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Additional Information

The History and Present of Hearing Aid and Cochlear Implant Advertising

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Abstract

In this article, I explore the medicalization of deafness by analyzing print, online, and YouTube video marketing materials of hearing aid ads and cochlear implants from around 1910, which roughly corresponds to the advent of the micro-battery in hearing aids, to the current day. I argue that these advertisements rely on concepts of normality, medicalization, and stigma to market their products. I identify four overarching central themes in the advertisements: inconspicuousness, isolation/connection, modernity, cutting edge technology, and success. Ultimately, the desire to be "normal" is what lies behind all these ads and websites.

Keywords

ableism, deafness, cochlear implants (CI), hearing aids, normality, medicalization

Social constructionist scholars describe the process by which certain physical and mental conditions come to be seen as problematic and become medicalized (**Goffman 1963**; **Goffman 1959**; **Foucault 1994**; **Foucault 2009**; **Conrad and Bergey 2014**; **Conrad, Mackie and Mehotra 2010**; **Conrad and Letier 2008**; **Conrad 2007**; **Canguilhem 1989**; Canguilhem 1998). In personal correspondence, sociologist <u>**Dara Shifrer (2021)**</u> defines "Medicalization [as] the process whereby a condition formerly considered to represent normal human variation comes to be considered a disability, illness, or disorder." Examples abound of conditions that have been medicalized in the last forty years, including dyslexia (<u>**Collinson 2020**</u>), adult ADHD, erectile dysfunction, premenstrual dysphoric disorder, and andropause, among others (<u>**Conrad and Bergey 2014**</u>; **Conrad and Leiter 2008**; **Conrad 2007**). A necessary component to the medicalization of a condition or state is advertising, most of it by pharmaceutical or medical device companies, to promote the new medicalized disorder. When a condition is initially medicalized, advertising helps inform the public about the "new" disorder and promotes the treatment that has been developed for it.

In this paper, I explore the medicalization of deafness by analyzing the print marketing materials of hearing aid ads from around 1910, which roughly corresponds to the advent of the micro-battery in hearing aids, to approximately the 1970s, as well as contemporary hearing aid and cochlear implant websites. I argue that these advertisements rely on concepts of normality, medicalization, and stigma to market their products. This is true in the historical hearing aid advertisements as well as the contemporary hearing aid and cochlear implant websites. I address the research question: how do advertising and marketing strategies for technologies for the deaf and hard-of-hearing from the 1900s to the present reflect the changing social meanings of deafness and social beliefs about normality? I have identified four overarching central themes in the advertisements: connection, inconspicuousness, modernity/space age/supra modernity, and success.

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Ultimately, a consumer's desire to be "normal" lies behind all these ads and websites. The advertising encourages people to want

to be normal, and the ticket to normality lies in purchasing one of these products—although some brands, such as Unilever, are choosing to remove the word "normal" from all branding and advertising (**Cavale, 2021**). Most of the advertisements feature people, who presumably have hearing loss and are using an aid of some sort, in relationship with others: talking to others, playing with children, or conducting business. The ads portray these life activities as "normal," and they imply that people who buy the aid or implant can achieve normality as well. Of course, having a cochlear implant or hearing aid is not statistically "normal": unless one is quite advanced in years, most people don't need cochlear implants or hearing aids. So, these ads are negotiating the fine line between selling "normalcy" and recognizing that, by its very nature, it is not "normal" to need these products.

Some deaf Americans consider deafness to be a "normal" state: the Deaf community, a cultural and linguistic group of deaf people and their hearing allies, use sign language to communicate and view deafness as a difference, not a disability or abnormality, to be celebrated (Lane 1999). Members of the Deaf community consider deafness to be akin to being an ethnic minority (Lane 1999), complete with a separate language, which (like any other language) includes constantly evolving technology, traditions, art, and humor (Lane 1999). Members of the Deaf community sometimes use hearing aids and cochlear implants to enhance their communication and to hear ambient noises such as traffic. Members of the Deaf community mark their community by using a capital "D" for the word *deaf* in writing and signing.

There are also communities who believe deafness is a biological abnormality and not a culture unto itself; they do not capitalize the *d*." (I will describe these different communities in more detail later.) For these groups, deafness is an "abnormal disability" that should be ameliorated with medical technology, such as hearing aids, cochlear implants and specialized schooling and therapy. By the late 1800s, there were several technologies to address deafness. These included the ear trumpet, early hearing aids, and surgeries to release pressure on the small bones in the ear. Until the mid-1980s, the dominant hearing technology available to deaf children and adults was hearing aids, but following the FDA's approval cochlear implants soon became a viable option, both for very young children and adults who had lost their hearing postlingually. Cochlear implants (Cl) are a small device implanted into a deaf person's cochlea (the part of the inner ear that transmits sound) that, when combined with intensive speech therapy, can allow recipients to understand and produce speech. As of December 2019, approximately 736,900 cochlear implants have been implanted worldwide. In the United States, roughly 118,100 devices have been implanted in adults and 65,000 in children (**National Institute on Deafness and other Communication Disorders [NIDCD] 2021**). Advertising for the product to hearing professionals began shortly after approval. Direct-to-consumer advertising of these products began significantly later than direct-to-consumer advertising of hearing aids. Hearing aid advertisements aimed at deaf people have been in print since at least the 1920s (with the advent of the microbattery, and therefore, smaller hearing aids).

Nearly four out of every 1000 Americans over the age of five are functionally deaf, more than half of whom are over the age of 65 (**National Center for Biotechnology Information [NCBI] 2011**). Hearing loss affects two to three infants out of every 1000, and 90% of these children are born to hearing parents (**NIDCD 2011**). Deafness has many different etiologies, including genetic defects; the most common causes of congenital hearing loss are mutations on the gene Connexin 26 (**NCBI 2011**) and cytomegalovirus (**NIDCD 2002**). There are multiple ways families deal with congenital deafness in a child, including hearing aids, American Sign Language (ASL), and cochlear implants.

Nationwide, there are over 30 million people with hearing loss, and over 8.5% of people aged 55–64 have hearing loss (**NIDCD 2021**). About 28.8 million Americans could benefit from hearing aids, but fewer than 30% of Americans aged 70 or older have ever used them (**NIDCD 2021**). Combined, Americans with disabilities have \$200 billion in purchasing power (**New England Low Vision 2019**). Deaf people have discretionary income of up to \$8 billion (**Deaf Friendly Consulting 2018**), and marketing to this group of consumers will become even more important as the Baby Boomer generation reaches their seventies and eighties, when hearing loss becomes more common. Knowing what messages are being sent to this group of consumers can help marketers and advertising executives decide how best to approach the marketing of products such as hearing aids and cochlear implants.

The media, including advertisements, demonstrate a marked improvement in their representation of deaf, Deaf, and hard of hearing people over earlier conceptualizations. Deafness means different things in different places. For example, deafness is understood very differently at Gallaudet University—the world's premier American Sign Language (ASL) university—than at Clarke Schools for Hearing and Speech, a leading primary school chain for children with cochlear implants. Media representations of deaf people usually focus on elderly people, but advertising to this population, especially for cochlear implants, aims at a younger demographic. Children are often fitted with cochlear implants as young as one year of age, and so cochlear implant companies market to parents, as well as to the end consumer, of their product.

People with disabilities are routinely overlooked in advertising (Neff 2014; Hein 2008), because panels, surveys, and other

research tools do not often include representatives from the 54 million adults and 23 million parents of children with disabilities (**Neff 2014**), although some advertisements aimed at parents of children with disabilities have encouraged them to get help for their disabled children (**Reading Today 2001**). Disability advertising has traditionally focused on body image, and advertising showing people with disabilities has been considered "risky" (**Houston 2019**). Advertisements featuring disabled people can be seen to challenge presumptions of disabled people as passive. This research demonstrates that advertisements aimed at deaf adults have navigated its "riskiness" by focusing on the imperceptibility of the disability if one uses the products advertised. A content analysis of US television commercials in 2012 found that only 1.7% of advertisements used disabled characters (**Farnall and Lyons 2012**). **Heumann (2019**) includes the following statistics: according to GLAAD, only 2.1% of primetime TV series had regular characters with disabilities, and an Annenberg study found that 2.5% of the 100 top-grossing movies in 2016 featured characters with disabilities in everyday life. Some advertisers have claimed that images of disability make people uncomfortable and are not profitable (**Farnall and Lyons 2012**). However, research disputing these claims shows that people respond the same way to advertisements with disabled or non-disabled people in them, and beginning in the 1980s, television ads favorably featuring disabled people increased (**Panol and McBride 2001**).

