

**Patient-Professional Interaction in Clinical Settings in Audiology**

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## Abstract

Clinical Audiology is broadly divided between diagnostic and rehabilitative aspects, each of which has different histories and is subject to different influences. Diagnostic audiology is grounded in an uncertain association with medicine, as even though the audiological diagnosis can contribute to some medical diagnoses, most patients do not have identifiable or treatable medical conditions associated with their deafness. Patients with permanent deafness seen in audiology clinics typically are offered rehabilitation without a medical diagnosis, which is centred on technological solutions, such as are available from audiometrists as well as audiologists. Many patients resist the fitting of hearing aids because they increase the visibility of their hearing loss. Hearing aids are sold by audiologists, which introduces commercialism into the clinical context, creating a tension for audiologists dependent on the fitting of them for income. Audiologists commonly report that they are not taught how to accommodate either the commercial or the psychosocial aspects of audiology within the dominant informational counselling framework of the profession. Tensions between the diagnostic – rehabilitative distinction are inherent in clinical appointments that involve both of these aspects.

This discourse analytic study of patient professional interaction in clinical settings in audiology examined appointments where both diagnostic and rehabilitative aspects were attended to. Applied Conversation Analysis (ten Have, 2007) incorporating textual analysis, supplemented with ethnographic observations and focus group data, served to identify the contributing discourses present within the clinical phases of establishing rapport, case history taking, presentation of the audiological diagnosis and making decisions about hearing aids.

Forty-six appointments were recorded at the Macquarie University Audiology Clinic between 2004 and 2005. Twenty of these were selected for transcription and analysis, and three were selected for detailed study as illustrative case studies. Participating patients ranged in age from 33 to 86 years. Participating audiologists were fully qualified practitioners whose experience level varied from under 2 years to more than 10 years.

The co-construction of interactionally achieved clinical tasks was demonstrated. Rapport, questioning and advice were seen as socially constructed and interactionally achieved, characterised by hybridity (Candlin, 2006; Sarangi, 2000), which reflected both macro influences (such as medicine, commerce, societal attitudes) and micro influences within the appointment (such as the relationship between participants and the shifts between diagnostic and rehabilitative functions). The importance of responsiveness to input from patients by audiologists reflected a necessary deviation from the traditionally applied medical model (Duchan, 2004). Responding to patients' input during the case history facilitated the rehabilitative phase and offered rapport building opportunities. A model of managing expectations of hearing aids was developed that positioned advice (based on information obtained from patients) as facilitative of shared decision making that is valued in this particular context. Responses to patient information during both the case history and the advising processes were seen as both rapport dependent and rapport building.

Results inform management, educators in audiology, and clinicians of the nature of interactionally achieved clinical tasks. A lack of distinction between audiology and audiometry is reflected in the discourses in the clinic. The findings suggest ways that audiologists might forefront the audiological over the audiometric in their clinical practice. Openings to further research in interaction in clinical contexts are highlighted.

## Statement of Candidate

I certify that the work in this thesis entitled "Patient-Professional Interaction in Clinical Settings in Audiology" has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree to any other university or institution other than Macquarie University.

I also certify that the thesis is an original piece of research and it has been written by me. Any help and assistance that I have received in my research work and the preparation of the thesis itself have been appropriately acknowledged.

In addition, I certify that all information sources and literature used are indicated in the thesis.

The research presented in this thesis was approved by the Macquarie University Ethics Review Committee:

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LOUISE COLLINGRIDGE (40412482)

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## List of Abbreviations Used in the Text

A	=	Audiologist	P	=	Patient	S	=	Significant Other
A1	=	Audiologist in Case Study 1	P1	=	Patient in Case Study 1			
A2	=	Audiologist in Case Study 2	P2	=	Patient in Case Study 2			
A3	=	Audiologist in Case Study 3	P3	=	Patient in Case Study 3			
CA	=	Conversation Analysis						
DVA	=	Department of Veterans Affairs						
OHS	=	Office of Hearing Services						
MMEHA	=	Model for Managing Expectations of Hearing Aids						
QAAQ	=	Question – Answer – Acknowledgement – Question						
QARAQ	=	Question – Answer – Response – Acknowledgement – Question						

## Transcription Guidelines (following Schegloff, 2008)

Orthographic transcription in font style courier 10 pt to allow for easier illustration of overlapping speech on a page
Modifications to standard orthography were made for specific deviations, wherever a deviation from standard pronunciation of any particular speaker was recorded phonetically
Timing of pauses and silences were recorded in seconds if more than 1 second, and marked as (.) if less than 2/10 of one second. Length of longer pauses and silences was recorded from a timer function on Goldwave (the recording and playback software used)
Overlapping speech was marked with square brackets [ ]. For both participants, the part of the utterance that was overlapping was contained in square brackets
Continuous utterances with (=) for either the same speaker or where a different speaker appears to have completed an utterance started by another
Rapid cut offs in speech are marked with a dash (-)
Fast speech was placed between more than and less than signs (> xxxx <)
Slow speech is placed between less than and greater than signs (< xxxx >)
Sighing (letting out breath audibly) was marked by (hh), with the length being indicated by the length of hhhhh
Audible intake of breath was marked with a (.h), with the length being indicated by the length of hhhhh
Laughter was shown by (ha ha)
Lengthened syllables were marked by a colon (:), with additional colons used to mark added lengthening
Rising tone is marked by a question mark (?) even though a question may not have been intended
Falling tone is marked by a full stop (.)
Continuing conversation is marked by a comma (,)
Loud speech is marked by the use of CAPITALS
Animation or emphatic tone is marked by an exclamation mark (!)
Speaker emphasis is marked by <u>underlining</u>
Quiet speech is marked by being written between degree signs ( <sup>o</sup> xxxxx <sup>o</sup> )
Falling intonation contour is shown by a dash and a colon (-:)
Rising intonation contour is shown by an underlined colon ( <u>:</u> )
Sharper rises in intonation are marked by (^)
Rapid lowering of intonation is marked by (v)
Descriptions of events are between double brackets (( ))
Uncertain words are placed between single brackets ( )
Words / phrases discussed in the text are shown in blue for added emphasis

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## Opening

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*Two professionals (A, an audiologist and B, an engineer) meet socially*

B: what do you do?

A: **I'm an au:diologist**

B: what?

A: **AN AUDIOLOGIST (louder)**

B: WHAT? ha ha I bet you've never heard that one before

((laughing))

A: °just once or twice before° ((not laughing))

B: seriously. (.) what is it that you do?

A: **test hearing (.) fit hearing aids (.) that sort of thing**

B: one of you girls tested my hearing at work said I need hearing aids (.) but said they'd cost \$6000 or something (.) no ways (.) too expensive a:nd. they don't work I mean my mOther had one that whistled in her ear and she could never seem to get it in just gave up (.) never went back (.) so are you like (.) qua:lified?

A: **we^::ll? I have a Masters degree and I'm studying for a PhD at the moment**

B: rea:lly? a PhD. hey? so you'll be able to >call yourself< DOctor...(laughing)

A: **what do you do?**

B: I'm an engineer (.) can you take away ringing in my ears? been told I need a hearing aid to fix that too but decided that's not for me I mean I don't want to look old ((adjusts spectacles, touches bald patch on head)) keeping myself au natura:le

A: **ye::s (.) er um maybe you should see an audiologist and have another check up?**

B: WHAT? can you speak up? all this noise in here=

A: **MAYBE YOU SHOULD SEE AN AUDIOLOGIST AGAIN**

B: =did you say my. MOther should see an audiologist? that's a free service isn't it? cos I mean she shouldn't have to pay. (.) it's covered by Medicare isn't it?

---

Most audiologists reading the above vignette will relate to having experienced similar conversations in social situations. What appears to be humorous on the surface underlies deep and challenging issues for the profession. These challenges include those related to professional identity, scope of practice, stigma associated with hearing loss, and financial reward for services. These are also issues that audiologists face in their interactions with their patients, and which contribute to high levels of professional burnout in the field of audiology as reported by Flasher and Fogle (2004) and Luterman (2008). It is a surprise, therefore, to many practicing audiologists that the US News & World Report (Nemko, 2006; 2007a; 2007b) has rated their profession as the most desirable for the past three years, although less of a surprise that the profession is reported in those articles as not being widely recognised (Fabry, 2008). Little previous research has investigated what occurs interactionally between audiologists and patients within consultations. This study analyses the discourses associated with clinical settings from an insider's perspective as the researcher has experience in research, teaching, clinical education, clinical service delivery and management. The identification of discursive practices resulting from this study is intended to inform those associated with clinical audiology (clinicians, clinical educators, employers, policy makers, and funders) of professional/discourse practices that have been commonly overlooked and oversimplified and which, in addition to well recognised technical practices, constitute clinical audiology.

## **Chapter 1 Introduction**

Chapter one provides background information and the rationale for this study of patient-professional interaction in clinical settings in audiology.

### **1.1 Professional Practice of Audiology Defined as Discursive Practice**

Audiology is an emerging profession characterised by the incorporation of new technologies and specializations that serve to refine and shape the scope of the field. As a result, definitions of audiology are varied, depending on their historical context and purpose. All definitions of audiology refer, at least, to this field being the study of hearing (Katz, 2002). Measurement of hearing, rehabilitation (sometimes referring to hearing aids and more recently implantable technologies), and to the incorporation of hearing and balance in the field are variously mentioned. The International Society of Audiology (2006) defines its scope as “to facilitate the knowledge, protection and rehabilitation of human hearing, inclusive of the effects of pharmacological and surgical measures, but exclusive of matters relating to the technique of these measures”. That definition places audiology as concerned primarily with nonmedical aspects of hearing and hearing rehabilitation. Definitions of the field typically fall short of defining professional practice, the scope of which includes the prevention, diagnosis and rehabilitation of hearing loss (Katz, 2002).

Descriptions of areas of audiology work (as preventative, diagnostic or rehabilitative) fail to capture the discursive nature of professional practice. Clinical activities, like professional activities undertaken in other fields, exemplified by Koester (2006) and Richards (2006), are achieved interactionally. Interaction between at least one audiologist and one patient underpins clinical activities related to audiological diagnosis and rehabilitation. In most cases, achieving clinical goals also involves a range of interactions between the audiologist and other professionals (for example doctors, hearing aid manufacturers, or teachers), as well as between the audiologist and family members of the patient. The meeting of such individuals involves the engagement in discourses that reflect a

network of beliefs and values which in most cases will be interpreted and produced slightly differently for each participant, but are likely to reflect identifiable orders of discourse, as defined by Fairclough (2005), and derived from Foucault (1972), as they relate to audiology.

Clinical activities in audiology all involve interaction. Some of the interaction is incidental to the activity, and has no interactional goal. For example, giving test instructions or presenting results obtained on a hearing test are most efficiently achieved in interaction, but the interaction is one sided and involves using communication (spoken, written, or gestured) to convey a non-negotiable meaning. While it is usual for the audiologist to engage with the patient interactionally to achieve these goals, those clinical tasks can also be completed with little discussion, indirectly (for example in reporting to medical doctors) or by someone other than the audiologist.

This study is concerned with clinical activities in audiology that are achieved interactionally, such as obtaining a case history and decision-making associated with rehabilitation. Achieving professional goals interactionally involves the use of communication strategies that are not unique to clinical settings. Interactional patterns that are common to audiology settings (such as collecting information, giving accounts, offering advice, or explaining) are used by patients and audiologists in other settings – both institutional and ordinary, as explained by Drew and Heritage (1992). However, what differentiates clinical interactions for patients and audiologists from everyday interaction is the specific, goal directed context, as explained for other settings such as medical consultations by Heritage and Robinson (2006), that characterises the practice of clinical audiology. For audiologists and patients this means learning to use the language of audiology effectively – that is to acquire the habitus of the field (Bourdieu, 1993). Professional achievement is synonymous with linguistic achievement (Richards, 2006), suggesting that professional competence will be displayed in language, and that examinations of language will offer insights into professional practice.

Combinations of macro (societal and institutional) and micro (local) contextual influences determine the properties of identifiable discourses that are manifest in

texts, the conversations that are produced in interaction (Cicourel, 1992; Fairclough, 1989). Embedded within the order of discourse which is broadly defined as audiological, there are orders of discourse that are identifiably medical, commercial, psychological, diagnostic, rehabilitative, educational and bureaucratic. These are manifest in the production and interpretation at the local level of patient-professional interaction. Interdiscursivity (Candlin and Maley, 1997; Fairclough, 2003) results from discourses associated with one order appearing in another, through a process of borrowing. Interdiscursivity can occur as a strategy for participants to solve problems or creatively address complex interactional practices. Discourses thus draw on other discourses, and are variable and evolving (Fairclough, 2005).

The interaction between patients and audiologists results in texts (or exchanges) which are produced by individuals, but which reflect a number of social and interactional practices and structures that influence the production and interpretation of those texts, and thus change over time (Candlin and Candlin, 2007). The relationship between individual and societal influences on interaction is bi-directional, in that what is said between individuals can in turn shape thinking about topics and influence the discourses of audiology. Figure 1.1 maps commonly identified influences from the field of audiology on to Fairclough's model of Discourse as Text (1989, p. 25).

While some of the influences may exist as identifiable, albeit themselves complex orders of discourse (such as those of medicine or psychology), they also mix with other more specifically audiological influences to generate orders of discourse. For example, as shown in Figure 1.1 the funding of audiology services has an identifiable discourse which is grounded in the medical profession, code of ethics, government recognition of audiology services, and scope of practice, which constitutes the discourse of audiology funding. In examining the interaction that takes place between a patient and audiologist (the text) related to the funding of audiology, it would be possible to identify competing discourses of medicine, scope of practice in audiology, and that of third party funders.

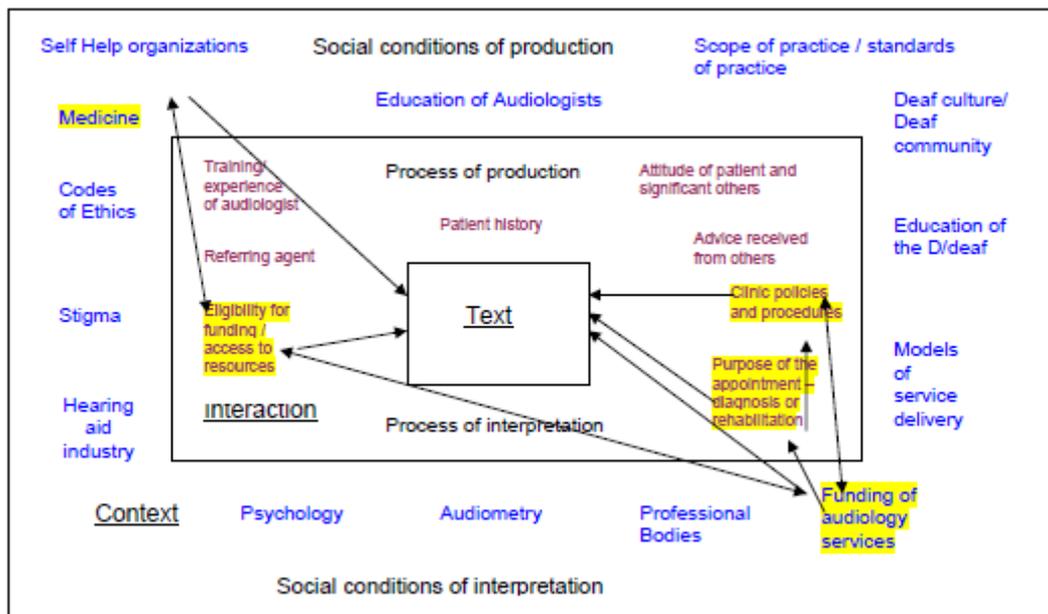


Figure 1.1 *Discourse as text, interaction and context* (Fairclough, 1989, p. 25) with suggested influences from the field of audiology superimposed.

Broad societal influences are marked in blue, and locally determined influences are marked in magenta. They are among the determiners of what is spoken between patients and audiologists (produced as text). The influences on the order of discourse which relate to funding for services are highlighted, and arrows show connections between social, interactional, and textual manifestations. Arrows show examples where interdiscursivity is likely in the audiology context.

As mentioned above, interdiscursivity, whereby elements of one order of discourse are manifest in another can be expected when there are competing discourses in any given situation (Candlin and Candlin, 2007). As an example, discourses of funding might compete with discourses of scope of practice such that there might be a tension in the interaction between what audiologists can do, and what they are paid to do. Discourse associated with the funding of services is also, of course, shaped by the context of individual clinics as to whether they are private or public and if public, how they are funded. Given that diagnostic and rehabilitative audiology are associated with different purposes and contexts, the discourses of diagnostic audiology are presumed to be distinct from, but related to, those of rehabilitative audiology. The notion of interdiscursivity suggests however, that there will be elements of one recognisable in the other.

Examining audiological practice from a discourse perspective is the subject of this thesis. Discourse is defined by Candlin (1997, p. ix) as "...language in use, as a process which is socially situated ... in so doing reproduces and constructs afresh particular social-discursive practices, constrained or encouraged by more macro movements in the over-arching social formation". Patients and audiologists will fit into social structures in ways that differ from one another, having different understandings, motivations and expectations of the clinical setting. The interaction between patients and audiologists thus is characterised by a mixing of perspectives.

Returning to the opening vignette (p. 13), one can identify in that social interaction that there are a number of orders of discourse evident there, such as that of the medical profession's dominance over allied health services like audiology, and the stigma associated with hearing loss. These are not directly named in the text, but the interaction reflects the presence of these discourses.

Apart from the order of discourse associated with the funding of audiology services shown in the example in Figure 1.1, other orders of discourse (constituted by for example those of psychology, stigma, and D/deaf culture) might be mapped onto Figure 1. Discourses are generative and imaginary, in the sense that there are possible, predictable or potential discourses that may or may not exist, but which may be evolving or absent from a particular interaction (Fairclough, 2005). They also combine and influence each other, which is characterised as interdiscursivity (Candlin, 2006). Examining orders of discourse that are identifiable in interaction involves an analysis of discourse that is both present, and possible. In some cases, what is not said or stated can be as revealing to the influences on an interaction as what is stated. For example, in discussing new technologies, risks or uncertainties may be mentioned, or, they might be excluded from a text, which might reveal, when examined in the light of what else is spoken about, a discourse associated with benefits and risks in undertaking a trial with an unknown outcome.

Individual interactions are shaped by societal values, as explained above, as well as by the individual circumstances and preferences of participants (van Dijk, 1997). In the example in Figure 1.1, the order of discourse associated with funding will be

expected to impact directly on what is said about money in the text. What and how this is managed in individual interactions will depend on how participants represent their beliefs and understandings. For example, an audiologist might believe that audiology services should be paid for by third parties, or may be concerned that services are too expensive for a particular patient. How the topic of money is raised will reflect the discourses of funding for audiology, and may reflect whether the audiologist is representing professional, institutional or personal identities (Sarangi and Roberts, 1999a), which will provide insight into the identity that the audiologist is claiming or hoping to present, in that particular interaction (Schiffrin, 2006).

Example 1.1 is a short extract of a typical discussion about the cost of hearing aids in a private audiology clinic.

### Example 1.1

1. P: what do these small hearing aids cost?
2. A: the manufacturers charge a lot of money for these hearing aids (.) they are very expensive items (.) I don't think you need to spend that much money on hearing aids

Goffman's explanation of footing in his *participation framework* (Goffman, 1981) can be drawn on here to show how, in Example 1.1, the discourse of the hearing aid industry is brought into the interaction by the audiologist as an *animator* of that industry, but not as the *author* or *principal* in that the audiologist in this way distances him/herself from the high cost of hearing aids. This fictional example shows further that the personal view of the audiologist (expressed as *author*, *principal* and *animator*) is that this patient should not spend large amounts of money on hearing aids. What is occurring in the brief example can be understood as the strategic use of *footing* to allow for impression management. The audiologist saves his/her own face by invoking (as *animator*) the hearing aid industry (turn 2), and possibly the face of the patient (as *author* and *principal*) in telling the patient that money need not be spent, thus saving the patient from having to say this themselves. This face saving by the audiologist can be seen as a condition for the interaction (Goffman, 1967). To explain further, the audiologist would be managing the impression that s/he is making on the patient by appearing

not to be interested in making money, and implying that the hearing aid company derives the benefit from high costs of hearing aids. S/he may also be saving the face of the patient who might not have sufficient funds to pay for expensive hearing aids, or who may choose not to spend money in this way (Goffman, 1959; 1981). This voicing of possible patient concerns (Fleischman, 2001) by the audiologist provides an easy way for the patient to avoid spending money on hearing aids.

Clinical interaction between audiologists and patients reflects societal, interactional, and individual phenomena. Interaction occurs between individuals, which produces texts which, through the process of their production, reveal identities and achieve interactional goals that may be embedded in or distanced from the discourses that are evident, as argued by Fairclough (2005). In Example 1.1, the audiologist reveals her identity as an audiologist who distances herself from the high costs of hearing aids, and one who believes that such costs are not justified in the seeking of small hearing aids. The patient reveals through the questions, that cosmetic issues are of concern to him/her and would be considered against the cost of the hearing aid.

Clinical audiology interactions are influenced by the physical presence of hearing loss. For patients using spoken language, anticipated communication breakdown and repair, need for repetition and rephrasing, and reliance on visual cues to aid speech perception, are associated with the physical presence of a hearing loss (Lind, Hickson and Erber, 2006; Tye-Murray, 2004). Clinical interactions are influenced by a number of individual factors in addition to the presence and degree of hearing loss. The onset of the hearing loss as *prelingual* or *postlingual*, *prevocational* or *postvocational*, family histories of deafness, and medical conditions associated with the hearing loss may or may not be influences for any individual interaction (Luey, Glass and Elliott, 1995).

Patients who acquire hearing loss during adulthood have the hearing loss overlaid on their previous identities and any existing pathologies. Thus, people who suffer from psychopathologies are no more or less predisposed to developing hearing loss, but this may influence the clinical interaction and the clinical decision making (Holland, 2007). Likewise, closeness or distance of families, success or lack

thereof at work, attitude to life and aging, and recent experiences of the individual will contribute to their individual ways of coping and presenting themselves with the hearing loss.

Given this complex interplay of societal and individual factors that impact on both audiologists and patients, it is not surprising that clinical audiology is frequently seen as being professionally challenging (Garstecki, 1994). The complexity of influences to be explored and explained requires a thick description (Geertz, 1973) of what occurs in interaction, by accounting for macro and micro influences, and the interplay between them that is manifest in clinical settings. Thick descriptions, that consider the influences of orders of discourse on interaction, as well as a description of the textualisations of the encounters themselves, are more likely to prepare the clinician for complex clinical tasks requiring effective interaction than the thin descriptions (common to audiology texts and guidelines), with simplified explanations of the roles of speaker and hearer (Sarangi and Roberts, 1999a). It is anticipated that professionals, through understanding these complexities, would be empowered to accommodate (creatively and strategically) orders of discourse in interaction, and thus more effectively achieve the goals of clinical audiology.

