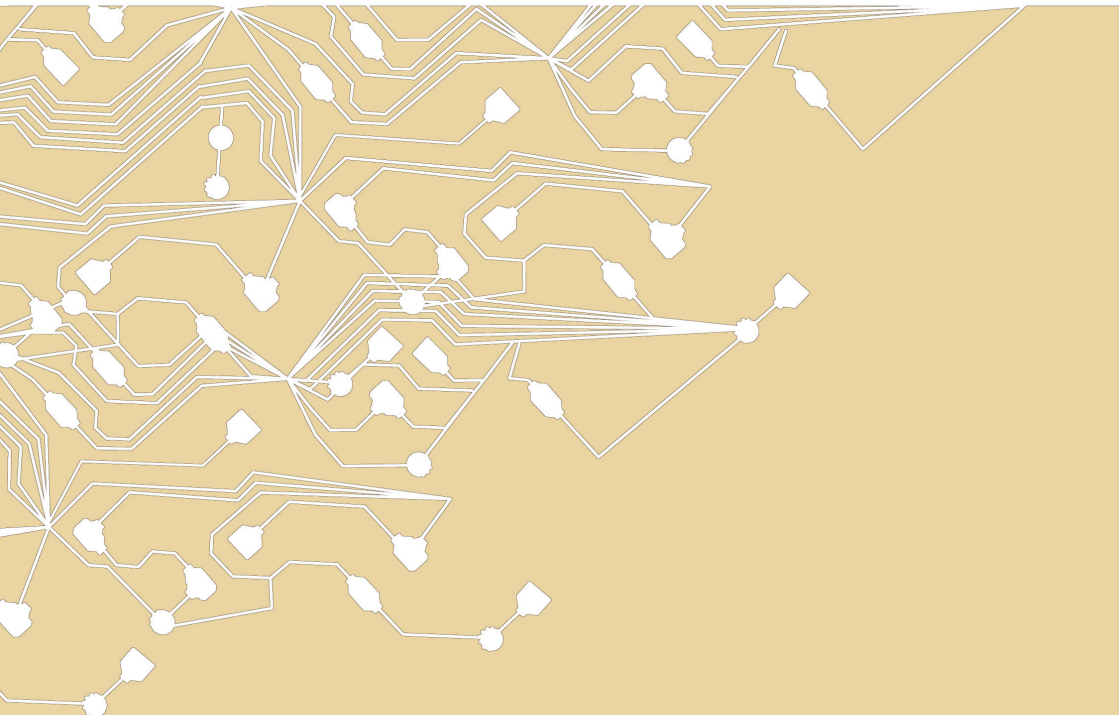


Päivi Rainò

LANGUAGE CHOICES AND THE NEED FOR INTERPRETING SERVICES FOR DEAF CHILDREN AND YOUNG PEOPLE WITH COCHLEAR IMPLANTS



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Language choices and the need for interpreting services for deaf children and young people with cochlear implants

Cochlear implants have brought about radical changes in the linguistic behaviour of deaf children and these changes are already affecting the structures of education for hearing impaired children and young people. Changes in communication will also be seen in terms of interpreting services provided for implant users. The new kind of linguistic identity of deaf children and young people as well their new approaches to communication will have an inevitable effect on the work of sign language interpreters and the contents of sign language interpreter training.

Key words: the hearing impaired, deafness, cochlear implants, interpreting, sign language

Research background

Half a century ago, at the turn of the 1950's and 1960's, the first hearing aids installed in the inner ear to stimulate the auditory nerve electronically were fitted for deaf adults in France and the United States. Fifteen years later, the first children, aged 10 and 14 at the time, received cochlear implants. By the end of the millennium, 35,000 people around the world had received cochlear implants, half of whom were under 18 years of age with the youngest recipients being just two years old (Christiansen, Leigh & Spencer 2002, 15–35). At the beginning of 2010, there were an esti-

mated 150,000 people globally with cochlear implants, half of whom were children (Giezen 2011, 13).

In Finland, the first cochlear implants were installed in the mid-1980's for 10 deafened people. The first deafened child received an implant in 1995, and the first child who had been born deaf received an implant two years later. By 2007, there were 500 cochlear implant users in Finland, a third of whom had received the implant before reaching 4 years of age. (Välilmaa & Lonka 2010: 131; Jero & Kentala 2007, 2014; National Institute for Health and Welfare Care Register 2007.) Nowadays, the aim is for children who are born severely hearing impaired to receive a cochlear implant at an even earlier stage, approximately at the age of twelve months, and possibly in both ears. (Archbold 2010, 377; Luukkanen 2010; Välilmaa & Lonka 2010, 13; Kokkonen, Mäki-Torkko, Roine & Ikonen 2009, 1568,1577; Jero & Kentala 2007, 2015).