Advertising scholar **Edward Timke (2019)** describes three tropes used to depict people with disabilities in advertising. The first is that the disabled are victims to pity, in need of an able-bodied savior. The second major trope is the inspirational "super crip," which idealizes people with disabilities. The third common trope **Timke (2019)** found is people with disabilities as a source of humor and the butt of jokes. As I will show in this paper, early hearing aid advertising utilizes the first trope generously, implying that deaf people should be pitied and felt sorry for. Although some TV advertisements for hearing aids use humor, "super crip" and "humor" tropes are less common in the advertisements.

Normality

Different social groups construct the meanings of physical difference to fit competing ideologies and interests (**Zerubavel 1999**). Corrective procedures and technologies are often offered by medical authorities when a person is diagnosed with a condition or state that is identified as abnormal or disabling. Identifying normality is so important to us because of the outcomes for those labeled abnormal. People categorized as abnormal are, on the one hand, given special accommodations and treatment (such as preferred parking spots) but, on the other hand, are stigmatized and outcast. As a society, we vacillate between accommodations and exclusion, and these outcomes seem to depend on the perception of the labeler—and it is the labeler who stigmatizes, or accommodates, so it is a vicious cycle. Because of the biological nature of physical abilities such as hearing, specialists and laypeople alike forget the purely conventional and social nature of disability classifications, and instead attribute a profound natural power to these categories (**Harkin 1994**; **Lane 1999**). Bodies themselves are a highly contested space, in which competing cultures vie for the right to define and sculpt that body (**Harkin 1994**). The concepts of normal/abnormal and disabled/abled exist as social constructs: *people* have to define things as normal/abnormal; they are not "natural" states of being (**Horwitz 2016**; **Zerubavel 2020**). Defining a body as disabled or abled does not occur in a vacuum, nor is it an automatic classification; instead, it is always in contrast to the *normal* (or abled) that the abnormal (or disabled) is understood.

Social scientists and humanities scholars have identified three general ways to understand the competing categories of abnormal and normal. At one end is a pure social constructionist approach that argues that abnormal and normal are only real in their consequences because they have been socially defined as such (**Berger and Luckmann 1967**). At its most basic level, social construction theories contend that all systems of knowledge and ways of understanding are reflections of culturally specific processes (**Foucault 1994**; **Foucault 2009**). Our world is inseparable from the social processes that allow us to comprehend and organize that world. Social constructionist scholars do not assume that taken-for-granted categories represent any natural reality; instead these categories reflect and respond to shifting social forces (**Berger and Luckmann 1967**). Normality, therefore, is culturally created, and there is no universal normality in the same way as there is no universal morality (**Benedict 1934**; **Hacking 1986**). This article relies on this definition of normality and is social constructivist in its approach.

Moving away from a pure constructionist perspective, an interactive approach understands normality and abnormality to be a dialectic between the social and the biological (**Fleck 1967**; **Hacking 1986**; **Hacking 1999**) in such a way that the social understanding of bodies informs the construction of physical bodies, and vice versa. This perspective explicitly brackets the question of what is "real" and instead focuses on the dynamic between social and physical bodies.

Lastly, on the opposite end of the continuum from social constructionism, is a naturalist approach that understands bodies to be a real, "hard" physical reality outside of the realm of the social. This approach argues that the body has natural functions determined

by evolutionary processes and that the abnormal can be understood as harmful dysfunction (**Horwitz and Wakefield 2007**; **Wakefield 2007**). **Table 1** highlights the key points of each of the three conceptions of the medical model of disability.

Normality Concept	Main Theorists	Key Points
Pure Constructionism	Cargailhen, Feacault, Goffman, Courad	—Normality is context specific —Normality is contered on a being's ability to adapt to the environment
Interactive	Hacking	 Barrans create normality, physiology creates bedies Social value placed on physical bodies is cultural Interaction between the labeler and those labeled
Harmful Dysfunction	Wakefield, Horwitz	-Every body part has an evolutionary function A body part can be dysfunctional, i.e., not work the way it is supposed to, but not be harmful e.g., albinism The humful component is nermative and socially constructed

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Table 1.Conceptions of Normality by Theorist

Meaning of Deafness and Available Technologies

The meaning of deafness in the US has evolved over time, and there are at least four distinct "eras" of how deafness is perceived by the wider society. In the first era (mid-1700s to about the 1880s), deafness was considered a spiritual, not a medical, problem. Deaf people were perceived as not being able to communicate with God, and so ASL as a language technology evolved to meet this need. In every era, technology arises to meet the "problem" of deafness, and conversely, the "problem" of deafness influences available technologies. ASL was not "sold" as a product, so there is no advertising from this era. However, records from Thomas Gaulladet, who founded the first ASL school in the early 1800's, noted that ASL was a means to connect otherwise heathen people to God, and indeed, saw ASL as a special gift from God to deaf people (**Baynton 1996**). Most important for Gallaudet was connecting deaf children to God. As he puts it, "They knew nothing of God and the promise of salvation, nor had they a firm basis for the development of a moral sense" (**Baynton 1996**).

In the second era, starting in the late 1800s, people became concerned about "positive evolution" and making sure that the gene pool was "clean;" the concerns that emerged with the broader eugenics movement at the turn of the century (**Stillwell 2012**). Coinciding with this concern, was a worry, slightly later in time, about immigration and who deserved to be called an "American." This worry marks the beginning of the third era, and I combine them here because the solution to both problems was the same. The hearing solutions devised during these time periods focused on speaking and hearing English, so ASL was no longer sufficient because it did not allow immersion in the American nation or, more broadly, humankind. Technologies developed during this time frame included the remarkably disappointing audiphones and dentaphones, and, later, the more promising micro-battery that finally allowed discreet hearing aids. Advertisements from this era focus on inconspicuousness and the promise that deaf people can "blend in" with other Americans.

I propose that advertising's meaning of deafness in the current era (starting in the 1980s), is lack of access to success. This translates into success at school, success with friendships, success in college, success in dating and marriage, and success in parenting. Advertisements for hearing aids and cochlear implants suggest that "success" is the problem to be solved in the current timeframe. In the modern era, cochlear implants are the perfect "fix" for the problem of reaching success, because they address both hearing and speaking, and some children who are implanted early have speech so clear it is difficult to distinguish them from hearing children. This is the kind of success that parents want when they choose a cochlear implant for their child and is the kind of success that cochlear implant and hearing aid advertisements feature.

Hearing Aid and Cochlear Implant Advertising

In contemporary consumer society, marketing and advertising communicate the society's values and morals (**May and Fullerton. 2021**; **Bayefsky 2020**; **Mohapatra and Fox 2021**; **Simmank et al. 2020**). Advertising slogans usually represent catchy and memorable phrases or, in the case of the hearing technology advertisements and websites that I evaluated, memorable or poignant images. These phrases and images are built on aesthetic and normative elements to create a clear intention: They induce positive appraisal (Simmank et al. 2020; Dimofte and Yalch, 2007) and expectations regarding the experienced utility of or satisfaction with a product or service (**Plassmann et al. 2008**). Product advertisements have been shown to trigger the decision-making part of the prefrontal cortex and appear similar to moral decision making in fMRI studies (Simmank et al. 2020). In the case of the medicalization of deafness, advertisements and the marketing of products intended to ameliorate deafness are expressly *value* statements: if you don't purchase this particular product for your deaf child, you are a bad parent (**Taylor et al. 2020**; **Popa 2018**) or, at the very least, a neglectful one. The marketing of deaf-related technologies reaffirms the medicalization of deafness by presenting *medical* treatment of the problem, such as cochlear implants.

Imagery in print advertisements has been shown to influence consumer's perceptions about health information (**Banovic and Otterbring 2020**). Advertisements, simply put, influence behavior (**Sciglimpaglia, Tarr, and Brodowsky 2021**; **Lawrence, Furnham and McClelland 2021**; **Yen & Chiang 2021**; **Fernández-Escobar et al. 2021**). The public health scholars **Fernández-Escobar et al. (2021)** showed television advertisements to teens featuring unhealthy food. One group was shown unhealthy food advertisements without any additional content, and the other group was shown the same advertisements with health warnings attached. The researchers found no significant difference in which foods (healthy or unhealthy) the two groups ate after the study. These results suggest that images are more powerful than words in advertising, supporting my approach of mostly analyzing the pictorial content of the advertisement or web content.

Bodies themselves serve as powerful advertisements, as can be seen in research regarding body image (<u>Camerino et al, 2020</u>). Advertisements about the body itself (such as a young deaf child seeing another child with a cochlear implant and wanting one for themselves) or as branded images on clothing, shoes, and hats are a kind of advertising that people "can't turn off": it's always there, as opposed to magazine or internet ads that someone can "turn off or turn over." Tali Te Eni-Harari, the head of the MBA program at the Peres Academic Center in Israel, and <u>Keren Eyal (2020)</u> found that adolescents internalize advertising messages of a thin ideal, quickly adopting the belief that in order to be beautiful they must also be thin and famous. These body-image studies shed light on the cochlear implant case, as well. Parents internalize the messages of cochlear implant and hearing aid advertisements as the only way to raise a healthy successful child.