## **1.2 Potential Insights for the Audiology Profession from Discourse Analysis**

Discourse analysis, as broadly applied by a variety of disciplines, can identify both how interactions occur and why they occur as they do (Bhatia, 2002), thus providing an explanation and insight into why patient–professional interaction takes the form that it does. Recent examples of where discourse analysis has been applied to professions aligned with audiology are: speech pathology (Leahy and Walsh, 2008), primary care medical practice (Heritage and Robinson, 2006), social work (Hall, Slembrouck and Sarangi, 2006), and psychotherapy (Peräkylä, 2005). Other fields where this approach has been applied include law (Candlin, Maley, Crichton and Koster, 1994) and counselling (Buttny, 1996; Silverman, 1997; Waring, 2007b). These examples serve merely to illustrate the range of potential of the application, and in no way represent a comprehensive list. The field of

discourse analysis has resulted in a wide range of publications from a number of different disciplines that have adopted its principles and theories including sociology, psychology, linguistics, and philosophy. In some cases, the focus on discourse has generated new applications such as the development of discursive psychology (Edwards, 2005). In others, professional practice has been influenced and understood as a result of the discursive examination of focal themes common in the profession through the use of discourse analysis, as applied to medicine by Roberts and Sarangi (2005).

Discourse analytic studies involve the study of language above the level of the sentence, linking language use to social action (Candlin, 1997). Focusing on interactive aspects within a constructivist paradigm (the premise that "important aspects of our social lives are constructed in and through language" as defined by Coupland and Jaworski, 2001, p. 135) is a defining characteristic of discourse analysis. The analysis of texts produced in interaction serves as the primary form of analysis within the discourse analytic approach (Wood and Kroger, 2000). Texts produced in interaction are sometimes supplemented with other forms of data such as such as notes from participant observation, interviews, or focus groups (Barbour, 2001; Britten, 2005). The specific approach to analysing language, and the extent to which additional methodologies are adopted, depends to some extent on whether the discipline concerned has shifted its focus to include language (such as sociology and anthropology), or whether it started out from a language orientation and looked outwards to expand its analysis of language beyond the sentence level (i.e. linguistics) (Titscher, Meyer, Wodak and Vetter, 2000). The underlying beliefs as well as different methodologies of each specific discipline are reflected in the commonly adopted methods within the field of discourse analysis. Ethnography (Gumperz and Hymes, 1972); Interactional Sociolinguistics (hereafter IS) (Gumperz, 1982; Gumperz, 1999), Conversation Analysis (hereafter CA) (Sacks, 1972; Sacks, 1974; Schegloff and Sacks, 1973), and Critical Discourse Analysis (hereafter CDA) (Fairclough, 2001; 2005; van Dijk, 1997; Wodak, 1996) are commonly contrasted within the literature, although other forms of discourse analysis have been described (Titscher, et al., 2000).

Discourse analysis has been adopted by those within their home discipline to examine unfamiliar research sites to understand social action (Sarangi and Coulthard, 2000). It has also been used by those, typically working within the framework of linguistic ethnography (Rampton, 2007; Rampton, et al., 2004; Tusting and Maybin, 2007), who conduct research within a setting or profession with which they are already familiar. Each of the methods listed above are suited to different research questions, as determined by the discipline with which they are associated (Schiffrin, 1994; 2006). Each has specific distinctions as to what constitutes data. For example, CA studies rely on the analysis of talk-in interaction on a turn by turn basis for context, whereas ethnographic studies would not take such a restrictive approach to context (McHoul, 2008). Research conducted by outsiders (for example linguists examining audiology sites) and insiders (audiologists using linguistics as a form of analysis) could adopt different specific methodologies while falling under the umbrella of discourse analysis. Various partnership arrangements are available between researchers and professionals working in sites that are of interest to discourse analysts (Arminen, 2000; Cicourel, 2003; Roberts and Sarangi, 1999a; Sarangi and Candlin, 2003b). These partnerships contribute to enabling the joint problematising of research questions, and ensuring relevance (Roberts and Sarangi, 1999a) and could be extended to transdisciplinary arrangements (Fairclough, 2005) whereby theory is developed that originates from two or more disciplines to create a new discipline, as for example in discursive psychology, which is mentioned above.

There are no published studies where discourse analysis has been applied to clinical settings in audiology. Pichora-Fuller, Johnson, and Roodenburg (1998) investigated patterns of interaction between audiologists and individuals with hearing loss, but the topics of conversation were everyday topics. The goal was to investigate communication strategies adopted, rather than to analyse institutional discourse. Qualitative studies in audiology have investigated the lived experiences of people with hearing loss, and the rehabilitative process. For examples see Andersson and Willebrand (2003), Epsmark and Scherman (2003), Hallberg and Carlsson (1991), Hetu (1996), Lind, et al. (2006), Scarinci, Worrall and Hickson (2008), Stephens and Kerr (2003), and Stephens and Kramer (2005). One qualitative study of email interaction (Laplante-Lavesque, Pichora-Fuller and

Gagne, 2006) between a researcher/clinician and a small number of individual patients has been undertaken. That study also examined the experiences of patients and did not analyse the interaction, although the data collected could have been investigated using discourse analytic methods.

There are few examinations of professional audiological practice reported in the published literature. Doyle and Thomas (1988) investigated clinical decision making in diagnostic audiology. This was followed up by the same authors who investigated the way that audiologists decide on types of hearing aids that are suitable for patients (Doyle and Thomas, 1995). To date, there are no published discourse analytic studies that investigate the interaction between patients and audiologists in clinical settings, even though this method of investigation has proved useful in other related fields (Peräkylä and Vehviläinen, 2003).

### **1.3 Outline of the Discourse Analytic Approach Adopted in this Study**

The present study adopts a hybrid discourse analytic approach as explained by McHoul and Rapley (2005), which, in line with other recent studies, draws on a number of methodologies to explain phenomena while relying on CA as the core approach to analysis. For other recent examples see Koester (2006), Leahy (2004), Mirivel (2007), and Roberts and Sarangi (2005). As such, this study adopts the methodology of *applied CA* (ten Have, 2007). The primary source of data for the study is a collection of recordings (audio supplemented by video) obtained from a range of patients and qualified audiologists within a university based audiology clinic. The study draws directly on the professional experience of the researcher in the field of audiology to guide the interpretation of data. This experience was gained over the past twenty years across three countries within the academic, private practice, community based and government funded sectors of service delivery in both diagnostic and rehabilitative audiology, including the establishment of audiology services within Deaf and other underserved communities and draws particularly on the management of the teaching clinic used as the research site for this study. This positions the research study as one in which the researcher is an insider (Sarangi and Candlin, 2003b). In order to

ensure that interpretations and understandings are representative of the profession of audiology, the study draws on the perspectives of participating audiologists and other interested parties through focus group meetings, which serve as data for the study, and guide the interpretation of recorded data. Ethnographic observations of the researcher and reference to clinic records that are routinely available for all patients at the research site are also drawn on to verify interpretations. The analysis of recorded data follows a staged process of motivated looking and extraction of trends for a sample of appointments followed by the fine grained analysis of selected case studies following the principles of CA (Antaki, 2002).

The combination of approaches (researcher as insider, focus group meetings, and examination of naturalistic data using the principles of CA supplemented by ethnographic observations through clinic records) serves in turn to provide a range of resources on which to base this study which serves to examine the professional practice of audiology as discursive practice.

#### **1.4 Aims of the Present Study**

This study is concerned with understanding those clinical tasks that require effective interaction in order to be achieved through a fine detailed analysis of the nature of naturally occurring clinical interactions. To explain these interactions, the nature of these competing orders of discourse within clinical settings will be investigated. Focusing on aspects of clinical interaction that are recognised by professionals themselves to be challenging, this study aims to offer an explanation for this complexity that incorporates a discursive perspective, which, as indicated earlier, has not previously been incorporated into audiological studies of professional practice.

One particular impact that is anticipated from this study is the development of a consciousness within the profession of the role of interaction in determining clinical decisions and outcomes. By doing so, it is anticipated that definitions of what it is that audiologists undertake in clinical settings will be better understood by audiologists themselves.

This understanding of discursive practice in clinical settings is intended to enhance the professional practice of audiologists. It is expected to provide employers with a better understanding of what it is that audiologists do, so that appropriate funding models, employment possibilities, and research opportunities can be recognised within the profession. Educational programmes for training clinical audiologists will be guided by a better understanding of what occurs interactionally. The intention of the study is that there will be, as a result of the knowledge gained, a benefit to outcomes for the patients who are served by the audiology profession.

## **Chapter 2 Contextualising Clinical Audiology**

This chapter serves to contextualise the interactions between audiologists and patients<sup>12</sup> examined in this study. Notions of deafness are explained in this chapter, followed by a brief history of audiology; and an account of the educational, funding and employment context for the profession in Australia.

### **2.1 Deafness**

Deafness is a contested notion (Lane, 1993). Not recognised as a disabling condition, but as a cultural identity by members of the Deaf community, it nonetheless disables many outside of the Deaf community, as well as those who acquire deafness of varying degrees as adults. Being Deaf does not require medical treatment, although the medicalisation of deafness is fundamental to mainstream audiology and education of the deaf (Branson and Miller, 2002). Oral approaches to deafness which aim to establish speech and hearing skills as the primary modes of communication through the use of extensive training and technology are examples of curative models of deafness where the effect of deafness is overcome through training to make people who are deaf function in ways that conform to those who are hearing.

Although acquired deafness, which has its onset after speech and language skills are established, does not impact on language skills, it does have an effect on communication and social interaction (Danermark, 1999). Those with acquired hearing loss typically avoid revealing the condition in interaction, preferring to show social incompetence (that results from miscommunication with others who are not aware that they are caused by hearing loss) to disclosures of deafness (Hetu, 1996). The perception amongst patients is that deafness if admitted to, would lead to social exclusion (Danermark, 2003). Disclosing hearing loss is potentially damaging to one's identity, as described by Goffman (1963), carrying with it the

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<sup>1</sup> All patients in this study identified themselves as hearing, having acquired hearing losses in the postlingual or postvocational stages of their lives.

<sup>2</sup> The term "patient" is used throughout this study while recognising that this is not universal in audiology, and that the term client, or in some cases customer, is used within the field.

possibility that negative qualities will be attributed to the individual who admits to hearing loss.

Hearing loss is invisible, until made evident in social contexts, or through the wearing of hearing aids (Blood, 1997; Garstecki, 1994). Those with acquired hearing loss, with spoken language skills and experience of communication as a normally hearing individual often attempt (through the use strategies such as concentration, selective seating, or even avoidance of communication) to manage in communicative situations without disclosing their hearing loss (Getty and Hetu, 1991; Hallberg, 1999; Pichora-Fuller, et al., 1998).

Untreated hearing loss can lead to feelings of embarrassment, shame, lack of confidence and a sense of inferiority (Jones, Kyle and Wood, 1987). Such feelings can, in turn, impact on interaction, such that negative emotions are commonly reported in association with hearing loss (Thomas, 1984) and thus comprehensive treatment of hearing loss includes addressing negative emotions and shame that results from the effects of hearing loss (Danermark, 2003).

Many people who experience hearing loss do not wish to seek any intervention, and prefer to attempt to hide the condition for fear of the negative associations made by others, and may conceptualise coping with hearing loss as being able to function without disclosing it (Andersson and Willebrand, 2003). As such, hearing loss is recognised by interventionists as a stigmatized condition (Aquino-Russell, 2006).

Goffman's seminal work on stigma (Goffman, 1963), which was built on his early work on self presentation as a condition of interaction (Goffman, 1959), describes stigma as resulting in a spoiled identity. Goffman cites three potentially stigmatizing conditions: *physical* conditions (such as hearing loss), *behaviour* (generally cited as crime), and *association* with others who carry a stigma. These are explored below.

Hearing loss is a physical condition in that it results from an impairment of the auditory system. But, unlike most other physical conditions, it is invisible until

made evident in social interaction. It is also the only disability that places the “onus of the disability” onto the communicative partner, affecting not only the person with the physical impairment (Maddell, 2000, p. 296). Goffman’s explanation of interaction being conditional on the maintenance of face (Goffman, 1967), suggests that hearing loss disclosure is face threatening. It will be difficult to promote an intact face in the event of disclosure, as the vehicle for impression management (interaction) is itself impaired. For hearing loss, the vehicle of discovery of the stigmatizing condition is thus synonymous with the condition itself. The responsibility on a communicative partner is thus either to assist with the nondisclosure, or confront the individual about the communication difficulties that are experienced.

Although the stigma of behaviour is generally associated with socially unacceptable behaviour, and Goffman refers explicitly to criminal behaviour, the behavioural outcome of hearing loss is unresponsiveness in communication, which itself could be considered socially inappropriate behaviour, and is stigmatizing in itself.

The association with others with a stigmatizing condition is not a simple association in the case of acquired hearing loss. Deaf people have a long history of being discriminated against (Bauman, 2004), but usually this applies to those who are members of the Deaf community. However, deafness is also associated with aging, being more prevalent in older populations (Kricos, 2006). Even though aging and hearing loss are associated, those with acquired hearing loss are not a homogenous group. Only a few identify themselves as a member of specific group – and typically those are associated with self help groups (in Australia these would be, for example, Better Hearing Australia or Shhh (Self Help for the Hard of Hearing)). For the individual with an acquired hearing loss, the association with others who have a stigmatizing condition lends naturally to associations between hearing loss and advance aged, based on the prevalence of this in society. An extensive account of aging in society is beyond the scope of this chapter, being recognised as a vastly complex area, given current medical services, aging populations in developed countries, and variability amongst aged people in terms of abilities (Hinterlong, Morrow-Howell and Sherraden, 2001).

Attempts to cover up hearing loss is understood to result from a complex need to both hide the hearing loss, and cope with the effect of the hearing loss on communication (Andersson and Willebrand, 2003; Kaplan, 2004). Frustration and exhaustion from failed attempts at communication typically lead family members to encourage the hearing impaired person to seek help (Donaldson, Worrall and Hickson, 2004). The responsibility for communication breakdown is shared with communicative partners (Maddell, 2000), even though the hearing impairment may physically be present in just one individual. For many patients in audiology clinics, their initial contact with audiology takes place many years after the onset of the hearing loss, and as a result of pressure from others, rather than as a consequence of their own initiative. Attaching a label (diagnosing<sup>3</sup>) the hearing loss by the audiologist makes it a public reality, and the wearing of hearing aids makes the acknowledgement of hearing loss unavoidable. The difficulty many patients have with accepting hearing aids is because the visibility of them exposes the hearing loss (Epsmark and Scherman, 2003).

Audiology, with its focus on quantifying deafness and overcoming its effects on communication, is not a profession that is widely valued by most members of the Deaf community (Bauman, 2004). This is relatively easy to explain in sociocultural terms, as the medicalisation of deafness, typical of audiological practice, operates within a deficit model that is rejected by members of the Deaf community whose identity is grounded in a shared language and culture (Lane, 1993). More subtle perhaps, but no less interesting, is that those people who identify themselves as hearing, and who acquire hearing loss gradually, often with no known or identifiable cause, also avoid the audiology profession (Kaplan, 2004). The meeting of audiologists and patients in a clinic that patients may have avoided and which they associate with possibly actualising a suspected stigmatising condition, is thus of interest. It is of interest to the profession, as preparation and training in clinical audiology ought to prepare novice clinicians (many of whom have ideals of helping those less fortunate than themselves) to cope with this professional task. It

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<sup>3</sup> The audiological diagnosis is differentiated from medical diagnosis in this study. The use of the term does not endorse audiologists offering medical diagnoses under any circumstances. It is recognised that some audiologists prefer to avoid the term “diagnosis” at all because of these implications.

is of interest also to discourse analysts, as this presents an opportunity to investigate how competing orders of discourse and identities manifest in interaction, allowing for an examination of how issues of stigma and motivation might impact on discourse types and strategies.

## **2.2 A brief history of Audiology**

Audiology is considered to have originated as a profession in the United States of America (USA), where it established itself as independent of related professions such as speech pathology, medicine and education, starting with the implementation of audiology services for American war veterans in the post World War II era (Martin and Clark, 2000; Katz, 2002). The American, Raymond Carhart, frequently referred to as the father of audiology (Bess and Humes, 2003) together with Cranfield, is credited by audiologists for having coined the term “audiology”. Although audiologists acknowledge Carhart and Cranfield in this way, hearing aid dealers Trainor and Hargrave used the term in the late 1930s (Harford, 2000). Apart from hearing aid dealers, there had also been a general interest in deafness and cures for deafness have been recorded in Europe since the 1400s. The teaching and medical professions have historically addressed issues of hearing and hearing loss. Technological solutions to hearing loss in the form of rudimentary hearing aids have been available since the 1600s, with electrically operated devices being commercially available from the 1920s and electronic wearable devices from the 1930s (Preves and Curran, 2000; Washington University School of Medicine, 2005). The use of the term “audiology” by hearing aid dealers is not generally recognised by audiologists, who prefer to attribute the use of the term the emergence of services for war veterans along with university programmes in the field (Harford, 2000).

Australia is reported to have followed a similar pattern of audiology emerging as an independent profession from the 1940s onwards (Byrne, 1995). Audiologists in Australia follow similar practice models to those in the United States in terms of their scope of practice. Audiology is divided into two distinct areas, diagnostic and rehabilitative audiology. The profession in Australia relies largely on text books

published in North America for the professional training and development of its members, which, following the model adopted there, support audiologists as independent professionals whereby diagnosis leads to treatment by the same professional (Martin and Clark, 2003) . This contrasts with other models (common to Europe and the United Kingdom) whereby audiological functions are more fragmented across technicians, diagnosticians and rehabilitationists. Although the same knowledge base and academic literature guides the profession in the USA and Australia, different educational models, differently structured funding models, and different employment structures contribute to significant differences in the practice of the profession across these two countries.

### **2.3 Education Models**

The United States and Australia differ (more so in recent years) in the level of formal education needed for entry into the profession. In Australia, the education of audiologists has evolved since the 1940s from in-service training, to a postgraduate diploma, to a coursework Masters degree. In the USA, university trained audiologists emerged in the 1940s, and in recent years the entry level qualification to the profession has risen to that of professional doctorate. Courses in the United States initially overlapped with speech pathology, but the professions were kept distinct. Some other countries, such as South Africa, Brazil, Malaysia and Israel, adopted a different model to that of the USA in that audiology training was originally conjoined to speech pathology, with dually qualified professionals emerging (Bevilacqua, Novaes and Morata, 2008; Swanepoel, 2006). In many European and Asian countries, courses and specializations in audiology are taken by medical professionals and technicians where a more fragmented approach to audiology related services has existed (Koike, 1995; Lenarz and Ernst, 1995), and qualifications in audiology per se are not available. Recently, there has been an attempt to standardize and professionalise training of audiologists in some countries in Europe and the United Kingdom, who now produce university trained audiologists. In contrast to the United States where entry level qualifications are now at the doctorate level, entry to the profession in some parts of Europe is an undergraduate degree. Given this, Australia appears to be sitting in a midway

point with all universities that offer professionally recognised audiology training in Australia currently offering this discipline at a Masters level, as supported by figures presented by Goulios and Patuzzi (2008).

## **2.4 Funding Models in Australia**

Funding models for audiology services affect the nature of service delivery. These are different in the USA and Australia by virtue of very different political, social and health systems. Australian audiologists, relying on USA-based textbooks, are at times required to sift through information that is context-sensitive, and have to determine what is applicable in the Australian context. As a very broad generalization, the USA has a longer history of privatisation of audiology services, than does Australia. In Australia, the Commonwealth Government established the Commonwealth Acoustics Laboratory (CAL) which later became known as the National Acoustics Laboratory (NAL) with a clinical section known as Australian Hearing. This organization exercises a major influence on the profession in Australia, as it is the source of government funding for audiology services through the Australian Commonwealth Government's Office of Hearing Services (hereafter referred to as OHS). All Australian pensioners and children are currently entitled to services funded by OHS. Children and adults requiring specialised rehabilitation are seen at Australian Hearing only. Pensioners (including those on disability, aged, and war pensions) have the choice of consulting either Australian Hearing, or any other service provider who has a contract with OHS to undertake this work on behalf of Australian Hearing. OHS sets standards for these through prescriptive contracts to ensure that standards of service delivery are uniform for patients funded through that scheme.

## **2.5 Employment Structures in Australia**

Private audiology coexists alongside government funding in Australia, as many people fall outside of the criteria for third party funding by the government. Private practitioners operate in Australia as independent professionals, or in association (sometimes as employees) with ear nose and throat specialists. Since 1997,

private practitioners in audiology have had access to the funding through OHS provided that they meet the criteria and standards and contract to undertake work in this way. Australian Hearing, up until the 2000s, employed only audiologists who were university trained. However, OHS allows audiometrists (trained at a technical college level) to hold contracts with them with certain provisos that they seek the assistance of audiologists in certain circumstances. Australian Hearing now also employs audiometrists, supposedly because there is a shortage of trained audiologists in Australia. Australian audiologists have co-existed with audiometrists over the course of their history. They have sought to differentiate themselves from audiometrists who compete with them for positions (including in the government funded organization Australian Hearing) and for patients. Apart from educational level (technical/TAFE level for audiometrists and university for audiologists) there is little for the public to differentiate between audiologists from audiometrists. Only audiologists can offer services for young children. Adults with complex diagnostic needs, as defined by OHS, are currently required be referred to audiologists if they are assessed by audiometrists, although this practice is currently under review. Audiologists in Australia are often accordingly in the position of defending their profession and explaining to the public and their colleagues that there are differences between services offered by audiologists and audiometrists. In Australia, there are approximately three times the number of audiologists as audiometrists (Goulios and Patuzzi, 2008). Audiometrists are found in most countries outside of the USA, and this creates a more complex professional context than the USA-based audiology literature suggests. *Audiology Now*, the publication of Audiology Australia, the professional body representing audiologists, published a letter to the editor in 2004 by Narrim Seagal, who noted audiology services are not recognised by the public, there is the lack of clarity between the role of audiometrists and audiologists, and there is no regulation of the hearing aid industry. In response, a short article was written (Johnson, 2005) attempting to outline the scope of practice – showing the value of audiology, and making some contrasts with audiometrists and medical specialists. These articles, written specifically for the profession, show audiologists have some areas where they can provide services that audiometrists cannot (such as the testing of very young children or those with complex problems) but the vast majority of patients seeking audiology help could be seen by either an audiologist or an audiometrist

without knowing there was any difference. Further, any person can set up a hearing aid business. The fitting of hearing aids to private patients not covered by government funding, is unregulated in Australia. As a consequence, the professional identity for audiologists in Australia is neither clearly defined nor distinctive.

In Australia, the national health system (Medicare Australia administered by the Health Insurance Commission) does not cover rehabilitation for hearing loss, apart from the associated government funding through OHS (Smith, Mitchell, Wang and Leeder, 2005). Hearing tests are funded for those eligible for Medicare only when conducted by, or on behalf of, a medical practitioner. Such tests may be fully covered in the case of “bulk billed”<sup>4</sup> services, or only partly covered if a doctor chooses to charge more than the basic Medicare fee. Audiologists may be employed by medical doctors (those in general practice or ear specialists) to undertake hearing assessments on their behalf and in this way may indirectly access Medicare funding. Claims made to Medicare are made by the doctor. The doctor may equally employ nurses, audiometrists, or untrained staff to undertake audiological procedures on their behalf. This places the audiologist in a complex and sometimes dependent relationship with the medical profession in Australia. The only time that audiologists can claim directly for payment by Medicare is if a patient has an “Enhanced Primary Care Plan” that includes audiology. Such plans are authored by general practitioners. Members of the public who undergo hearing tests covered by Medicare, and medical practitioners who require hearing tests to formulate medical diagnoses, may not readily note any differences between work carried out by audiologists or audiometrists, or even untrained employees, in the field of diagnostic audiology.