A cochlear implant enables spoken language acquisition and speech comprehension significantly more efficiently than a hearing aid without additional support from speechreading. As a result, more than half of deaf children who have received a cochlear implant use oral communication. However, as noisy environments and group situations may present problems for hearing, different amplification devices and acoustics enhancing procedures are needed at kindergartens and schools, for example. Finnish studies and surveys have shown that over a third of children with cochlear implants use sign language, signs or other forms of visual support in their communication. Those participating in mainstream education are also often supported by a personal or classroom assistant or interpreter. (Välilmaa & Lonka 2010, 130–131; Sume 2008, 118–151; Lonka & Hasan 2006.) However, as yet no extensive research has been conducted to examine the different communication modes of people with cochlear implants or their needs in terms of interpreting or other communicative assistance. Moreover, the effects of cochlear implants have only been rather scarcely considered in sociologic-demographic research literature concerning sign language interpreting or sign language (with the exception of Nussbaum & Scott 2011; Chute & Nevins 2006, 143–146; Johnston 2004, for example).

In 2011, a two-year research project, supported by the Social Insurance Institution of Finland, was launched at the HUMAK University of Applied Sciences to investigate the communication of people born between 1990 and 2002 and implanted between 1997 and 2010, at home as well in educational and working environments and in their free time. The research subjects will also be asked which types of assistance and interpreting services are available to them, in addition to rehabilitation, and what kinds of support services they consider to be necessary for them in the future. The aim of the first phase questionnaire survey is to reach all of the estimated 220 people in the target group. In the following interview research phase, approximately twenty of those people who have given their consent in the questionnaire survey will be invited to interviews. The aim is for the interviewees to represent the whole research group comprehensively in terms of linguistic and rehabilitational backgrounds and choices.

The research will provide means to assess the functionality of the current assistance and interpreting methods for implant users as well as the need for developing interpreting and other communicative support methods from the perspective of current sign language interpreter training.

The research has been approved by the National Institute for Health and Welfare and the research ethics board of the place responsible for the research, the Hospital District of Northern Savo. The project will last until the end of 2012, when the research report is due as well. – This article outlines research and findings gathered on the topic, focusing especially on the language choices of children and young people with cochlear implants, from the perspective of use of signed communication or sign language.

Deaf children as members of the sign language user community

Until the turn of the millennium, it was recommended that families of deaf children learn sign-supported speech or sign language to ensure sufficient linguistic stimuli for the child, immediately after the child had been diagnosed with a severe hearing impairment. In addition to signed com-

munication, children's auditory and speech development were supported through speech and auditory exercises and hearing aids (worn outside the ear) (cf. Archbold 2010, 23–26; Sume 2010, 192; Takkinen 2010; Sume 2008, 20; Ahti 2005 [2000], 133–138; Ahti & Lonka 2005 [2000]). Teaching of signs or sign language was part of the rehabilitation support for these families, since most deaf children (up to 95%, Mitchell & Karchmer 2004; cf. Jalonen & Pohjonen 1975, 19 for statistics regarding Finland) are born into families where neither parent has previous experience of deafness or sign language.¹ The majority of deaf children born in and since the 1980's thus grew up in an environment where signs or sign language were used and attended special schools or classes for the hearing impaired where teaching in sign language or sign-supported teaching was available from primary school through to upper secondary school. (Cf. Jokinen & Martikainen 2005 [2000], 243–250; Lehtomäki & Nieminen 2005 [2000], 277–281.)

Thus until the end of the 1990's, the sign language user community was continuously receiving children and young people as new members, for whom the different recreational activities and associations of sign language users provided a natural forum for becoming acquainted with the culture of the deaf. Of course, people had also been identified as sign language users during the previous 80 years when the language was not allowed in school teaching (see Salmi & Laakso 2005, 178–181, *passim*).² Sign language and its cultural characteristics were passed on from one generation to another in families with deaf parents (see e.g. Rautanen 2000;

1 50-60 moderately, severely or profoundly hearing impaired children are born in Finland each year, constituting 0.1% of the whole age group. However only 25-30 of these children are deaf, constituting 0.05% of the age group. (Kokkonen et al. 2009, 1568; Lonka & Hasan 2006, 73; Sorri 2005 [2000], 86; cf. Blanchfield, Feldman, Dunbar & Gardner 2001).

