist and the patient maintain a relationship oriented towards a series of routine practices linked to the hearing impairment and its rehabilitative treatment. The encounter is based on and maintained by the 'top-down' epistemological authority of medical knowledge, classifications and practice which is embodied in the artefacts in the room, the accumulated history of the development of acoustic measuring equipment, and the medicalised discourses and practices which inform the encounter (Hindhede and Parving 2009). This particular 'making up of people' (Hacking 1986:29) changes the space of possibilities of personhood and regulates subjects. The audiological encounter structures and limits the possibilities of knowledge production and dissemination and regulates the subjects involved. Discursive negotiations which aims towards stabilising the 'truth' and the 'normative' are part of this encounter and shape the way people understand hearing impairment. The audiologist's power over the patient is not only on account of occupational status per se but instead is tied to his/her ability to mobilise dominant medical discourses (Foucault 1980) through the physical setting and regulated script which guides the hearing aid fitting.

The knowledge presented in order to conceptualise hearing impairment is defined by the possibilities of use and appropriation offered by discourses of hearing aid use and rehabilitation (Foucault 1982:201). By making legitimacy claims for evidence-based knowledge as the relevant and valid information in the procedure, the subject's experience, needs and priorities are considered irrelevant. The way the audiologist deals practically with these circumstances and the subject's possible responses is by acting in a highly bureaucratic and controlled fashion, and almost all the personal elements are stripped from the encounter. Under such restrictions, the fundamentally biological emphasis in medical ideology is reinforced when conducting rehabilitation care. This is very effective in terms of productivity as everyone leaves with a hearing aid. However, from the bottom-up there are opportunities for agency as amongst the subjects classified other realities are created. This is demonstrated where the subject speaks and attempts to refuse their reduction to voiceless clinical material. Thus some subjects challenge medical authority – if not by resistance in the audiological encounter then by rejecting the identity offered by medical discourse as hearing impaired by rejecting the provided hearing aids back-stage.

In my extraction of data I have shown that Goffman's theories on interaction rituals (Goffman 1959) help to explain the ritualised order of the audiological encounter, where the audiologist can be considered a function of the system with a fixed manuscript. Goffman also helps to understand the ways in which the setting is utilised as a resource by the interacting parties as it helps to set the agenda for the meeting. The room and its objects can be considered as part of a wider discourse on disciplining the body, with the audiologist telling the patients how to understand hearing impairment, and medical discourses informing the audiologist what constitutes hearing impairment and how the subject of hearing impairment should be engaged with and treated. The patient controls the self through the presentation of the front stage roles, and keeps the back stage roles back stage. Thus the potential conflicts between the audiologist and the patient tend to be manifested outside the audiological encounter rather than within it.

Politically allocated funds to the DNHS reflect the quantity of the patients' treatment (Hindhede and Parving 2009). The patients' potential feelings and lived experience of stigma are not clearly acknowledged. Constraints to encompass the social perspectives of patients in the context of the fitting encounter reflect DNHS as a discourse with a specific scientific reasoning and disciplining techniques. Hearing impairment is constructed as a pathology rather than a social issue. Diagnosis, treatment and the definition of hearing impaired patients' needs are based on that model. Instead of focussing on the communicative disability and the implications there may be for the patient, the intention in fittings is to make the patient understand that he/she has to do a lot of 'brainwork' to make the aids and the new sounds 'normal'. By doing so, it does seem that Danish officials are endowed with a vocabulary which extends bureaucratic authority in the hearing clinic and the moral lives of self-regulating but far from autonomous patients. However, it does not seem that the historical transformation of the medical gaze with its extension in the 20th century to a wider interest in the psychosocial status of individuals (Armstrong 1995) has yet reached Danish audiology. The reason for this may lie in the pressures and constraints of the organisational context within which the audiologist-patient encounter takes places. However, to answer this question would call for further analysis of the impact of neoliberal strategies to Danish health policies. Another aspect that lacks attention is the construction of hearing disability and hearing disabled identities as being part of another discourse which seeks to define hearing disability in sociological terms and explore diverging sound reasons for seeking audiological rehabilitation, and, in addition, the sound reasons for using the hearing aid or not.

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Health care policies and resisting consumers in a prototypical welfare state

Journal of Health Organization and Management (accepted)

Purpose - It has been argued by researchers from the Anglo-Saxon nations that the rationality of the market has increasingly infiltrated the medical field. This paper enquires via policy analysis to what extent these principles have affected the prototypical welfare state of Denmark in relation to Danish hearing health policies.

Methodology - The paper is based on qualitative methods comprising observations and interviews in two hearing clinics.

Findings - The paper shows that rather than a ‘withdrawal’ of the state there has been a process of reform. The data suggests that a distinguishing mark of the consumer role on offer in Denmark is, that along with a free hearing aid, the Danish health consumer enjoys a range of rights and reciprocal responsibilities. The paper concludes that few of the hearing impaired patients were able to embrace the consumer ethos, and those who chose not to wear their prescribed hearing aids experienced the added burden of moral reproach.

Originality/value - It makes little sense to analyse abstracted rationalities without proceeding to analyse how they actually function in practice. This paper demonstrates empirically how and to what degree governmentality is embedded in social practice in two public hearing clinics in Denmark.

Keywords hearing impairment, governmentality, consumerism, welfare state

Background

From patients to consumers

It has been argued that the rationality of the market has increasingly infiltrated the medical field (Osborne, 1993, p. 55), and that terms associated with making a profit have gradually replaced the previous claims of clinical ‘truth’. The change in terminology from describing the subjects of health care as ‘patients’ to ‘consumers’ is in agreement with this argument (Brock, 1995), and, following Bauman (2005, p. 58), choosiness of the consumer is the consumer society’s metavalue and “but a reflection of competitiveness, the lifeblood of the market”. Building on Foucault’s insights the creation of the consuming self concerns a long, slow development of Western governments and entails ‘the conduct of conduct’ (Foucault, 2000, p. 341), that is, the shaping, guiding and directing of people so they do what is the best for themselves and for society as a whole. This means that the government relinquishes some of its privileged authority and changes its role from that of regulator to that of ‘facilitator’ (Foucault, 1982). This act of ‘empowering’, it is argued, is a key term in translating the rationality of individual responsibility into practice (Nordgren, 2008).

However, the above argument is primarily based on governmentality studies conducted by Anglo-Saxon scholars (Allsop and Jones, 2008; Clarke *et al.*, 2006; Forster and Gabe, 2008) who have studied what they term ‘governmental technologies’ in countries that have radically redesigned their welfare systems by privatisation and the restriction of social benefits. These studies tend to retain at the programmatic level of programs and technologies evident in official documents and instruction manuals where they interrogate programs on their textual surface and examine their communicative logic and rationality. Rarely do these studies consider Foucault’s emphasis on what we might call resistance and opposition to the power of medicine and the complexity of the concrete practices in which consumerism initiatives unfold.

What could be considered a contrast to the liberal Anglo-Saxon nations is the Nordic welfare states that have - at least up until recently - been prototypical universalistic welfare states[1] (Esping-Andersen, 2000) whose stated aim has always been to marginalise the market in the provision of welfare by expanding the collective provision of is a healthcare, and by public intervention in securing the health of the population (Vallgårda, 2007). Although there are many specific traits in each Nordic country, there are shared characteristics that warrant speaking about a Nordic model of the welfare state (Lahelma, 2002). The question is, then, if in such systems redistribution is generous and therefore there is no expectation that what people receive is related to what they contribute?

As argued by Garland (1997, p. 200), it makes little sense to analyse abstracted rationalities without proceeding to analyse how they actually function in practice. In this respect, there is no consensus about a ‘correct’ methodology and no general thesis such as one might find in other areas of social

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[1] Esping Andersen groups the USA and UK as liberal regimes. This, however, ignores huge differences with regard to the extent to which these systems are collectivist and the degree to which consumerism is an important part of the system

science scholarship (Petersen, 2003, p. 191). Thus, in order to examine empirically the degree to which neoliberal ideas and practices have supplanted the prototypical welfare state in Denmark, and to what extent this is exemplary in Danish hearing clinics in the hospitals where patients are provided with hearing aids, I draw inspiration from policy analysis as described by Shore and Wright (1997). Policy influences through metaphors of the individual and society the way people construct themselves, their conduct and their social relations (Shore and Wright, 1997, p. 5). The focus is on the *translation* rather than on the diffusion or implementation. For the researcher this means studying *through* policy (Hoeyer, 2005; Shore and Wright, 1997, p. 14) i.e. moving between individuals positioned differently in relation to Danish health policies, and exploring the divergences as regards embeddedness in social practice and the policies' effects on their intended targets. The policy this paper focuses on is ‘The private hearing aid treatment act’ (Ministry of Social Services, 2000) which will be introduced in the following section. The policy analysis is combined with insights from Mauss (1990) as he explains very convincingly the transition from the exchange of goods based on morality to a purely rational economic exchange. Mauss attacks the logic of the market by stating that the apparently altruistic act of giving away free hearing aids is clearly rewarding for the Danish government:

> In Scandinavian civilization, and in a good number of others, exchanges and contracts take place in the form of presents; in theory these are voluntary, in reality they are given and reciprocated obligatorily (Mauss, 1990, p. 3).