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<sup>4</sup> Bulk-billed services in Australia are offered by some health care professionals where patients are not charged any portion of the professional fee. Gap fees refer to charges paid by patients whose health care providers charge more than the “bulk-billed” amount.

## **2.6 Professional Bodies in Australia**

In order to be registered as a practitioner with OHS, audiologists and audiometrists have to be members of either Audiology Australia (ASA) or Australian College of Audiology (ACAud). Private practitioners and audiologists employed in corporate fields are not required to belong to any association. The profession is unregulated in the sense that any person can establish themselves in the hearing aid business in Australia, provided they do not seek government funding. Large employers typically require membership of a professional organization, or demonstrated eligibility to belong to one.

Audiology Australia (previously known as The Audiology Society of Australia, abbreviated as ASA) represents the professional interests of audiologists. University qualifications (or equivalent) are required for membership. The association awards Certificates of Clinical Practice to recent graduates who meet their criteria for entry and complete a twelve month graduate internship according to their criteria. These certificates are awarded for a two year period, and require participation in continuing professional development activities in order to be renewed. Audiology Australia publishes a journal and regular magazine for the profession, sets standards of practice, has a code of ethics, and is in communication with OHS.

While many audiologists do belong to the ASA, they may choose not to belong, and may opt to belong to the Australian College of Audiology (ACAud) instead. ACAud allows membership of either Audiometrists or Audiologists. ACAud has its own code of ethics, organises its own conferences and continuing education programmes for practitioners.

Those qualified overseas who wish to become members of the ASA or ACAud are currently required to pass an examination set by that professional body, and to undertake clinical work under supervision for a specified time period.

## **2.7 Summary**

This brief contextualising of audiology has served to explain the historical and cultural constructs of deafness as quite separate from those of audiology. Within audiology, the profession is influenced by educational, funding and employment models. In Australia, audiologists are trained at a postgraduate level at university, and most complete the ASA graduate internship and qualify for a certificate of clinical practice that is maintained during their professional lives. However, hearing services in Australia are unregulated, such that any person can establish a hearing services clinic and may offer diagnostic and/or rehabilitative audiology services. The accessing of government funding for audiology is controlled by OHS which stipulates various requirements through the professional bodies, but does not differentiate markedly between audiologists and audiometrists. Funding for audiology (diagnostic only) through Medicare is accessed by medical practitioners who may employ either audiologists, or untrained staff to carry out hearing tests and rehabilitative functions.

### **Chapter 3 Clinical Audiology as Discursive Practice**

Activities common to audiologists across most clinical contexts include the diagnosing of hearing loss, formulating of rehabilitation plans, fitting of hearing aids, and providing of support to individual patients and their families. The specific context (such as that relating to training and education, funding of services, and related industries) in which these activities are carried out are understandably different across countries. However, a fundamental principle of clinical audiology, regardless of context, is that diagnosis precedes rehabilitation planning (Martin and Clark, 2003). A full audiological diagnosis is achieved in diagnostic audiology. This aims to quantify hearing loss. It does not, however, provide an understanding of the functional effect of the hearing loss. In order to do this, an assessment of communication function is required. These two aspects of audiology (diagnostic and rehabilitative) follow sequentially.

As shown in Figure 3.1 (below), the diagnostic phase always precedes the rehabilitative phase, but within the ideal service delivery model, the diagnostic phase blends with the rehabilitative, with continuity of service whereby the same audiologist takes the patient through the various stages of the clinical process. The profession of audiology is responsible for "carrying the patient and family from history taking through diagnosis and into patient management" (Martin and Clark, 2003, p. xiii). A flow diagram of the clinical process is presented in Figure 3.1.

The diagnostic process is typically completed within a single appointment. Most diagnostic appointments are conducted within a forty to seventy-five minute time span, depending on the clinical context, experience of the audiologist, and complexity of the case. In some cases advanced diagnostic testing may be indicated, in which case this is usually completed within another appointment. The rehabilitative process is undertaken over a series of appointments, over a time span which could last several weeks or months. Rehabilitation programmes that involve the use of devices (hearing aids, implants or assistive listening devices) require regular maintenance, upgrading and review. Thus, while diagnostic

audiology calls for a short term relationship between patients and clinicians, rehabilitative audiology involves a long term, open ended relationship.

Shown in Figure 3.1, marked in blue, is the common clinical path from diagnostic audiology, leading to discussion of hearing aid options, hearing aid fitting, and ongoing maintenance of hearing aids, relying on diagnostic reassessment where indicated. This is a common form of intervention in many audiology clinics.

The diagnostic and rehabilitative aspects of audiology are discussed below in relation to orders of discourse associated with each. Examples are offered to illustrate the interactional demands on both audiologists and patients that are typically associated with diagnostic and rehabilitative aspects of audiology.

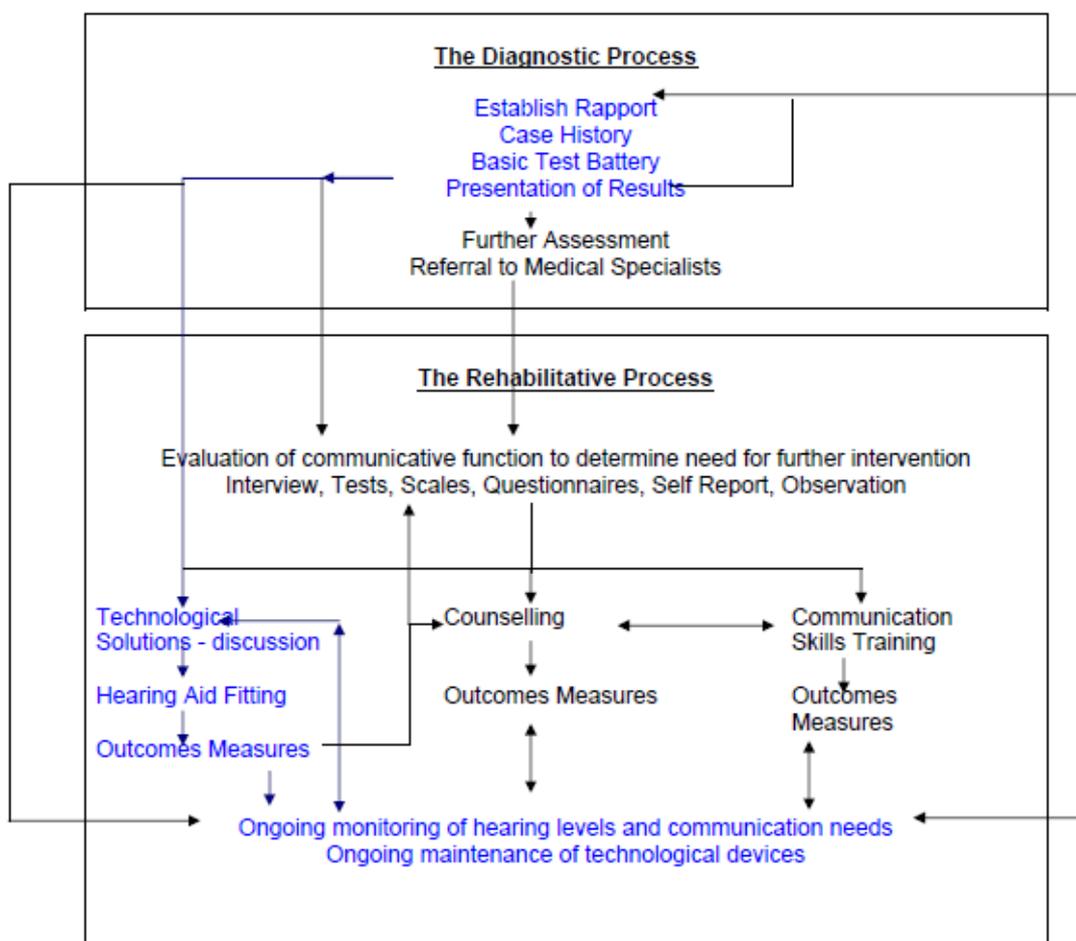


Figure 3.1 Flow diagram of the audiology clinical process

The common clinical path of diagnostic audiology, discussion of hearing aids and monitoring of hearing and hearing aids is shown in blue. The arrows link possible pathways through the clinical process.

### 3.1 Diagnostic Audiology as Discursive Practice

#### 3.1.1 *The Diagnostic Process*

The diagnostic process has, as its goal, the formulation of a working definition for audiologists of the hearing difficulties experienced by each individual patient. The hearing loss is categorized and contextualized in a way that carries meaning for the audiologist and other associated professionals. The process of categorizing the hearing loss requires the audiologist to convert the patient's lived experience into an audiological diagnosis (*type, degree, configuration and site of lesion*). This is achieved through the process of case history taking, followed by the testing of hearing. The case history is reliant on effective interaction between the patient (or in some cases a significant other) and the audiologist. The case history allows for the hypothesising about the category of hearing loss that a patient presents with, and this is then tested out and confirmed through the conducting of a battery of hearing tests. At the end of this process, the audiologist typically reports on the results of the assessment to the patient, as well as to significant others and associated professionals (Martin, 1994). Table 3.1 (below) shows the stages of the diagnostic process and the relative roles of patient and audiologist.

Learning to categorise hearing loss in an audiological sense is one of the basic skills learned by audiologists in training. Training in anatomy, auditory physiology, psychoacoustics and psychology of hearing and deafness are all related to the ability to categorise and reshape the patient's experience and performance on hearing tests into a format and style that is easily recognised within the audiology profession, and is also recognizable to other associated professionals.

Categorization is a cognitive process that is fundamental to thought and essential for carrying out daily activities (Potter and Wetherell, 1987). Categories such as *sensorineural hearing loss* are used by audiologists, but not typically by patients, to describe hearing loss. The use of such terms in conversation would mark an individual as having audiological knowledge. One can call phenomena by their category, or one can choose to describe phenomena that share qualities using

what is referred to in CA terms as a membership categorization device (Sacks, 1974). Choosing to refer to something using either a membership categorization device, or a particular category can signal particular messages and identities. Thus, choosing to refer to hearing loss in audiological terms (for example as a steeply sloping severe sensorineural hearing loss) conveys an identity about the speaker as knowledgeable about audiology. The process of categorization is part of the activity that is diagnostic audiology. How categories and what membership categorization devices are used can reveal information about identities, feelings, beliefs and orientations (Housley and Fitzgerald, 2002). Audiologists orient the questions they ask during case histories and their hearing test results to allow for a categorization of hearing loss as an audiological diagnosis, with aspects of degree, type, configuration of loss and site of lesion (Jerger and Jerger, 1981), that carry meaning for them. It is not expected that categorization of hearing loss will be the same for both patients and audiologists, given that individual experiences and knowledge shape the categorization that each applies to the same situation (Sarangi and Candlin, 2003a). However, the process of case history taking is a co-constructed one, in that the audiologist relies on the information the patient presents, which in turn is determined by the types of questions asked, and the way in which they are asked and answered. In this sense, the audiological diagnosis is mutually defined.

Once the audiologist has formulated their own categorization of a patient's hearing loss, it is expected that they will convey this to the patient in the form of presenting the test results. This, if accepted by the patient, would result in, typically, their having to recategorise their own understanding of their hearing loss, incorporating the audiological knowledge into their lived experience of the hearing loss. The assessment results are also presented (typically in written form) to referring agents or significant others. The diagnostic process thus involves a number of sequenced phases which are summarised in Table 3.1 (below).

Each of the sequenced diagnostic phases is discussed further, offering background information and directions for this study, under the following headings:

- Establishing Rapport
- The Case History
- The Assessment
- The Audiological Diagnosis

**Table 3.1 The diagnostic process**

<b>Clinical Activity</b>	<b>Role of Audiologist</b>	<b>Role of Patient</b>
<p><b>Establish Rapport:</b> A relationship is established between patient and audiologist that extends beyond the clinical task at hand, through a demonstration of interest in the patient, regardless of the outcome of the assessment</p>	<p>Engage in everyday talk, noting where to close this and begin the professional consultation</p>	<p>Engage in everyday talk recognising when this is closed and the shifts has been made to the professional consultation</p>
<p><b>The case history:</b> Document information about the onset and progression of the hearing loss, symmetry, risk factors such as family history and noise exposure, general health, associated symptoms such as tinnitus and vertigo, past medical history, past otological history, communication difficulties in quiet and in noise</p>	<p>Read referring agent's letter, taking any given information into account</p> <p>Requests a statement of the problem as understood by the patient</p> <p>Asks questions to probe or clarify the patient's statement of the problem as per the list of topics alongside.</p>	<p>Account for their experience of hearing loss</p> <p>Answer questions presented by the audiologist</p>
<p><b>Assessment:</b> Conduct the basic test battery, usually consisting of pure tone audiometry, speech audiometry, and immittance measures (tympanometry and acoustic reflex thresholds)</p>	<p>Provide clear instructions (verbal and or nonverbal) regarding test activities, present test materials in standardized and clinical accepted manner, record results accurately</p>	<p>Co-operate with test instructions and test procedure</p>
<p><b>The Audiological Diagnosis:</b> Interpret, integrate and report on case history information and hearing test results.</p> <p>Provide indications of any further assessment or rehabilitative steps that are indicated.</p>	<p>Provide an account of the results in audiological terms, to the patient and /or significant others (verbally) and in writing to a referring agent, such as a doctor</p> <p>Complete case notes</p>	<p>Accept the account of the audiological assessment</p>

### 3.1.2 *Establishing Rapport*

Rapport is a concept that is applied to a diverse range of settings (Gremier and Gwinner, 2000; 2008). In a clinical setting it is understood to be a display of interest and attentiveness to the needs of the patient (Clark, 1994b). Establishing rapport with patients is often the first interactional task undertaken in clinical settings (Leahy and Walsh, 2008). Rapport, when established before undertaking the case history, establishes a favourable relationship which is seen as important for the achievement of clinical tasks (Clark and English, 2004).

The importance of rapport may depend on the context of the audiological assessment. If the purpose is to complete an audiometric assessment and to report results to a referring doctor (such as in hospital based services) rapport may be needed for only a short period in order to successfully undertake tests, and might be different to the rapport needed when the diagnostic assessment leads to a discussion of results and their implications (Clark and English, 2004).

There is little attention given to the establishment of rapport during the diagnostic phase in the audiology literature. Clark and English (2004) refer to the importance of the first meeting, and suggest introductions using formal titles and surnames, along with a demonstration that the patient is the sole concern of the audiologist for the time that is available. Example 3.1 is an example of the establishment of rapport at the start of an audiology appointment.

#### **Example 3.1      That's an Unusual Name - Establishing Rapport**

1.    A:    my name is A um we'll start by getting a bit of information  
       Mr XXXX =
2.    P:    yep?
3.    A:    = that's an unusual name where's that from?
4.    P:    yeah it's been around for a long time (.) there's actually a  
       street over at um near Regent's Park called XXXX Street
5.    A:    really?
6.    P:    so (.) yeah so (.) my oldies apparently OUR. oldies were  
       apparently um had an area or something there so umm:

7. A: what's the background? where's it from?
8. P: we don't really know (.)we have sort of >because a lot of people< died a bit early (.) we think >it's some say< Dutch (.)and something like that so -
9. A: oh right (.) yeah (.) it seems European doesn't it?
10. P: yeah it does but um haven't really been able to track it back too far
11. A: alright (.) now let's just see (.) the doctor has just put deafness something from age 10.
12. P: I think it's umm SINCE age 10.
13. A: okay.

In Example 3.1, rapport is established through talk which is clearly patient-focused. The topic is an everyday topic, but shows asymmetries frequently associated with professional talk in that the questions to the patient are not reciprocated. In casual talk, a more reciprocal pattern would be expected, with questions being asked by both participants. The purpose of engaging in everyday talk from the audiologist's position may be to establish a relationship with the patient that is not linked to the topic of hearing loss. Everyday talk may also be helpful in assessing the patient's ability to participate in everyday conversation in a one to one situation. Coupland, Robinson, and Coupland (1994) suggest that the establishment of everyday talk may serve a purpose for patients as well as professionals (in shown in their study of elderly patients and medical practitioners) in serving to establish relationships, and find common ground that is not related to the pathology or illness. They demonstrated the constructivist nature of this talk, which, in common with all interaction, is conditional on the maintenance of face of both patient and professional (Goffman, 1959). In interactions where a threatened face may be anticipated, of which arguably the disclosure of not coping with a hearing loss might be one such situation, Goffman (1967) suggests it may be important to establish a positive face through the establishment of common ground before allowing face threatening act (in this case the audiological consultation) to begin.

Asymmetry in the patient-audiologist interaction in Example 3.1 is marked also by the form of address adopted by the audiologist. In this case title and surname are used to address the patient, and first names to refer to him or herself. Forms of

address are discussed in relation to professional practice by Holland (2007). She presents the case for the appropriateness of the use of different forms of address, stressing the importance of professionals adopting markers of respect towards their patients in clinical settings. From a linguistic perspective, forms of address are considered in politeness theory. Brown and Levinson (1987) associated positive politeness strategies with the use of first names, being an appeal to equality and social closeness. They associated negative politeness strategies, such as the use of titles and surnames as recommended by Holland (2007), with the appeal to maintaining autonomy. The display of a negative politeness strategy in Example 3.1 (turn 1), where the audiologist refers to the patient by title and surname, serves to maintain some social distance between the audiologist and the patient. Although guidelines available to clinicians in the audiology literature recommend formality (Clark and English, 2004; Holland, 2007), these may conflict with everyday trends in which forms of address are culturally and generationally influenced in everyday life with a recognised tendency towards casualisation (Coupland, 2007). Differences in clinical guidelines and everyday trends can create tensions and uncertainties, in particular for novice clinicians (Candlin, 2008). Younger clinicians prefer to address patients by their first names, regardless of other social, institutional or personal factors, a practice described by Holland as “galling” (2007, p. 74). This tension between forms of address is an example of what Locher and Watts (2005) describe as a *discursive struggle*. In this case it is a struggle in the relational work that is carried out in the clinical setting. It is not known how this apparent tension influences the establishment of rapport in clinical practice. Appealing to the positive face of patients using first name terms to establish rapport appears to be preferred by less experienced clinicians than appealing to the negative face of the patient. Why this is galling and considered inappropriate in clinical settings by experienced clinicians, but yet is a strategy that is used by novice clinicians, is worthy of investigation. It is expected that there may be an explanation in that rapport in professional contexts may not be synonymous with regular social closeness, and this being an unfamiliar relationship for most people in daily life, presents a discursive challenge, for novice clinicians in particular. Models of linguistic politeness that expand the concept beyond that of face saving (Eelen, 2001; Mills, 2003b; Watts, 2003) suggest that politeness is co-constructed and situation dependent, and that politeness rules,

such as those of Brown and Levinson (1987) are insufficient to capture the complexity of maintaining politeness across varied situations. Experienced clinicians are expected to anticipate possible changes to the relationship as the outcome of an appointment evolves, in ways that might not be expected of novice clinicians with less experience (Candlin, 2008). As the audiologist is likely to be presenting unwelcome news to the patient during the course of the appointment (Martin, 1994), maintaining social distance may be preferable, but only those who have experience of the full scope of managing appointments may recognise this. Additionally, if maintaining social distance is not comfortable for young audiologists because of societal trends, then the authenticity of establishing rapport may come into question. Authenticity, or genuineness, is one of the Rogerian principles of counselling that most clinical audiologists would ascribe to (Rogers, 1951). Authenticity and sincerity are, as noted by Coupland (2007), achieved in interaction, given the constructivist perspective. Authenticity generated interactionally thus may be at odds with adopting politeness strategies that audiology texts suggest but that are not part of the culture of novice clinicians.

The establishment of rapport is an area of uncertainty for the audiology profession. Advising novice clinicians of how to establish rapport, the importance of it, the use of everyday conversation as a tool for achieving rapport, and the significance of forms of address, are all aspects of clinical interaction that will be examined in the present study.

The role that the establishment of rapport plays in audiology consultations, the link between rapport and the case history and the provision of results, and whether there are different types of rapport linked to the diagnostic versus the rehabilitative<sup>5</sup> phases of the clinical process is of particular interest to the present study. How rapport is established between audiologists and patients will be examined in relation to how everyday talk is used within appointments, and what forms of address are adopted, as a starting point.

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<sup>5</sup> Rapport was noted as a focal theme for this study, as was the difference in discursive demands of diagnostic versus rehabilitative audiology, as explained in full in chapter five.

### 3.1.3 *The Case History*

It is generally accepted within the field that audiological consultations begin with history taking. Collecting background information about each patient's history and experience of hearing loss is a crucial stage for the planning and interpretation of the hearing assessment, sometimes referred to as the first test in the hearing assessment battery (Rosenberg, 1972; 1978). It is usually interactionally achieved through the face-to-face taking of a case history, although in some clinics patients may be required to complete surveys or questionnaires that provide the audiologist with background information which is clarified or explored in interaction with the patient (Martin and Clark, 2003).

Case history taking, when the consultation is in the diagnostic phase, tends to follow a medical model (Duchan, 2004). The medical model is taught to doctors as a sequential process of first eliciting a statement of the problem, followed by a series of closed ended questions (Cicourel, 1999). The diagnostic audiology case history also usually typically starts with an open ended question to elicit a statement of the problem as perceived by the patient. Many audiologists, aware that patients are not familiar with the audiology process, use this time to offer a statement of what will follow in the appointment. This initial introduction is followed by focussed, direct questions that aim to guide the conducting of the audiological basic test battery in an appropriate manner (Robinette and Cevette, 2002). The goal of the audiologist is to obtain sufficient information by the end of the case history to be able to hypothesise about the type, degree and configuration of the hearing loss. Whether the loss is *mild*, *moderate*, *severe*, or *profound*, of a *conductive*, *sensorineural*, *mixed* or *central* nature, and whether it affects all frequencies equally (*flat*), or high frequencies more than low frequencies (*sloping*), should all be indicated by the case history information. The audiologist tests out the hypotheses/expectations in the course of the hearing assessment. Whether the hearing loss is *symmetrical*, and if not, which is the better hearing ear, should be known from the case history and used to guide the order that tests are carried out, and the test parameters, such as which ear to test first and how loud to present stimuli (Doyle and Thomas, 1988).

### 3.1.3.1 Statement of the problem

Eliciting a statement of the problem from patients in audiology appointments can be a site of tension for the patient. As discussed further in chapter two, many patients conceal their hearing loss to avoid social exclusion (Danermark, 1999). By eliciting a statement of the problem as the patient sees it, the audiologist may be requesting the patient to disclose that which they have attempted to conceal. The opening statements in audiology appointments are thus of interest. How patients present their concerns, and how audiologists present the purpose of the appointment, in particular, when the appointment has both diagnostic and rehabilitative foci, while simultaneously using this interaction to present a positive image of themselves and the other, is likely to involve facework (Goffman, 1967). As discussed above, facework may be involved in the process of establishing rapport, and thus the establishment of rapport and the case history phase are necessarily interlinked.