2 Finnish educational institutions for the deaf, along with other Nordic and European countries, moved from teaching in sign language to oral teaching methods between the 1870's to 1890's. This so-called oral trend would not allow the use of sign language during school days, as all subjects aimed at practicing speaking and lip reading skills. Some boarding schools even forbade students from using sign language in their free time. Despite these restrictions, students continued to use sign language throughout their school years, however only in secret. (Salmi & Laakso 2005, 165–183.)

Wainio 2000). On the other hand, deaf children born to hearing parents were also sign language users by the time they left school after attending a special school for deaf children, while also communicating in written and spoken Finnish or Swedish as well (Flinkman 2004; Hoyer 2004, 2005; Rainò 2004, chapter 3.1; Jalonen & Pohjonen 1975, 66–70).

Nowadays, cochlear implants are the primary form of treatment for prelingually deaf children. These children are expected to be using spoken language for communication and thus the transition of new generations of children and young people to the group of sign language users is no longer self-evident. Different studies have shown that speech may become the primary or even only mode of communication for approximately 60-80% of deaf children (see Hyde & Punch 2011, 536 incl. references; Sume 2010; Huttunen, Välimaa, Karinen & Sorri 2008). However, the results are affected by the limited number of research subjects; in Finland, studies are often rather small, with research data concerning approximately twenty people at a time, for example.³

So far, the most extensive Finnish study (Lonka & Hasan 2006) concerned 164 children under the age of 16 who had received the implant by the end of 2005, 138 of whom were born or prelingually deaf. Of the study group, 36% of those born or prelingually deaf did not use sign language at all, whereas clearly more than half of them (64%) used signs (Lonka & Hasan 2006, 76). In a British study (Watson, Archbold & Nikolopoulos 2010 [2006]) of 175 cochlear implanted children, 61% of the whole group communicated using speech five years after receiving the implant. However, there was a great deal of variation in the use of signs or sign language depending on the age of the child at the time of receiving the implant: of those who had received the implant after the age of five, half (54%) used sign communication, whereas 80% of those implanted under the age of three used spoken language (Watson et al. 2010 [2006], 212).

3 It is also not always clearly described in research whether successful auditory spoken communication concerns interaction between two people or more. It has also been estimated that in noisy group situations that present problems for hearing with the implant, only approximately 40-60% of implant users can rely on oral communication (Punch & Hyde 2011a, 5; 2011b, 487).

A common educational environment no longer seems to support the use of sign language either. Due to the language change, contact with the deaf reference group seems to be diminishing for children with implants: in Takkinen's study, half of the six children (2010), for example, did not use the signs (or sign language) they had learned prior to receiving the implant after their treatment and had not kept in contact with their deaf peers. In the previously mentioned survey by Lonka and Hasan concerning children who received the implant by the year 2005, 40% of deaf children had moved to mainstream education. In another smaller study of fifteen children with implants, conducted at the same time, the number of children attending mainstream education was 64% (Sume 2008, 59, 128). Currently, most children with a cochlear implant supposedly go to their local school and may not necessarily have any contact with any other deaf children who use signs or sign language during their schooldays.

These signals clearly indicate that a radical change is affecting the way that the deaf community has traditionally received children and young people as new members who have been accustomed to using sign language as they grow up. The trend described above means that the whole existence of Finnish sign languages must be considered to be under serious threat as the youngest members of a language group play a crucial role in passing the language on to future generations (cf. Language vitality and endangerment 2003, 8). A similar process which started in the mid-1990's is now leading to the gradual disappearance of the sign language form used among Finland-Swedish deaf people (Hoyer 2004, 2005; 2012).

Cochlear implants and the dilemma of signing

Nowadays, learning and use of sign language or signs for communication between family members is only considered necessary during early childhood when the nature of the child's hearing impairment is still unclear (Sume 2010, 192–193; Vikman, 2010; Sume 2008: 87, 114, 153; Lonka & Hasan 2006). The aim of cochlear implant treatment is to repair the hearing impairment so as to enable auditory and speech-based communication and spoken language acquisition for deaf children (so called severe-

ly and profoundly hearing impaired). As the systematic, daily use of spoken language is considered to create better premises for the development of spoken language skills for children with implants (Välilmaa & Lonka 2010, 131), it naturally leaves merely a marginal role for practising signed communication in the post-implant rehabilitation process. However, it is considered useful to maintain some level of signing skills in cases of hearing difficulties in group situations, for example, or situations where the implant may not be used; when swimming or in the event of technical problems with the implant, for example (cf. Välilmaa & Lonka 2010, 130–131).