There appears to be no published sociological analysis of hearing aid or cochlear implant advertisements, but there is a substantive literature on medication advertisements. Although pharmaceutical advertisements and cochlear implant/hearing aid advertisements appear to be fundamentally different from each other, there are some similarities. First, medication and cochlear implant advertisements both tend to focus on improving the quality of life of the person who consumes/uses the medication or device. Secondly, there tends to be a normalizing component to the ad: many medication advertisements imply that one can achieve normality by taking/using the product. Semantic scholars **Babineau**, **McMullen**, **and Downe** (2017) found that, after viewing advertisements for antidepressants, women redefined the meanings of "normal" and "depression." In this way, advertisements can actually shape what is considered normal. **Scalvini** (2010), in his study of the images in HIV medication advertisements, found that advances in HIV medications have now changed the image of an HIV patient: ads in his study portrayed people who had healthy, "ideal," "normal" bodies.

Method

This was a multi-phase qualitative study, and I rely on data from two main sources: archival data of print hearing aid advertisements from the turn of the 20th century to the mid-1970s, and website images and language from contemporary hearing aid and cochlear implant manufacturers. I collected the archival data portion of the study in 2010 and studied the website content in 2021. These data sources can be combined into one analysis because they both are essentially the same thing: advertisements for hearing technology.

In May 2010, I visited the Kenneth Berger Hearing Aid Museum in Kent, Ohio. I collected additional materials in April 2023. The museum has in its collection a vast array of hearing aids, ear trumpets, and other hearing devices. The collection also includes an extensive archive of patent applications and print hearing aid advertisements from the turn of the 20th century to the mid-1970s.

There are no patents or advertisements for cochlear implants in the archive. At the museum, I took a picture of the seventy-five advertisements in the archive. Unfortunately, the advertisements were decontextualized: they did not include dates or source material. It is difficult to know the date of the print advertisements nor who its intended audience or venue was.

To identify the content of contemporary hearing aid and cochlear implant websites, I used a **Consumer Reports (2019)** article on the best and worst hearing aids in order to locate the universe of potential hearing aids and manufacturers, and I visited the websites of the sixteen hearing aid manufacturers included in the survey. For the cochlear implant websites, I relied on the web presence of the three cochlear implant companies in the US: Cochlear Americas, Med-EL, and Advanced Bionics.¹ Both the hearing aid websites and the cochlear implant websites were direct-to-consumer and aimed at the end purchaser of the product, either a deaf adult or the parent of a deaf child. I only analyzed the images on the websites, except in the rare cases where text was blown-up and put in large text boxes. Future research should delve more deeply into the text content of these websites to see if the messages about hearing aids and cochlear implants is consistent between images and textual content. I took screen-prints of each image on the websites (and text-blocks where appropriate). I used an open coding approach that evolved into a more focused coding approach once codes emerged. Open coding allows the data to speak for itself (**Strauss and Corbin 1998**) and invites codes to emerge from the dataset. The two-sort approach first sorted the materials into broad categories, and then a more focused approach took those broad categories and made them more specific and narrower; as these categories became more distinct, answers to the research question came into view. These categorical and coding choices were enlivened by my knowledge of the literature but, as the open-coding method demands, were primarily driven by the data itself.

I sorted the advertisements and website content by theme/content, such as "hearing aids connect people to God and church," "hearing aids allow one to lead a full life," and "hearing aids are discreet." I developed nineteen broad categories using this process. The second sort refined these nineteen categories into four categories, again led by the data. These four categories are "Inconspicuousness," "Modernity/space age/supra modernity," "Connection with family and community," and "Academic and professional success."

Inconspicuousness



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Fig. 1.

Archived at the Kenneth Berger Hearing Aid Museum, this Maico advertisement for their hearing aid focuses on the inconspicuousness of wearing a hearing aid by presenting photographs of two women wearing the device in their hair, unseen. It is a portrayal of how the device can be easily hidden.

The earliest advertisements focus on the inconspicuousness of the hearing aid product, although this theme appears in contemporary materials as well. Because it appears at the earliest time point and expands across all eras, I will discuss this theme first.

Hearing aid advertisements—both historical and contemporary—emphasize their small size and inconspicuousness. These ads

Given these several possibilities that fall between the extremes of complete secrecy on one hand, and complete information on the other, it would seem that the problems people face who make a concerted and well organized effort to pass are problems that wide ranges of people face at some time or another. Because of the great rewards of being considered normal, almost all persons who are in a position to pass will do so by some occasion by intent

(p92).

Figure 1 shows two women wearing inconspicuous hearing aids. Persons with all forms of disability may attempt to hide their disability from others, and my findings document this in a different way, by showing how marketing to disabled persons relies on themes of hiding, privacy, and secrecy. For example, in one study, participants talked of hiding their disabled body parts with clothing (**Taleporos and McCabe 2001**), and deafness is one disability that people in the white [and pink] collar professions have tried to hide (**Woodcock, Rohan, and Campbell 2007**), although at much lesser rates than the non-deaf perceive hiding behavior (**Cayton 1982**).

People are more likely to try to "pass" as not having a disability based on the level of societal acceptance for the disability (**Goffman 1963**; **Taleporos and McCabe 2001**). Some passers will be so successful that most acquaintances won't know they live with chronic disability, and they may even make an effort so that close friends and family "forget" about the disability. People who hide their disability may suffer more psychic harm and be less well-adjusted than those who do not hide their disability (**Maynard and Roller 1991**). Feelings of shame about one's own body, as well as discomfort and the perceived lack of societal acceptance for one's disability leads people to hide (**Taleporos and McCabe 2001**). Women in particular may be more prone to hiding their disability (**Lloyd 1987**; **Stone 1995**), which may be because women tend to be more judged on their appearance and judge their appearance more harshly than men do (**Stone 1995**), which might be why many inconspicuous hearing aid products are aimed specifically at women.



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Fig. 2.

Maico's advertisement for their hearing aid aimed at women presents hearing aids as more of a fashion statement, and in fact, mentions their own beauty consultant (Kenneth Berger Hearing Aid Museum). These devices are represented by a portrait of an opulent female revealing her secret, which is wearing her hearing devices the same as earrings. The ad asks women to write for a free booklet written by Maico's Beauty Consultant about the "exciting, glamorous" ways to wear the new miniature Maico hearing aid.

The decision to hide a chronic condition such as deafness may be the result of stigma or perceived stigma, and some parents of children with a disability may instruct their children not to disclose their disability to others (**Joachim and Acorn 2020**), raising children who go to great lengths to pass as nondisabled. Hiding or denying a disability has been associated with "passing" to avoid stigma associated with the disability (**Olney and Brockelman 2003**; **Goffman 1963**).

This stigma can lead to situations in which people are forced to hide both their disability and their identity and may be done to maintain the pre-disability identity. This kind of hiding can lead to loss of social contact and social isolation (**Gibson et al. 2005**; **Goffman 1963**). Hearing aid types disguised as something else, such as earrings, pens, tie clips, wrist watches, and eyeglasses



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Fig. 3.

Another tactic for hiding deafness was through the usage of eyeglasses (Kenneth Berger Hearing Aid Museum). Pictured are the Executive and Vogue Aids for men and women that were introduced by Zenith.

Modern-day hearing aid websites also make a point of demonstrating how inconspicuous their products are by explaining microtechnology and showing how small their devices are. The products made by **Miracle-Ear (2021)** and by **Beltone (2022)**, show pictures of their extremely small products. The Miracle-Ear products are marketed with the language: "This hearing aid offers the ultimate in discreet hearing solutions. Ads for Kirkland Signature (**Costco 2022**) hearing aids also emphasize the size of the hearing aid but with no reference such as a ruler to show exactly how small these aids are. Widex shows the small size of their product but also exhibits the many different colors that their product comes in, implying that people can choose how discreet they want to be. A brunette may choose a brown hearing aid that would be discreet, but they may choose a fuschia hearing aid to stand out more. These four advertisements are unique because they do not show a person actually using the aid; they show just the aid itself. This trend reoccurred throughout the hearing aid and cochlear implant websites, and there were many images of just the product alone.



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Fig. 4.

Miracle-Ear's (2021) discreet hearing solution comes in pairs that almost replicate bluetooth earbuds. The image here is solely focused on the devices themselves.



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Fig. 5.

The hand of a medical professional presents **Beltone's (2022)** discreet hearing aids that are smaller in size to better hide the evidence of wearing such a device.