### 3.1.3.2 Case History Questions

In extracting information to allow for the shaping of patient related information into audiological terms, closed ended questions tend to be asked by the audiologist. Onset and progression, perceived symmetry between ears, associated symptoms such as tinnitus or dizziness, family history of hearing loss, history of ear disease, previous ear surgery, noise exposure or possible ototoxicity, and effect of hearing loss on conversation in quiet and in noise are standard case history questions (Stach, 1998).

Example 3.2 below provides an example of typical diagnostic case history questions in an audiology consultation. Note in this example that the patient's spouse is present in the appointment, and labelled as 'S' in the transcript.

#### **Example 3.2 My Wife Says I Don't Hear Her: The Diagnostic Case History**

1. A: can you tell me a bit about your hearing?
2. P: well I er I um I guess (.) well Xxxx says I don't hear her but she talks very quietly but I
3. A: umm yes how long do you think you've been having those sort of problems?

4. P: ooh? at least a year or more.
5. S: ° at least °
6. P: yea:h
7. A: ok (.) and do you think they started gradually or was there something sudden that happened?
8. P: no it is (.) deteriorating now it is  
(4)
9. A: all right (1) so how do you go i:f (.) umm (.) say you a:re >watching the TV< (.) or (.) >listening to the radio<?
10. P: I have to have it turned up =
11. A: have to turn the volume up
12. P: =er - louder than XXXX would appreciate (laughing) if that=
13. A: [ok] all right
14. P: =[I er have] it quite high
15. A: yeah
16. P: the (.) voices tend to sound a bit (1) woolly
17. A: ok all right  
(2)
18. A: and so (.) how do you go when you are talking on the phone then?
19. P: I sometimes use a a little booster microphone that you can bung on the top of the and that seems to work I I need it [turned up]
20. A: [ok]
21. P: I usually take the easy way (.) of handing the phone over to XXXX
22. A: right ok  
(3)
23. A: so even with that (.) even with (.) that booster microphone you find that it doesn't help [very much or?=-]
24. P: [oh yes if I if] I this this booster on I can turn it up enough to hear [quite clearly]=
25. A: [ok ok ]all right ok
26. P: =when it works
27. A: ha ha ((laughing))

- (3)
28. A: right? Mr P (.)do you feel like u:m the hearing in one ear is better than the other or are they both the same?
29. P: umm I think the hearing in in this (.) ear appears to be better than [this one] ((pointing to right ear))
30. A: [um hmm]ok all right
- (2)
31. A: ok um do you ever get any pain or aches in your ears at all
32. P: no.
33. A: no. all right
34. A: umm: do you ever get any what they call tinnitus (.) ringing noises (.) buzzing noises in your ears?
35. P: not that it is badly no noticeable no it's er you get a bit of ringing now and again but you wouldn't complain about it (.) I wouldn't
36. A: ok
- (3)
37. A: -and do you think that is worse in one ear or the other ear or are they both the same?
38. P: not really [no]
39. A: [ok]
40. P: I think it is from the middle that way really  
((points to the centre of his forehead))
41. A: ok and you've never had any discharge from your ears?
42. P: oh I had a lot of trouble with my ears when I was a child =
43. A: [ok]
44. P: [um what] did they call it - I think you will find that one of these eardrums is damaged

The first question asked by the audiologist at turn 1 is fairly open-ended (“can you tell me a bit about your hearing?”) and serves to elicit a statement of the problem from the patient, which is seen at turn 2, as clearly indicating some difficulty with admitting to hearing loss, and an attempt is made to blame his wife for the communication breakdown. What follows from turns 3 to 44 is a sequence of

focussed questions asked by the audiologist. The questions are marked in blue in the example.

The format of the audiologist asking questions which the patient answers is easily recognisable to one familiar with the audiology context as a diagnostic case history. As question design is specific to a particular activity and intention (Levinson, 1992), the question design of the diagnostic case history marks it as distinct from that of the rehabilitative case history (discussed below). If the patient does not have the information at hand, chooses to introduce new topics, or answers in ways that are not conducive to the audiologist's categorization of the hearing loss, this can present challenges for the audiologist, who seeks concise answers to their direct questions.

Subtle differences in how questions are structured by doctors has been shown to determine what activities and actions are performed in clinical settings (Robinson, 2006). As shown in Example 3.2, the audiologist's questions, as expected, are designed to elicit short answers. For example, the question "how do you go watching television?" is designed to be answered as "well" or "badly". This is all the information the audiologist needs to formulate the audiological diagnosis. The audiologist is asking if the patient has problems watching television or not (which is useful to the diagnostic process), but does not ask what the patient has tried to do to improve the situation for himself (a rehabilitative focus). Similarly structured is the question about how the patient copes with telephone conversations and whether tinnitus is present or not. Example 3.2 is typical of a diagnostic case history in showing that the patient is not familiar with the constraints of the diagnostic case history, and offers far more detail in his answers than is requested by the audiologist. In this example the audiologist does not follow up on these accounts by the patient, but moves on through the list of questions. The audiologist offers responses ("right ok right" or variations thereof at turns 13, 17, 20, 22, 25, 30, 36, 39, and 43) that act, not as continuers of the topic, but as signals that sufficient information has been obtained for this stage of the clinical process. The medical model for case history taking tends to be the dominant trend in audiological practice. However, an alternative to the standard diagnostic case history is suggested by Duchan (2004), which is to incorporate a narrative

approach, that allows for the open ended questioning at the start to serve a dual purpose of gaining information and establishing rapport. Many audiologists in practice attempt to combine an open ended question with the more traditional medical case history, in an attempt to bridge the medical and the narrative approaches.

Of particular interest is whether case history questions and their responses are influenced by the statement of problem elicited through the open-ended question at the start. It would appear that the patients' framing of their problems may demand some further probing or acknowledgement by the audiologist. In Example 3.2 where the patient frames the problem not as one of hearing loss, but as a communication problem that his wife is responsible for in not talking loudly enough, the audiologist continues with the standard case history as if the patient has admitted to a hearing loss. How the statement of the problem from the patient links to the case history questions asked by the audiologist, and how the case history information is later linked to the giving of results and rehabilitation decisions is of importance to understanding the discursive demands and opportunities in diagnostic audiology.

The audiologist is required to document (in writing or on a computer) the patients' responses to the case history questions. This is the reason for the long pauses between utterances in Example 3.2. Although audiologists are encouraged to take note of patients' answers, there are also suggestions that writing should be kept to a minimum in the interest of maintaining eye contact with the patient (Clark, 1994b), and that the case history should be conducted as quickly as possible, even carried out simultaneously with the carrying out of a physical examination of the patient's ears using an otoscope (Robinette and Cevette, 2002). It is difficult to understand how recording what patients report is compatible with simultaneously carrying out a physical examination<sup>6</sup>. Audiologists in individual appointments need to decide on the priority of these aspects for that phase of the appointment.

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<sup>6</sup> It is not suggested here that audiologists ought not to examine the ears of patients before undertaking tests, but rather that the suggestion of simultaneously doing so while undertaking case history activities presents discursive challenges for the audiologist.

Whether the case history should be highly focussed, or open-ended, and what response is given to patient's statements, may depend on the purpose of the consultation. If the purpose is simply to guide audiometric testing, a short, focussed interaction may be appropriate. If the patient will be undergoing a full diagnostic (and possibly rehabilitative) process, including the discussion of test results and their implications, a more detailed case history is likely to assist the audiologist to individualise the appointment, and ensure that the patient's difficulties are uncovered. What is decided on, in terms of the type of case history questions, is likely to be guided by the context of the appointment such as the referral, time available, and clinic guidelines. It will also be locally influenced by the way the patient presents the nature of the problem. To the knowledge of the author, no published guidelines are available for audiologists as to how to tailor case histories to individuals, or how to make decisions about rehabilitation, factoring in the patients' own perceptions of their problems. It is thus of interest to explore how this is managed in clinical interactions.

Of particular interest to the present study is whether there is any evidence of different types of case histories, in particular where appointments are planned in such a way that they are intended to shift from diagnostic to rehabilitative aspects within a single interaction. Whether case histories in appointments with a rehabilitative goal follow the standard diagnostic guidelines is of interest to the education of novice clinicians, and to clinic planning and time management within appointments. This study will examine whether case histories in such appointments contain elements of the rehabilitative, or whether the phases of the appointments are, in fact distinctive. This will involve examining case histories and the purposes they serve in clinical appointments. Exploring whether information from the case history is referred to, elaborated on, or repeated when the appointment reaches the phase of results giving and making rehabilitative decisions is of interest to the aims of the study. Examining the types of questions asked, and the reaction of the audiologist to the patient's responses to those questions will form the basis for the analysis of the case history. It is expected that the case history be characterised by a competing discourses of diagnostic audiology, rehabilitation and medicine in those appointments where the focus is both diagnostic and rehabilitative.

### 3.1.4 *The Assessment*

Conducting the hearing assessment is accomplished with the audiologist giving clear instructions to the patient, and ongoing feedback during the assessment to ensure their ongoing participation. The basic test battery in audiology involves measures of hearing threshold for pure tone stimuli, measures of ability to discriminate speech sounds at various intensities, and immittance measures of middle ear function, some of which are dependent on hearing ability (Mencher, Gerber and Mc Combe, 1997). Consistency across aspects of the test battery and matching with expectations from the information obtained during the case history is of importance to the audiologist (Silman, 1991). Audiologists apply a cross check principle to results obtained in order to arrive at appropriate interpretations and in the integration of results (Jerger and Jerger, 1981). Where inconsistencies are seen that cannot be explained, this is an indication that further investigations are indicated.

The assessment phase of the diagnostic process will not be considered further for the purposes of this study.

### 3.1.5 *The Audiological Diagnosis*

In some contexts, such as hospital-based audiology where a team approach is adopted, the contact with the patient may end with the completion of the assessment. Hearing assessment results may be passed on in written form to other team members, who may pursue medical diagnoses while integrating the audiological findings with the results of medical investigations. In clinics where audiologists practice independently of the medical profession, the diagnostic process is completed when the results are presented to the patient and significant others, and written reports are sent to referring agents, who are most commonly medical practitioners. Most audiologists undertake this task in face-to-face interaction with their patients (Martin, Armstrong and Champlin, 1994)

The audiologist's role is to provide an audiological diagnosis only, and to avoid overstepping into the domain of the medical profession. However, specific medical conditions do underlie particular types of hearing loss, and the audiologist relies on his or her knowledge of auditory pathologies to identify common audiological patterns. Thus two orders of discourse – the medical diagnosis and the audiological diagnosis are identifiable as competing discourses in the interaction associated with discussing audiology test results. Some audiologists themselves have, over many years, viewed their own role in diagnostic audiology as being to *integrate* test results (Duchan, 2005) from a number of different tests, as opposed to how they view the role of audiometrists, as one of conducting tests and *interpreting* the results of individual tests.

For the audiologist, each consultation presents uncertainty as to whether the patient will need medical investigation or not to fully explore the hearing loss. The audiologist will be uncertain, too, until the assessment is complete, if they are able to make recommendations for treatment themselves, or whether a medical opinion is required in tandem with audiological intervention. This uncertainty affects the roles and identity of the audiologist – as depending on the diagnostic results the audiologist may, in some cases defer to medical specialists, and, in others, will make recommendations that are beyond the scope of a medical specialist to make.

For patients, the distinction between audiological and medical scopes of practice may not be as clear as they are for the audiologist, and patients may expect or request information that pertains to the medical diagnosis of an underlying cause from their audiologist, thereby creating some tensions and difficulties in the discussion about the results. If the professional role of the audiologist is misunderstood by patients, then the audiologist may risk losing face (Goffman, 1967).

Martin and Clark (2003) describe the accurate presentation of test results to patients and family members as one of the “greatest responsibilities” (p. 403) of the audiologist. There are conflicting accounts in the audiology literature as to how this should be achieved. Clark and English (2004) contrast a full disclosure model, whereby all test results are explained in full, with an individualized disclosure

model, where patients are given information that they request. An individualized disclosure approach does not preclude the possibility that a patient may seek a full disclosure. However, the key distinction is checking if the patient desires, or is ready for, the factual information presented in the full disclosure. Caution against offering patients unwanted information, too much information, or information they are not emotionally ready to receive is expressed by Martin (1994); Clark and English (2004) and Margolis (2004). In spite of this, the full disclosure model is possibly the most commonly applied model of giving results in audiology, being advocated by Dillon (2001), and Robinette and Cevette (2002). Martin observes that audiologists often approach the giving of hearing test results in a formulaic or “canned” fashion (Martin, 1994, p. 409). An example of a full disclosure model is shown in Example 3.3.

**Example 3.3      It’s not a Huge Loss, But -the Full Disclosure Model of Giving Hearing Test Results**

1.     A:     It is a bit better on the right (.) not too: much so but  
          there is that little bit of a difference (.) did you ever get  
          that looked at by a specialist?
2.     P:     no
3.     A:     they just put it down to [your]?=
4.     P:     [no]
5.     A:     =noise exposure?
6.     P:     yeah
7.     A:     ok so? (.) >you’ve definitely got a hearing loss there<
8.     P:     hearing loss oh? yes?
9.     A:     now (.) you can feel that there is a little bit of a  
          difference between your ears with the left being a little bit  
          worse?=  
10.    P:     yes
11.    A:     =there there there is that >little bit of a difference< but  
          it is not a huge difference
12.    P:     no
13.    A:     now er um the this test here was having a look at your middle  
          ear to see if that’s working [ok]
14.    P:     [mmm]

15. A: and to see if your eardrum is working ok

16. P: mmhmm

17. A: and that's fine that's all consistent with your hearing loss ok

18. P: which ear has the loss?

19. A: no they've bo:th got a hearing loss

20. P: Oh (.) oh.

21. A: it's not a huge hearing loss but=

22. P: [it's there]

23. A: =[it's still] something that I would imagine that you would struggle and that you've pointed that out with those situations that you are having trouble with

24. P: yes

25. A: so in a situation like I wouldn't expect that you would have trouble and I think that you can probably hear me ok?

26. P: yes

27. A: you don't seem to be struggling with what I'm saying

28. P: no no

29. A: but if you had any other noise around you that's when you'd start to have trouble

30. P: yes

31. A: yeah yeah that's when I could see that's where your problems are (.)and that's what you've told me

32. P: yeah

33. A: so er um then the words that I put through the headphones where you had to say the words where we did each ear separately =

34. P: mmm

35. A: =you you don't do too well in that one unfortunately even though I make the words quite loud in each ear you're still not able to detect what the sound is you know there's something there but you can't actually make the word out

36. P: yes that's right

37. A: did you feel that, they just sounded very

38. P: that's right

39. A: confused? fuzzy?

40. P: I could think of something close to it

The full disclosure model as shown in Example 3.3 focuses first on a mild asymmetry between the ears (turn 1). This represents a moment of conflict between the discourse of medicine and the discourse of audiology. Asymmetrical hearing is a signal to audiologists that a potentially serious underlying medical condition may be responsible for the hearing loss. Audiology tests reveal patterns of possible underlying pathologies, but are not directly indicative of them. In this example, the first concern of the audiologist is the asymmetry. By checking that the asymmetry has been previously medically investigated, the audiologist is determining what the next step for this patient should be. A previously investigated asymmetry that did not reveal any treatable cause could be ignored, unless the hearing levels had changed significantly since the previous assessment. What constitutes a significant change is not clear in the audiology literature, and a wide range of standards are applied across different audiology clinics. Where the audiologist comments, at turn 11, on the “little bit of difference ...but not huge”, this is as much for her own audiological reasoning and working out a treatment plan as it is for the patient’s information. By qualifying the asymmetry as being “not huge” (turn 11), means that it could perhaps be ignored given the previous explanation of hearing loss as being related to noise exposure.

The next point raised by the audiologist relates to middle ear function (turn 13). Noting that middle ear function is normal could be confusing to the patient, who has been told in the previous utterance that there is a hearing loss. Equating normal (middle ear) function with hearing loss would understandably be confusing. In addition, each individual does have two middle ears, and two eardrums. In this example, the audiologist refers to middle ear function as if there was a single middle ear system for the patient (turn 13). This is noted by the patient whose response is to query which ear is affected (turn 18). The combination of talk about the asymmetry, and the single middle ear appears to have confused the patient. This is then re-explained so that the patient is clear that there is a hearing loss in both ears. Providing details about the asymmetry presents some confusion to the patient, who appears to understand this as a *unilateral* loss, rather than a *bilateral asymmetrical* loss.

The final part of the results relates to the patients performance on measures using speech (usually single words in the basic test battery) as the test stimulus. Speech audiometry, using words that occur commonly in real life as stimuli, is often used to relate the hearing test results to the patient's ability to hear in everyday life. The audiologist attempts to use the patient's account, and also elicits additional information, in presenting the speech audiometry results. In this case the speech audiometry results were not normal, even at high intensity levels (see turn 35). Performance on speech audiometry measures is used by audiologists to predict potential hearing aid benefit. Generally speaking, those who have better word recognition scores at high intensities are more likely to derive benefit from hearing aids than those with restricted word recognition scores at high intensities. In Example 3.3, the audiologist provides an account of the patient's ability to hear in everyday life. There is a linking of the patient's ability to hear in the clinical situation with the test results.

Presenting hearing test results is more complicated than simply deciding between individualized and full disclosure models. It is possible that the trend of giving all results (pure tone audiometry, immittance and speech audiometry) to patients stems from an attempt to separate the discourses of medicine, audiology and audiometry, which are expected to compete in the audiological consultation. The audiologist's fear of extending the information they give beyond the designated scope of practice may manifest as their ensuring that test *results* are focussed on, thus avoiding comment about *cause* of hearing loss. The individually focussed approach whereby patients are encouraged to ask questions could open the discussion to medical causes of hearing loss, which would be more difficult to manage without audiologists having to admit to a limited scope of practice. Thus, the full disclosure model may be preferred by many audiologists because it strategically places the discourse of audiology as dominant over the discourse of medicine. Presbycusis (age related hearing loss) and noise damage are two very commonly seen conditions in audiology clinics, neither of which has a specific medical test or any possible medical intervention. In such cases, the audiological diagnosis is the only meaningful conceptualization of the disorder. Audiologists may wish to present themselves as the key professional able to treat the presenting problem, and may not wish to highlight their limited scope of practice.

In other cases, (one being the presence of an underlying acoustic neuroma that presents as an asymmetry), the audiologist may wish to highlight the limited scope of practice to ensure that the patient understands that their condition has yet to be fully investigated. For some patients, the hearing loss may be the first (or only symptom) and the test results obtained by the audiologist may be the first indication that a serious medical condition (such as an acoustic neuroma) exists. In such cases (although occurring only rarely), audiologists adopt a role that is ancillary to the medical profession. However, patients are not typically aware of the limited scope of the audiology profession, and the boundaries between medicine and audiology. This makes the social construction of the professional self in audiology to be dependent on the particular set of circumstances, and also dependent on the patient's grasping of the context, and how it shifts depending on what type of hearing loss they present with.

The adoption of perspective display sequences (Heritage and Robinson, 2006; Maynard, 1992) has been documented as a common strategy to facilitate the acceptance of bad news. Perspective display sequences are used in everyday talk and in institutional talk to facilitate the acceptance of bad news through a three stage enquiry, reply and confirmation sequence. Although not named as such, the same approach is advocated in the field of paediatric audiology, where the diagnosis of hearing loss in children is presented to parents using their own observations (as an enquiry) which is replied to by the professional (Luterman, 1984; 2001). The adult diagnostic audiology literature does not specify the adoption of such a strategy, although there is growing recognition that audiologists working with adult populations need to develop approaches that accommodate the emotional reaction of adults to acquired hearing loss (Clark, 1994a). In Example 3.3 there is evidence that the audiologist is attempting to link the patient's account of her deafness to the test results, where the audiologist refers to what the patient has reported, and what her experience of speech discrimination is. The strategy in Example 3.3 is used alongside the full disclosure of all test results.

How offering unwelcome information in clinical settings is achieved in clinical settings is of interest to this study. Whether audiologists do adopt perspective display sequences, associated with the giving of bad news even though these may

not be advocated in the adult audiology literature has not been investigated to date. If they are not adopted, what strategies and uses of language are adopted are worthy of identification. It would seem that the perspective display sequence (Maynard, 1992) might be odds with the full disclosure model, although audiologists in clinical practice may have found creative ways to accommodate these apparently contradictory communicative strategies. Audiologists are aware they are presenting unwelcome news when they present the audiological diagnosis, and that how this news is provided will influence the patient's acceptance and participation in rehabilitation or further action (Martin, 1994). The diagnosis of a hearing loss is one that can serve to threaten the individual's identity or sense of self as a fully functioning, hearing person (Atcherson, 2002; Goffman, 1963; Hetu, 1996). As mentioned, many patients consult audiologists at the insistence of others, and do not wish to confront the implications of diagnosed hearing loss (Gallois, 2004). How these factors influence the presentation of the audiological diagnosis is of interest to the understanding of the clinical task of audiological diagnosis and the training of novice clinicians in undertaking this task.

It is possible that an analysis of talk in interaction associated with the giving of the audiological diagnosis will demonstrate that the widespread adoption of a full disclosure model carries strategic value for the audiologist. As mentioned, this may place the order of discourse of audiology in a dominant position over the competing discourse of medicine. This may act as a face-saving mechanism for the audiologist in putting the audiologist in control in some way. It may also be face-saving for the patient, who in being given the results, does not need to engage with them in the way that a perspective display sequence, or an individually focussed model, would require them to be engaged. These are possibilities which are explored in the analysis in this study.

### 3.1.6 *Summary of the Discursive Nature of Diagnostic Audiology:*

Diagnostic audiology lends itself to, and typically adopts, a style of interaction between audiologists and patients which is focussed on extracting relevant information to assist in the formulation of an audiological diagnosis. This is

exemplified in Example 3.2, in which the medical model is adopted – even though the goal is audiological and not medical. The audiological diagnosis is focussed on describing the hearing loss in terms of the degree of loss, the type of loss (including site of lesion if possible) and configuration of the loss. In some cases, the audiologist will be responsible for discussing these results with patients (as in Example 3.3), but in others this will be taken up by medical specialists. Where discussions are held about results, these are restricted to the scope of the audiological diagnosis even where the audiologist may have additional information that they do not share with the patient, as this is held to extend beyond the bounds of the audiology profession and into that of medicine. This appears to be managed through a focus on individual test results. The interaction with patients in the diagnostic stage is deliberately focussed towards reaching an audiological diagnosis while avoiding medical judgements.

Many patients who consult clinical audiologists for diagnostic assessments do so at the prompting of others (Hetu, 1996). Patients engage with audiologists, sometimes hoping that the results will demonstrate that they have normal hearing. In the course of a diagnostic audiology appointment, the findings of the audiologist could be confronting for the patient and cause them to acknowledge that their hearing has changed. Audiologists, by measuring and recording a condition which is not visible to others, may present evidence to the patient for the first time that they do have a hearing loss. Patients, like the one in Example 3.2 in the opening turns, are often resistant to admitting the presence of a hearing loss, preferring to maintain their identity as fully functioning, sometimes to the extent of covering up the presence of a hearing loss (Epsmark and Scherman, 2003). The audiologists would require the patient to recognise their hearing loss if they are to take their advice. At the same time as contributing to the patient's changing identity, the audiologist is managing their own uncertain role as described above.