As in governmentality studies, Mauss also draws on the idea of collective mentalities (cf. Dean 1999, p. 16) and indicates that individuals govern themselves because they have internalised the governor’s mentality. For Mauss, social action is not shaped only by rational self-interest as stressed by rational-actor theory. Rather, human condition rests on the complex interplay between individual freedom and social obligation[2]. This means that a gift economy differs fundamentally from the ‘quid pro quo’ of market exchange. ‘Quid pro quo’ from the Latin means ‘something for something’ and indicates a more or less equal exchange of goods and services. In contrast, rules of legacy and self-interest compel the gift that has been received to be obligatorily reciprocated. Thus the power that resides in the object given causes its recipient to reciprocate ‘payment’ for it: the gift is

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[2] As a source of inspiration for his own politics, Mauss refers approvingly to English proposals on social policy (1990, p. 86-87); however as the nephew and intellectual heir to Emile Durkheim, he was strongly opposed to English liberal thought.

incorporated into something associated with social obligation and social responsibility. My hypothesis is that within the welfare society, we have established a general mutual servility and self-sacrifice (Raffnsøe, 2008), making it more difficult for politicians to implement policies based on consumerism, and – in this case - for Danish citizens to fully adopt the 'quid pro quo' consumer subject position offered. Instead, conduct is governed by the social contract that is constantly reproduced in and through the welfare society, its institutions and the various forms of social interaction it imbues, and by the rules of reciprocity.

The ability of the patient to embrace the ethos of consumerism has been problematised in some of the Anglo-Saxon studies (Fox *et al,* 2005; Lupton *et al.*, 1991), however, the impact of the potential shift in the conceptualisation of the patient when it comes to audiological practice has not been widely investigated. An individual with adult onset hearing impairment is a potential consumer of audiology services in the assessment of his/her problem, and in the dispensation of a hearing aid to alleviate the disability. What is particular about hearing aids is that these rehabilitation technologies need to be adjusted to the changing and often subjective requirements of the individual user. Moreover, the individual needs to be equipped with the skills that will enable them to negotiate communicative life successfully in a hearing world (Hogan, 2001). It is, however, well established that many patients who are provided with hearing aids do not wear them 'properly', or at all (Arnold and Mackenzie, 1998). This is also a concern in Denmark, despite the fact that when it comes to audiological services, Denmark has up until recent years been described as quite unique (Stephens, 2009) as all the examination and treatment of the hearing-impaired has been free of charge for all persons of fixed abode in Denmark, irrespective of age and income, since 1951. The most recent models of digital hearing aids and assistive devices are also provided free of charge.

Nonetheless, in Denmark, as in other countries, current treatment interventions and methods 'remit' only about 60 percent satisfaction (Sorri *et al.*, 1984). This has become a political issue that warrants attention and has led to the Danish government's inclination to develop an attitude of consumerism amongst hearing-impaired patients by the introduction of The private hearing aid treatment act in 2000 (Ministry of Social Services, 2000). But, in the UK, where this has happened, consumer influence over the direction and scope of changes to the hearing aid market is limited, despite the rhetoric of choice (Ross, 2008). This indicates that the complexity of the tensions and ambivalences involved in becoming a new hearing aid wearer might collide with neoliberalism's archetype of the autonomous self who governs personal behaviour with reason rather than emotion (Lupton, 1997).

From 'welfarist' to 'neoliberal' politics in Danish Health Services

While the welfare state is a relatively new phenomenon, it has a long pre-history and is an essential part of the Danish and West European cultural heritage (Raffnsøe, 2008). It has become the single most cohesive element in the social fabric, being based on a social contract that is constantly reproduced in and through the welfare society, its institutions and the various forms of social interaction it imbues. According to the terms of this diffuse but widespread contract, we agree to care for all and everyone. The contract rests upon the notion that the price we pay for the acceptance of its benefits is the issuing of a relatively comprehensive license to involve ourselves in one another's lives (Raffnsøe, 2008).

The Nordic national healthcare systems are to a large degree owned and managed by the state, financed from general taxation, and access is free for all citizens at the point of delivery. The escalation of health care costs in Denmark in the 1990s has been identified as a political issue which requires dealing with differently, and the solution has been a gradual shift in political position (Greve, 2003) culminating in declarations about minimising the intervention of the state in the lives of citizens (Government of Denmark, 2002).

A crucial part of studying through policy is to consider the translation of the policies and what actually takes place. The policy considered in this research is an example of the Danish government's approach to privatisation in the year 2000 when the government decided to allow the subsidised purchase of hearing aids in private hearing clinics, with partial reimbursement from the state. The government funded process of achieving the full status of being hearing impaired, including receiving the prescription and the mandatory waiting time in public hospital clinics, took up to two years. The Act was intended to reduce the pressure on public clinics and to give hearing impaired patients the choice between a public and a private dispensation of hearing aids. In the act it is stated (Ministry of Social Services, 2000):

> It is assumed that the applicant, whether he / she wishes to avail him/herself of the possibility of freely choosing a private, approved hearing aid supplier, must have the opportunity to test and evaluate the hearing aid, and possibly different types, before a decision is taken. It is important that the applicant receives good instructions during the trial, giving him/her sufficient time to become familiar with the hearing aid.

Whether the problem was considered to be economic, professional, political or ethical is difficult to say. It does indicate, though, that the Danish government views inequalities as a matter of choice, thus making inequalities inevitable (Ericson *et al*., 2000, p. 532-3). It meant that the group of patients who could afford the user charge could queue-jump. One effect was that private dispensing clinics emerged. A lack of technical staff became evident as they transferred to private dispensers (Hindhede and Parving, 2009) who could offer better working conditions. Some of the consequences have been that the total amount of dispensed hearing aids increased by 20 percent, the waiting lists in the public health sector have grown, and now almost half of the hearing aids dispensed in Denmark are dispensed from private hearing clinics (National Board of Health, 2008). Recent research has shown that due to lack of battery claims 34 % of dispensed hearing aids are considered as being in the drawer (Skovmand, 2010). Moreover, the tendency is to provide the patient with two hearing aids instead of one. Hence, the demand-regulated policy has prompted a rise in total costs for the Danish government.

Methodology

The research that informs this paper consisted of 6 months of ethnographic fieldwork undertaken in two public outpatient hearing clinics in different hospitals in outer Copenhagen during 2008. During my fieldwork I conducted participative observation (Spradley, 1980) of two hearing clinics' day-to-day life plus semi structured interviews.

My method was to move between people positioned differently in relation to the policy. The focus of the observations was on how staff on the audiological ward made sense of the formal (and informal) practices in which they were engaged and how they were rationalised. I accompanied 7 of the employees as they went about their daily work routine (hearing tests, hearing aid fittings etc). Ethnographic field notes were jotted down in a notebook and written up at the end of the day.

In order to explore how the policies influenced the way hearing health care patients constructed themselves and their conduct, and how they made sense of the practices in the hearing clinic, interviews were conducted with 41 patients before and after dispensation of the hearing aids. Patients were of working age, ranged from 20 to 70 years, with a mean age of 56, and reflected a suitable distribution of socioeconomic status. They were Danish speaking and reading, and diagnosed as hearing impaired with acquired hearing impairment where a physician had decided that the provision of a hearing aid was the appropriate treatment.

In the pre-acquisition interview, after their consultation with the physician, patients were asked to state why they chose the public hearing clinic instead of the private alternative and why this specific clinic. They were also asked about their experience of possibly shared decision-making in the consultation. They were questioned about the level of information given: whether they were given information about the types of hearing aids available, and if they knew which model they were about to receive. The post-acquisition interview, which took place approximately 6 weeks after the dispensation of the hearing aid, was a tape-recorded telephone interview where patients were asked to convey their thoughts about the use of the hearing aid, benefits, problems etc. Their utilisation behaviour as regards the rehabilitation service offered was also established by contacting the patients 12 months after the dispensing.

All interviews were audio-recorded and fully transcribed. The transcripts were analysed for recurring discourses and for ways of constructing points of view and meaning regarding issues pertinent to consumerism in the hearing clinic.

According to Danish law, the ethical committee does not need to give its approval to qualitative studies. This study does, however, comply with Danish guidelines for conducting ethically responsible research.

Key Findings

Health policies' social life in the hearing clinic

Daily life in the two hearing clinics demonstrates that the Danish state controls the particulars of the examination structure, licensing, staff training and what should happen during the examination. Decisions taken by the physician to place the patient on the waiting list for hearing devices are made according to the categorisations of hearing thresholds. These regulations are outlined in guidelines from the National Board of Health (http://www.sst.dk) which is the supreme health care authority in Denmark. The patients are only accepted through referral from, and under the control of, medical practitioners in the public sector. This tendency to territorialise their discipline is an apparent contradiction in consumer rhetoric as it both limits patient choice and at the same time reinforces a tradition of systematic professional dominance.

At both hearing clinics thousands of people are seen for hearing tests and hearing aid fittings every year. Each part of the examination has its assigned room, filled with the artefacts appropriate to the examination process for the measurement of the pathologies of the ears. I observed the patients file into particular rooms depending on their stage in the process, and what is thought to constitute an ‘appropriate’ or ‘accurate’ testing environment.