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Fig. 6.

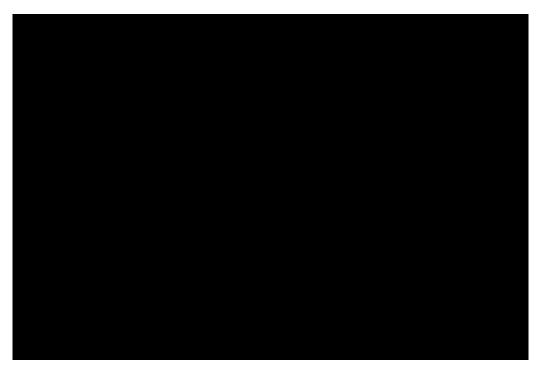
This photo of Kirkland hearing aids focuses on the devices themselves in this image (**Costco 2022**). These hearing aids are meant to be understood as discreet, but it is difficult to gain a real perspective of their actual size, for this is more of a close up of the devices themselves.



Fig. 7.

These small **Widex (2022)** hearing aids focus on selection as much as they do discretion. An individual has the option of selecting a hearing aid that may blend better with their hair color, while another individual may prefer a color that stands out.

This hearing aid advertisement from the 1980s features Lee Majors, of *Six Million Dollar Man* fame, selling his own eponymous hearing aids. Majors emphasizes the discreet size of his hearing aids.



Video 1.

This is an advertisement for the Bionic hearing aid, a product that is represented by Lee Majors, who was also known as the *Six Million Dollar Man*, a character whose physical abilities were enhanced by biotechnology. This hearing aid was designed to fit discreetly within an individual's ear, demonstrated by a female inserting the device with a smile on her face. The ad also focuses on the ease of its functionality; for example, one no longer must deal with the frustration of changing a tiny batter because this hearing aid is rechargeable. (Lee Majors Bionic Rechargeable Hearing Aid 2016)

Click to view video

Below, a 1995 ad from Miracle-Ear touts the fact that it is "virtually invisible." In 2021, Miracle-Ear was still advertising its discreet size, which is a theme throughout this company's history.



Video 2.

This advertisement for the Mirage hearing aid is a blatant representation of Miracle-Ear's attempt for discretion. The commercial begins by claiming that its hearing ai is "so advanced, it is virtually invisible." A man first holds up the hearing aid and says, "Now you see it," and then is followed by him inserting the hearing aid and sayir "Now you don't." Immediately following that catch phrase, booklets and a free video are presented along with their 1-800 number displayed across the bottom of the screen suggesting to order now (**wtcvidman 1995**).

Click to view video

Also from Miracle-Ear, the below 1988 ad shows the disability experience and reliance on others that someone with hearing loss must endure, something that a discreet Miracle-Ear hearing aid can remedy.





pair with the narrator stressing that even though people may not believe they need a hearing aid, they in fact already have one. For example, there is a scene of a married couple at the movie theater, the wife having to repeat to her husband what is being said. This is supposed to show that his hearing aid comes in the form of hi wife.

Click to view video



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Fig. 8.

This portrayal is uncommon, for the device itself is not pictured and it is unclear whether one or both are wearing a hearing aid or cochlear implant (**Cochlear Americas 2014–2020**). But what is clear is that thanks to the aid of Cochlear's hearing device, both are enjoying the music.

The picture above, taken from the Cochlear Americas website, shows a couple enjoying music and together time. This is one of the only pictures on any of the cochlear implant sites that does not show an individual with an obvious cochlear implant (to see an implant, see **Figure 33**), but the viewer is left to imagine that one or both of the two are wearing a cochlear implant that is not visible. This hiding of the implant, which is markedly different from other pictures on this site in which the cochlear implant is visible, reflects the theme of inconspicuousness. It may also suggest how "normal" these activities are: playing music without the help of technology (except for a cochlear implant!) showcases how normal a cochlear implant wearer can be. The themes of this picture are inconspicuousness, togetherness, and relationships.

These examples of inconspicuousness relate very strongly to themes of normality. If the wearer hides their deafness successfully by disguising their hearing aid in glasses or jewelry or by having hair that hides a cochlear implant, then people, even close friends and family, may never know or will "forget" that the person is deaf. If people don't know someone is deaf, then that someone, barring other situations, will be considered "normal." Saying a product is inconspicuous is the same as saying "people will be seen as normal if they use this product!" Products from earlier eras, such as ear trumpets, cannot claim normality for their users: these products are extremely conspicuous and by using them, everyone around the user will know they are deaf. Battery powered hearing aids led the way to these inconspicuous aids, allowing people to achieve "normality." In this case, "normality" is directly related to medicalization: by medicalizing hearing challenges, the deaf person has the possibility of "passing" as normal. These ads suggest that the only way people can be considered normal, or even close to normal, is if they invest in hearing aids or cochlear implants.

Modernity

The second theme to emerge from the data was modernity/space age/supra modernity, although it is true that this theme was more prominent beginning in the 1950s and into the present than in the earlier eras. These ads compared hearing aids to modern appliances, science fiction (also see Video 1), or to the space program, or, in the contemporary hearing aid and cochlear implant websites, to advancements in scientific knowledge. These advertisements appeal to the allure of the modern. They emphasize high-technology and advanced science. These advertisements appeal to the "brain," as opposed to the "heart," and imply that the hearing device advertised is the most modern and sophisticated device on the market. Space exploration iconography is present in ads from the mid-century. Even though modern hearing aid and cochlear implants of today that address modern problems, such as communicating in crowded environments and communicating with people wearing face masks to prevent the spread of COVID-19 (see **Figures 16** and

17). These websites showed all the technical details of the hearing aid or cochlear implant and, in this way, have similarities with the "modernity/space age/supra modernity" advertisements that focus on hyper-modern technologies (**Devezas 2016**; **Osborne 2015**; **Costa 2020**; **Erickson 2018**). When discussing the space race in the 1950s, historian <u>Ettore Costa (2020)</u> writes:

Science was conceived as a neutral power to be supported, but it required political guidance to harness it and turned it into social progress. The "space race" that was most closely followed in the 1960s is that between the USSR and the US.

(p95)

Professor of Strategy at China Maritime Studies Institute, Andrew S. Erickson (2018) further explains:

In critical respects, Washington's lunar landing stemmed from an effective systems management program, while Moscow's moonshot succumbed to the Soviet system, which proved unequal to the task. In less than a decade, Soviet space efforts shifted from one-upping, to keeping up, to covering up.

(p376)

During the Cold War between the United States and the Soviet Union, the space race was a nationalistic program (**Davenport 2019**). The ads that focus on space, and the space race in particular, leverage this nationalistic narrative to appeal to people's desire to connect with, and be a part of, the nation state or to connect with NASA, which was involved with early CI technology (**ZME Science, 2019**).

One cochlear implant company, **Advanced Bionics (2020)**, features language on their website promoting the advanced science their brand uses. For example, on their page "Top 10 Reasons to Choose [Advanced Bionics]," they write the following: "With the combination of AB innovations and proven Phonak technology, you can enjoy all of the modern convenience of wireless streaming right to your ears" (**Advanced Bionics 2021b**). On the same page, they mention "AB's groundbreaking innovations will literally bring music to your ears. Using the highest sound resolution available, we'll help you appreciate all the nuance of music and understand lyrics more clearly than ever before."

All of the materials highlighted in this section, whether space-age advertisements from the 1950s or websites from hearing aid and cochlear implant companies, focus on cutting-edge technology. When coding the data, an advertisement was identified as leveraging "modern" themes if it portrayed the product as being new or revolutionary, up-to-date, or ahead of its time. Advertisements are informed by cultural values (**Zhang and Shavitt 2003**; **Caillat and Mueller 1996**), including modernity. Advertisements that reflect modernity have been shown in previous research to be reflective of "new, improved, advanced, progressive, introducing, [and] announcing" innovations and products (**Pollay 1983**).



Click for larger view View full resolution

Fig. 9.

"Modern Science," this advertisement touts the hearing aid that comes from the advances of modern science (Kenneth Berger Hearing Aid Museum).

The lure of science and modernity lies behind these ads. They aim to demonstrate that their super-modern hearing device will improve people's lives in many dimensions. In the late 1960s during the space race, anything associated with science, modernity, and

space was attractive to people. The lure of the modern continues. Advertisements that associated their product with space were able to capitalize on the excitement of the mission to the moon and other advancements in space travel.

Most of the images in the "modernity/space age/supra modernity" category do not appear to relate to themes of normality, medicalization, or stigma. These ads are advertising something supra-normal. Going to space, science fiction/science fact, and "space electronics" are all "better" than normal: they propel people into the future where only "special" people can go. A person buying a hearing aid or cochlear implant based on one of these ads would likely be attracted to the futuristic imaging and might have thought that they were "getting early to the game."