Studies have shown that the “need” for the use of sign language or signs diminishes and families eventually switch to oral communication within approximately two years of the surgery (e.g. Huttunen, Välilmaa 2010, 397; Sume 2010; Huttunen et al. 2008, 93). However, some studies show that parents use signed or other visual communication support as soon as the child does not understand the content of the spoken message or the new words or concepts that they encounter in speech (Sume 2010, 194–198; 2008, 108; see also Sanoja sormenpäissä [*Words on the Tips of our Fingers*] 2010). In such situations, therefore, the use of signs ensures a fluent and conceptually more profound interaction than spoken communication, indicating that a good command of signs or sign language would be essential for both parents and children. The “need” for using visual communication methods may thus also appear in cognitively and linguistically demanding contexts even after the implant process, although families are no longer actively guided to use signed communication in rehabilitation (Järvenpää, Nukari & Sompi 2010, 36). In fact, parents may even be requested to abandon signs altogether:

When E [child’s name] was less than a year old, we went on our first adjustment training course. We’d decided that we wouldn’t sign; E would have to learn to speak. There were many people there who could sign. Back home, E’s hands and feet twitched with excitement. We decided to let her start signing. That’s what she wanted. - - E was quite old

when she received the implant. We had to promise not to use sign language with her. The doctor had her hearing aid in his hands. I signed something to E. The doctor said: “That’s sign language!” I said: “How can I speak to her, when you’re holding the hearing aid?” He was embarrassed. (Parents of a 10-year-old girl, Sanoja sormenpäissä [*Words on the Tips of our Fingers*] 2010)

The contradictory views of parents and those involved in rehabilitation on sign (language) communication have rarely been dealt with in Finnish research (however see Sume 2008, e.g. 106–108). However, the rehabilitation view dismissing sign language or signed communication becomes apparent in some studies: “ -- sign language has been depreciated and even forbidden at audiology centres. One of the respondents explained that the speech therapist and doctors had said that sign-supported speech would suffice with the cochlear implant.” (Järvenpää et al. 2010, 36.). An Australian research project into families of children and young people with cochlear implants reveals the game of hide and seek between families and rehabilitation representatives:

Several parents described being discouraged from using a “sign language” approach by the early intervention center despite the benefits these parents believed could result for their children from using sign. -- Some went on with the “no-sign policy” in order to continue their association with the center --. Others continued their use of sign, at least “unofficially.”

This mother was not dissuaded from signing with her child: “ -- at the time we were told we had to stop signing straight-away...And we just sort of said, well we’ll just tell them what they want to hear but we’re going to do it our way anyway!” (Hyde & Punch 2011, 542.)

Since the essential aim of cochlear implant treatment is to enable use of spoken language and integration into the hearing environment (while also “improving the quality of life”, cf. Sume 2010, 191; Huttunen et al. 2009), it is clear, that from the rehabilitation viewpoint the use of signs or sign language marks a failure and a return to the pre-implant state.⁴ It is thus understandable that research texts show sign language as being “unsatisfactory” or “awkward communication” whereas spoken interaction is often attached the epithet of “ease” or “satisfactory”.

Parents had clearly sought spoken language development with the implant decision, as parents whose child used speech were more content with his/her communication than parents whose child used speech and signs or Finnish Sign Language. (Huttunen et al. 2009, 5).

- - in families of children with implants, the communication modes of children and parents primarily corresponded with each other at a certain point in time, or the parents were already actively using both speech and signs when the child was still only using signs. According to the parents, communication at home became easier fairly quickly: a year after receiving the implant, 88% of parents responded that communication at home had become clearly or remarkably easier. (Huttunen et al. 2008, 92–93.)