The practices inherent in a hearing care appointment involve: the production of a patient journal, several different kinds of tests, the completion of an audiogram and the filling out of forms on the statistics and performance of the patients. This is all carefully documented and shared amongst all personnel in the clinic. Hearing aids are dispensed via a non-profit making company and centralised purchasing, funded by the state, which ensures a cost-effective national distribution and has led to demands for systematic financial control. As there are over 200 types of hearing aid to choose from, the hearing clinics narrow their options to a more manageable number, reserving the most expensive aids for working aged patients. This standardisation, evolving from a specific reading of equality does parallel governmentality studies as it supplies the medical field with a vocabulary and a rationality for being governed and of governing itself, and - according to Osborne (1993, p. 354), attempts to make an economic rationality function as closely as possible to the point of clinical decision itself.

One senses a great deal of activity in the morning when physicians and audiologists are receiving their assignments for the day. They rotate during the week. Ideological and financial changes were imminent in the hearing health care system during my research. The pro-freemarket and pro-privatisation of hearing health care is often referred to in everyday life. In the lunch room there is a fair amount of discussion about how to manage the flow of patients. An audiologist explains: '*we are expected to keep waiting lists down and to process the highest possible number of patients through the system (..) the private clinics are money-grubbing businesses who often dispense hearing aids without justification (..) the private clinics that promote treatment and services free of charge provide patients with cheap Chinese hearing aids to make ends meet'*.

Every week a note indicating the productivity performance of the clinic is hung on the notice-board in the lunch-room. Although the number of people seen has decreased during the previous year, more work is involved in seeing the patients due to more complicated technology. When talking about patient choice, the physicians I talked to all stated that dispensation had to be based on a kind of informed choice which was noted down in the patient's medical chart. However, the political ideals of giving *'good instruction'* and *'sufficient time'* to patients have to be squeezed into tight hospital routines: within a 4-5 minute consultation with the physician the patient is expected to participate in the decision about which hearing aid should be provided. These consultations unfold in quite different ways within the same program setup. Typical is an interaction where standardised, normative accountabilities based on scientific knowledge work as an effective structuring principle to get the work done in the appropriate time:

'*Here is your audiogram. The vertical lines represent the frequencies that are tested from 125 to 8000 hertz. The horizontal lines record the threshold at which you stated that the sound is heard. Normal thresholds are between 0 and 10 decibel and you have a hearing threshold greater than 30 decibel '*.
Then come the possibilities and this is where the consumerism aspect is very distinct:
'Hearing aids come in many different styles and models. You have the BTE which are behind the ear, the ITE which are in the ear, the ITC which are in the canal, and then the CIC which are completely in the ear canal'

and finally the patient has to make a choice:
'*Do you want behind the ear or in the ear hearing aids?'*.

By setting itself up as a kind of self-service station the hearing clinic stages the patient's self-management. However, I also saw other physicians manoeuvring the bureaucracy and translating the free choice into powerful suggestions about which choices are the 'right' and 'better' ones to hesitating patients - with alternatives to those choices being (explicitly or implicitly) discouraged.

The fitting of the chosen hearing aid occurs approximately 6 weeks later and is conducted by audiologists. This level of analysis is what I have explored more intensively in other publications, and I will now summarize these findings: Preliminary instructions on how to manage the aid are given and the patient is told to wear the hearing aid several hours per day in order to get used to the new sounds. To motivate the patient they are told how well they do on a speech perception score when wearing the hearing aids.

The patient is told that he/she has a 3 month trial period. If it does not work out well the patient can come back and have the aid exchanged for another type. The patient then receives a few pamphlets with information about different services offered. This means that issues such as learning to understand hearing loss, developing communication strategies, and learning to listen with and manage amplified sound, become a matter of handing out a pamphlet, and allowing the patients to come to their own informed decisions.

The patient entering the hearing clinic meets a system embedded in dominating norms and values that invites individuals to voluntarily conform to its objectives in the interests of their hearing health. Education is seen as the key to behaviour change: if people are informed, they will then rationally use this information and act accordingly. The patient is constructed as a rational subject motivated to behave in a logical manner, committed to their own conduct being subject to self-regulation, and 'empowered' by medical knowledge of his or her condition, by speech perception tests and by technological adjustments.

The economic conduct in market exchange considers a gift exchange as a quid pro quo. However, in the gift economy gifts differ fundamentally from the quid pro quo of market exchange as there is a built-in expectation of reciprocity. Providing patients with free hearing aids stimulates patterns of social exchange and the simultaneous giving of return gifts in the form of moral obligations to use the hearing aids. In the hearing health policy it is recognized that different people have different needs and aspirations for rehabilitation and that flexible forms of service provisions seems to be the ideal model for organizing audiological practice. However, the responsibility for the rehabilitation project is shouldered by the patient alone and the 'free choice' is translated into a matter of purely dispensing. The clinic's policy of post-acquisition contact can be considered as a tool used to impress responsibility and a consumerist attitude. More likely, though, a consequence of bureaucratic time imperatives. The strong framing and classification that meets the patient when entering the hearing clinic is very effective in terms of output, as all patients leave with a hearing aid. This means that the rule of approximate reciprocity is not broken by the patient - at least not in the clinic. However, as an audiologist explained: *'the problem is, you see, that many patients don't come back with their problems. Instead, they just put the hearing aids in the drawer'*. What he indicates here is that the question of patients' agency has to be assessed according to sites and situations beyond the audiological encounter. The real 'test' for the hearing aids is delocalised from the consultation to patients' homes. As mentioned at the beginning of this paper, there may be many tensions and ambivalences involved in becoming a new hearing aid wearer. It is therefore time to consider the reactions of the patients to the reasoning and the possibilities offered. I have found that only a few of the patients, the more privileged in terms of socioeconomic status, were able to embrace the consumer ethos and the stated freedom of choice. I will now sum up the results from the interviews.

The social implications of the health policies

In the clinics where I conducted fieldwork patients had waited 3-24 months with an average waiting time of 7 months for an appointment. Half of the patients stated economic reasons for choosing a public clinic. The rest stated a lack of trust in the privatisation of health care. A typical response was: *'I do not want money involved in this. I want professional help'* or *'I have heard that the ones you get at the private clinic are not free anyway'*. Few of the patients stated that they had made an active choice to go to a specific public hospital. Instead, they reported that they were referred there by their otologist[3]. This means that compulsive choice interacts with countervailing powers, especially the medical professions, and a historically accumulated set of understandings about how health care is to be delivered (Light, 1991).

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[3] Research shows that most of the patients who receive hearing aids in private clinics are referred to by the otologist to his/her own private hearing aid clinic. Other research has shown that otologists received a kickback for referring the patient to a specific private clinic. It illustrates that the choice of available treatment option is rather indiscriminate.

Apart from two patients who had decided in advance which hearing aid they wanted, the rest of the respondents did not appear to have very much insight into the nature of the hearing aid treatment regimen despite their socioeconomic status. Five of the patients were in doubt whether they were to be provided with one or two hearing aids. Very few knew whether it was the bas or the treble they had problems hearing. Eight of the 41 clients said that they had hoped for the ones in the ear canal but were convinced by the physician that it did not work with their type of hearing loss. Three of the patients had insisted on their hearing aids being the smallest and most discreet possible, even if the physician explained that larger aids would help them to hear better.

A majority asserted that they were astonished at being treated as active consumers. They did not want to exercise choice but preferred to place faith and trust in the physician to make the right decisions: *(...) the physician talked and reached the conclusion about the type, right? From what I had been saying and so on, right? Well, I didn't want to interfere because I don't know about these things'.* This patient responds to the situation by allowing the physician to 'take over'. She assumes that asking questions would delay the smooth running of the system and so aligns her behaviour to what she assumes is appropriate for supporting the system.

Others, however, were more adamant about the changes in physicians' authority. This group of patients were in the upper range regarding socioeconomic status. A typical example of this is the following patient who stated: '*He told me that the ones behind-the-ear were the only ones possible because of the frequencies I need amplified or something like that. And of course I am sorry about that because I had hoped for the other ones. So regarding the technical stuff I really had no information'*. This patient explained to me that his company made molds for casting the plastic parts of a hearing aid and that he due to this knowledge was keen to participate actively in the rehabilitation process. However, as the quote illustrates he experiences considerable problems activating the empowered position in practice.

Another patient in this group also requested more expert and clear-cut knowledge indicating that the way the policy has been translated is not silently accepted:

'*There was no information (..) I had no information about what was going to happen and I find it completely unjustifiable, really. The hospital is considering my illness as a service function and I am not treated as a patient. I am treated as a number. It is extraordinarily poor'* (male, 58 years old, manager in an IT company).

The audiologist told me later on that this man represented a group of patients that was not very typical. Apparently, he was demanding levels of service not previously required by the Danish health services. It does not, however, reflect his acceptance of his new status as this particular person is amongst the ones who decided not to use his hearing aid. A woman who eventually chose not to wear the hearing aid provided (47 years old, in charge of the ministerial duties) said:

> *'The one I have ordered – I didn't know – I think that there has been a shortage of advice because I was asked whether I wanted in-the-ear or behind-the-ear – well how should I know? It's like asking someone who is colour blind "which is nicest – blue or red?" so I answered "what will you recommend?" and she answered that both types could manage my hearing loss so it was up to me'.*

In this patient's journal the physician had written 'patient familiar with different types of hearing aids and after a short conversation she chooses canal hearing aids'. The norms of conduct implied in the discourse of the active consumer impose obligations on her that resists by saying 'how should I know?' It indicates that she has made a random choice based on something cosmetic. The above findings challenge the key concern of governmentality studies of health consumerism, i.e. how governmental technologies attempt to subtlety infuse public health values into private domains. Instead, many patients resist the contractual morality embedded in the gift, that is, the position offered as an independent consumer operating outside medical guidance and refuses to take responsibility.