Audibel's (2017–2021) hearing aid website highlights needs specific to the modern age: the website promotes a hearing aid that can amplify speech that is muffled through the use of face masks, as well as promoting the future of hearing aid science. Figure 10 proposes that their product is on the "leading edge" of hearing aid technology, and it emphasizes the science behind the aid.



View full resolution

Fig. 10.

Audibel promotes modern technology. This advertisement for their ViaEdge AI hearing aid boasts that their product is unlike anything else in regard to hearing aids (**Audibel 2017–2021**). They set themselves apart with their "leading edge" technology that vows to amplify an individual's hearing experience.

Many hearing aid companies have developed cell phone applications for their hearing aids, allowing users to personalize their hearing aid settings depending on their current environment, such as a noisy background. These inventions highlight "advanced technology" and although they do not necessarily use futuristic language to describe the product, it is clear that one advantage of these products is their advanced technology. The next ad shows a Beltone user using the phone app. Images for Liberty Hearing Aids and Phonak, respectively, demonstrate their cell phone application but without a user present. This repeats the pattern in hearing aid advertisements focusing on discreet aids that show only the product with no user present. As a departure from this pattern, the Starkey ad shows an older man using a tablet, presumably to set his hearing aid levels or other settings. This ad is interesting because it shows an older person interacting with technology, which seems to communicate that the technology is easy and accessible and that everyone can learn how to use it. The Widex ad in **Figure 15** shows a younger person helping an older person to use the cell phone technology.



Click for larger view View full resolution

Fig. 11. Pictured here is an older woman utilizing a hearing aid phone app (**Beltone 2022**). Beltone's advertisement negates the presence of a hearing aid and other colorful imagery, for the focus is placed on the accessibility and ease of their technology.



Fig. 12.

Liberty Hearing Aids' (2023) advertisement for their phone app strategically places the application itself as the main focus. The hearing aid in this advertisement is neutral in color, while the blown-up image of a phone screen takes over. It is evident that the purpose of this advertisement is to highlight the capabilities of their hearing aid application.



Click for larger view

Fig. 13.

Phonak's (2014–2021) advertisement for their discreet hearing aids plus cell phone technology also places direct focus on the technology behind their products. Without including the presence of an individual, a potential user is influenced to consider the benefits of both hearing aid and cell phone app interconnecting and how having both could enhance their hearing experience.



Click for larger view

View full resolution

Fig. 14.

This advertisement for Starkey Advanced Technology leads a viewer to assume the older man shown utilizing the application via tablet is doing so with ease (**Starkey Advanced Technology 2022**). This advertisement seems to imply that age isn't a factor when it comes to using technology; everybody has the capability of doing so.



Click for larger view View full resolution

Fig. 15.

Widex's ad promotes technology for everybody as it presents a younger woman assisting an older woman with their bluetooth technology (**2021**). Though this advertisement displays more of a stereotypical scene, it shows that even with some assistance, their technology is adaptable.

As a different form of embracing modernity, some hearing aid manufacturers have capitalized on the COVID-19 epidemic and show people in their advertisements wearing face masks. These images demonstrate that the company is aware of the challenges that deaf and hard-of-hearing people have in an age of social distancing and facemasks and, therefore, show that they are "with it" and "in touch" with modernity. **Figure 16** shows a Miracle-Ear ad with facemasks, and **Figure 17** comes from the Starkey company website.



Click for larger view View full resolution

Fig. 16.

This Miracle-Ear (2021) advertisement is a testimonial for the company's products. The ad stresses quality in that people get what they pay for. Unlimited assimilation is appealing as it is something that is wanted. Pairing this with the representation of the reality of the Covid age is a way of showing that Miracle-Ear keeps up with the times.



View full resolution

Fig. 17.

Starkey combines the realities of COVID-19 with images of advanced technology (Starkey Advanced Technology 2022). By including both an image of individuals wearing face masks along with the emphasis on technology, it delivers a more relatable representation of their product.

Moving to cochlear implant websites, the first thing one notices about the Advanced Bionics website is the company's name. Bionics refers to the act of applying biological methods and systems to the world of engineering. With this definition, bionics as a marketing theme is similar to the space age hearing aid advertisements shown previously. As with those advertisements, bionics implies advanced technology and high-tech science. The advertisement portrayed in **Figure 9** shows a compelling mixture of hightech science (through use of the company's name) and low-tech activities, such as dance. This combination could be understood as "high technology can enhance people's normal, low-tech life." High tech and low tech exist comfortably together in this ad. Although normality as an explicit theme did not appear in either the historical or contemporary modernity/space age/supra modernity hearing aid advertisements, an argument could be made that the portrayal of common, "normal" activities, such as sharing time with children and dancing, implies that the advanced technology offered by Advanced Bionics can make possible these "normal "activities The future-high-tech language used by Advanced Bionics and other hearing aid and cochlear implant manufacturers relies on people's attraction to high-tech. In the words of one technology blogger, **Jane Jelbacani (2017)**:

I love technology because it allows me to multiply my efforts in ways that are remarkable. I can stay connected with friends and family, while simultaneously working on a critical component of work—in any city, in any country, anywhere. Technology eliminates problems otherwise posed by geography and time.

The modernity/space age/supra-modernity hearing aid advertisements and cochlear implant websites imply that the supramodern device they offer will allow one to lead a "normal" life. These devices can provide "normal" hearing and therefore allow for normal relationships and activities. As in **Figure 8**, two people enjoy music together, which would only be possible if one or both of them were wearing cochlear implants.



Fig. 18.

Advanced Bionics (2020) welcomes the viewer to the "World of Powerful Connections" with an image of a mother-daughter ballet class. It presents the correlation of technological connectedness (they can hear practice music) and connection to each other and a life rich with activities.

sites take time to explain hearing science to their readers. Several websites describe how hearing works and what happens when hearing breaks down. **Figure 19**, from **Cochlear Americas (2014–2020)**, shows the "speech banana," a visual representation of the range of frequencies in which speech occurs. The image shows what kinds of sounds a person may be missing based on the results of their audiogram.²

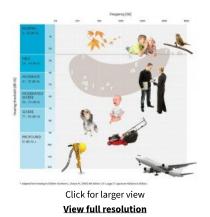


Fig. 19.

Cochlear Americas' Speech Banana advertisement is designed more as a diagram (Cochlear Americas 2014–2020). The speech banana demonstrates the range of frequencies that occur in speech. For instance, a bird chirping or a whispered conversation is considered within a "normal" frequency, whereas an airplane or lawnmower is considered a profound frequency. The imagery is intended to show the sounds a person may not be hearing as clearly as if they were wearing a hearing device.

Med-EL's image in **Figure 20** appears to show a technician working on a cochlear implant. The image is intended to invoke thoughts of modernity, high-tech, and advanced science.

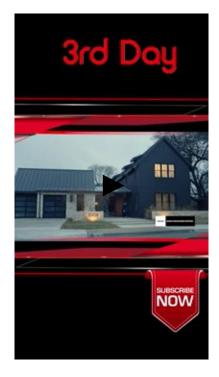


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Fig. 20.

Med-EL focuses solely on the technology behind their device in this advertisement (2020). What appear to be the hands of a technician draw direct attention to the detail that goes into perfecting their product. It includes that the company has been recognized as Innovator of the Year for their technology. This is a prime example of placing strong emphasis on the innovative effort that goes behind modern hearing aids.

The below advertisement from Bose demonstrates the cellphone application that comes along with the device—one of the first hearing aids to be offered "direct-to-consumer," without a prescription needed.



Video 4.

The advertisement for the Bose SoundControl Hearing Aid literally shows how hearing is in the hands of an individual (**3rd day 2021**). The advertisement begins with short sequence of events where a man uses an app on his phone to make things happen, such as finding an amazing restaurant and booking a reservation. In one scene, the man utilizes the app to increase volume right as a waiter addresses him, highlighting how the device ensures he never misses a thing. It connects the advancement of their device and being able to enjoy everyday life, implying that the two go together.

Click to view video

The following advertisement by Advanced Bionics focuses on the fact that their product offers the most advanced, robust hearing science.



company's 25 years of being innovators, the words, "connecting people with life's amazing moments" are followed by images that demonstrate those moments. The advertisement then switches gear by highlighting the technological advancement of their device by flashing notable features. The company conveys that they strive to connect people with the moments they love through their enhanced technology (**Advanced Bionics 2021a**).

Click to view video

The next advertisement, from Zounds, relies on the third trope <u>Timke (2019)</u> notes in his analysis: the disabled person as a source of humor. This ad, while demonstrating the device's modern rechargeable batteries and high performance, also relies on humor, showing people engaging in shocking actions with their (non-Zounds) hearing aids.