This study will investigate the discourses of the diagnostic process as they are produced in interaction in clinical settings. Rapport, the case history, and the presentation of the audiological diagnosis are analysed in chapters six, seven and eight, respectively.

## **3.2 Rehabilitative Audiology as Discursive Practice**

### *3.2.1 The Rehabilitative Process*

At the end of the diagnostic process, as shown in Figure 3.1, the patient may be referred back to a medical practitioner for medical advice, or they may not require any further intervention at all. Patients may continue with audiology services, transferring to a specialist rehabilitation clinic, in which case the rehabilitation process will follow this path, but at a different location with a different audiologist. However, blending the diagnostic process into the rehabilitative with the same audiologist at the same clinical facility is the preferred model of clinical practice (Martin and Clark, 2003) as this allows for patient-audiologist continuity. It is this model that serves as the focus for the present study.

Essential to the success of rehabilitative audiology is the involvement of the patient and their motivation (Danermark, 1999). As the transition from diagnostic to rehabilitative aspects of appointments occurs, the nature of the relationship between the patient and the audiologist changes from being short-term and highly focused relationship, to being a long-term one, and possibly involving family members and others associated with the patient (Luterman, 2008). While audiologists may understand that different stages of the clinical process involve these different roles and responsibilities, patients unfamiliar with the audiology profession are unlikely to understand this. As the purpose of the appointment and style of interaction shift during a consultation, a challenging communicative situation emerges.

The categorization of the patient's hearing loss as achieved in the diagnostic phase needs to be reformulated for rehabilitative purposes as diagnostic categories do not give direction to rehabilitation (Tye-Murray, 2004). While the degree, type and configuration of hearing loss may give an indication that a patient may experience difficulty in conversation, this does not reveal their adjustment to the hearing loss in terms of coping, use of communicative strategies, communication need, or emotional reaction to the hearing loss (Danermark,

1999). Individuals with hearing loss may not require intervention if they do not have any resulting participation restriction resulting from the activity limitation, even though a physical hearing impairment may be present (Lubinski and Golper, 2007).

The first task in the rehabilitation process is for the audiologist to determine which patients with hearing loss want, and need, intervention (Alpiner and Schow, 1993; 2000) The audiologist needs to establish what the patient's communication needs are (for example in face-to-face communication, group communication, attending meetings, telephone, mobile phone use, regular communication in noisy environments, theatre, religious or other large venue attendances) and whether the patient is willing to address their communication needs in those environments using technology (hearing aids or other assistive devices) or other means. The focus is thus on the patient's emotional reaction and experience of hearing loss in a variety of communicative settings (Clark, 1994b), which is associated with their motivation to undertake rehabilitative measures .

The rehabilitative process involves not only the initial decision making, but the implementation of a rehabilitation plan, which sometimes involves revising goals and strategies, such as the trial of different hearing aids, or re-evaluating what might be possible with technology (Alpiner, Hansen and Kaufman, 2000). The focus of the present study however, is only the initial decision making that follows on from the diagnostic phase of the clinical process.

### 3.2.2. *Rehabilitation Options*

Figure 3.2 (below) is a partial reproduction of Figure 3.1, but showing, for easy reference of the reader, only the rehabilitation portion.

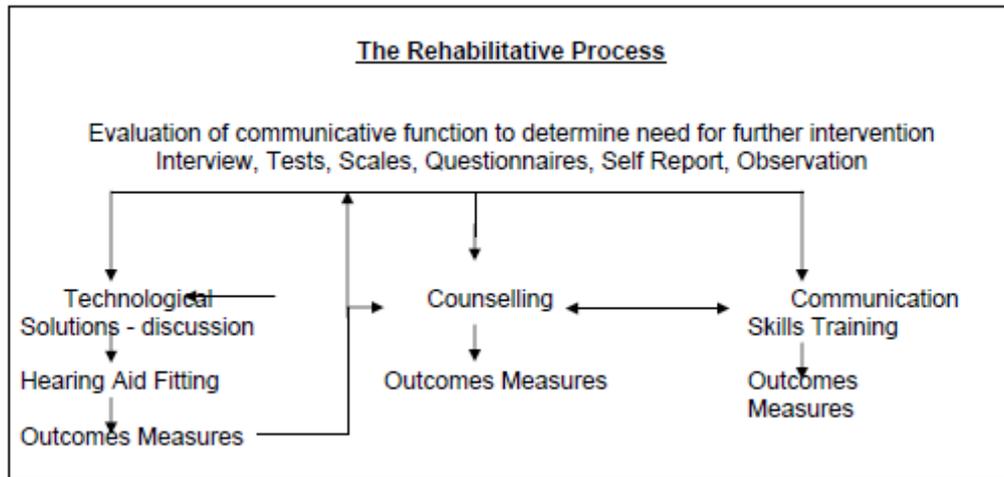


Figure 3.2 The rehabilitative process

As shown by the connecting arrows in Figure 3.2, there are a number of different options for the rehabilitation of hearing loss. These include:

1. Technological solutions to hearing loss (typically hearing aids, cochlear implants or assistive listening devices) only (described by Dillon (2001) as a partial solution to hearing loss).
2. Counselling and communication training programmes (Borg, Danermark and Borg, 2002; Brueggeman, 2005; Hickson, Worrall and Scarinci, 2007).
3. Technological solutions followed by counselling/communication training programmes for residual communication difficulties (Chisolm, Abrams and Mc Ardle, 2004).
4. Technological and non-technological solutions presented simultaneously with outcomes measured only after all aspects have been attended to (Getty and Hetu, 1991; Hetu and Getty, 1991).

By far the most common form of intervention is the fitting of technological aids in the form of hearing aids. Counselling-based approaches to rehabilitation are adopted when it is recognised that the individual and/or significant others are having difficulty adjusting psychologically to the hearing loss (Clark and English, 2004). Closely aligned, but usually separated in activity, is communication training of the person who has a hearing loss and/or their communication partners (Borg, et al., 2002). Comprehensive intervention might incorporate technological and non-technological solutions, including counselling and communication training.

Audiologists are required to match these options (combinations of technological and non-technological interventions) with the needs, motivation and resources of patients. The patient's motivation and communication needs are assessed by the audiologist through patient reports on their lifestyle and needs. Thus, the audiologist learns how each patient categorises their own communication difficulties. The interaction through which this is achieved requires a shared understanding of the importance of these factors (communication needs, motivation and resources) to the success of intervention. It is not surprising that the relationship between audiologists and patients is understood to be a key indicator of the potential success of rehabilitative efforts (Clark, 1994b; Clark and English, 2004).

### 3.2.3 *Technology as a Focus of Audiological Rehabilitation*

Technological solutions (hearing aids primarily, but also implants and assistive listening devices) are considered to be central to the rehabilitation process (Ross, 1997). Hearing aid fitting serves as the standard, and first option for people with hearing loss (Alpiner and Schow, 2000; Palmer and Mueller, 2000). Satisfaction with hearing aid benefit is not very high amongst hearing aid users, in spite of marked advances in technology (White, 2002), making a study of the interactionally achieved decision-making related to hearing aids of particular topical interest to the audiology profession.

It is usual within Australian audiology clinics for the discussion of hearing test results at the end of the diagnostic stage to lead directly to the topic of technological solutions, without conducting a formal assessment of attitude and communication abilities of the patient. The *hearing aid discussion*<sup>7</sup> is the defined activity that follows on from the giving of diagnostic test results. The second level of assessment (the assessment of communication function shown in Figure 3.2 is

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<sup>7</sup> The term "hearing aid discussion" is used here to describe the interaction related to decision making about technological options to assist with hearing loss. The use of this term is discussed in full in chapter eleven.

typically conducted in a minimalist fashion, with a reliance on patient accounts, rather than observation of skills and attitudes, to guide the discussion about technological options only. Figure 3.1 shows (in blue) the common pathway from diagnosis to hearing aid fitting.

To some extent, the direct pathway from diagnosis to hearing aid discussion results from the influence of OHS on the practice of Audiology in Australia. Within the OHS system, technologically-driven rehabilitation programmes are privileged over counselling based systems (Office of Hearing Services, 2006). It is only since 2008 that a combination approach has been funded by the OHS system, and the relative contribution of time and funding remains heavily weighted towards technological solutions. Patients receiving rehabilitation within the OHS scheme have the option of hearing aid technology which is funded in terms of the device, the fitting, follow up and maintenance, with regulations allowing for reprogramming of hearing aids and reviewing the patients' needs. All patients have the option of receiving either a short rehabilitation programme, or the fitting of hearing aids. If patients opt for the short rehabilitation programme, this prevents them from also accessing funding for hearing aids unless their circumstances (usually judged on degree of change in hearing) changes significantly. If a patient receives a 'fully subsidised' hearing aid, as of 2008, they may also receive two rehabilitation appointments subsequent to a hearing aid fitting. However, if a patient elects to purchase 'top-up' hearing aids (those that have more sophisticated features) partly at their own expense, then the OHS system does not cover their rehabilitation appointments (Office of Hearing Services, 2008). The scheme also does not pay audiologists for undertaking counselling prior to any hearing aid fitting, something which is called on in future planning for hearing health in Australia (Smith, et al., 2005). Thus, if patients are not motivated or supported by their families, there is little that audiologists can implement to assist them to reach a point where their motivation or support are adequate for a successful hearing aid fitting.

Within private practice it is common in Australia, as in other countries, for patients to be offered only technological solutions to their communication difficulties, on the grounds that audiologists do not receive sufficient training in counselling and communication training, and that time constraints serve to limit these services

(Clark and English, 2004; Holland, 2007). Much of the motivation to upgrade professional training in the USA to the level of the professional doctorate (see chapter two) has related to the need to increase the professional counselling skills of audiologists, to enable them to undertake this aspect of audiology (Luterman, 2008).

The focus on technology is interwoven with the commercial aspects of rehabilitation (Tye-Murray, 2004). Hearing aids are sold to patients either as part of a rehabilitation programme, or as the only form of rehabilitation. In Australia, even those patients who receive government support for hearing aids are involved in commercial aspects of audiology, as all patients are required to be informed about the option of either fully subsidized hearing aids or “top up” where they pay towards the costs (Office of Hearing Services, 2008). Although there are alternative solutions to solving hearing difficulties, such as counselling and communication training, the costs associated with hearing aids and the “counselling by persuasion” (Luterman, 2008, p. 5) make it difficult to combine technological and non-technological solutions into rehabilitation planning. Patients are persuaded to spend considerable sums of money on hearing aids, that arguably they do not want, and which the audiologist cannot assure them they will benefit from. In persuading patients to trial hearing aids it may be difficult to, at the same time, admit that an expensive solution is only partial, and that counselling and modifying their communication skills are also required. Achieving the goals of the hearing aid discussion is recognised as a professionally challenging task, but one that is critical to the success of the hearing aid fitting (Mueller and Grimes, 1993; Palmer and Mueller, 2000)

### 3.2.4 *The Discursive Nature of Hearing Aid Discussions*

Many audiologists describe what they do when they introduce the topic of hearing aids as *counselling*. Counselling takes place in so many different contexts that it is not a unitary concept (Silverman, 1997). Professional counselling may be conceptualised as nondirective, aimed at an individual gaining insight into and solving, their problems. Audiologists, like many other professionals, often make distinctions between types of counselling that they undertake, under the umbrella term of *counselling*. A distinction is made between the counselling that serves as the facilitator of rehabilitation decisions associated with hearing aid use and counselling associated with counselling-based therapies where the goals if for individuals to solve their own difficulties (Holland, 2007).

Sanders (1982) differentiated between informational and personal adjustment counselling, a distinction that has since been widely adopted in the field of audiology. The distinction is recognised as artificial, given that information can facilitate adjustment, and some adjustment is needed when processing new information (Kaplan, 2004; Wylde, 1987). Nonetheless, differentiating between the two types of counselling has led to the frequent comment that audiologists are comfortable with informational counselling, but not with personal adjustment counselling (Clark and English, 2004; Luterman, 2008). One of the reasons given for audiologists adopting an informational counselling model is that they do not wish to overstep their scope of practice with that of psychologists (Clark, 1994a). Counselling regarding hearing aid fitting is thus usually described as informational counselling (Maddell, 2000). It is likely however, that audiologists, even though they report using a predominantly informational counselling model when discussing rehabilitation options, achieve more in interaction than only the simple transfer of information.

Candlin and Lucas (1986) describe a *counselling* continuum from *information sharing* to *establishing contraindications*. Their model is based on counselling undertaken by family planners who operated within a medical context whereby medical doctors were positioned to have a wider range of counselling functions

than the counsellors within the same clinic. Audiologists operate along a continuum that is extended by both medical doctors (who can diagnose causes and prescribe medical treatments) and psychologists (who can offer psychotherapy or professional counselling). Just how far audiologists do shift along these continua (that is away from the giving of information) needs to be identified in order for the complexity of the hearing aid discussion to be explained.

The hearing aid discussion typically involves the audiologist gaining additional information about the patient to clarify their communication needs, while at the same time offering information that allows the patient to make a decision about which hearing aid to obtain. The hearing aid discussion aims to establish realistic expectations as to what is achievable through amplification, discuss motivation, preferred and possible styles of hearing aids, select features of hearing aids, decide between binaural versus monaural options, and inform patients of their associated costs. The activity of “hearing aid discussion” itself is thus seen to be multifaceted, and requires a number of discourse types (questioning, supporting, advising, selling and giving information are a few of these). The nature of the discussion is clearly suggestive of more than information-sharing, even though audiologists are influenced by Dillon (2001) who suggests that giving information is the key to motivation. Sarangi (2000, p. 2) refers to the adoption of a variety of discourse types to achieve a particular goal or complete an activity as “*interactional hybridity*”. Sarangi describes hybridity as occurring where activity types (an example here would be *Hearing Aid Discussion* and *Further Assessment* of the patient) and discourse types (an example here would be *giving information* or *advising* or *questioning*) conflate. Hybridity was evident in Sarangi’s study of genetic counselling, which has a strong information giving component. This suggests that a similar form of hybridity may operate in the interaction between patients and audiologists. The notion of interactional hybridity is discussed in the context of audiological consultations in the chapters that follow.

As has been mentioned earlier, and following Goffman (1967), the hearing aid discussion involves the maintenance of face of all parties in the interaction. The discussion about hearing aids can be considered as potentially face-threatening for both patients and audiologists. As already noted in this chapter and in chapter

two, there are patients who are not ready to acknowledge their hearing loss at their first visit to an audiologist. It is expected that many patients will try to maintain their identity as a hearing individual. The audiological diagnosis and the rehabilitation options can thus be conceived as a threat to their face as a functioning individual. The professional face of the audiologist is threatened by the fact that hearing aids only offer a partial, and not quantifiable benefit.

Competing orders of discourse associated with this interaction that lead to rehabilitative decision making may be identified as commercial, technological, managerial, and psychological. Of interest and a focus for the present study, is how these competing discourses manifest in interaction. Already mentioned is the suspected interactional hybridity of the hearing aid discussion, following Sarangi (2000). Fairclough (2003; 2005) suggests that examining *intertextuality* (looking at the textualisation of similar discourses across texts) can suggest which discourses are dominant. The creation of new discourses may emerge as specifically audiological, as has been shown in other situations such as that of mediation in alternative dispute resolution, as examined by Candlin and Maley (1997). Of interest is whether the hearing aid discussion follows the guidelines dominant in the audiology literature as constituting information-giving. This study aims to shed light on whether hybridity occurs in hearing aid discussions, as might be expected given available results from examinations of other professions, and whether evidence of competing discourses (as evidenced in intertextuality across phases of the appointment) can be identified.

A close examination follows (with examples) of clinical interaction typical of the point at which rehabilitative decisions are made. This account is arranged according to three interrelated key themes:

- Managing expectations
- Introducing commercial aspects to the rehabilitative process
- Responding to the psychosocial effects of hearing loss

#### 3.2.4.1. Managing Expectations of hearing aids

Establishing realistic expectations in a clinical context is, based on the clinical experience of the author, a complex interactional achievement. There is no direct relationship between the degree of hearing loss, the effect that it will have on an individual's life, and their benefit from rehabilitation (Erdman, 1993; Hallberg and Carlsson, 1991; Sweetow and Sabes, 2007). There is thus uncertainty for the audiologist, even after completing the diagnostic process, in deciding whether intervention, and what form of intervention, might be suitable for any particular patient (Boothroyd, 2007). As already mentioned, hearing aids are only a partial solution (Dillon, 2001), and not a cure for hearing loss (Boothroyd, 2007). They will, at best, only be an optimal (that is optimal for that particular patient), yet partial solution, and only if they are fitted and used appropriately (Erber, Lamb and Lind, 1996). Clinical experience shows that this latter will depend on a number of factors related to use of the hearing aids (volume level, battery use, maintenance), selection of hearing aids (monaural versus binaural fitting, programming and features), environment that communication takes place in (background noise, communication skills of speakers, visual cues available), communication ability of the patient (speechreading ability, processing abilities) and psychosocial functioning (motivation, coping).

Many of the determiners of hearing aid benefit and reported satisfaction are unknown to the audiologist for any individual patient at the start of the rehabilitation process. Patients who have high expectations of what hearing aids can achieve have been found to have greater satisfaction with them (Jerram and Purdy, 2001). This is related, in at least some cases, to having a realistic (and recent) memory of the experience of normal hearing including the difficulties that those with normal hearing experience in adverse circumstances (Borg, Bergkvist, Olsson, Wikström and Borg, 2008). Those with low expectations of hearing aids seldom proceed to the stage of fitting (Bille and Parving, 2003). Not just the expectations of the hearing aids themselves, but also expectations of the audiologist, can influence hearing aid decisions. Wong, Hickson and McPherson (2003) and Wong, McPherson and Hickson (2004) report that expectations that patients have of service providers is closely related to their expectations of, and decision to use, hearing aids. In the 2004 study reported by that group of researchers, they found

that patients with low expectations of hearing aids who were fitted with hearing aids did eventually tend to be satisfied with the final outcome, possibly as a complex association of satisfaction with service provider and the hearing aid itself. Correlational studies, such as that by Humes, et al (2002), have found that patients who are happy with their service providers are also happy with their hearing aids. Taylor (2006), using a tree regression analysis found that interaction with the service provider was the single most important determiner of patient satisfaction with hearing aids. Service providers were seen to exert a significant influence on patients' decisions to trial hearing aids. Expectation and satisfaction are thus not separable from the interaction that takes place in clinical situations. The interactional task of the audiologist can be seen to include the establishment of realistic expectations while managing the uncertainty of the outcome. Grounded in this is the audiologist's own role in the fitting process as a determiner of benefit. The establishment of expectations in a context of uncertainty is likely to be challenging, as is the maintenance of professional face when one's own professional skills are implicated in the expectations. The expectations also have a relationship to the decisions made about what form rehabilitation should take for any particular individual. Some of the interrelationships between variables that have not been fully explained through surveys and correlations are expected to emerge from a qualitative discourse analytical investigation of interaction in the clinical setting.

Expectations that patients have about rehabilitation and hearing aids in particular are usually established at the start of the appointment. These are often discussed with the patient and then may be documented, either in case notes and/or using standardized clinical tools. The Client Oriented Scale of Improvement (Dillon, James and Ginnis, 1997) is designed for the recording individual priorities and expectations, as discussed between patient and audiologist, and serves as a point of later discussion in the follow up period. Comprehensive assessment of communication function would include a detailed history, observation of the patient in interaction, assessment of performance on auditory and auditory-visual tests, and through the completion of questionnaires and rating scales (Alpiner and Schow, 1993; Hull, 2001). It is unusual in clinical practice in Australia for a full assessment of communication function to be carried out before decisions are

made about rehabilitation, but it is common for patient expectations to be documented. Decision making about rehabilitation is necessarily directly associated with the documentation of expectations, as achievable outcomes may depend, in part, on the nature of the rehabilitation programme. For example, if better hearing in noise is an expectation after hearing aid fitting, appropriate technology (such as noise reduction systems and binaural fittings) needs to be decided on.

Unless decision-making facilitates realistic expectations, satisfaction with the outcome of hearing aids is likely to be compromised. But note that *high* expectations were shown above to be associated with deciding to trial hearing aids. This makes the decision-making process complex. The complexity is that expectations need to be high to encourage hearing aid trials, but they need to be realistic because hearing aids do not restore hearing. Satisfaction is reported at the end of the fitting process, in clinical settings, either verbally or in the form of self report assessments (Huch and Hosford-Dunn, 2000). Many clinical tools are available to allow audiologists to document expectations and satisfaction (Noble, 1998). The Client Oriented Scale of Improvement can be reviewed with patients at the end of the rehabilitative process, which links their expectations directly to their satisfaction. The completion of the scale requires interaction between the patient and audiologist. Questionnaires, of which there are many variations available, are also used, but some, such as the Satisfaction with Amplification in Daily Life (hereafter SADL) (Cox and Alexander, 1999) are often mailed out to patients for completion, and are thus not completed interactionally. Although questionnaires investigate benefit and satisfaction broadly (for example the SADL examines four factors, including benefit and sound quality, physical and psychological comfort, value and stigma), their mode of delivery makes them very different to the forms of evaluating satisfaction in interaction, as would be the case if satisfaction was recorded through a face-to face interview.

How effective the audiology profession is at satisfying the expectations of patients in general has been monitored over the past decade through large scale MarkeTrak surveys of patient satisfaction carried out in the USA (Kochkin, 1996; 2000a; 2000b; 2002; 2005a; 2005b). Those surveys target hearing aid users only

and so do not provide information about those who have not proceeded with hearing aid fitting. The surveys are nonetheless widely reported in the audiology literature, and, in spite of methodological limitations, provide useful information about patient satisfaction (Wong, et al., 2003). They offer information about patients' expectations about both hearing aids and services offered by their hearing service providers. Indirectly, they assess the appropriateness of the clinical decisions made, and as such serve as a judgment of the interaction between patients and audiologists.

Although recognised as a necessary and multifaceted task (Garstecki, 1994), how to establish realistic expectations and reach decisions about how to proceed with rehabilitation is not addressed fully in the audiology literature. Stach (1998, p. 441) describes the sequential rehabilitation process as that of the audiological assessment -> medical clearance -> impression taking -> fitting -> adjustments -> discussion of problems -> self assessment of benefit. Omitted from this sequence is the discussion and interaction about what to expect, and thus how to decide what hearing aids to fit. Dillon (2001) and Valente and Valente (2002) consider the setting of expectations to be possible to achieve by providing patients with information about hearing aids and their hearing loss. Boothroyd (2007) qualifies the information exchange as needing to be instructional and counselling based, not simply "telling" (p. 65).

Expectations are a complex combination of expectations of hearing aids and service providers. The information about hearing aids is supplied by the service providers. Audiologists thus aim to maintain a working relationship with patients during the information sharing process. The interaction between audiologists and patients cannot be disassociated from relational aspects of interaction, and the audiologists maintenance of (professional) face (Goffman, 1967).