As Haug and Lavin (1983, p. 145) have argued, the more voluntary the nature of the visit, the greater the effect of a consumerist stance on the utilisation behaviour. However, almost all of the 41 patients mentioned being cajoled into the hearing assessment by a partner, a relative, or a significant other to varying degrees; that they had decided in advance not to use the hearing aid as they did not think they had a hearing problem. This clearly brings in varying motivations and rationalities for showing up in the hearing clinic. It indicates that some hearing impaired do develop what they perceive from their point of view to be perfectly adequate coping strategies. The crunch comes when other people cease to find these coping strategies adequate. And - twelve months after receiving their hearing aids, one out of the 41 patients in my study had contacted the communication centre for additional instruction and 8 patients had contacted the hearing clinic for the readjustment of their hearing aids, thus the number of follow-up visits initiated by patients was limited to 25 percent. The reason for patients not using the rehabilitation service offered could be interpreted as active deselection: they were not seeking further pedagogical assistance or 'empowerment' because they were happy living their everyday lives as hearing aid wearers. However, out of the 41 patients only 15 claimed that they used their aids on a regular basis, 11 did not use them at all, and the rest used them occasionally that is 1-2 hours per week. The reasons given for rejecting the hearing aids provided, or using them less than prescribed, included disappointment that these apparently very advanced hearing aids were not able to restore their hearing; that they could not get used to the abnormal sound of their own voice; the poor fit of the ear mould; and that there were communication problems despite amplification etc.

As for the third of the patients who did not use the hearing aids as prescribed, almost all had the added burden of moral reproach: *'they are lying here in front of me, looking at me'*, or '*many others need them more than I do - my father, for instance'* and of feeling responsible for the outcome of their choices. In a governmentality approach this could be explained as the patient being punished through the mechanisms of self-relation to the self which evoke feelings of guilt when one does not comply with the prescribed regimen. Drawing on Mauss allows for an alternative take on the public/private boundary discussion. As neoliberalism is individualistic rather than communitarian (Coburn, 2000), there is a stark contrast between collectivist views of society and market ideology. Danish health care patients have not historically been socialised to associate health, education and social assistance with money. Seeking to urge them to adopt the ideal-type consumer subject position of thinking rationally and calculating costs and benefits, results simultaneously in a lowering of their sense of community and a decline in their more widespread feelings of social solidarity and reciprocating generosity (Mauss, 1990, p. 106). Thus, 10 years after first attempt to reshape the subject of hearing health services, for the majority of patients, time, place and structure are (still) colliding with being expected to choose.

In a gift economy perspective the collective mentality is of a different kind. Here, the government maintains ascendancy by regulating the indebtedness of citizens to itself. The Danish hearing impaired person's responsibility is to follow what the government decides is appropriate conduct. By accepting the free gift of a hearing aid, the patient also accepts the status of hearing impairment. In Denmark these power techniques which channel conduct along socially acceptable paths are always there, informing and forming culture. The state surveillance is part of the bargain of being a welfare state member, and the contract on welfare presupposes and incorporates a generalised mutual self-sacrifice (Raffnsøe, 2008). Herein lies the ambiguity of today's welfare policy, a policy that seeks both to reduce and at the same time is dependent on professional expertise. Thus, while the empowered service user is introduced in Danish hearing health policy, in practice the patient is positioned as a more or less passive receiver of a piece of technology.

Conclusions and discussion

We have seen how a policy of private hearing aid treatment is embedded in social practice in two public hearing clinics, how it is reflected upon, negotiated, translated, and opposed in various ways. Denmark frames hearing impairment as something to take seriously, to do something about. The focus on a patient's choice in Danish hearing health policies does parallel governmentality studies. However, my observations are also corrective to a governmentality approach as behind the rhetoric of freedom of choice lie predefined and limited options for action. Mauss helps us to understand that although redistribution is generous there is indeed an expectation that what people receive is related to what they contribute. The hearing aid as a free gift has the characteristic of being at the same time free and obligatory, something that the patient is entitled to and at the same time obligated to reciprocate. The range of choices about how to conduct oneself in hearing health care facilities is translated into a limited understanding as not wearing the free hearing aid is not an option, as it is not consistent with the objectives of the Danish welfare state. The government's self interest may have motivated the gift as the hearing-impaired are obliged to reciprocate the gift by taking responsibility to self and state, and are thus subject to the normalising intervention of being relocated in the machinery of production, consumption, work and play in the community. The obligations are not enforced by some external power but are internalised moral duties arising from being citizens of a prototypical welfare state.

Distributive justice is fulfilled when social rewards are proportional to costs and to investments and positive consumer outcomes in this regard are mutually related to wearing the hearing aid as prescribed. The regulation of the individual's bond to others and to the state is very much part of the exchange of goods, and not wearing the hearing aid as prescribed brings with it the added burden of moral reproach. Therefore, the free hearing aid falls into the category of 'dubious gifts' (Komter, 2007) being at the same time free and obligatory, altruistic and self-oriented and very different from a 'quid pro quo' of market exchange. Fieldwork showed that many functions within the hearing clinic are essentially reproductive and, by its regulations, the Danish state creates the subjects and the structure of these moments and, to a degree, their possible outcomes. Rather than a 'withdrawal' of the state, there has been a process of reform. The Danish state is still heavily involved in defining and regulating the hearing impaired individuals who will benefit from the welfare state. The government continually exerts pressure on the hearing clinics to reduce waiting lists and to process the highest possible number of patients through the system.

In order to induce competitiveness, choosiness for hearing-impaired patients concerns choice of hearing aid provider, type of hearing aid, and the choice to have or not to have additional follow-up. The data here presented suggests though that, as hearing clinics are measured on productivity, insufficient time contradicts the essence of consumerism in the consultation with the physician where the decision about type of hearing aid is made. Instead, patients are expected to have informed themselves in advance. Data also indicates that present hearing rehabilitation practices are based on the presumption that a technology-based intervention (such as the hearing aid) is necessarily the intervention of 'first choice' or only choice. However, as illustrated, cutting-edge hearing technology is often not enough to meet the diverse needs of the patients as, out of the 41 patients, only 15 claimed that they used their 'free' aids on a regular basis, 11 did not use them at all, and the rest used them occasionally that is 1-2 hours per week. Reasons for not using the hearing aids as prescribed varied and additional follow-up was not perceived as a pertinent offer.

The ways patients actually challenge or take up programs and policies opens up the governmentality agenda to the possibility of a stronger version of agency. The patients in my research reacted to the position offered in two ways, ranging from the very few patients who embraced the ethos of consumerism, to the majority w ho did not consider themselves to be consumers and did not seem to benefit from the freedom of choice. Thus the majority of patients conformed with great difficulty to the images associated with the reflexive consumer, and the concept of the ‘informed patient’ is empirically difficult to sustain. Rather than positioning themselves as consumers, most of the patients turned to their trusted physician to advise them, or even to choose for them, what they should have or where they should go. This indicates that compliance and noncompliance or conduct and counter-conduct are interwoven and that hearing impaired patients have agency in terms of choosing to reject or accept the provided hearing aids, however, in the audiological encounter they do not present themselves as self-determining or autonomous meaning-makers. It is possible but more difficult to reach beyond other discursively given ways of making sense in the world, but that they do not shows that there is another discourse in conflict with this. This discourse might be the Maussian version of collective mentalities. Another very important fact is that one has to realise that the adversarial relationship between the physician and the patient might not lead to changes as the effect of the power relationship is very transitory. The question is, therefore, whether the patients described effectuate changes in the consumerism discourse or whether they actively and strategically position or reposition themselves within the dominant discourses.

The geographical locations and temporal conventions of the examination and its personnel are governed by how medicine, the hospitals and Danish social policy administration have developed over time. Tight schedules are the premise of the encounters between the patient and the physician and mean that when invited to be a ‘partner’ in decision-making and a ‘consumer’, the patient is often not prepared. Knowledge of hearing disability, the rehabilitation system, the proposed solutions plus the ability to act upon this knowledge are a pre-requisite for hearing health care consumption. The result of this is that, instead of challenging the dominant ideologies in the Danish context, the health consumer metaphor stabilises and legitimates specific features of the dominant ideologies as authority is still accorded to formally autonomous expert authorities, and autonomy is exercised through professionalisation and bureaucratisation. The ideal of consumerism in the Danish hospital context is incompatible with the overall goals of the hospital management structure, economic constraints, medical dominance and the use of technology. My observations therefore do not reflect and confirm the governmentality-approach to consumerism. Rather than marking a new subject position, consumerism in the Danish hearing clinic loosens the rules and expectations which constitute the traditional patient role (Irvine, 2002). The consumer discourse does not challenge the trust in a piece of technology to resolve patients’ problems – and this is what is inherent in the medical discourse. Moreover, it relocates debates from a more resistive political arena into non-political, non-resistive markets as the demands of the consumer can only be met by the market, not by political resistance (Olaussen, 2010). Thus, market-oriented hearing health care reforms reallocate power not from the professional to the consumer, but from the professional to the market.