Video 6.

This advertisement for Zounds hearing aids combines humor with frustration. Each scene shows an individual acting out their frustration with their current hearing ai whether by destroying it with a frying pan or using it as a golf ball. The depictions provide comic relief (**Zounds Hearing Inc. 2019**).

Click to view video

Connection with Family and Community

The third central theme that arose from the advertising analysis was one of (re)connecting with society, family, or church. These ads depict solitude as abnormal and undesirable. These ads either focused on the loneliness of deafness and demonstrated how buying a hearing aid or cochlear implant could connect people back with the world, or they focused on connection and relationship as an alternative to loneliness and isolation. This theme was seen in the historical advertisements as well as the contemporary hearing aid and cochlear implant websites. During the 1940s, American society generally believed that deafness separated the deaf individual from his fellow citizens: because of his inability to participate in the neighborhood and socialize, he could not maintain close relationships. People also believed that deafness led to lower-than-average intelligence (McAndrew 1948). More recent studies have also found that, among deaf people who live outside of Deaf communities, it is perceived that there is some degree of isolation among deaf people (Charlson et al. 1992; Taylor 1999).

As the partial advertisement in Figure 21 below shows, deafness was associated with loneliness and social tragedy. Hearing aid



Fig. 21.

Linking deafness to loneliness and tragedy, as seen in this advertisement, implies that these individuals need to be freed from it. The product "saves" them from an inevitable outcome. Placing "The Tragedy of the Deaf" front and center produces a misconception of deafness as loneliness and isolation (**Kenneth Berger Hearing Aid Museum**).

Attempts to eliminate the isolation of the deaf, either through hearing aids or by other programs such as employment for those with disabilities (**Schur 2002**), were present as early as the 1700s with the development of schools for the Deaf and continue into the present day. These advertisements relied on a possibly exaggerated claim of isolation of the deaf person and focused on the presumed and imagined image of the sad and lonely deaf person (see **Figure 21**). The historical document below, in the Kenneth Berger Hearing Aid Museum archives, lists everything the deaf person has presumably lost since becoming deaf—including happiness and health.



View full resolution

Fig. 22.

Pictured here is a misleading take on the experience of deafness. Along with each aspect of life is an explanation of what happens when a deaf person loses each one of them. For instance, the document presumes that a deaf person causes misunderstandings and has inferiority complexes that complicate gaining and maintaining friendships. This photograph produces a somber undertone by suggesting that the aspects of life to which people are all entitled just slip away from those who are deaf (Kenneth Berger Hearing Aid Museum).

The list above in **Figure 22**, undated like all the other advertisements and material in the archives at the museum, emphasizes the isolation that people who are deaf experience. It lists isolation from friends, social life, and religious life as resulting from deafness. This feeling of isolation is also clear in the discussion about the meanings of deafness throughout the eras— deafness was seen to cause isolation from God, the nation, and humankind.

The **Phonak (2014–2021)** image in **Figure 23** demonstrates that being deaf as a child doesn't mean that the child must be lonely or isolated. Instead, the image shows several children together, learning, with a teacher who is wearing a special microphone device called a "Roger" that amplifies her voice directly into the student's hearing aids by use of Bluetooth technology. Although I selected this image to demonstrate how modern hearing aid website images explain that loneliness and isolation are not inherent in deaf life and connection and relationships are possible through the use of hearing aid technology, this image also illustrates the "high-technology" theme seen in the previous section. Many ads and website images contain multiple themes like this one. **Figure 5**, for example, which shows two people enjoying time playing music, could be included in the inconspicuous category (which it was) or, alternatively, the "connection with others" theme. I had to make categorical decisions, but that is not to say that each image only fits into one category. The "Roger" device is depicted as cutting-edge technology, ahead of its time and futuristic. The teacher wearing the device could be seen by parents visiting the site as being particularly mindful of her students' needs and of having an advanced understanding of the types of technologies that will best assist their deaf or hard of hearing child.



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Fig. 23.

This ad for the "Roger" device portrays a sense of belonging through the image of a group of children (**Phonak 2014–2021**). This could be perceived as a dual representation: how connections can be made through the usage of a hearing aid and the enhanced technology itself. However this image is perceived, what is evident is the sense of belonging and how deafness doesn't take that away.

The advertisements from hearing aid manufacturers Beltone, Phonak, Starkey, Unitron, Signia, and Miracle-Ear, show people gathering together and enjoying other people's company. In **Figure 24**, the Beltone product is shown being worn, and the Signia product is shown in **Figure 30**, but the other ads in this series do not show a visible hearing aid on any of the persons pictured. From this angle, these ads could fit under the "inconspicuousness" theme as well as the "connection" theme. These ads are like others, such as the Roger device pictured in **Figure 23**, that could be classified under many different categories.



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Fig. 24.

This **Beltone (2022)** advertisement encapsulates togetherness from the visual evidence of its hearing aid to the enjoyment that is expressed by both individuals.



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Fig. 25.

This **Beltone (2022)** multi-generational advertisement expresses enjoyment and togetherness through the image of a child blowing bubbles outdoors on a blanket, while the child's grandmother watches with a smile. Despite the imagery not pointing directly to a visible hearing aid, it is the representation that links the two together.



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Fig. 26.

The **Phonak** (2014–2021) Getting Together advertisement depicts togetherness through an image of a family gathering. Though it is uncertain among the individuals shown who is wearing the hearing aid, the visual aid alone speaks for itself.



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Fig. 27.

Another hearing aid advertisement that doesn't reveal who is wearing the actual hearing aid. Rather, Phonak's Family Time ads focus on the



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Fig. 28.

Starkey produces a more tender tone in their Togetherness advertisement through the image of a woman holding a child (<u>Starkey Advanced</u> <u>Technology 2022</u>). The advertisement neglects to provide visual representation of their hearing aid, for the imagery itself is intended to create that feeling.



View full resolution

Fig. 29.

This Unitron (**2021**) ad takes a different route through its representation of people who appear close in age. It is assumed that the man in this picture is the one wearing a hearing aid since he is the prime focus.



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Fig. 30.

Signia (2022) represents togetherness through the image of a couple having dinner at a restaurant. This advertisement shows the man wearing a hearing aid. It's the visual representation of the device that is combined with the enjoyment that is expressed by both individuals that



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Fig. 31.

This Miracle-Ear (2021) representation of togetherness is through the image of a grandmother providing joy to her grandchildren by reading them a story. The ad implies that enjoyment in everyday activities such as this can be had with the assistance of a hearing aid.



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Fig. 32.

This <u>Miracle-Ear (2021)</u> advertisement touches on a more sentimental moment capturing a father-daughter dance at a wedding. This is another example of an advertisement that relies on the representation of togetherness instead of including or placing focus on the hearing aid itself.

The next two advertisements, both from Eargo, while demonstrating the theme of connection and family, also uses the humor trope indicated by **Timke (2019)**.



Video 7.

Through Eargo's tagline–"Have you ever overheard something you wish you hadn't"– their commercial uses humor as its marketing tactic. In the commercial, a young female whispers something rather personal to her boyfriend who is having a difficult time understanding what she is asking. The irony is that while she is assuming neither mother nor father are aware of what is being said, it turns out that it's the father, wearing an Eargo hearing aid, who makes out what she whispered, for he announces the embarrassing question (**Brosamle 2015**).

<u>Click to view video</u>

Video 8.

Another Eargo commercial uses humor but in a more exaggerated fashion. Through different scenarios of misinterpreting comments, unrealistic versions occur before the actual phrase is revealed (**Eargo 2015**).

Click to view video

This ad from Miracle-Ear also uses elements of humor but also focuses on the disconnection that can occur with deafness, and the connection that can be built by wearing a hearing aid.



Video 9.

This Miracle-Ear (**Agen 2012**) advertisement is through the perception of a child who retells specific moments when her grandfather misinterpreted what she had saic For example, when she said she wanted a puppy, he interpreted it as she wanted a guppy. Although the commercial plays on the cuteness factor of the little girl, it is n so much of an unrealistic scenario. Often it can be difficult to fully comprehend what a child of her age is saying

<u>Click to view video</u>

The next group of advertisements all focus on the alienation, isolation, and depression that can come along with hearing loss, and the reconnection and engagement with others that can accompany the adoption of hearing aids. These next seven commercials come from NexGen Hearing Aid, Avento Hearing Assist, Duracell, Audien Hearing Aid, Oticon, and Miracle-Ear.



Video 10.

NextGen Hearing's The Sounds of Life advertisement depicts the isolation that is often connected with hearing loss. The commercial follows a man's journey to repairing his hearing loss and how it affects his family. This is a lengthy, more dramatized representation of the experience.