In addition, the post-implant use of sign language is often associated with the conceptual domain of “social isolation” in research texts. Studies examining families’ quality of life equate sign language with “dependence”

⁴ For example, O’Neill, Archbold, O’Donoghue, Gibbin & McCormick (2010 [2002], 55) mention the following as the aims of cochlear implant treatment: “ - - to ameliorate the difficulties experienced by a deaf child living in a hearing world, that is, to allow the child to function more fully within a hearing world than would otherwise be the case. - - to communicate with others using spoken language, to access hearing environments - - .”

and “loneliness” whereas the use of spoken language is associated with “integration” and “independence” (cf. Allegretti 2002 in Sume 2008, 27):

The parents of five children (28%) reported that their children were less independent than their age peers. - - Three of these five children who were rated by their parents as not being at their age level in independence used speech and signs and one used sign language. (Huttunen & Välimaa 2010, 396.)

It seems that improved hearing enhanced the child’s integration into the hearing world and it also improved the independence of the child. - - One child in particular in our sample deserves a closer look: This child with lower functional hearing ability was dependent on sign language interpretation during the whole follow-up period, and she had no friends to visit and no friends visited her 5 years after implantation. (Ibid. 399–400.)

Cases of families persistently using sign language post-implant are explained in studies by stating that they had already become accustomed to sign communication prior to receiving the implant (Välimaa & Lonka 2010, 130–131; cf. Hyde & Punch 2011, 536). Other factors considered to explain the use of sign language include, among others, that the child’s hearing has not developed as hoped after the implant and that the child has a developmental or other language disorder or additional disabilities that are hindering normal speech development (cf. Huttunen et al. 2009; Lonka & Hasan 2006). In the survey carried out by Lonka and Hasan, more than half of the children with implants primarily using sign language for communication (14% of the whole group) had been diagnosed with an additional disability hindering communication or speech development (Lonka & Hasan 2006, 76; cf. also Huttunen & Välimaa 2010, 394, 396). In the study by Huttunen et al. (2009) concerning 36 children, each of the four children using sign language had additional disabilities where-

as eight other children using both speech and signs had fewer (ibid. 1790–1791). Huttunen et al. also found other differences between those using both speech and sign (supported speech) and those using sign language only: families who used both speech and sign-supported speech considered their *quality of life* better than families using sign language for communication (ibid.).⁵

Children and young people themselves responded that fluent communication outweighs linguistic realisation. Most of them stress the importance of being able to use spoken language that the implant has given them. They enjoy the auditory sensations transmitted by the implant, allowing for interaction through speech, despite the fact that it may at times require relentless effort to follow and understand speech. (Wheeler, Archbold, Gregory, Skipp 2007, 310.) As a ten-year old girl put it: “You really need to have patience and use it and really use it” (Preisler, Tvingstedt & Ahlström 2004, 29). As a result, for some cochlear implant users, signed communication means ‘easy, effortless and uninterrupted reception and production of language’. They need signs to smooth out communication with friends as well as to thoroughly comprehend educational contents. (Cf. Hyde & Punch 2011; Lauronen 2008; Preisler 2007, 129–130; Preisler et al. 2004; Wheeler et al., ibid.) The previously cited interview research by Preisler et al. (2004, 32, *passim*) also shows that when children with implants responded to questions in sign language, their answers were notably more complex and profound both in terms of textuality and content than the answers of those relying solely on spoken language. From the interviewer’s viewpoint, communication in sign language was fluent, conversation was effortless and there was no need to rephrase questions

5 After having gone through 1,541 scientific studies [and choosing 91 of these for closer examination] on the communication choices of children with implants under the age of 3, as well the effects of using sign language, signs and/or speech on the linguistic activities and social skills and quality of life, Kirkehei, Tinderholt Myrhaug, Garm, Simonsen & Wie (2011, 8–9, *passim*.) noted that none of the studies had dealt with the child’s quality of life. The researchers also find the comparison between spoken and signed language as a tool for measuring quality of life as well as language command questionable in all the articles, and difficult to generalise outside the research environment (ibid.)

constantly into a more clearly audible or cognitively more understandable form for the interviewee (*ibid.*).