Physicians and audiologists, for their part, do the jobs they are trained to, reminding and persuading the patients to accept responsibility for their own hearing health. The main aim of hearing aid tests and fittings is both to give away the hardware and to confer the status as hearing-impaired. However, it also implies recruitment to a possibly lower or negative social status. This illustrates that the logic of choice has a layered normativity. Choice is good because it offers individuals autonomy, and equality is good in that all individuals should have equal opportunities for making their own choices. In the hearing health sector, however, patients' 'autonomy' takes the form of an imposed top-down delegation that could reproduce rather than reduce the marginalisation of patients' perspectives and their lived experiences.

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Negotiating hearing disability and hearing disabled identities

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Abstract

Using disability theory as a framework and social science theories of identity to strengthen the arguments, this article explores empirically how working-age adults confront the medical diagnosis of hearing impairment. For most participants hearing impairment threatens the stability of social interaction and the construction of hearing disabled identities is seen as shaped in the interaction with the hearing impaired person's surroundings. In order to overcome the potential stigmatization the 'passing' as normal becomes predominant. For many the diagnosis provokes radical redefinitions of the self. The discursively produced categorization and subjectivity of senescence mean that rehabilitation technologies such as hearing aids identify a particular life-style (disabled) which determines their social significance. Thus wearing a hearing aid works against the contemporary attempt to create socially ideal bodily presentations of the self, as the hearing aid is a symbolic extension of the body's lack of function.

Keywords

disability, identity, hearing impairment

Introduction

This article contributes to the sociological understanding of the production and management of hearing disability, and of hearing disabled identities in everyday life, especially in light of the continuing paucity of sociological literature around these topics. Most of the writing by disability theorists in Britain revolves around a 'social approach to disability' which redirects analysis from the individual to the social, political and economic conditions that cause disability. In these studies, identity is most often viewed through an

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analysis of oppressive social relations with the focus being on empowering disabled people as a group, and on changing society (Watson, 2002). This leads to identification as a disabled person being frequently presented as something decontextualized, fixed and unproblematic. The term 'identity politics', for instance, refers primarily to activist social movements that struggle to resist oppressive accounts of their identities constructed by others who hold power over them. Again, it is a question of transformation at the level of the group rather than the individual, which means that this kind of identity categorization easily dehistorisizes historical difference, lead to essentialism and normative conceptions of identity and finally mistakes cultural for something natural and biological (Hall, 1997).

Moreover, by placing too great an emphasis on the politics of exclusion, the physical effects of different impairments and the complex negotiated aspects of everyday life might be obscured (Williams and Busby, 2000). As argued by Fine and Asch (1988), it is important to acknowledge the differences among disabling conditions and their varied impact on the lives of people in the groups described. There are degrees of impairment and some may consider themselves to be in a negotiable grey zone between a 'normal' and a 'disabled' bodily state (Thomas, 2002). The question of identity arises when considering this decentred position. This article shows that this is particularly apparent when the category of disability is associated with identities that are excludable and excluded in society. It is also apparent when the technological aids provided as substitutes for the body's failing parts work against the attempt to create socially ideal bodily presentations of the self, as they are a symbolic extension of the body's lack of function. Finally, it is apparent when the disabled person has bodily stigmas that differentiate him/her from obvious physical disabilities.

Therefore, instead of imagining a causal connection between disability and society, I take the matter further by describing an example of how disability is shaped empirically. Based on interviews with working-aged people diagnosed with an acquired hearing impairment, this article suggests a link between general disability theory and social science theories of identity. This is demonstrated by the many hearing impaired people who are in the so-called grey area, and who devote more effort to trying to adjust to the problem of a potentially spoiled identity than to trying to restore their communication abilities.

In relation to communication abilities, previous social literature and disability theories have focused predominantly on deafness and its social and cultural consequences (Davis, 1995; Higgins, 1979, 1980; Lane, 1992; Munoz-Baell and Ruiz, 2000; Smith and Campbell, 1997).[1] The focus on people with adult acquired hearing impairment has been more or less disregarded in scholarly research, even though at least 16 per cent of the adult population is predicted to have a hearing impairment from a clinical point of view (Sorri et al., 2001). For many in this group, a reluctance to acknowledge the onset and ongoing experience of hearing difficulties is characteristic, which means that there often is a lengthy period of five to 15 years before they seek medical help (Hétu, 1996). Others continue to deny their hearing impairment and reject amplification (Erler and Garstecki, 2002).

This article studies the period when working-age adults are confronted with the medical diagnosis of hearing impairment, which for many 'provokes radical redefinitions of the self' (Denzin, 1992: 26), and to listen to the voices of those whose experiences are absent from the dominant analysis. I argue that the onset of mild or moderate hearing impairment sets up an experience of contested identity (Hogan, 1998), where the hearing impaired have the possibility of electing to remake themselves as hearing or hearing impaired, and where technologies and social processes are involved. To understand how the problem of the hearing disabled body is constructed, one must return to the concept of the norm, the normal body, and negotiate its meaning (Davis, 1995).

My research traces three different approaches to the understanding of contested hearing disabled identities that have a great impact on people's willingness to redefine themselves as hearing disabled: (1) normative accounts of conduct and emotion management when the hearing sense is lacking; (2) the offered rehabilitation technologies and their success or failure in hiding the presence of the disability; and (3) normative accounts of senescence in contemporary discourses. These complex negotiated aspects of the hearing disableds' everyday life are obscured by the emphasis on the politics of exclusion.

Linking disability theory with identity theory

In Britain, 'the social model' was originally developed by the Union of the Physically Impaired Against Segregation (UPIAS). It was promoted as a contrast to 'the medical model' of disability. UPIAS (1976: 14) defines disability as: 'something imposed on top of our impairments by the way we are unnecessarily isolated and excluded from full participation in society'. The distinction between impairment and disability is fundamental for many disability theorists (Shakespeare, 1996), as the acknowledgement of impairment has the potential to lead to a renewed focus on physical limitations. Terms like 'suffering from' or 'afflicted with' are evaluations of an outside world (Zola, 1993), and the 'normal' response to a person with disabilities is a socially conditioned and politically generated response, taking an individual perspective and focusing on disability as a personal misfortune (Davis, 1995). Thus, dominant medical ideologies secure hegemony through an articulation that does not represent the complex of constraints that the able-bodied impose on the behaviour of physically impaired people (Liachowitz, 1988).[2]

Shakespeare (1994: 290) captures the way in which disability is a relationship between people with impairment and a disabling society by focusing on the concept of otherness. The binary opposites of abled/dis-abled are part of the processes of normalization and stigmatization. Disability can be understood only in relation to what it means to be 'able-bodied'. He suggests that disabled people can be regarded as Other by virtue of their *visibility* as evidence of the constraining body, and that people with impairment are disabled not only by material discrimination but also by prejudice which suggests that both aspects are completely intermingled.

However, compared to other types of disabilities, in its manifestation hearing impairment is *invisible*. The hearing disabled identity is therefore in principle open to perpetual negotiation. Continuing with the social model and in contrast with essential definitions of identity, this article takes a discursive approach that conceives of identity as a construction and as the result of a range of possible identifications linked to power under specific social and historical conjunctures. Thus identities – especially hearing disabled identities – fluctuate and are situationally constituted. Identities are constructed through representation and in relation to difference without fixity, in an endless play of difference. They are the product of the marking of difference and exclusion (Hall, 1996).

Assuming that identities are constructed through and not outside difference entails a recognition that it is through the relation to what it is not and what it lacks that identity can be constructed (Hall, 1996: 4). For the hearing disabled, the identification of the self as disabled or able-bodied, of being hearing or of being categorized as hearing impaired by others, are matters of negotiation. In her framework of the performativity of gendered subjectivity, Butler (1990) argues that we perform our gender which suggests that the different aspects of our identity are discursively and practically enacted in order to successfully construct subjectivity. These normative enactments become naturalized and 'normal' within a culture. For the hearing disabled, their diagnosis can prompt a radical redefinition of the self and is therefore at the onset neither natural nor normal.

The concept of identity and the management of spoiled identity is also central to Goffman (1963) and he argues similarly about these matters in his analysis about stigma. From both perspectives, identity is something that we *do* (perform) rather than something we *are*. Goffman (1963: 2) defines stigma as a disjunction between one's virtual social identity and one's actual identity. Virtual social identity is the social identity that others impute on the basis of surface appearances. This means stereotypes of what is considered normal for a person of a particular age, race, class, gender, occupation and so on. Actual social identity, on the contrary, is composed of the attributes that a person in fact can be proved to possess on closer inspection: 'Such an attribute is a stigma ... and constitutes a special discrepancy between virtual and actual social identity' (Goffman, 1963: 3).