Click to view video



Video 11.

Avento's Hearing Assistance ad starts out with a significant scene that shows a father and son working together in a garage (**Studio Center 2018**). The son repeatedly tells his father, "I love you," and his father repeatedly asks, "What?" to the point where the son grows mildly frustrated and stops saying it. Directly following that, the father admits that he found himself replying with "What?" all the time, until he stopped asking it altogether. He found himself staying inside and growing lonely.

Video 12.

This Duracell advertisement begins with a closeup of an older man joined with his family at the dinner table with the volume of the conversation fluctuating to show the octave he is hearing (**DuracellOfficial 2016**). The following scene is muffled for it is meant to lead up to the pivotal moment where he is left with his grandchild an assures his son and daughter-in-law that she will be fine. With the television volume high enough to override his grandchild crying, his son returns to acknowledge the his father cannot hear this happen. That is when he succumbs to repairing this with a hearing aid, for which changes his life.

Click to view video

Video 13.

This Audien hearing commercial takes a different approach that shows a married couple growing frustrated over the experience of the husband's hearing loss (**Audier Hearing 2020**). The voice of the wife expresses the isolation she feels not being able to communicate the same as others do, while he is the one enduring the experience.



Video 14.

This advertisement for Oticon's Agil hearing aid sets the tone right from the start (**NeoSound, LLC 2014b**): when someone loses their hearing, they also lose somethir else: the connections to friends and family, both of which are triggers that can lead to loneliness.

<u>Click to view video</u>

Video 15.

This commercial for Oticon's Intiga Hearing Aid focuses on the son who reflects on the changed person his father had become with his hearing loss (**NeoSound, LLC 2014a**). The advertisement presents its message in past tense, depicting a man who seemed to thoroughly enjoy his life.

Click to view video



Video 16.

This Miracle-Ear commercial from the 1980s focuses on a conversation between a mother and a daughter as they enjoy their time walking along the beach (**Rewind M 2018**). The conversation would have been difficult to have a year ago for the mother had suffered from hearing loss. As the conversation continues, the narrator explains how their conversations altered once the mother discovered Miracle-Ear. It is the focus on the present that is intended to appeal to the viewer.

Click to view video

The first thing one notices when visiting the <u>Cochlear Americas website (2014–2020</u>), is that the first page it takes you to is a "sign up for more information." There are no graphics on the page, just a simple form. On top of the page are several drop-down boxes with titles like "diagnosis and treatment," and "products and accessories." In looking through these drop-down boxes, one will find lots of pictures of people, adults, and children, enjoying life with a cochlear implant.

Figures 33 and **34** appear to be pictures of an older man and woman with cochlear implants enjoying time with girls who are presumably their grandchildren. Once again, the ads feature relationships and lack of isolation, but they also feature fun. In the isolation hearing aid advertisements, "lack of fun" was emphasized; in these pictures, fun itself is shown as a result of having cochlear implants.

Cochlear Americas uses imagery of a grandfather enjoying the time spent with his grandchildren. The cochlear implant he is wearing is made evident, as if to portray the linkage between wearing a cochlear implant and finding joy in everyday life (**Cochlear Americas 2014–2020**).



Click for larger view View full resolution



Click for larger view View full resolution

Fig. 34.

This Cochlear Americas advertisement neglects to show the presence of a cochlear implant, though it is implied (<u>Cochlear Americas</u> <u>2014–2020</u>). Again, through the imagery of affection and happiness, the connection is made that the use of a cochlear implant produces both.

The next two images from the Cochlear Americas website, show an adult, perhaps a parent or grandparent, engaging with children. In both of these images, the woman is wearing a visible cochlear implant, and it is presumably this implant that allows her to feel connection and belonging with the children.



View full resolution

Fig. 35.

Cochlear Americas' visual representation of an older woman wearing one of their cochlear implants implies that by doing so, a sense of joy and togetherness can be had (<u>Cochlear Americas 2014–2020</u>).



View full resolution

The next two images, both from the Med-EL website, show people with visible cochlear implants engaging with other adults. Once again, the message seems to be that people can gain connection with others by wearing a cochlear implant product.



View full resolution

Fig. 37.

This **Med-EL (2020)** image places an emphasis on the cochlear implant the man is wearing, while placing an equal emphasis on the connection that he is making with the female.



Fig. 38.

This image shows the younger of the two men wearing a cochlear implant manufactured by **Med-EL (2020)**. It reflects the same intention as the prior image, implying that stronger connections can come by wearing one of their implants.



The visual representation of the cochlear implant in this image stands out as much as the connection between the mother and son (Med-EL



View full resolution

Fig. 40.

Cochlear Americas sets an equal focus on the cochlear implant worn by a child and the connection made with his father as they play with his toys (**Cochlear Americas 2014–2020**).

The two figures above, featuring two different boys, from the Med-EL and Cochlear Americas websites, are pictures of a child with a cochlear implant. Again, the images emphasize relationships and having fun. It's important to note that the "other" person in these pictures is also getting something out of the cochlear implant: it's their relationship too. These pictures proclaim, "Everyone benefits from the cochlear implant, not only the user, but also everyone around them." There is a surfeit of scholarship on hearing parents parenting deaf children (Kobosko et al. 2021; Szarkowski and Brice 2020; Acar et al. 2020; Majorano et al. 2020). Majorano et al. (2020), even found that mothers' expectation of cochlear implant surgery had a direct result on their children's speech fluency three and six months after surgery. Children whose mothers were more positive about post-surgery outcome performed better on lexical tests than those children whose mothers were more mixed, or had more negative, expectations (Majorano et al. 2020). The images that feature people wearing cochlear implants engaging in fun and meaningful activities with others are in stark contrast to the earlier figures that emphasize the loneliness and desperation of deaf people. The images on the Cochlear Americas website demonstrate that deaf adults and children can experience connection and feelings of belonging with a cochlear implant.

The headline in **Figure 41** emphasizes early intervention and implies that, for deaf children, the sooner the better to get implants. In this text, getting a cochlear implant is linked to language and social skills. From that perspective, this text emphasizes that cochlear implants can *expressly and specifically* improve social skills (and, presumably, relationships). All of these pictures showcase very "normal" activities: playing the guitar (**Figure 8**), going to school (**Figure 23**), and interacting with children and adults (**Figures 18**, **23–25**). These website images, from both hearing aid and cochlear implant companies, appear to be telling the audience, "If people want to be normal and do these activities, they need a hearing aid or cochlear implant."

Early intervention for children

If your child has hearing loss, getting treatment sooner rather than later has many benefits, including laying the foundation for fundamental language and social skills.

4

Click for larger view View full resolution The Advanced Bionics website also relies on imagery of isolation/connection. On one page, a text box reads, "The ability to hear is transformative. Without it, the world can feel isolating and disorienting" (**Advanced Bionics 2020**). As a theme, deafness is depicted as isolating, sad, and lonely. The hearing aid and cochlear implant websites have a cure for this loneliness: get a hearing aid or cochlear implant and go back to the world of family and friends! In this way, hearing is associated with positive relationships, and not-hearing is related to isolation and loneliness. It is interesting that the Cochlear Americas website highlighted relationships and not technology, but Advanced Bionics highlights both: advanced technology and relationships.

Contemporary hearing aid and cochlear implant websites rely on a narrative of normality to sell their product. Whether it is "normal" to attend school or hang out with children, "normal" images abound on the websites. These images could be an example of normality in form vs. function. Both the cochlear implant and the modern inconspicuous hearing aid can claim that their customers are buying normality as well as technology, but the hearing aid advertisements are advertising normality more in *form*: one can look "normal" when wearing an inconspicuous hearing aid. However, a person wearing a hearing aid, no matter how advanced, is still just amplifying poor sound reception. The "fact" that the person still can't hear is masked by the hearing aid. However, cochlear implant manufacturers advertise normality in *function*: cochlear implants can actually make the deaf person sense sound, although they are not technically hearing through their ears. While cochlear implant wearers' ears are still "broken," the cochlear implant bypasses the ear and goes straight to the auditory nerve, where sound is processed. Hearing, in a manner of speaking, is achieved.

Success

There is some literature about the relationship between hearing technologies, such as hearing aids and cochlear implants, and success, although this literature mostly focuses on success with speech and hearing and with academics (**Diaz et al. 2019**) and does not address success in other life areas, such as friendships, romantic relationships, and parenting. **Yigider et al. (2020**) focus on quality of life for the deaf child and conclude that success rates (based on a series of questionnaires) were lower and depression rates were higher in children with hearing loss, whether they had a cochlear implant or hearing aid. This single finding, which has not been replicated in the literature, suggests that the "American Dream" version of "success" may be harder to achieve for deaf people. The hearing aid and cochlear implant websites promote not only normality but success—perhaps as a direct argument to the nascent literature that deaf children are less successful than their hearing peers. The presence of "success" imagery on these websites supports my hypothesis that achieving personal, academic, and business success is the meaning of deafness in the current era.