Example 3.4 illustrates a hearing aid discussion that incorporates the management of expectations of hearing aids.

### Example 3.4 You'll Still Struggle a Bit - Managing Expectations

1. A: yeah yeah that's exactly what you're doing so it was a little bit of a guess for a lot of the words
2. P: oh yes
3. A: so that means even though we make the words louder for you it's not necessarily going to make them=
4. P: =any clearer
5. A: exactly and that's what hearing aids do they make sounds louder for you for the words that you're listening to without increasing that noise that background noise that you've got that you don't want to hear
6. P: mm
7. A: so you'll still struggle a little bit unfortunately so maybe that is why you have struggled even with your old hearing aids I do think that we can get something better for you, at this clinic here we don't you know get - we choose the best one for you
8. P: mmm
9. A: but I think you will still struggle a little bit because even though the sounds are louder they're not very clear for you
10. P: mmmhmm
11. A: so there up here you can hear the sounds in your brain but you can't actually make out exactly what they are sometimes?
12. P: mmhmm
13. A: so um that's um going to be a bit of a problem for you but if you've got good family support and they will help you out to you know repeat things for you and um give you some you know say things you know more than once you might be able to get by with with wearing the hearing aids as well

In Example 3.4 the audiologist links the patient's performance on the diagnostic tests (turn 1) to his need for new hearing aids the benefit he will get from them, however, is uncertain. The audiologist addresses the expectations that the patient may have of the role of the service provider, by saying at turn 8, that "we choose the best one for you". The use of "we" suggests the promotion of a *professional* or *institutional* identity (Sarangi and Roberts, 1999a). At turn 9, the audiologist adopts a *personal* voice ("I think you'll still struggle"). These two identities are perhaps a way to discursively manage the difficulty of reconciling what would be the best hearing aid for this patient, while at the same time establishing that difficulties may still arise. This suggests that the profession may push for selecting

a hearing aid, but that particular audiologist recognises that hearing aids are not a complete solution.

The audiologist in Example 3.4 does not ask directly about the patient's family support, but uses an indirect form of seeking this information by posing the exploration at turn 13 ("if you've got good family support") as information. In so doing, s/he is exploring options under the umbrella of information-giving (recommended within the profession), relying on what is certain, and using this as a basis for expanding the discussion to the less certain. This can be conceived as form of managing expectations that are uncertain, but grounded in the comfort of an activity that is recognised within the profession, namely that of information giving. The audiologist in this example is thus simultaneously seeking information and facilitating informed decision-making. This appears to be a similar strategy to those of psychotherapists who use techniques such as rephrasing and reframing of patient's problems, presenting hypotheticals to prompt discussion and facilitate problem solving (Buttny, 1996).

This one limited example illustrates that the interaction involves managing expectations about hearing aids and service delivery, making decisions about individual rehabilitation plans, giving information about hearing and hearing aids; obtaining more information from the patient about support; and maintaining a working relationship given a measure of uncertainty about outcomes. Managing expectations appears to involve more complexity than simple information-giving, although information giving is recognised as a significant part of the process. The process is important to the profession as the establishment of expectations influences patients' decisions about future participation in rehabilitation programmes, and how they report on the service at a much later date (Sweetow and Sabes, 2007).

The way the hearing aid discussion usually starts with little information about the patient to guide it, but yet requires the establishment of expectations and priorities, makes it of interest to the study of interactional hybridity (Sarangi, 2000). Achieving multiple activities (information giving and further evaluation) using a style that is characteristic of just one of those (information giving) suggests that those

involved in the interaction will use language in creative and strategic ways. This is a professional task that is repeated, sometimes several times a day, but which remains (as observed by the researcher and reported by both novice and experienced audiologists) challenging, and for which there is no yet, to the knowledge of the author, any published direct investigation of the discursive processes involved.

#### 3.2.4.2 Introducing Commercial Aspects to the Rehabilitative Process

From the start of the profession in the 1940s, audiologists in the USA distanced themselves from commercial salespeople (Harford, 2000), who existed before the audiology profession emerged (as already presented in chapter two). In the USA, audiologists were not allowed to sell hearing aids until 1978. After that time, their scope of practice was expanded to include hearing aid sales. While the incorporation of hearing aid selling into the scope of practice by audiologists was welcomed by many within the profession, and by some is considered to have produced a more "rounded professional scope" (Katz, 2002, p. 5), the change was not without controversy. Northey (2000) refers to the audiology profession as being hesitant, if not resistant to the notion of selling hearing aids. This is a paradox, as the members of the audiology profession aim to increase the number of people who are fitted with hearing aids around the world for both altruistic reasons, and in order to gain financial reward for their professional services, while at the same time avoiding a role in selling. Patients are needed for the ongoing development and practice of the audiology profession, but services are aimed at reducing the effects of hearing loss, and thus decreasing the number of people who might need ongoing audiology services (see Sarangi (2007) for an explanation of professions and service economies). Another paradox is presented by Luterman (2008), who suggests that the selling of hearing aids in clinical settings actually contributes to their lack of success. He argues that if a patient is persuaded by someone else to trial a hearing aid, they are more likely to reject it than if they made their own decision to undertake a trial. He suggests that commercialising counselling has contributed to the poor outcomes of hearing aid fittings that are consistent over time, regardless of improvements in technology. Thus, there is an interesting tension within the profession related to the commercialisation of what might be considered to be a counselling-based service.

It is of interest to investigate how audiologists manage the competing discourses of commercialism and rehabilitation in interaction with their patients, and whether new discourses, or innovative and creative ways of dealing with these competing discourses in interaction, are used by audiologists.

Key issues as to how commercialism impacts on the hearing aid discussion are presented below as follows:

- a) Patient centred versus sales oriented rehabilitation services
- b) Hearing aid prices
- c) Competition
- d) Monaural versus binaural hearing aid fittings
- e) Hearing aids: size, style and features

This is followed by Example 3.5, which illustrates the influence of commercial aspects of audiology on the interaction between patients and audiologists.

a) *Patient-Centred Versus Sales-Oriented Services*

Resistance to selling hearing aids by audiologists is common, and appears to stem from the notion that professionals should distance themselves from commercially oriented services. Luterman's influence on the practice of audiology (see for example Luterman, 1984; 2001; 2008) has resulted in a predominant view that patients should be encouraged to make their own decisions with audiologists holding a facilitative, rather than prescriptive role. Tye-Murray (2004) similarly promotes a patient orientation which she describes as being grounded in patients needs and wants as opposed to a sales orientation she describes as grounded in *persuasion* and *procurement*. In contrast, Sweetow (1999a) describes counselling as being synonymous with selling. He suggests that audiologists are selling the process of hearing, rather than products. He argues that rather than allowing patients<sup>8</sup> to solve their own difficulties as with a traditional counselling approach, audiologists should present themselves and their products as a possible solution. Commercially-oriented audiology services have attempted to package the selling of

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<sup>8</sup> Sweetow refers to clients, not patients, which is perhaps synonymous with his orientation to selling as counselling.

hearing aids to audiologists as counselling in an attempt to overcome the resistance that many have to the selling role. Consultative selling (Campbell-Angah, 2007) is one such approach which suggests audiologists focus on service, and management ensures the selection of staff who are able to demonstrate an interest in patients, as this will ensure increased sales of hearing aids. Northey (2000) provides guidelines for clinicians that attempt to reconcile the need to sell hearing aids for financial gain while providing individualised and justified services for patients.

Audiologists also obtain guidance on their role in selling from various sources including codes of ethics, the audiology literature, and hearing aid manufacturers. According to the code of ethics and standards of professional practice guiding audiologists in Australia, recommendations made to patients are expected to take their particular needs and circumstances into account (Audiology Australia, 1997; 2002). Audiologists, according to the Audiology Australia's Code of Ethics (2002, online resource) "must be prepared to discuss fees with their clients. Members are to establish their fees fairly considering their time, skill, experience and any special circumstances" and further, "any device recommended to a client, or to another professional for a client, must not be less suitable for the client than other available devices, taking into account the likely performance of the device, features of the device, the cost of the device to the client, and the preferences of the client".

Audiologists are therefore faced with a challenging task, which is to balance the discourses of selling, counselling, and disclosure to patients regarding their financial benefit to the fitting of hearing aids. There is a duality of purpose in this in that the audiologist wants to ensure that their patient proceeds with rehabilitation, preferably of a technological nature, while at the same time wanting the patient to make their own decisions.

*b) Hearing Aid Prices*

In Australia, the cost of hearing aids is presented to patients as a total package (termed "bundled") incorporating the cost of the device, the fitting fee, hearing assessment (sometimes), and (some) appointments during the device's warranty period. There is typically no breakdown of costs into these separate aspects, but

rather a total price is provided, which is given as the price of the hearing aid itself. The cost of hearing aids thus represents much more than the hearing aid itself, although this is seldom made explicit to patients. Current hearing aid prices in Australia for private fee-paying patients, typically range from A\$1 600<sup>9</sup> to just over A\$5 000 for one hearing aid. Given that many audiologists promote the binaural fitting of hearing aids (Dillon, 2001), it is most common for two hearing aids to be recommended (see further discussion below). Two hearing aids cost almost double the price of one, bringing the cost of two hearing aids to be possibly more than A\$10 000. Most manufacturers group their hearing aids into low, mid and high price groups, with the cost of devices closely linked to the sophistication of features that the hearing aids have. Targeted consumer groups such as the international organization Self Help for the Hard of Hearing (Barber, 2005), as well as general consumer watchdogs such as Choice magazine in Australia (Choice Magazine, 2006) provide information for the consumer, justifying the cost of hearing aids and identifying the cost as not just representing the hearing aid itself, but also the professional service in the fitting of the hearing aid, trial periods, warranty arrangements and research required to develop the devices. While input from consumer groups is typically welcomed by professional bodies, consumer groups also come under criticism from audiologists for recommending that consumers exert their rights and shop around for price and service. This is interesting, as many audiologists themselves do not break down costs for their patients, and cost of 'hearing aids' is cited as a reason for low numbers of hearing aid users (Ching, Byrne, Westcott and Love, 2000; Smith, et al., 2005), whereas costs that are attributed to hearing aids, also include professional fees.

The 'high cost of hearing aids' is mentioned in the literature as a reason for the rejection of hearing aids by some patients (Clark and English, 2004; Mills, 2003a). Some audiologists too, often feel that the costs associated with hearing aids are too high for the vast majority of patients (Garstecki, 1994; Zimmerman, 2004). One argument put forward by some in the industry in Australia, is that OHS policy influences the cost of hearing aids. OHS establishes the cost of hearing aids that are fully subsidized for eligible pensioners and war veterans, and determines what features those hearing aids are required to have. Because these costs are

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<sup>9</sup> All \$ figures referred to in this thesis refer to Australian dollars (A\$).

unrealistically low, according to the industry, this forces the cost of more highly featured hearing aids to be higher than they otherwise would be (Hattel, 2008). This argument, put forward in Australia, however does not apply to most other countries, and comparison of hearing aid prices globally represents similarities across countries for private fee-paying patients.

c) Competition

In Australia, the supply of hearing aids is not regulated which means that any interested individual can sell hearing aids. This is problematic for audiologists who compete with less qualified audiometrists and hearing aid dealers for patients requiring hearing aids. While charging the same fees as their competitors, audiologists need to defend their qualifications and quality of service, often explaining what they provide are individualised, patient-focussed services, rather than the sales-focussed approach common in commercial hearing aid businesses. However, private hearing aid sales are the most lucrative aspect of audiology, because of the fee structures in Australia. Audiologists typically are not able to charge separately for rehabilitation that accompanies the hearing aid fitting – the very activity which is supposed to distinguish the professional from the non-professional service provider.

A relatively new development in the hearing aid industry is the selling of hearing aids over the counter, and over the internet. Hearing aids are typically available at low cost in countries where they can be purchased over the counter (for example many Asian countries) and over the internet (available to all). However, the supply of hearing aids through those means does not include the fitting of the hearing aid. One manufacturer (Oticon) has publicly announced that it will not support clinics who engage in the selling of products at a distance.

Many audiology practices currently are managed and vertically integrated with hearing aid manufacturers. Audiologists rely on income from hearing aid sales, sometimes receiving commission or other incentives related to the fitting of hearing aids. The fitting of hearing aids thus may be directly related to salaries and commissions, and ongoing employment may be dependent on the fitting of hearing aids. Large clinics commonly engage in recruitment drives to attract patients.

Such strategies include cold calling (telemarketing), advertising of hearing aids, telephone hearing tests, offering free hearing tests, and free hearing aid trials, and open days where patients can trial technology. The hearing aid manufacturers also introduce incentives for audiologists to recommend their products. Some of these schemes introduce competition amongst those in the industry. Others raise expectations of the patients (Bille and Parving, 2003). They clearly introduce a commercial element into the hearing aid discussion that competes with the setting of realistic expectations, and thus forms an obvious focus for the present study of discourse in clinical settings.

These influences from the industry, consumers and competing colleagues present challenges for audiologists who are required to justify the cost of hearing aids to their patients. As already explained, audiologists are responsible for the setting of realistic goals (which often means identifying areas where hearing aids will not offer benefit) while at the same time aiming to explain and justify the benefits of highly featured and costly hearing aids. Goffman (1963), who was referred to earlier in relation to the stigma that patients experience, also addressed notions of stigma being experienced by service providers who are identified as salespeople who sell cures to overcome stigmatizing conditions. In interaction, audiologists will want to ensure that patients do not identify them as such, but rather as professionals who are patient-centered (Balint, 1964). Disassociation from the selling role results from audiologists not wanting to be associated with a group (arguably manufacturers or hearing aid dealers) who capitalise on the deaf, and those who engage in the marketing practices that serve to increase their hearing aid sales. How this is managed (convincing patients to trial hearing aids without selling them) is of great interest to the discourse analytical study of activity types and discourse types, as defined by Sarangi (2000). Firstly, it is not clear from the literature whether all audiologists engage in what is understood to be *selling* (Calazzo, 1999). If they are, then the discourse types they adopt to achieve this, given the tensions between their roles and identities, are not expected to be simple strategies of selling but can be expected to display interdiscursivity.

d) *Monaural Versus Binaural Hearing Aid Fittings*

The benefits of binaural hearing are well documented in the audiology literature and are extended to benefits to binaural hearing aid fitting (Mencher and Davis, 2006). Being able to discern speech against background noise is possible only with two ears in those with normal hearing, and this is extended to binaural hearing aid fitting be required to assist those who have difficulty hearing in noisy situations, the most common complaint of those with hearing loss (Valente and Valente, 2002). In many private audiology clinics, the fitting of binaural hearing aids represents about twice the cost of monaural fittings. Audiologists, particularly those in developed countries like Australia, sometimes refuse to fit just a single hearing aid, influenced by audiology texts that suggest that binaural fittings are essential for success. There are, however critical accounts in the literature, such as Hickson (2006) and Mencher and Davis (2006), who suggest unilateral fittings have value in some circumstances. Other audiologists will agree to monaural fittings, anticipating that patients will reconsider the binaural option after they experience the benefits and adjust to the wearing of one device. In 2004, Australia had the second highest rate (second only to Denmark) of hearing aid fittings and one of the highest rates of binaural fittings (75%) when compared with a number of countries in the developed world (Arlinger, 2006). Although, as mentioned, the fitting of monaural hearing aids is not encouraged by audiologists, Hickson (2006) reports on patient accounts of preference and benefits of monaural fittings, in spite of accounts of the auditory benefits of binaural hearing.

e) *Hearing Aids: Size, Style and Features*

Patients who want small hearing aids may find that they pay the same price for small hearing aids as they would for larger hearing aids that have superior features.

Hearing aids are categorized as behind the ear (conventional or open fitting<sup>10</sup>), in the ear, in the canal and completely in the canal. Most models of hearing aid (for

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<sup>10</sup> Open fitting hearing aids refer to behind the ear style hearing aids with thin tubes to which domes are attached, thus avoiding the need for earmolds.

example an Oticon Syncro, or Phonak Perseo<sup>11</sup>) are manufactured in all these different styles. The cost of hearing aids is not aligned with the style in many cases, although as mentioned above, the smallest hearing aids in any of the ranges (the completely in the canal aids) are usually more expensive than the large styles, but can accommodate fewer features. A key issue for hearing aid fitting is that larger styles allow for greater power and advanced features such as multiple microphones.

Examples of hearing aids and their appearance are shown in Figure 3.3.

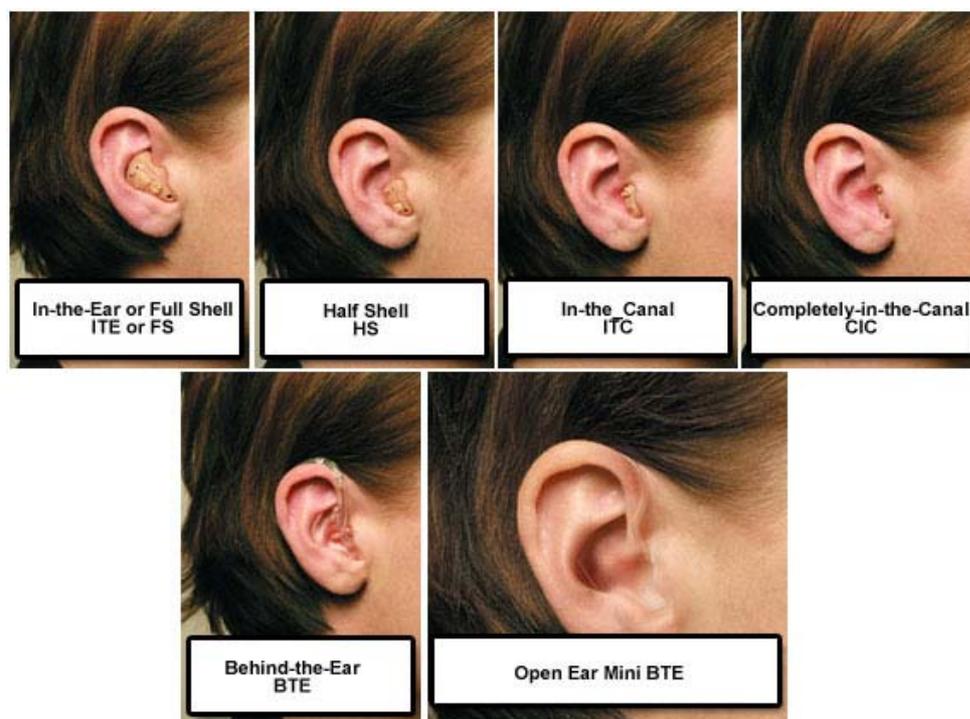


Figure 3.3 Examples of the appearance of the variety of hearing aid styles most commonly fitted.

(<http://www.hometown-hearing.com/images/about-1.jpg>.)

The features that differentiate between less featured (and less expensive) and higher featured (and more expensive) devices include processing (analogue, digitally programmable, or digital), number of bands and/or channels, microphone arrangements, noise reduction systems, feedback management, automatic

<sup>11</sup> Brand and model names used in this study, were in current use during the period of data collection (2004 – 2005). Both the models mentioned here have been superseded by newer models. However, the influence of brands and models on the field of audiology remains the same.

adjustments to different environments (for example quiet, noise, telephone, wind, echo), bluetooth connections to mobile phones, communication between hearing aids fitted to two ears and datalogging. The difficulty that audiologists face is in explaining these features to patients in ways that demonstrate the differences between levels of sophistication. In clinics that are not tied to any single manufacturer, the explanation is required also to compare features of hearing aids across manufacturers. Manufacturers nominate terminology to explain their particular hearing aid features, which makes it difficult to compare products across them. In addition, this terminology continually changes as the competitive hearing aid market brings out new products in different styles with features that aim to improve sound processing.

Audiologists are required to understand the features of hearing aids and then explain these to patients in language that they can understand (Citron, 2000). In the hearing aid industry, manufacturers play a significant role in assisting the audiologists by providing marketing materials and training in the selection and features of their products. What they do not do is make it easy for audiologists to compare across manufacturers or across models, as the combination of features and possible settings of the hearing aids are not directly comparable. In an independent clinic, the audiologist is required to present the information to patients in ways that do not align him or her with any particular manufacturer. This is communicatively challenging as the terminology is often manufacturer specific. As much of the ongoing training about hearing aids is offered by manufacturers, there is little advice to audiologists as to how best to maintain a separation between them and the hearing aid manufacturer. This sometimes uneasy relationship between audiologists and manufacturers is expected in this study to have an impact on the interaction observed between audiologists and patients.

Example 3.5 (below) shows how commercial issues influence hearing aid decisions. In the example, the audiologist adopts a patient-centered approach rather than a sales-oriented approach through aiming for a hearing aid that meets the patient's needs (active social life) but is affordable. The patient's previous hearing aid purchase is used to guide the audiologist as to what price range the patient can expect to pay. This is a demonstration of how commercial discourse is

mixed with rehabilitative discourse. The prices are mentioned to the patient, but in a way that aligns the audiologist with the patient (“I will try to keep us away from the \$3 000” at turn 23). The audiologist includes herself with the patient (“us”) rather than with the hearing aid supplier. The difficulty of choosing between manufacturers is evident in this example where the audiologist first suggests that it might be best to use the same manufacturer, and then changes her mind given this patient’s previous experience of hearing aids.

**Example 3.5            I’ll Try and Keep Us Away from the \$3 000 - Deciding how Much to Spend**

1.    A:    um I know that you said you spent about (.) 3 000 dollars for this one?
2.    P:    yeah it was something like that - I’ve been trying to remember
3.    A:    okay so um do you want to spend less?
4.    P:    [well yea^h]
5.    A:    [as much as] -okay so um that’s an indication of what we need to talk about.
6.    P:    okay.
7.    A:    because we do have very expensive hearing aids down to the lower price end (.) so our price range ranges from about 1 700 dollars up to 4 500 dollars.
8.    P:    okay.
9.    A:    um and we have like three categories from the low price range, middle price range to top price range.
10.   P:    uh-huh.
11.   A:    so because you’re so young and you’re still working and active-
12.   P:    yeah.
13.   A:    we need a hearing aid that will suit all those situations=
14.   P:    [hm-mm]
15.   A:    =[you’re not] home alone you know (.) not socializing (.)so we want - we don’t necessarily want those low price range hearing aids
16.   P:    yeah yeah that’s for sure (.) yeah
17.   A:    we want probably something low of the middle end.

18. P: hm-mm.
19. A: so maybe (.) 2 000 dollars.
20. P: okay (.) alright.
21. A: um maybe 2 200 something like that
22. P: hm-mm (.) alright.
23. A: um so I will try and keep us away from the \$3 000
24. A: um I think that it's probably best to keep with the same manufacturer (.) but it sounds like you've had different hearing aids anyway
25. P: yeah. and this wasn't the original one he ordered um when I went to pick it up he said oh they couldn't do it for another month so I got you this one.
26. A: oh right.
27. P: but it was an extra 400 dollars and I'm not sure if you can do that.
28. A: oh right- that (.) yeah, oh.
29. P: but um yeah yeah so it sort of hasn't sort of impressed me about that fellow.
30. A: yeah oh that's no good.
31. P: but um so I don't know what one was originally ordered.
32. A: yeah okay well there is a really great hearing aid that is very successful um-
33. P: okay
34. A: -and it's- because we've had lots of new hearing aids come on the market just this year this little hearing aid although still very good has had a price reduction.
35. P: oh alright.