Goffman's understanding of self–other relations and the emotional reaction to a felt discrepancy between virtual and actual social identity draws upon and extends Cooley's (2009: 184–185) notion of the 'looking-glass self'. Self-consciousness, Cooley states, involves continually monitoring self from the point of view of others. Moreover, living in the minds of others, the imagined judgement by the other of the self, gives rise to the two powerful emotions of pride and shame. These two emotions arise from self-monitoring. Emotions and shared awareness are basic components in Goffman's work. However, he went further than Cooley by emphasizing 'impression management' that arises out of social self-monitoring. Goffman's sole focus on embarrassment and shame has been criticized (Gouldner, 1970; Schudson, 1984), which can be explained by the fact that self-feelings dependent on other people's views violate western culture's idea of the isolated, self-contained individual (Scheff, 2005). However, as we will see, hearing disabled identities can function as points of identification and categorization exactly because of their capacity to exclude and cause emotions of embarrassment and shame.

Method

My research was carried out in Copenhagen, Denmark, at two public hearing clinics in two hospitals in 2008. We are situated in a welfare state, where Danish public health agencies recognize hearing impairment as a priority and there is a national rehabilitation programme to assist the disabled. DNHS (Danish National Hearing Health Service) was established in 1951 and offers hearing services for all ages free of cost. Approximately 5 per cent of the population wear a hearing aid and about 100,000 persons are provided with hearing aids annually (Barton et al., 2003), a proportion significantly lower than the 16 per cent who apparently would benefit from some amplification of their hearing.

The study aimed to investigate lay perceptions of hearing impairment, hearing disabled identities and hearing rehabilitation. Although it was a multi-method investigation, this article only draws on data obtained from face-to-face interviews followed by lengthy telephone conversations with 41 participants. The sample consisted of 20 men and 21 women who were all of working age, Danish speaking and reading and had been recently diagnosed as hearing impaired where a physician had decided that the provision of a hearing aid was the appropriate treatment. The range of impairment was, according to the medical journals, rather diverse but this is inconsequential as the study is only concerned with participants' subjective experiences of their everyday life. The work by Helvik et al. (2006) illustrates that whereas it seems reasonable to expect that a greater hearing loss would lead to a greater degree of psychological distress, the level of potential psychological disturbance cannot be predicted from the severity of hearing loss. Therefore, as described by McKenna and O'Sullivan (2009: 193), when considering the relationship between hearing thresholds and measurements of psychological disturbance, there is not a direct relationship. In other words: the degree of hearing loss does not fully explain the individual differences in the reactions to that loss.

The entire group of 41 ranged in age from 23 to 70 years, with a mean age of 58. The time since the onset of hearing impairment ranged from five to 30 years, with a mean time of five years. In addition to the information collected during the interviews, the subjects were asked to fill out a questionnaire containing questions about their housing situation, the composition of their families, their education and their work background. The sample included people from a variety of socioeconomic and educational backgrounds. The participants were sampled randomly after having given their informed consent. They were guaranteed anonymity in the presentation of the findings and could withdraw from the research project for any reason, at any time.

A first interview of 15 minutes took place prior to the dispensing of the hearing aids in the hearing clinic. A second interview took place six weeks after the dispensing of the hearing aids. Interviews were audiotaped and then transcribed. First of all, I read all the interviews with a view to finding variations in participants' approaches to the understanding of contested hearing disabled identities before I started working abductively switching between induction and deduction (Alvesson and Sköldberg, 2009). A code list was developed from issues emerging in the data. Definitions were developed for each code. Using such an analytic process made me able to investigate the management of hearing disability disclosure in the social context of interaction, where impairment is invisible. The analysis was combined with studying previous theory on identity and disability and empirical data whereby both were successively reinterpreted in the light of each other. This approach made it possible for me to locate the individual's narratives within a broader structural context. The core categories which emerged from the data reflecting areas of identity negotiation and ways of discussing identity related to the issues of: (1) emotion management as part of negotiating identities; (2) rehabilitation technologies contesting an identity as normal; and (3) ageing bodies, normality and the hearing disabled identity. The extracts used in the following findings are chosen on the basis that they most accurately illustrate the point being made. I present a frame of interpretation. Thus, the three core categories are not exhaustive, as there might be other codings and categories concerning people's willingness to redefine themselves as hearing disabled.

Findings

Emotion management as part of negotiating identities

The interviews with the participants before the hearing aids were dispensed focused on the personal adjustment to the onset of hearing impairment. Here 10 of the participants stated that they had no hearing problems of any significance, but that their family or colleagues thought they did, and had 'forced' them to go to the hearing clinic. The rest stated that they faced challenges to varying degrees in terms of communication deprivation and the restriction of participation due to poor hearing. The physical impairment only became important in certain social situations, indicating that the hearing problems were created by external forces. The participants explained that they could not understand what was being said in a group or a noisy setting, or soft conversational speech, but otherwise they could mostly understand. Only a few stated that the understanding of speech in any setting was stressful. The descriptions indicate that the hearing sense has varying value in everyday life. Many participants described how the voices at the theatre and in the cinema had become increasingly unintelligible, forcing them to withdraw from such activities. Thus some activities were closed to them solely because of the biological impairment itself. A few mentioned the advantage of withdrawal from conversations because of the lack of hearing, and that it gave them peace. All in all, half of the group had more or less identical stories about communication processes requiring immense concentration and large amounts of energy. An example of this is as follows:

> Many people mumble and do not speak clearly. I often hear something really crazy, right? I mean, I always get the wrong meanings out of it, right? And then I pretend that I have heard it and understood what I must have misheard. Or otherwise I usually ask: 'what did you just say?' and that really must irritate people, right? Because they think I can hear if I want to.

This woman aged 61, is married and lives in a town 50km from central Copenhagen. She works as an office clerk and pretends that she has heard what has been said so as not to damage her identity and to avoid accusations of being inattentive. As in her case, the expectation of a negative judgement leads to very few publicly proclaiming their hearing impairment. The resistance to being categorized as hearing impaired cannot fully overcome the constraint of the physical impairment as, by avoiding instead of confronting it, they do not enjoy full and equal participation in social life. This also means that the efforts to eliminate one bad outcome ironically produce strain that might lead to another (Link and Phelan, 2001). Goffman (1963: 74) describes how passing as normal can be a strategy for the stigmatized. The stigmatized can fall into the category of either discredited or discreditable. For the discreditable, whose stigma is not known to others, managing information about him-/herself is very important. Trying to 'pass' as of normal hearing, or to cover it up, is described by over half of the participants as being a typical way of managing the disability outside their home or at work. Tactics to conceal the hearing impairment included: turning the better ear to the conversational partner; focusing on the face in order to lip-read; pretending to hear what was being said; accepting being excluded from conversations or avoiding social gatherings such as dinner parties with unfavourable communication conditions due to poor lighting or background music. The strategies used to ease the discomfort were not only with strangers in first meetings but also with colleagues, friends and family.

Whereas much research manifests the advantages of cultural and economic capital, in this study there was no significant difference in gender and socioeconomic status when using these strategies. It was more a question of whether the hearing sense was important in accomplishing the daily work. Many had histories of 'otherness' experienced in verbal encounters. An example of this is the following participant, a white woman aged 23, a student, single and with no children, living in a dormitory room in central Copenhagen. She explained that she had had hearing problems for most of her life. Just recently her hearing impairment had been measured to be at a level where she could qualify for a hearing aid. She explained about her rites of 'passage':

> If people say something and I ask 'please repeat what you just said' or 'say it a bit louder or clearer' and they keep on speaking in a monotone and very low, then I choose to just listen to what their sentence ends with. If it's 'right?' or 'not?' then I know what to say. If they say 'right?' I just answer 'yes', and if they say 'not?' I just answer 'no'. That's the way I have survived. And it can be dangerous sometimes, if you actually disagree with people, right? But I do it to avoid saying 'please repeat yourself' all the time. It's aggravating for people to have to repeat themselves a million times.

This young woman describes the problems that arise in encounters in circumstances where the lack of body control (i.e. the hearing sense) breaches social norms and expectations. She is expected to be able to hear what is being said. An identity as hearing disabled is singled out as a case of not belonging. The establishment of a 'normal' identity takes place through separation from the Other.

Like her, most of the participants singled out disability as the Other, and performed as able-bodied in order to fit the paradigm. The projection of negative attributes onto the Other can be viewed as a part of the denial of those elements of the self which are handled as something that must be hidden. This corresponds to what Charmaz (1999: 74) describes as fictional identities and reflects lack of awareness, partial knowledge and the absence of apparent symptoms. These fictional identities are not lies or pretence but instead indicate how changes in self-concept lag behind on-going experience. For most of the participants, having a hearing disability tended to be figured as an absolute state of otherness (Snyder et al., 2002) as opposed to a standard, normal-hearing body. An example of this is the following case of a 61-year-old male, married with no children, who works as a superintendent and says:

> When I'm with people its hell, right? You draw back if you can sense that it's simply not working and that I keep asking people to repeat themselves, – and it's very disturbing with noise and such – it's tiring. They often say 'never mind' or 'oh, nothing' to my 'what?' So I try to lower my voice to get others to speak up to me.

This person is describing what it is like to be in social gatherings with others. At work he does not have hearing problems as a superintendent as he does not have to count on his hearing sense to perform the job properly. Social gatherings, on the contrary, in his situation correspond to 'disabling environments' (Hahn, 1983), which, according to the social model of disability, are created by the barriers to participation that reside in architecture. These disabling environments are not inaccessible public buildings or unusable transport systems. Rather, the oppressive social barriers are poor acoustics and people not acting tolerantly.