For some children and young people with implants, the use of signs and command of sign language carries great significance in that they want to maintain contact with young deaf sign language users and thus feel part of this peer group. As children discover their own reference group and identity, it may also provide an important incentive for their hearing parents to maintain their sign language skills as well. (See e.g. Hyde & Punch 2011, 543–545; Leigh & Maxwell-McCaw 2011; Lauronen 2008, 79–84; van Unen 2007.) So far, the linguistic-cognitive activities and psychosocial development of children and young people with cochlear implants have not been extensively examined in research (Akamatsu, Mayer & Hardy-Braz 2008, 157; Leigh 2008, 33–48; Pisoni et al. 2008, 28, 94; *passim*). For experts of the special fields of speech and hearing research, it is clearly not feasible to take into account in their early spoken language development research the developmental psychological and socio-cultural factors associated with the linguistic behaviour and development of children and young people. This is also true for multilingualism of up to two language modes, as these factors may present an awkward contradiction with future projections associated with implant process results, aiming at spoken communication. (Hyde & Punch 2011; Punch & Hyde 2011b; Archbold & Wheeler 2010; Wheeler, Gregory & Archbold [no publication year].) However, no scientific evidence has been presented as yet to show that use of sign language would disturb linguistic development in spoken language of children with implants (Marschark & Hauser 2012, 13–16; 40; see also the overview in Kirkehei et al. 2011 with the same zero result).

Cochlear implant and oral communication

Based on currently available Finnish and international research evidence, we can expect most deaf children and young people with cochlear implants to be communicating using speech. However, there is great variation in research results in terms of how successfully implanted children are able to receive and produce spoken language. Results regarding children's

language and speech development depend on a great number of background variables, all of which are impossible to take into consideration in individual studies and further examine how different variables affect each other. Such variables include:

- the age when the hearing impairment was diagnosed
- the stage (of language development) at which the child received the implant
- how long the child has been using the implant at the time of research (how long the child has been “subjected” to spoken language)
- level of hearing prior to receiving the implant
- whether the child has a unilateral or bilateral implant
- the child’s linguistic growth environment
- the type of rehabilitation available to the child
- whether the child has additional disabilities and the severity of these
- whether the child has a developmental language disorder
- the extent to which the implant will eventually help repair the child’s hearing and spoken communication in the course of long-term rehabilitation lasting up to 15 years
- the types and durability of technological solutions in implants of different manufacturers that were available at the time of the implant

(Marschark & Hauser 2012, 33–35; Archbold 2010, 55–56, 375–387; Sume 2010, 190; Välimaa & Lonka 2010, 128–131; Leigh 2008, 28; Pisoni et al. 2008, 27–35.)

Different studies often suggest that the mode of communication between the child and their environment is established within two or three years following the implant and that it takes the form of spoken language in most cases (see e.g. Huttunen & Välimaa 2010, 389; Sume 2010). However, more and more information is becoming available to suggest that communication preferences should not be described too simply:

The literature frequently implies that the decision about communication mode is one that is made once and for all, and that children do not change the type of communication they use over time. However, several researchers have shown that the situation is not clear-cut and that approaches to communication mode may be more flexible than was once thought to be the case. (Archbold & Wheeler 2010, 233.)

The criticism of previous research evidence considers that from a psycho-, neuro- and sociolinguistic viewpoint, research results showing how implants have brought about change in linguistic activity are based on rather short-term and one-sided research evidence as well as on excessively heuristic expectations fuelled by technical development prospects of cochlear implants. (Among others, Marschark & Hauser 2012, 16, 33–37; Hyde & Punch 2011; Blume 2010; Leigh et al. 2011; Watson, Hardie, Archbold & Wheeler 2008; Pisoni et al. 2008, 28; *passim*; Ladd 2007; Kurki & Takala 2002, 50).

According to recent studies, the communication modes of young people with implants, their families and others close to them vary a great deal, as Archbold and Wheeler (2010) present above. The communication includes flexible switching between language and mode; from speech to sign and back. The means of communication also change from age, situation and environment to another. The mode of communication and form of language considered most effortless by the family or child or young person may differ from what rehabilitation representatives would find desirable in terms of listening and speaking. These views may further differ from what the child or young person considers the most functional modes in situations outside home, in educational or working environments, for example. These views may in turn be completely different from what is considered to be the best solution for the child or young person for learning purposes from the school's point of view (Hyde & Punch 2011; Archbold & Wheeler 2010; Wheeler et al. 2009; Thoutenhoofd 2006; Wheeler et al. [no publication year].)

Now that twenty years have passed since the launch of implant treatment, it would in fact be possible to start collecting empirical and experience-based data from people who have had sufficient experience of using the implant and from those who have been in constant interaction with these people to examine what kind of communication they find most satisfactory. Only now are we able to discover from these young people themselves what modes of spoken, signed or other types of communication they feel they have the best command of, and what kind of communication they find the most effortless and accessible in different operating environments.