The contemporary hearing aid website for **AGX Hearing (2021)** includes the following statement in a text box: "We believe that everyone deserves to live life to its fullest, to experience the moments that, one by one, illustrate a life well lived. Mountains scaled. Goals achieved. Missions accomplished." This quote exemplifies the exact opposite of the loneliness and isolation that are perceived to be problems for deaf people and, importantly for our purposes in this section, demonstrates how a deaf person can be successful if they wear the "right" hearing aid. The AGX marketing proclaims that, with AGX hearing aids, one can "live life to the fullest" and can accomplish social and personal goals in the exact same way as someone with fully functioning hearing. The websites for the hearing aid manufacturers **Widex (2021)**, **Phonak (2014–2021)**, and the cochlear implant company **Med-EL (2020)** all had content that suggested their product would bring professional, academic, or personal success. Success can be considered as a normalizing theme: it is normal to have a job, normal to get married, and normal to do well in school. These websites all showed children and adults performing well academically or professionally by using the advertised product. **Widex (2021)**, while it did not have any pictures on the site that reflect success, offered the below quote from a customer that focuses on the professional success the hearing aid brought him:

When I got my hearing aids, I thought they would make me look and feel older. In fact, the opposite is true; I look and feel younger. I am a lawyer, and I am in court frequently. Because I can't hear perfectly, I developed a habit of leaning forward, putting my head down, and turning my head so my ear would face the judge. In my first court appearance after I got my new Widex EVOKE CIC aids, I was able to stand straight as an arrow and look the judge straight in the eye when he spoke. As I did so, I realized my posture had changed over the last 10 years to account for my hearing loss. My only regret is that I waited so long to get the aids. They are life changers on every level.

This quote shows quite well that Widex suggests that using their hearing aid will bring professional success. It also implies that people who have untreated hearing loss are unsuccessful—so unsuccessful, in fact, that hearing loss can have a negative physical impact on the whole body. By using Widex hearing aids, this customer is now back to "normal" for a lawyer—standing up straight and looking people directly in the eye.

Achievement in school, especially reading ability, is one of the key debates within the Deaf and deaf communities. In fact, this debate goes back to the origins of American Deaf culture and the establishment of schools for the Deaf. The oral/ASL debate has always been a debate about academic success. Academic success, throughout a child's education from preschool through college, is a key element in determining how "successful" that child will be as an adult. <u>Phonak (2014–2021)</u> has several pictures on their site demonstrating that their product helped hard of hearing children be successful in school.



Click for larger view View full resolution

Fig. 42.

Phonak (2014–2021) shows engagement and excitement in the classroom through the representation of a child who is wearing one of their hearing aids. This image is meant to demonstrate how the use of a hearing aid can change the trajectory of a child's academic experience.

Figure 42 shows children, at least one of whom is supposedly wearing a Phonak hearing aid, participating in school and being engaged in the lesson. Deaf children who are successful in mainstream hearing schools are more likely to attain professional success as adults (**Zwolan and Sorkin 2006**; **Eckl-Dorna et al. 2004**), as compared to Deaf children who attend ASL residential schools. Research suggests that students who attend ASL residential schools and use ASL as their primary language read English at only a sixth grade level, as opposed to the twelfth grade level of their hearing peers (**Allen 1986**; **Traxler 2000**). Advanced hearing aids and cochlear implants intend to enhance and support the teaching of English speaking, reading, and writing skills at a much higher level, thus contributing to these students' later-life academic and professional success.

The two pictures below, both from the Med-EL website, show men in a workplace consulting with others. This kind of business activity—consulting with others—is a key component of "normal" activity for people in professions. These examples from hearing aid and cochlear implant websites all demonstrate that professional and academic success are outcomes of technological hearing assistance.



Click for larger view View full resolution The man in this image dons a Med-EL cochlear implant and appears equally as focused as his female counterpart (Med-EL 2020). This representation of the workplace implies a connection with professional success. Success at work.



Fig. 44.

Fig. 43.

In this image, the older of the two men wears a visible cochlear implant as he seems to be advising the younger gentleman (Med-EL 2020). This representation of professional success shows longevity.

Conclusion

Advertisements for hearing technologies, including hearing aids and cochlear implants, aim to inform people about the availability of their product and try to convince them to buy their product. There are several different approaches to advertising hearing technology. Hearing aid and cochlear implant advertising and marketing materials revealed four themes: inconspicuousness, isolation/connection, normality/space age/supra modernity, and success.

As a connecting narrative between all four of these themes, all the advertisements, despite any other themes, depict normality as the real product for sale. For the advertisements in the "inconspicuousness" theme, I demonstrated that discreet hearing solutions were valued in historical advertisements as well as the modern hearing aid and cochlear implant websites. If the person with deafness wears a discreet hearing aid or cochlear implant, they can hide their deafness, and the wearer may be able to "pass" as normal. Of course, many deaf people, even those with state-of-the-art hearing aids or cochlear implants never develop perfect hearing or speech and so remain identifiable as different or disabled and maintain their "spoiled identity."

The isolation vs. connection advertisements also sell normality. The historical advertisements focus on the isolation component of this dyad and show deaf people as isolated, lonely, and sad. The modern hearing aid and cochlear implant websites focus on isolation's opposite—connection—and show people engaged in normal activities such as playing music, playing with children, or engaging in academic or work affairs. These images say, "If you buy our product, you can engage in these normal activities too!" These connection advertisements show a preference for being with other people as opposed to being alone and show that, with the advertised product, a consumer can have these kinds of meaningful connections and relationships. The historical advertisements in this category all focused on the "isolation" aspects of deafness: deafness was portrayed in a very negative light, and hearing aids were positioned as the only opportunity to crawl out of the dark isolation of deafness. The modern websites avoided talking about isolation or loneliness and, instead, focused on connections and relationships.

The advertisements that focus on "success" also have a thread of normality running through them. It is considered "normal" to have success in school and career, and modern hearing aid and cochlear implant advertisements claim that, if you buy their products, you can achieve normal success as well. These "success" advertisements only appeared in the hearing aid and cochlear implant websites, not in the historical advertisements for hearing aids. One reason could be that early hearing aid technology was not able to provide the near-perfect hearing and speech that contemporary hearing aid and cochlear implants can provide, so academic and professional success was harder to achieve in those eras, even with hearing technology.

The only theme that arose in the advertisements that does not seem to have an easy connection to normality are the

normality/space age/supra modernity advertisements. These ads seem to promote something "supra normal": advanced technology, in and of itself, is the goal here. In these advertisements, hearing aids and cochlear implants offer the wearer the most advanced product that science could offer. People who respond to this type of advertisement may be considered "early adopters" (**Burghard and Dutschke 2019**) and, as such, are more trusting of advanced science and technology than the mainstream population. This population, which may be better educated than other populations (**Wang et al. 2021**), is attracted to the newest technology and believes that advanced science is better than older science.

Implications

For marketers and advertisers of hearing devices, it is clear that "success" is the most attractive goal for deaf people in the current era, so advertisements that focus on success are likely to be the most successful. Ads that show children being successful in school can be especially effective because deaf children historically have not been able to read beyond a sixth grade level, so advertisements that show children succeeding above this level would be beneficial. For adults, images that show success in work and family life are effective, as in the images for cochlear implants and hearing aids that show people in relationship with other people. Isolation and disconnection as themes around hearing loss have persisted across generations, so products that demonstrate connectedness and togetherness would be effective. Looking at the themes presented in this paper—Inconspicuousness, Modernity/space age/supra modernity, Connection with family and community, and Academic and professional success—advertising for products for the deaf should aim for one of these four or a combination of several of these themes. For example, some cochlear implant advertisements demonstrated inconspicuousness, connection with family, and academic and professional success. Advertisements will be most effective if they can combine many, if not all, of these themes.

In sum, most advertisements and website content for hearing aids and cochlear implants from the early 20th century to the present project that if you buy their products, you can become "normal." This normality is seen in the fact that the technologies are discreet and inconspicuous, decrease isolation and increase connection with others, and lastly, promote academic and career success. Other advertisements focused on the advanced technology present in their products and advertise that the user will be on the "cutting edge" of science if they buy the product.

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Footnotes

1. www.cochlear.com; www.medel.com; www.advancedbionics.com.

2. An audiogram is a graph that shows the range of sound a person can hear, as determined by a hearing test with an audiologist.

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Additional Information

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