Instead of expressing emotions of anger, the participants rely on pre-acknowledged and pre-articulated feelings which are culturally available. They match their feelings to the nearest in a collectively shared emotional dictionary, where shame is a central possibility (Goffman, 1963: 7). In order to avoid embarrassment they pretend that they have heard what has been said. According to Cooley, shame is an automatic bodily sign of a threatened social bond. This group of people do not argue for a unity in struggle against a society which 'disables' them by not recognizing their difference, and by not allowing them a full stake in society. Instead, they use words like 'awkward' and 'uncomfortable' thus denying an emotion of shame. The strategies described, whether successful or hopeless, provide a clue as to who he/she is trying to be (normal) as an emotional strategy to guide acts of emotion management:

> The nature of a 'good adjustment' ... requires that the stigmatized individual cheerfully and unselfconsciously accepts himself as essentially the same as normals, while at the same time he voluntarily withholds himself from those situations in which normals would find it difficult to give lip service to their similar acceptance of him ... It means that the unfairness and pain of having to carry a stigma will never be presented to them; it means that normals will not have to admit to themselves how limited their tactfulness and tolerance is ... A *phantom acceptance* is thus allowed to provide the base for a *phantom normalcy*. (Goffman, 1963: 121–122, emphases in original)

In order to avoid an embarrassing exposure and in an attempt to consolidate their phantom normality, these participants refrained from making explicit demands that might help facilitate communication. Not answering might be considered social incompetence and a dubious performativity to the sceptical public. However, for many, social incompetence seemed a more tolerable negative identity than that of being viewed as a hearing impaired person.

Technological contracts and hearing disabled identities

Hearing impairment materializes in medical discourse as an anatomical focus on the ear and its lack of functionality, divided into mild, moderate or severe impairment. The prescription of the 'normalizing' society to the group of people having hearing impairment is the provision of hearing aids leading to a restoration of normality. The discourse of prosthesis (Smith, 2006: 312) can be considered one of invisibility and visibility, success and failure, reparation and imitation. This means that the wearer of the prosthesis displays the technology in a way that might draw attention to the very disability that the technology was developed to disguise. The innovation of hearing aids can be understood as a 'technological contract' (Brown and Webster, 2004) between hearing disabled people and society. As described earlier, many of the hearing impaired break this technological contract and choose not to wear the dispensed hearing aids. Many of the participants mentioned the difficulties in interpreting bodily changes due to the diagnosis. They stated that the hearing impairment had evolved gradually and more or less unperceived. The physician-initiated prescription of a hearing aid was described as a turning-point experience (Charmaz, 1999; Denzin, 1992) as it meant that disclosure could no longer be avoided and, instead, personal troubles became public issues. Turning-points reflect more than discovering new information about self. Rather, they also reflect emotions about self (Charmaz, 1999: 76). These turning-points make it necessary for the individual to make identity trade-offs (Charmaz, 1995: 660) and force lowering identity goals. Changing identity goals takes into account: (1) the individual's definitions; (2) significant others' views and wishes; and (3) the interactions and negotiations among them (Charmaz, 1995: 669).

Having received their hearing aids, many of the participants explained the difficulties they experienced in getting used to the intrusion of a foreign object in their ears. They complained about the hearing aids being too tight, or that they fell out. Or they had clicking sounds in their ears and produced more earwax than before. The positive features of a hearing aid were described by participants as 'improved communication' and 'maintenance of social relationships'. Discouraging elements were narrated as 'increased noise', 'physical discomfort', 'squealing sounds when I get too close to objects or people'. This means that, besides being a question of belonging to the category of 'normal' people, it is also a question of physicality and its decline, and that the technology offered has certain side-effects which are experienced as increased noise and physical discomfort, that is, something more than just a social matter. It also means that hearing health care practices, besides being normalizing and normative, are also constitutive of the body inducing a discrepancy between the embodied 'normality' and the 'normality' recreated by the hearing aid technology.

Appearance and body image are integral to embodiment (Seymour, 1998). The substitution of the body's failing parts by high technology devices implies distinct problems for the experience of embodiment. Wearing a hearing aid works against the attempt to create a socially ideal bodily presentation of the self as it is a symbolic extension of the body's lack of function. The invisible bodily impairment becomes visible by means of the hearing aid and it alerts onlookers to the wearer's abilities and inabilities. Thus hearing aids allow those who gaze to see the object of their scrutiny as Other, and themselves as the norm (Butler and Bowlby, 1997). In this situation the stigma becomes the disabling attribute, not the hearing impairment. Coping with a hearing disability becomes more than living with the physical limitations of the hearing function, when wearing a hearing aid it also means embodying the stigma (Perry, 1996).

When Goffman spoke of performances shaping the self, he meant that *how we act* and what is recognized and supported by others in our everyday life shapes our self-identity. However, today, and especially for the female participants, it seems that identity is shaped and altered by *appearance* as notions of beauty, attractiveness and fashion dominated when talking about hearing aids. This represents conventional constructions of femininity and this externality exacerbates hearing impaired women's vulnerability to others (Seymour, 1998) and to external categorization. In this study men also seemed to be affected. Why hearing aids have more negative associations than, for example, glasses has to do with the role of the historical and cultural contexts that mediate the assignment of stigma-normal categories. In ancient Greece, deafness was perceived not as a physical handicap but as an impairment of reasoning and basic intelligence (Rose, 2006), and old men and deafness were completely intertwined concepts. Prior to modern times, people with disabilities that affected their social interactions and changed the way they communicated were essentially treated as mentally incompetent and were left to their own devices (Hogan, 1997). These myths have survived and are very present in participants' minds:

> The doctor recommended those ear hangers – well I had hoped for the small ones that can be placed in the ear … I have been looking at the small ones because I thought it was a solution that was easy to live with, right? So when I got the message that I should have the other ones I was very disappointed – because it is very visible, right?

This respondent, male, single, aged 48 and an office clerk living in a small freehold flat in central Copenhagen is embarrassed by having to show his disability to others. He also explained that it was his colleagues who convinced him to have something done about his hearing impairment as it was beginning to give him problems at work. The presented self will be convincing only if accompanied by appropriate body conduct. The intention with audiological rehabilitation is to bring about a change in a desired direction from stigmatized status to 'normal' status (Hindhede, 2010). Identification as a hearing aid wearer does not relieve the individual from the stigma as the hearing aid merely makes the disability visible. Developments in prosthetic technology are in principle committed to the same evolutionary imperative: to work seamlessly in such a way as to make themselves invisible (Smith, 2006: 312). The success of the discourse of prosthesis is premised on hiding the disability and the physical otherness, and enabling the hearing disabled to 'pass' as normal in the movement from a category of exclusion to a community of inclusion. As was the case with this participant, it seems that even the smallest and almost invisible hearing aid brings with it the same discursively constructed connotations so that size does not seem to make any great difference after all.

Ageing bodies, normality and the hearing disabled identity

Another difference between this group of the disabled and other types of disability is that, with the onset of hearing impairment and the enrolment in rehabilitation back to normality, they become the subject of their own senescence. Almost all participants expressed distaste about how ageing was brought to bear on their sense of self, and how the hearing aid linked them to the undesirable characteristic of 'being old'. This refers to the work done by scholars linking ageing and identity and how the work on identity changes across the lifespan (Arxer et al., 2009; Nikander, 2009; Phillipson, 2003). As described by Katz (1996: 39), the lifespan is something more than a biological fact. It is a discursive production, symbolic of a culture's beliefs about living and ageing. Moreover, age identity can be conceptualized as a performativity where people negotiate their external representations depending on the interactions. Studies of ageing, with the focus on the middle aged, argue that western culture has produced a new type of subject, a 'performing self' driven by a social obligation to lead an active and independent life so as to minimize the phase of life in which they might require social support. This has fostered a contradictory distinction between natural and normal ageing (Higgs et al.,

2009) where the former is associated with coming to terms with physical decline whereas the latter is associated with an increasing emphasis on maintaining norms of self-care, a preoccupation with the body's appearance and the aim of preventing physical decline and prolong youthfulness.

The data showed that prolonging youthfulness seemed more difficult for the socio-economically disadvantaged. However, even for the ones with cultural and economic capital it seemed difficult when facing the choice of being a hearing aid wearer, which is associated with being old and in decline, or not. The surface of the body is seen to be that which carries the signs of one's inner moral condition. An old disfigured body implies an undesirable self, bodily neglect, frailty and a lowering of one's acceptability as a person. Hence, the look of age is 'considered unwelcome and undesirable' (Hepworth, 2000). Cosmetic surgery, diet and exercise are more easily accessible for the economically advantaged and can delay ageing and create an arena in which aged identities are constructed and reconstructed making the relationship between chronological age and one's age identity far from direct. However, as expressed by many participants wearing hearing aids meant that the outer body was interpreted as a betrayal of the youthfulness of the inner body. These bodily betrayals of old age have been referred to as the *mask of ageing*, pointing to the inability of the body to represent adequately the youthful inner self (Featherstone and Hepworth, 1991). The lack of fit between the inner and outer experience of ageing disembodies the self. When physical signs such as hearing aids signify old age, and all that is associated with this, an aged identity emerges. Hence, this group of people do not want to be in the category of the old because it is a category for the abnormal. Hearing aids transmit age-related messages and disturb the equilibrium of the balance between external stereotypes and the subjective experience of the self and bodily self-discipline. Moreover, the performance of an ageless self is increasingly difficult due to the mask applied by a hearing aid further concealing the 'real' self.