Cochlear implants and communicative support

Even if half of those children with cochlear implants were primarily using spoken language for communication and if more than half of them were participating in mainstream education, it must be noted however that a great number of those children are accompanied by an interpreter or a personal or classroom assistant (cf. Sume 2008; Lonka & Hasan 2006). – In an Australian survey, one fifth were using a sign language interpreter (Hyde & Punch 2011, 542), while in the United States even 40% of implant users needed a sign language interpreter. In addition, one quarter were using a speech-to-text interpreter and/or closed captioning services (for typing learning materials and lectures) (Leigh & Rush 2011). In addition to this, the US survey found that 13% had an oral interpreter with them [to interpret what is being said in an easily lip readable manner or clarify the person's own speech or signs], whereas only 2% of Australians used oral interpreters (Hyde & Punch 2011, 542). The different forms of support also often overlapped and the person might additionally use different hearing support tools, a personal assistant (for note-taking, for example; cf. Wheeler et al. 2007; Beadle et al. 2005) and/or receive different kinds of pedagogic support. (Leigh & Rush 2011).

The support personnel working with children and young people with implants in Finland often have rather varied tasks: at schools and kindergartens their work may entail interpreting, guidance as well as teaching, re-

ardless of their profession. (Kenttälä & Näätänen 2009, 35; Sume 2008, 118–135.) Currently, we are as yet unaware of which language forms are used for interpreting and to what extent, or which kinds of assistance and support measures would be necessary for school age children and young people with implants at different stages of their development. It has even been suggested that interpreting services available to implant users should include remedial instruction on the conceptual structures of (spoken and sign) language and some kind of linguistic pre-coaching according to the child's situation:

The interpreter's role may be expanded to provide support in areas such as preteaching concepts, clarifying information upon request, clarifying multiple meanings of words (e.g. present, park, run), clarifying words that sound the same but are spelled differently, and cueing the student during fast-paced discussions. If the interpreter is to take on multiple responsibilities in conjunction with interpreting, it is critical that the interpreter, educational program professionals, and the child's family agree on these services - - and that the interpreter be qualified to take on these added responsibilities. (Nussbaum & Scott 2011, 188.)

Some Finnish sign language interpreters working with cochlear implant users have already had to adjust their work as described above as some of their clients are lacking the necessary skills in spoken language as well as sign language to comprehend educational contents at lower or upper secondary school fully. This became apparent in the anonymous replies concerning interpreting for clients with implants, which were sent as part of our survey via the Finnish Association Of Sign Language Interpreters Internet forum in the autumn of 2011.⁶ Respondents felt that the job of a sign language interpreter does not include, nor is it allowed to in terms

⁶ We received eight e-mail responses between 19th October and 22nd November 2011. The messages may not be cited so as not to compromise the anonymity of the few clients that may be recognised by their communication modes.

of professional ethics, voicing concerns on behalf of the client regarding their linguistic capabilities, for example. This may at worst lead to a vicious circle that no-one knows how to break. The interpreters were also perplexed about the possibility that some young people in the new client group might actually refuse to use the interpreter arranged for them because of, among other reasons, feeling embarrassed about being different (this was mentioned in two e-mails out of eight).

Similarly, interview studies conducted elsewhere have shown that children and young people with cochlear implants are sometimes reluctant to use the support facilities available to them for fear of being singled out in groups, despite the fact that such facilities would be useful for them in terms of fluent communication (e.g. Wheeler et al. [no publication year]; Hyde & Punch 2011). Children and young people who are accustomed to rather limited auditory communication are not always even aware of what kind of interaction and educational content they are missing in their learning environment (cf. Wheeler et al. [no publication year], 45), and are thus unaware of how they could benefit from interpreting or other kinds of communication support.

It will indeed be interesting to see which of these phenomena, which are already recognised elsewhere but are as yet new to our sign language interpreters, will emerge in our forthcoming research, in addition to communication-related support needs. However, in addition to survey research and basic mapping studies, we need extensive multi-disciplinary dialogue and research cooperation between experts representing different frames of reference in order to establish a comprehensive and realistic view on how the complex linguistic identities and operational models of children and young people with implants are formed at different ages. Those in the first generation of cochlear implant users are reaching adulthood and they should have full linguistic rights when integrating into student life as well as working life. Those offering interpreting services as well as interpreter training should have access to all available research-based information and resources, so that linguistic accessibility would not hinder the integration of people with implants into educational and working life – as it no longer hinders deaf sign language users either.

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