The commercial nature of the hearing aid industry in general is explained by the patient in Example 3.5. The patient refers to her previous experience of having selected a particular hearing aid, but on arrival for the fitting, having been asked to pay more than she had expected to because the service provider had ordered a more expensive model without consulting her (turn 25). She refers to this incident as a lack of professionalism as "I'm not sure that you can do that" and this experience as having negatively affected her impression of that service provider. The audiologist's response (turn 28) is indicative of a tension ("oh right that yeah oh") which signifies that she perhaps is reluctant to acknowledge the

unprofessional practices associated with the hearing aid industry. In this way, the commercialism of the hearing aid discussion can be seen to evidence elements of competition amongst providers, as well as hearing aid manufacturers. The mentioning of the unprofessional practice by the patient ensures that this audiologist will aim to present him or herself as distanced from unprofessional practices. One of the most obvious ways to achieve this is to select a hearing aid that is not overly expensive. In mentioning that the hearing aid that is recommended is selected on the basis of price at turn 34 (“...has had a price reduction”) the audiologist is also saying that the aid has been superseded in technology. Thus process of selecting the best technological device to match the patient’s lifestyle is complicated by the commercial influences of competition between both providers and hearing aid manufacturers. Not shown in this example are instances of the additional influences of monaural versus binaural fitting, and style of hearing aid, which were discussed above as additional commercial influences.

What is clear from Example 3.5 is that hearing aid selection is not a simple case of selling, nor is it just a case of selecting the best technology to match individual lifestyle needs without considering the commercial transaction. The decision about the best hearing aids for an individual is more complicated than either of these alone, and as a result of this complication at times the result is that a compromised decision is made about which hearing aid to obtain.

Audiologists typically deal with the difficult notion of which hearing aid is the best for an individual by facilitating patient involvement in decision-making (Dahl, Vesterager, Sibelle and Boisen, 1998). This introduces the notion that the audiologist may relinquish their status as expert, as investigated by Heath (1992) and Pomerantz and Rintel (2004) in relation to expertise in medical contexts. It is a way for audiologists, who may be under pressure from employers to sell hearing aids, to distance themselves from the selling role (as described above and shown in this example). Involving patients in decision-making is one way for audiologists to reconcile their roles, in that they are placing the decision about hearing aids with the patient, and distancing themselves from an active selling role. It places an additional discursive burden on the audiologist however, in that the reasoning and

implications of the decision need to be conveyed to the patient. In Example 3.5 this is seen as compromising the latest technology for a cheaper price.

Many audiologists remain un-reconciled to having a role in selling, and attempt, in their interactions with patients, to distinguish between sales people and themselves. Unresolved for the audiology profession are both the role of selling and the role of counselling in the profession. Whether there is any difference between these two roles is of interest, as it is not clear that counselling that leads to the purchase of hearing aids is any different to selling hearing aids. For audiologists, although counselling is itself problematic (as discussed above in relation to information giving versus personal adjustment and the overlap with psychology), it is often preferable to selling. The selling role is made more palatable to audiologists by framing this within a counselling genre. This will be investigated in the present study through the analysis of discourse during critical moments (Candlin, 1987) during discussions about new hearing aids. Interdiscursivity, which is suggested in the literature as a likely outcome of competing discourses, will be investigated in terms of how discourse is used creatively and strategically in interactions where the goal is to facilitate decisions about hearing aids.

#### 3.2.4.3 Responding to the Psychosocial Effects of Hearing Loss

As discussed in chapter two, adults who acquire hearing loss are not usually members of a Deaf community and typically have had little contact with, or experience of, deafness. The ability to participate in conversation and use hearing for communication with others and as a means of contact with the environment, is thus assumed and automatic by most patients attending audiology clinics (Thomas, 1984). Hearing is an assumed human ability for most patients in audiology clinics. When hearing becomes impaired during adulthood, the reaction of many is to conceal the hearing loss, attempting to present an image of themselves that reflects their identity as a hearing person (Epsmark and Scherman, 2003). Identity as a hearing person is not a consciously ascribed label for people who use their hearing constantly. The awareness of hearing loss occurs as a result of interaction with other people. That is, hearing loss is, in effect, a socially constructed phenomenon.

Patients who are seen in audiology clinics may have concealed their hearing loss in a complex response to the condition, possibly by way of an adaptive coping mechanism (Andersson and Willebrand, 2003) whereby communication strategies are adopted so that the individual does not appear to be deaf (Getty and Hetu, 1991; Hetu, Lalonde and Getty, 1987). Patients may have learned to conceal their hearing loss to avoid the stigma associated with hearing loss, that is to avoid having to admit to a spoiled identity (Goffman, 1963). Some patients may already have experienced stigma, manifest as reported by Hetu (1996) and Aquino-Russell (2006) in the form of jokes, labelling, pity, workplace discrimination, associations with mental disability, ageing and weakness, which may even have prompted them to seek audiology services.

A concealed hearing loss may not cause harm to an individual unless (or until, in the case of progressive loss) the lack of contact with others or the environment either affects psychological functioning, such as stress and fatigue as identified by Backenroth-Ohsako, Wennberg and Klinteberg (2003), or exacerbates any pre-existing psychological difficulty, such as depression as noted by Erdman (1993) and Kaplan (1997). However, the person who has not always successfully concealed their hearing loss may have experienced feelings of embarrassment, shame, lack of confidence and a sense of inferiority (Jones, et al., 1987) as communication difficulties may have arisen. In addition to these intrapersonal difficulties, it is common for patients seen in audiology clinics to have experienced interpersonal difficulties (Yorgason, Piercy and Piercy, 2007) caused by the hearing loss, as the psychosocial effects of hearing loss apply to both transactional and relational functioning (Hallberg, 1999). Concealing hearing loss thus may be adaptive for an individual, but the concealment is not necessarily adaptive for their associates, who also experience the hearing loss. As already noted in chapter two, it is usually the effects of the hearing loss on communication and the impact this has on family members that drives patients to seek assistance from audiologists.

Audiological rehabilitation is, as already mentioned, grounded in disclosure. Hearing aids that are visible make the “invisible handicap” visible to others.

Assertiveness training and communication skills training that develop reliance on visual communication skills are grounded in disclosure of hearing loss as a fundamental requirement to facilitating improved communication. Social identity theory (Tajfel, 1981) has been applied to Deaf communities (Bat-Chava, 2000) to explain the identification by some people with communities. The individual with an acquired hearing loss has the opportunity to shift identity to a different group, but this is not common. Even though hearing loss affects high proportions of adults, particularly in advanced age, relatively few belong to self-help or community groups, even those specifically directed at those with acquired hearing loss (such as Better Hearing Australia or SHHH) .

From the perspective of professionals whose identity is grounded in providing technological assistance for hearing loss, seeking hearing aids is a demonstration of patients adapting positively to hearing loss (Cox, Alexander and Gray, 2005). However, hearing aids are avoided by many patients because of the disclosure that results from their use, even though there might be benefits to the use of the technology. Such a complex relationship to technologies designed to assist is not unique to deafness and hearing aids (Lupton and Seymour, 2000). However, hearing presents a special case in that the disability can remain hidden from others if miscommunication is avoided, and hearing aids are not worn.

A stigma associated with hearing aid use, as opposed to the hearing loss per se, has been widely reported in the audiology literature (Cox, et al., 2005; Erler and Garstecki, 2002; Kaplan, 2004; Martin, Leary and Rejeski, 2000; Stephens, Lewis, Davis, Gianopoulos and Vetter, 2001). The “hearing aid effect” was identified in the 1970s to refer to the stigmatizing effect of wearing hearing aids (Blood, Blood and Danhauer, 1977; 1978; Blood, 1997). This was described as the negative impact of wearing hearing aids. People wearing hearing aids were negatively judged in terms of intellect, personality, achievement and appearance. A more recent follow up study of the hearing aid effect (Johnson, et al., 2005) suggests that the wearing of hearing aids is still associated with fear and stigma. In spite of advances in hearing aid design, current research findings suggest that stigma remains a significant factor in patients’ willingness to use hearing aids (Meister, Walger, Brehmer, Von Wedel and Von Wedel, 2008). While individuals who face

the prospect of hearing aids fear the stigma, those asked to judge the abilities of deaf people tend not to judge them as negatively as they judge other disability groups. Kiger (1997) and Gallois (2004) report that the views of university students towards deaf adults is less negative than towards some other disability groups. These studies however were limited in that they involved rating scenarios, and did not involve direct interaction, which is where, as shown above, deafness is actualized. Clark and English (2004) suggest that patients themselves project a negative self image when wearing hearing aids, which is not linked to the hearing aids per se, but to the confidence and assertiveness that is conveyed. Thus hearing aids themselves may affect the way individuals manage themselves in interaction.

Audiologists, like others in society, may believe that hearing loss and/or the wearing of hearing aids is a stigmatizing condition and may be sympathetic to the desire of patients not to disclose their hearing loss. However, in fulfilling their professional obligations they need to advise patients that disclosure about hearing loss is important to ensure that others provide optimal communication strategies and do not misunderstand difficulty hearing for poor attention or limited cognitive or social skills. Already stated is the audiological focus on wearable technology, which can make the invisible hearing loss visible (Thompson, 1993). Helping patients to avoid the stigma of miscommunication requires the patient to disclose their hearing loss (through admission and wearing hearing aids, most of which are visible), which is the very thing they aim to avoid. This presents a paradox in the clinical situation where the solution to the problem is in fact the problem itself.

The introduction of rehabilitative measures to patients by audiologists introduces issues that affect the identity, coping mechanisms, relationships with others, and societal values. These discourses associated with psychosocial functioning introduce very different constructs of deafness to those of audiological and medical categories that dominate the diagnostic process. They also complexify (Candlin, 1997) the hearing aid discussion, with the discourses of selling and counselling that have already been discussed. The discourses of commercial selling of hearing aids and the funding structures of audiology discussed above are not consistent with devoting time to working with patients and significant others to

address these complex psychosocial impacts of deafness. Example 3.6 exemplifies the complexity of the addressing psychosocial aspects of deafness within the constraints of the hearing aid discussion.

### Example 3.6 I'm Still Single – The Stigma of Hearing Aid Use

1. A: I think that um if you wanted the ones that go in the ear that's still fine.
2. P: yeah
3. A: I think it should be bigger than what ...
4. P: yeah I've been told that before but you know I'm still single, and I have long hair so I just sort of if I can get away with the one in the ear for a little bit longer
5. A: yes (.) I just think that even the size hearing aid that you've got in your left ear that's almost at its maximum=
6. P: [yeah]
7. A: [it's only] got six decibels, that's not a lot=
8. P: no I know
9. A: =because it's got to last you at least another four years
10. P: [yeah]
11. A: [what] happens if your hearing gets worse?
12. P: Mmm

How audiologists combine the discourses of the psychosocial with the commercial, medical and audiological discourses already identified as being co-present in audiology consultations is exemplified in Example 3.6. The patient introduces the stigma associated with hearing aid use by mentioning that she wants an invisible hearing aid because she is still single (turn 4) and the style of hearing aid, combined with hairstyle, have allowed her to conceal her hearing aids to date. She implies, by stating that she is still single, that her attractiveness to others is dependent on her concealing her hearing aid, which is the visible manifestation of her invisible disability, which she need not disclose to others. The audiologist's response is to approach this (at turn 7) as a limitation of technology (the hearing aid not having enough power) and the commercial impact (turn 9: "this has got to last you another four years"), as well as the medical (turn 11: "what happens if your hearing gets worse"). The psychosocial effects (the feelings that she has about

being deaf and wearing hearing aids) are not followed up by the audiologist in this example. The audiology literature suggests that audiologists often fail to adequately address the psychosocial (Clark and English, 2004; Erdman, 2000; Kaplan, 2004; Luterman, 2008). Lack of training and time constraints (already discussed above, see p. 69) are the most common explanations. Example 3.6 suggests that the psychosocial issues are acknowledged by the audiologist, but are addressed through the competing discourses (technology, commercialism and medicine) rather than the discourse of the psychosocial. In this case the technological and commercial discourses are clearly privileged over the psychosocial discourses, as there is no attempt by the audiologist to work through the patient's admission that she conceals her hearing loss. Time constraints as shown above can be alternatively understood to be a lack of recognition for professional roles, because if rehabilitation services were paid for in a comparable way to hearing aid fittings, then it would not matter to the audiologist whether time was spent on hearing aid fittings, or on psychosocial issues. Arguably, the treatment offered in Example 3.6 would have been enhanced by the incorporation of psychosocial concerns into the hearing aid discussion. It is possible that even if it had taken professional time, it would have been time well spent if the patient had developed acceptance of her identity as someone who relies on hearing aids.

The interesting aspect of Example 3.6 is that audiologists could show the differences between their professional approach and the services of audiometrists and hearing aids salespeople by focusing on the psychosocial effects of hearing loss. Even if their training may be considered by them to be inadequate, audiologists, by virtue of their university education, have more background knowledge of the psychology of hearing and deafness than do other hearing service providers. The audiology literature and Example 3.6 suggest that audiologists have not adopted the psychosocial as their domain. Barlow, Turner, Hammond, and Gailey (2007), reporting on patients' accounts of living with deafness, suggest that audiologists ignore the psychosocial aspects of deafness. The perception by patients that psychosocial aspects do not receive attention is worthy of investigation, given that what defines audiology (as opposed to audiometry) is the knowledge of and attention to, the psychosocial effects of deafness. This one example, which is typical of clinical interactions, suggests that

it is of interest to the profession to investigate how audiologists do discursively incorporate the psychosocial effects into their counselling of patients. Whether the psychosocial issues are in fact addressed, perhaps in an interdiscursive way, or whether the discourse of the commercial selling of hearing aids is dominant, would inform the profession and form the basis for an improved formulation of what audiologists (as opposed to other service providers) do in clinical settings.

### 3.2.5 *Summary of the Discursive Nature of Rehabilitative Audiology*

The rehabilitative process involves deciding on the combination of technological and non-technological (counselling and communication training) aspects. In many cases, the technological options (hearing aids in most cases) are privileged over non-technological solutions. Patient expectations thus need to be managed, as hearing aids offer only a partial solution. The costs of hearing aids include professional fees for the fitting and follow up, but this is not disclosed to patients. Competition amongst service providers (not all of whom are audiologists) and hearing aid manufacturers are additional influences on the commercial nature of hearing aid decision-making. At first glance, it appears from the literature and clinical experience that this has resulted in a dominance of the technological over the psychosocial within the audiology profession. However, given that the decision-making around hearing aids is interactionally achieved, the creative and strategic combination of discourses may be used by audiologists in interaction with patients in particular as they strive for separation between themselves and other service providers such as audiometrists and hearing aid salespeople.

The model of informational counselling which is promoted and adopted amongst audiologists is likely, in interaction, to be more complex than a simple information transfer. An examination of how audiologists work within the informational counselling model to achieve the tasks of rehabilitative audiology forms the focus for this investigation into audiology appointments that have passed through the diagnostic phase and into the rehabilitative phase.

### 3.3 *About This Study*

A critical investigation of the interaction that takes place in the course of the clinical process in audiology is called for, as shown by the discussion above. This study addresses these issues, focusing on the aspects of clinical audiology that are interactionally achieved. The discourse analytic methods adopted in this study serve to inform the profession as to how interactions in clinical settings relate to common professional knowledge (Peräkylä and Vehviläinen, 2003), and to identify and consider focal themes that impact on the practice of the profession (Roberts and Sarangi, 2005).

Commonly occurring interactions in clinical audiology settings were selected to inform this critical study. Patients were all adults with hearing loss who were referred or elected to attend the university clinic that served as the research site for the study. The cases examined are thus representative and typical of an adult patient population.

As indicated in chapter one, the study of audiological clinical activities that are interactionally achieved has not previously been investigated using discourse analytic means. This new area of investigation for audiology offers the opportunity to examine the applicability of existing models and constructs to a different institutional site, which contains some unique challenges in the competing discourses that contribute to the clinical practice of audiology.

This study concerns clinical activities that are interactionally achieved, in particular as the clinical process shifts between diagnostic and rehabilitative orientations. Of primary interest is the decision-making process that takes place in appointments that are oriented to rehabilitation. Although concentrated at the interface between the diagnostic and rehabilitation stage of the consultation, which is commonly known as the 'hearing aid discussion', it is recognised that the context of the preceding diagnostic phase of the appointment contributes to the phase of the appointment in which rehabilitative decisions are made.

Adopting a sequential perspective, this study follows the interactionally achieved phases of the appointment, as depicted in Figure 3.4 (below), which is a reproduction of Figure 3.1, with the points of interest highlighted in yellow.

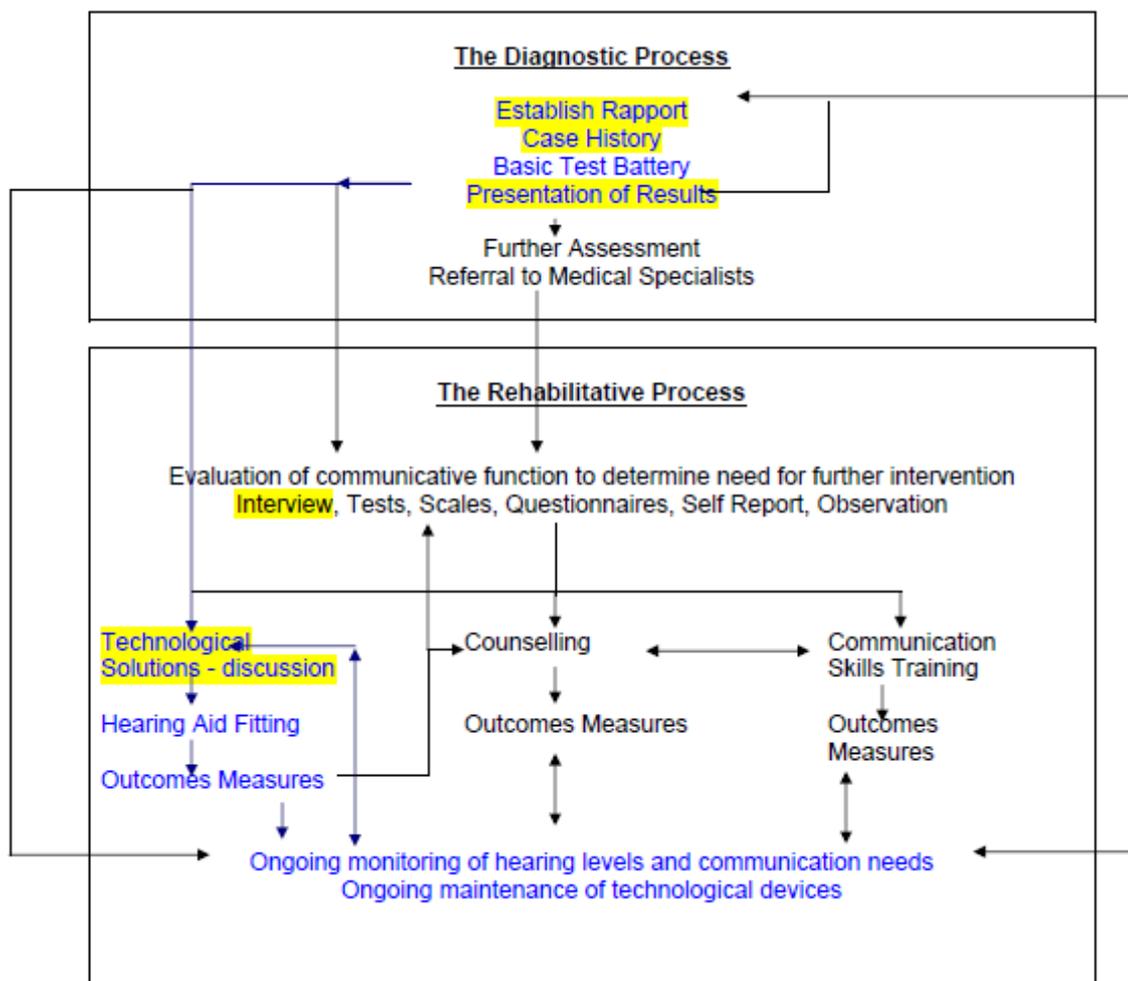


Figure 3.4 Critical moments to be examined in the present study  
Phases of the clinical process that are of interest are highlighted in yellow

The methodological concerns of the study are presented in the next chapter. Themes of the study and an interim overview of findings are presented in chapter five. The sequential organization of the audiology appointment is retained in the subsequent chapters that discuss the findings of the study, as follows:

Establishing rapport (chapter six)

The diagnostic case history (chapter seven)

The presentation of diagnostic results (chapter eight)

The discussion of rehabilitation options (chapters nine, ten and eleven)

Conclusions (implications and applications) for the audiology profession are drawn in chapter twelve.

## **Chapter 4 Research Method, Site and Process**

Following on from the introduction of audiology as discursive practice as discussed in the previous chapters, and the warrant that provided for the investigation of how competing discourses influence clinical practice, this chapter outlines the discourse analytical approach adopted. This chapter also provides details of the research site and the research process that was undertaken.

### **4.1 Aims & Method: Overview**

The aims of the study, and the methods used to achieve those aims were introduced in the previous three chapters. They are presented here in summarised form.

#### *4.1.1 Aims: Overview*

This study investigates how audiologists and patients meet the discursive challenges inherent in the diagnostic and rehabilitative phases of audiology appointments.

The orientation of this study is interpretive (Sarangi, 2001) in the sense of aiming to understand how the habitus (Bourdieu, 1991) of audiologists within the clinical context is manifest in individual interactions with patients, with the intention of gaining insights into communicative practices (Gumperz, 1999) in the clinical setting.

In addition to the analytic accounts of the data provided, the intention of the study is to inform the profession (practitioners and educators) and bureaucratic structures (employers and third party funders) as to the interactional nature of clinical audiology. The knowledge gained through this analysis, in being made available to the clinical education community, will, it is hoped, provide a research base on which to build clinical education programmes. Employers and managers

will be informed through these findings of the clinical skills needed to achieve effective service delivery.

The comparison of appointments (with both diagnostic and rehabilitative aspects) where participating audiologists had varying levels of clinical experience, will serve to inform the profession of what professional skills and strategies are drawn upon and used, and how they develop within the clinical audiological context.

Typical audiology clinic patients, namely adults with acquired hearing losses, who identify primarily as hearing individuals in that they use spoken language for communication and identify themselves as hearing people, were selected as participating patients. Participants represented typical audiology patients also in that most had no underlying identifiable medical pathology related to hearing loss. The appointments selected for investigation were those that involved both diagnostic and rehabilitative aspects.

Typical appointments, even though they occur frequently in clinics, are not necessarily lacking in professional (and as a consequence communicative) challenge. Those that incorporate diagnostic and rehabilitative aspects incorporate a number of orders of discourse including diagnostic, rehabilitative, medical, psychosocial, and commercial. This investigation will explore how the communicatively dependent goals of the diagnostic process (that is to establish rapport, engage in the case history, and convey results) are achieved interactionally. Further, this study will examine the rehabilitative phase of the appointments to explore how expectations of hearing aids are managed in light of the commercial aspects of rehabilitation and the psychosocial effects of deafness, presented in chapter three as possibly competing discourses, emerge in practice. Of interest is how the anticipation of the rehabilitative phase might influence the primary diagnostic phase of clinical appointments. A discourse perspective is adopted to explain the complexity and nature of the professional challenge of these appointments.