Another aspect of the contested hearing disabled identity which is associated with being old, in decline and abnormal, has to do with negotiations over the degree of hearing impairment. Some of the patients explained that they might have a minor hearing problem but they were definitely not deaf. Having a hearing difficulty triggers the perception of deafness which obviously is strongly disparaged. An example of this is the following case of a 65-year-old divorced woman with two grown up children who works as a lithographer:

> I don't think I have a hearing problem. You never want to admit things like that but – well maybe a little. My ex-husband and all my friends say: 'you're deaf' and my children say 'you're deaf'. I really would like to know if something can be done about it. But I'm not in acute need. I just don't want to listen to all those saying 'you're deaf'. That is really irritating, right? Because I'm not deaf, really. I can hear all you say.

By saying 'I'm not deaf' she attempts to normalize herself and holds on to a different identity claim. Being hearing is an important self-identification which it is difficult for her to sustain in the dialectical interplay with ascribed identifications and categorizations employed by her friends. She struggles to offset the label: instead of comparing herself with non-disabled people she makes what she considers to be a downward social comparison with the deaf in order to preserve her self-esteem. After six weeks with the hearing aid, she explains her friends' reactions: 'Some of my friends reacted by saying: "oh my God, you wear a hearing aid? That means you're deaf?" "No, I'm not deaf I'm just a little hearing impaired", I answer.' This woman seems very affected by potential attributes that might constitute a discrepancy between her virtual and actual social identity and uses the advantages of being in a grey area.

Scambler (2009) emphasizes the scope for individual variation and notes that felt stigma can be controlled and contained by some people, and invade all aspects of the identities of others. This means that today the distinction between the 'disabled' and the 'able-bodied' might be less clear-cut (Green, 2009). In such a scenario stigma might lose its potency. However, this woman was labelled 'deaf' both before wearing a hearing aid and when wearing it, thus consolidating the hegemony of normalcy as it permeates contemporary life with profound consequences. For this woman normalcy is more a question about not hearing than having a visible hearing aid in order to hear better.

Discussion and conclusion

Using disability theory as a framework and social science theories of identity to strengthen the argument, this article describes how the consequences of hearing impairment and the construction of hearing disabled identities are shaped in the interaction with the hearing impaired person's surroundings. The social approach to disability demands an analysis of the social, political and economic conditions that restrict life opportunities for those who have an impairment. According to Oliver (1990), a question about an individual's difficulty in accepting his/her hearing impairment could be reframed to ask about the difficulties caused by other people's reactions to any such impairment. However, hearing disability is a social construction out of something as hearing impairments are real and have effects.

The article explores how hearing impairment threatens the stability of social interaction. Bodily betrayals in the form of a lack of hearing have the potential to undermine the integrity of social encounters by damaging both self and social identification.

The tension between self-description and social ascription is part of the framework and the dynamics within which the hearing impaireds' self-understanding can be constructed, negotiated, defended and resisted. Exclusion at the micro-sociological level, which means exclusion from communication, faces this group of disabled people. It seems that the way hearing impairment is constructed historically and discursively grounds the possibility of exclusion in the first place. Thus hearing disability is identified in society as an excludable type. This also means that, for the participants, the hearing disability is constructed as the variable that predicts the outcome of specific social interactions. At the same time, however, it is the social context that shapes the meaning of the hearing disability in the person's life (Fine and Asch, 1988).

Goffman extends the dynamics built around Cooley and his notion of the looking-glass self by describing the management of the resulting emotions, embarrassment and shame. He has been criticized by disability theorists for narrowly focusing on the defensive, anxiety-ridden manoeuvring of stigmatized individuals, and their acceptance of the negative label (Barnes et al., 1999). However, he does show how the potential for a discrepancy between virtual and actual social identity is exactly associated with the visibility of a stigma and the extent to which it can be concealed.

Goffman's assumption that embarrassment is of fundamental social significance is manifested in the empirical data where most of the hearing impaired, with some variation, seem to be guided more by what they would avoid than by what they would attain, making them minimizers of risk rather than maximizers of gain. The susceptibility to embarrassment and a strong motivation to avoid it seems a less central feature of the more socioeconomically privileged and a more central one of the less privileged – or it may be a question of personality. Goffman's work also shows how the interaction norms of everyday life greatly advantage those most interested in maintaining existing hierarchies of identity, and make challenging those hierarchies exceedingly difficult.

Goffman's treatment of spoiled identities does not go far beyond the issues of identity management as he does not identify the social structural conditions that shape those processes of identity management. This could lead to the assumption that stigma processes are embedded in a single normative order (Kusow, 2004) and that Goffman portrays a world with shared standards of worth. At least, he did not consider conflicting standards to be a possible basis for identity troubles. Here, the social model of disability is helpful in identifying the social structural conditions that shape these processes of identification management.

Interestingly though, compared to other social activist movements, only about 1 per cent of the hearing impaired are members of patient groups (www.hoereforeningen.dk/hoereforeningen), so they do not seem to struggle to resist oppressive accounts of their identity. As this article shows, this might be due to the segregation that underlies these types of support groups. Identification with a group of the hearing disabled might easily separate the individual further from the normal hearing world. For these people, there are powerful positive effects from maintaining silence around an attribute that could be expected to attract stigmatization. Their identities might be discredited in additional ways; both due to the stigmatized attribute and due to the stigmatized act of appearing to be what they are not (of normal hearing). The hearing impaireds' stories expose the convergence and redistribution between gendered and disabled identities across and within different social contexts. They are open to renegotiation dependent on the communicative contexts they can perform and are experienced within. Charmaz (1995) has described how adapting is a mode of living with impairment. By adapting, she means 'altering life and self to accommodate to physical losses and to reunify body and self accordingly' (1995: 657). It is both bodily limits and social circumstances that force adapting to loss. This group of people have been engaged in adapting process for a long time as the hearing loss onset is generally gradual which makes it very easy to ignore at first because you actually do not notice it. And then when you start to notice it, you start to adjust. They develop what they perceive from their point of view to be perfectly adequate adapting strategies. The crunch comes when other people cease to find these adapting strategies adequate. Hearing disabled people can thus be considered as situated in a liminal space between the possession of an abnormality which leads to a deviation from normalcy and, at the same time, a desire for inclusion in an abstract version of normalcy detached from bodily differences (Titchkosky, 2003).

The physical changes in appearance associated with ageing are related to becoming a hearing aid wearer. Middle aged participants especially react with anxiety to an ageing and disabled body. Whether this is generational, is the question.[3] Ageing has become a negative cultural value and something abnormal. As such, they risk being constructed in yet another category of otherness. The contemporary tension between the natural ageing body and the cultural performing and 'normal' body pushes agedness to an older age and has turned an existential problematic into a health problematic.

Hearing health professionals see the solution to hearing impairment as being to assimilate patients back into the hearing culture through the use of hearing devices. But patients must negotiate a sense of recognition and identity among the multiple and contradictory ideological representations and positions offered. One of these is the position of normalcy when your hearing impairment is in a grey area. This also explains why many resist the attachment to the subject position which discursive practices construct for them. On the one hand, wearing a hearing aid reflects conventional features of the able-bodied world such as communication conventions; on the other hand, it refers to the set of features constituting a particular life-style (disabled) within which its social significance is determined. The hearing aid technology is aimed at the better control of symptoms and at making the hearing impairment less noticeable so that it deflects stigmatizing responses from others. In reality, the hearing impaireds' condition is manifested by the appearance of the same hearing aids. Thus, being diagnosed is a medical act of classification that turns into a social classification when the attribute is revealed. Rehabilitation by the use of a hearing aid does nothing to address the ideological basis of stigma. The indelibility of corporeal identity only furthers the mark placed on the body and the hearing impaired is obliged to enter into an identical relationship with the body. Thus, the body forms the identity and one's place on the normal curve (Davis, 1995). As this group of people were not born with their impairment and as they are in a grey area, they have an alternative to viewing themselves as deficient. If, however, they choose to relinquish their able bodied identity they have to accept an identity as Other (Shakespeare, 1996).

Notes

1 In writing about deafness, a frequent distinction is made between 'deaf' and 'Deaf' where the latter refers to deafness as a cultural condition and comprises members who are born deaf. Many maintain they are a subculture and that Deafness is a vital part of their identity.

2 An exception from the audiology field that has attempted to bridge the divide between the 'medical model' perspective and the 'social model' is the work by McKenna and O'Sullivan (2009) who write about the psychological aspects of acquired hearing loss and conclude that audiology professionals should be careful not to make assumptions about patients' experiences, particularly on the basis of audiometry alone.

3 Hansen (2008) argues that although younger people apparently do not view the application of digital technology to correct a hearing loss to induce stigma once you examine this statement more in depth and look at the young hearing impaireds' current behaviour and use of hearing aids, the picture is somewhat more complicated and nuanced. It indicates that there is indeed a perception of stigma associated with the use of hearing aids, which in a number ways only appear on the level of the subconscious to the user (e.g. in the arguments on using hearing aids or not, whether they tell others that they have impaired hearing, etc.).

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