#### 4.1.2 *Method: Overview*

The methodology adopted in this study is that of applied CA (ten Have, 2007), relying on the examination of recorded data for recurring patterns followed CA traditions. Focal themes were identified for the profession (presented in chapter five) that served to guide the analysis and interpretation. Focal themes arose from data obtained from focus group meetings with participating and interested audiologists, together with ethnographically based observations, clinical records and clinic reports.

The investigation relied on the researcher's position as an insider to the audiology profession and to the research site. The multiple roles and relationships between the researcher and participants both facilitated access to the data and restricted some aspects of the analysis, such as exploring the patient's perspective, in the interest of maintaining trust and preserving ethical confidentiality.

## 4.2 **Methodology**

### 4.2.1 *A Qualitative Study of Clinical Interaction*

This study adopts a qualitative methodology, as a means of retaining the richness and complexity of naturalistic data (Green and Britten, 1998; Leahy, 2004). As already stated, this represents a new direction for research into the professional practice of audiology. Accounts of professional audiological practice have to date relied on traditional practices and anecdotes to illustrate patterns of interactions expected in clinical settings, as shown by Clark (1994b) and Clark and English (2004). This study, by offering a qualitative investigation of professional practice within the field, broadens the scope of research in audiology to include the analysis of actual clinical practice. Ross (2005) has suggested that investigations of audiological practice, while essential to inform best practice, are, in his view, beyond the scope of research. However, the adoption of qualitative methods allows for the addressing of research questions that, as Ross states, might otherwise not be able to be addressed. In support of this position Leahy (2004) and

Lindlof and Taylor (2002) consider that meaningful investigations of clinical practice are possible provided methodologies are adopted that suit the particular research question. Qualitative studies in audiology are called for by Smith, Mitchell, Wang, and Leeder (2005) to guide policy development for hearing services in Australia.

Discourse analytic methods used in this study provide the opportunity to bridge the apparent divide between clinical and research practice through the adoption of the construct of reflexivity (Taylor and White, 2000). Clinicians adopt reflexivity into clinical practice in the way they factor patient participation into the interpretation of rehabilitation outcomes (Bille and Parving, 2003). Reflexive examination of naturalistic data, as in this study, aims to reveal insights into clinical practice, offering a way to describe those skills and strategies that are used to achieve professional tasks that might be tacit (Sarangi, 2006). As described by Sarangi and Candlin (2003b), reflexivity involves the analysis of interactions from multiple perspectives, developing an awareness of the complexities associated with decision-making and practice. In this study, neither the audiologist (as in reflective practice) nor the patient (as in many previous qualitative studies of deafness) is the focus, but rather the interaction between them is analysed. Underpinning the study are the principles of post-structuralist philosophy and constructivism common to all forms of discourse analysis (Coupland and Jaworski, 2001; Sarangi and Candlin, 2001). Applied CA, in particular, allows for the comparison of practices with theories associated with a particular profession (Peräkylä, Ruusuvuori and Vehviläinen, 2005; Peräkylä and Vehviläinen, 2003)

#### *4.2.2 Conversation Analysis Applied to the Clinical Setting*

The roots of CA are recognised as deriving from sociology, but the development of the field has resulted in a methodology that intersects with other social sciences, such as psychology and linguistics (Hutchby and Wooffitt, 2008). The interest in microanalysis of interaction as a way to understand socially constructed phenomena can be traced to the work of Garfinkel (1967), who established

ethnomethodology as a form of social enquiry. Ethnomethodological principles include those of recognising that the study of real life events can indicate what is possible, rather than what is stereotypical, that meaning is indexical, that actions are co-constructed when examined reflexively, and that there are rules to behaviour that can be demonstrated to others. Ethnomethodological studies tend to focus on everyday occurrences, and are not confined to the use of language (McHoul, 2008). Sacks (1972; 1974) applied the principles of ethnomethodology to the analysis of conversation, thus providing a basis for the development of CA. Goffman (1959; 1963; 1967; 1981; 1983) has contributed widely to the interpretation of CA findings through his explanations of what he refers to as the *interaction order*, together with its associated constructs of *framing*, *face*, and his *participation framework*.

The clinical interactions under investigation in the present study may be considered mundane in the audiological context, representing typical and frequent encounters for audiologists. Nonetheless it is recognised that while the researcher and possibly the participating audiologists might categorize the interactions in this way, for individual patients, clinical encounters might be categorized as novel. The context thus differs depending on whether one is the patient or the audiologist. This raises the issue of *context* for this study, which is a complex and contested issue indeed, and one described as “legendary” within the social sciences (McHoul, 2008).

From the perspective of CA, Schegloff (1987) argues that context is both inherent in the situation, and constructed through the language used in interaction. Identifying evidence of different contexts within the text is thus a principle of what one might call *pure CA* (McHoul, 2008). Evidence in the text is demonstrated in the way that the conversation evolves (Heritage, 1997). Responses to utterances are examined to offer insights and evidence into how any particular utterance was both understood and intended (Drew, 2005; Heritage, 2005a). By using evidence from texts only, CA avoids complex questions as to the bounds of context and knowledge that might be needed to interpret a particular conversation (Hak, 1999). Proponents of other discourse analytic methods (such as ethnography and IS) argue that prior knowledge of a context is an important requirement for the

meaningful interpretation of data (Arminen, 2000; De Kok, 2008). However, issues as to how much knowledge is sufficient, and how to avoid subjective interpretations, are characteristic questions for qualitative researchers. These same questions are often asked by target professional audiences like audiologists, whose research orientations are typically grounded in positivism (see for example Cox (2005) for an account of the profession's stance towards evidence based practice). The reductionism of the CA approach to evidence is thus appealing for a study of audiology. At the same time, however, CA is limiting for the reasons mentioned here. Discourse analysts such as Candlin and Sarangi, in their publications such as Candlin and Candlin (2003) and Sarangi and Candlin (2001; 2003b) argue for combining linguistics research efforts with the judgment and analytical skills of professionals being studied, so as to better ensure that interpretations do take this wider knowledge of the context into account. Studies that do so are, as a consequence, more likely to achieve practical relevance. In the present study where the researcher was an insider to the profession, extensive knowledge of the context was undeniable. To rely only on evidence from texts (as in pure CA) would be, then, to ignore the primary motivation of the researcher, which was to influence professional practices based on experience in the field.

As a counterpoint to this insider researcher-focused stance, Rampton (2007) suggests that incorporating CA into the research design offers the insider-researcher a way of distancing themselves from a familiar situation. He describes the task of the insider-researcher as being able to make the familiar strange, and that relying on evidence within the recorded interaction (as per CA) is one way that this may be achieved.

By seeking evidence in the text using CA techniques, as well as by relying on the experience of the researcher, it was possible in this study to differentiate between the local context within individual appointments (micro-influences) and broader influences on the practice of audiology (macro-influences). Layder (1993; 1997) provides a "resource map" (p. 71) which allows for an understanding of how micro and macro influences might be separated for the purposes of conducting and understanding research. He describes four separately analyzable elements of research (*macro context, setting, situated activity* and *self*) which are viewed on a

continuum from macro- to micro- elements. Each of the elements has its own historical dimension although there is also an overarching historical development to the field under investigation. Layder's map to linking macro and micro elements of research, reproduced in Figure 4.1 below, will, it is hoped, serve to orient the reader of this study as the analysis seeks to link both micro and macro influences to the patterns of talk to emerge through the techniques of CA.

	Research Element	Research Focus
HISTORY	CONTEXT	<i>Macro social organization</i> Values, traditions, forms of social and economic organization and power relations. For example, legally sanctioned forms of ownership, control and distribution; interlocking directorships, state intervention. As they are implicated in the sector below.
	SETTING	<i>Intermediate social organization</i> Work: Industrial, military and state bureaucracies; labour markets; hospitals; social work agencies, domestic labour; penal and mental institutions. Non-work: Social organization of leisure activities, sports and social clubs; religious and spiritual organization.
	SITUATED ACTIVITY	<i>Social Activity</i> Face-to-face activity involving symbolic communication by skilled, intentional participants implicated in the above contexts and settings. Focus on emergent meanings, understandings and definitions of the situation as these affect and are affected by contexts and settings (above) and subjective dispositions of individuals (below).
	SELF	<i>Self-identity and individual's social experience</i> As these are influenced by the above sectors and as they interact with the unique psychobiology of the individual. Focus on the life-career.

Figure 4.1 Research map (Reproduction of Layder, 1993 p. 72)

To address the contested question of how much contextual information is needed, the principle of *ecological validity* (Cicourel, 1992; 1999; 2003; 2007) was adopted in this study. Cicourel argues for the provision of contextual information to be sufficient to explain meaning in texts. In order to attempt to achieve this ecological validity, multiple sources of data were used to supplement the recordings made for the purposes of the detailed microanalysis of interaction. Ethnographic observations in the form of descriptions of the clinical process within the research site, clinic records, and information obtained during focus group meetings with participating and interested audiologists served as data, in addition to the transcriptions of the recorded appointments. This combination of sources to guide the selection of data for detailed analysis, and the interpretation and discussion of findings, contributed to achieving the ‘thick description’ of interactional data (introduced as a concept in chapter one in reference to the work of Clifford Geertz (Geertz, 1973) which is reinforced by Sarangi and Roberts (1999a) who argue for the need to draw data from a variety of sources and frameworks.

A summary of the principles of CA<sup>12</sup> is provided below.

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<sup>12</sup> This brief summary of the principles of Conversation Analysis serves to orient the unfamiliar reader, as for example, audiologists who may not be familiar with this form of analysis, and is not intended as a comprehensive description.

## Principles of Conversational Analysis

Heritage and Maynard (2006, pp. 9 - 13) provide the following principles of CA. Additional information underpinning what follows was obtained from Antaki (2002), Drew (2005), Hutchby and Wooffitt (1998; 2008) and ten Have (1999; 2007).

Social interaction follows an interaction order, as defined by Goffman (1983), that is independent of characteristics of participants. This means that a set of normative rules operate. Where rules are broken (sometimes deliberately) this can lead to interactional and/or implicative troubles. How such “troubles” talk is then handled by the members (participants) is a determiner of what was actually meant by the utterance.

Interaction (verbal and nonverbal) is both context shaping and context renewing - that is, any utterance results from the preceding utterance and each utterance shapes the next.

This means that in order to determine what was achieved in conversation, one looks to what occurs after, and sometimes looking back provides context as to why something was said the way that it was.

Detail in conversation is all relevant and none can be dismissed as coincidental. Conversational turns are designed to serve purposes and are broken up into turn constructional units. At some point, a speaker will indicate to their conversational partner that they can take a turn, at a transition relevance point. If the turn is not taken up, this has significance for what occurs next, and constitutes another rule that can be violated in terms of turn taking. Thus, overlapping and interrupted talk carries significance as to what is being carried out.

Focus on the sequential nature of interaction may align this form of analysis with the demands of empirical studies to be valid and reliable - examining repair strategies can assist in identifying what the speaker intended.

The examination of deviant cases where expected responses are not obtained (another example of troubles talk) allows for an understanding of what is occurring and how meaning is constructed.

Conversational turns, generally being arranged in pairs (termed adjacency pairs) are divided into first and second pair parts, with preferred and dispreferred second pair parts. The first and second pair parts may be separated by insertion sequences. Turns are organized in a complex fashion and may be characterized by pre-sequences, pre- announcements, pre- requests, markers of opening, closing, or maintaining topic.

How the member (CA terminology for conversational participant) responds to a previous member offers insights to the degree to which meaning has been shared.

What word choice is selected to represent themselves and others (termed a membership categorization device), and what qualities are ascribed to these categories, is shaped in conversation, and co-constructed. This analysis of categories forms part of CA (Sacks, 1974), but the analysis of how categories are used in conversation is often separated from the more commonly applied analysis of sequence and structure, and is separately named as Categorization Membership Device Analysis, abbreviated to CMDA (Titscher, et al., 2000).

In summary, CA can reveal the “organized reasoning procedures which inform the production of naturally occurring talk” (Hutchby and Wooffitt, 2008, p. 1) . That is to say, CA is concerned with how talk is organized to achieve what it does. CA aims to find patterns in the way conversations are structured, revealing organization and strategy in what may initially appear to be disordered conversation, to identify what is achieved (Drew, 2005).

#### 4.2.3. *Researcher as Insider*

As already introduced, this study approached the question of relevance (Sarangi, 2004; Sarangi and Candlin, 2003b; Sarangi and Roberts, 1999b) through the occasion of the researcher being an insider to both the profession of audiology and to the research site. This study thus joins the small number of discourse analytic studies that have been undertaken by researchers who are very familiar with a particular institutional context, for example Bassett (2007), Candlin (2002) and Leahy (2004). Being undertaken by an insider avoided problems of access to the specific research site which are often experienced by outsider researchers, as explained by, for example, Candlin and Candlin (2003). The researcher-as-insider model also ensured that findings were meaningfully interpreted (Roberts and Sarangi, 1999a) and that tensions and mistrust between the researcher and participating professionals were avoided, as warned by Sarangi (2001).

In addition to these named benefits, this study also has had to address a number of challenges posed by this model of the researcher-as-insider. In particular, Cicourel (2003) refers to the need to consider relationships that may remain at the end of a particular research project. This was a particular challenge for present study, with the researcher enjoying a number of relationships (with patients and participating audiologists) that needed to be maintained throughout and beyond the study. Further, the researcher was mindful that the design of the study needed to consider relationships between participating patients and their participating audiologists, as well as the collegial relationship enjoyed between the participating audiologists.

A number of methodological decisions were thus taken in the present study that, while limiting the analysis to some extent, were precautionary in that they aimed to avoid disrupting any of the working relationships mentioned above. Firstly, focus group discussion rather than individual interviews was used to supplement the ethnographic observations and recorded data. Focus group discussion offered transparency across participating audiologists in that they would all know what each was told and what each other said about clinical practice. Secondly, the focus group meetings were attended by participating and interested audiologists

and excluded participating patients. This avoided any potential disruption in the trust held between participating patients and participating audiologists. Understanding the context for patients relied on the evidence in the recorded data, the ethnographic observations, and available case notes.

Thirdly, decisions were made related to the analysis of the recorded data that served to preserve relationships between the researcher and the participating audiologists. The detailed scrutiny of appointments potentially could have led to the researcher drawing conclusions about clinical competence on the part of participating audiologists that might have impacted on the manager / audiologist relationship. The researcher recognised that detailed scrutiny of clinic appointments was beyond the extent of auditing of appointments that is normally undertaken by management. The researcher found the link between transcription and analysis (Ochs, 1979; Stelma and Cameron, 2007) to present an unforeseen challenge as it related to the judgment of clinical competencies by a manager/researcher. After a process of selecting twenty appointments for transcription (see below), the researcher transcribed six herself. The researcher recognised that the process of transcription, tied as it is to analysis, was resulting in premature judgments of clinical competence that were difficult to avoid, but which could have impacted on the manager–audiologist relationship. As a result, the remaining fourteen recordings were outsourced to a professional transcription service. This allowed for the reading of the transcripts by the researcher in de-identified form, which served to avoid judgments about individual competencies. The original recordings had to be returned to for three case studies where CA transcripts were required. By that stage of the research process, there had been several years since the recordings, and an historical distance had been generated. The relationships between audiologists and the researcher had evolved in that all participating audiologists had changed their roles by the time the detailed microanalysis of the recorded data took place. Additionally, long term outcomes for patients were available by that stage of the research process, which was information that supplemented the interpretation of recorded data. Time thus served to distance the researcher from the data. The research experience gained in this study thus exemplifies Layder's (1993) resource map (referred to and reproduced above) in placing the elements of research within the frame of history.

### **4.3 The Research Site**

Participants in the study (audiologists and patients) were all associated with the Audiology Clinic in the Department of Linguistics at Macquarie University, Sydney, Australia. The description of the clinic below relates to the situation in 2004 and 2005 when all the data for the present study was recorded. Subsequently, a number of changes to the clinic arrangements, staffing and funding structure have been made as a result of natural changes in an evolving profession. To supplement this summary, the annual reports for the clinic for 2004 and 2005 appear in the Appendix to this study.

#### *4.3.1. Physical Site*

The Department of Linguistics established a full time audiology clinic in 1997, although a small scale clinic had been operating within the university prior to this. The clinic consists of a purpose-built clinic consisting of five clinic rooms, and one control room. In addition, the clinic has a work area, and combined reception and waiting area that are approximately 30 meters from the clinic entrance. The clinic is located within the Linguistics Department (Building C5A, 5<sup>th</sup> Floor, Macquarie University).

The clinic is equipped with audiological equipment that is matched to industry standards. In 2004 and 2005, three clinic rooms were fully equipped for diagnostic assessments and hearing aid fitting. The remaining two rooms were equipped with advanced diagnostic audiology equipment for electrophysiological measures, and paediatric hearing assessments respectively.

All clinic rooms are sound treated to standards suitable for audiological assessment. The rooms are single rooms set up with the patient and the audiologist in the same room throughout the case history, assessment, and discussion. Any observers are present in the same room throughout appointments. Rooms are sufficiently large to allow for family members or

observers to be present. Family members who accompany patients to the Audiology Clinic are generally encouraged to be present in appointments.

Each room has a desk on which is placed a small flat screen (computer monitor), Madsen Aurical (audiology equipment) keyboard, computer mouse, and computer speakers. A CD player is either placed on the desk (portable style) or alongside (full size).

Chairs are arranged around the desk with the audiologist seated with access to the computer with the screen in view, and the patients seated opposite the audiologist. A typical room arrangement is shown in Figure 4.2.



*Figure 4.2 Audiology consultation (Macquarie University, 2005)*

The clinic rooms at Macquarie University are all acoustically isolated. There are no windows, and telephones are kept in silent mode to avoid interruptions during assessments.

Appointments were carried out in one room. A door opens from the passage to the clinic foyer, and then each clinic room has a double door arrangement with levers that are put into place to ensure the sound level in each clinic room meets requirements for audiological assessment. If equipment fails, or special equipment is needed, movement between clinic rooms can occur. In other cases (where portable equipment is being used) the audiologist may have to leave the room during the appointment to collect the required equipment.

#### 4.3.2 *Staffing*

In 2004 and 2005, the staffing structure consisted of:

- 1 clinic director (honorary academic appointment of an ear, nose and throat specialist)
- 1 full time clinic manager (professional staff). This position was held by the primary researcher for this study. As clinic manager, this position reported to the head of the audiology section. The head of the audiology section was also an associate supervisor for this research project. The clinic manager was responsible for overseeing the clinic in terms of fee structures; number of patients seen; time allocated to appointments; and facilities. In addition, the clinic manager carried a regular case load of patients.
- 4 full time equivalent clinical audiologists (professional staff) in 2004 and 5 full time equivalents in 2005. This was made up of a mix of full time and part time staff members. All staff members in these positions reported directly to the clinic manager.
- 1 associate lecturer in audiology who spent approx 0.5 days per week in offering clinical services in the clinic.
- 2 full Time clinic receptionists / administration officers

All staff members were employed under university conditions of service in their capacities as professional, academic or honorary staff members.

Participating audiologists in the study were all from the category of clinical audiologists, employed either full time or part time. The staff members working at the university on a part time basis elected to do so, and none of them were employed elsewhere, apart from one who split her professional time between the university clinic and a hospital clinic that was under the direction of Macquarie University.

Participants in the first focus group all agreed to participate in the data collection phase of the study. In addition, a number of staff members who joined the clinic while the project was already underway also agreed to participate. Thus, recordings were not all obtained from audiologists who had been part of the first focus group meeting, although all those present at that meeting had consented to participate.

#### 4.3.3 *Purpose of the Clinic*

The audiology clinic was established at Macquarie University in order to provide clinical training to students enrolled in the Master of Clinical Audiology course, which contains a significant clinical teaching component. The by-product of this was that a community outreach opportunity was created for the University, with members of the public benefiting from the services available.

The clinic operates five days per week, fifty weeks of the year, during normal working hours. In the 2004 – 2005 period when the data for the present study was collected, students were placed with staff members during term time, and were fully supervised during all clinical work undertaken. The clinical audiologists thus had a dual role of clinical education and clinical service delivery. When no students were available (for example during lecture times, or university holidays) the clinical audiologists worked in the clinic without students, with no interruption to clinical services for patients.

The clinic was established as a general purpose audiology clinic, aiming to provide opportunities for students to be exposed to a range of aspects of audiology, both diagnostic and rehabilitative. Adult patients were seen for diagnostic and rehabilitative (hearing aids and counselling/communication training) and children were seen for diagnostic services only.

A brief summary of the number and range of appointments in clinic during 2004 and 2005 is provided in the table below. This information and additional clinic related information is available in the annual reports on clinic activities for 2004 and 2005. These reports are provided in the Appendix with identifying information (for example names of clinical audiologists) removed.

**Table 4.1 Summary of audiology clinic attendances at Macquarie University in 2004/ 2005**

<b>Appointment Type</b>	<b>Number of appointments seen in 2004</b>	<b>Number of appointments seen in 2005</b>
<b>Diagnostic Assessment – children</b>	1618	1487
<b>Diagnostic Assessment – Adult</b>	1194	1501
<b>Hearing Aid Discussion appointments (assessment and rehabilitation planning)</b>	181	229
<b>Rehabilitation (hearing aid fitting, review and follow up)</b>	1015	1156

#### *4.3.4 Funding Model Adopted at the Research Site*

In 2004 and 2005, when the data for this study was collected, the clinic director offered diagnostic audiology services through the clinic. This meant that patients referred to him by general practitioners for diagnostic services were not charged

fees, but were bulk billed to Medicare. The clinic director was duly paid by Medicare, part of Australia's Health Insurance Commission, for the work carried out by the clinical audiologists at Macquarie University. Under the Medicare rules at that time, as service provider, the clinic director was required to supervise the work of audiologists under this arrangement. This involved him co-signing all reports sent (at least one for each patient seen) to referring general practitioners. He was also invited to present seminars to the audiology section on an annual basis.

While Medicare covers the costs of various audiometric procedures carried out on behalf of medical practitioners and the costs of medically related treatments such as cochlear implants, as per the arrangements described in the previous paragraph, Medicare does not cover the costs of nonmedical solutions to hearing loss (hearing aids and communication training). As discussed in chapter two, the audiology field in Australia is structured such that all children and pensioners (those on government age related or disability pensions, and war veterans) have access to funding for audiology services (both diagnostic and rehabilitative) through OHS. The clinic did not contract to OHS in 2004 and 2005. Patients seen for rehabilitative audiology were thus all adult private patients, responsible for payment for rehabilitative services (hearing aids and counselling / communication training). However, some OHS eligible patients were referred to the clinic by general practitioners, either in ignorance of the system, or out of choice.

#### 4.3.5 *Consent*

Consent for the collection of data in the clinic was granted by the Macquarie University Ethics Review Committee (Human Research) in February 2004 (Reference: HE27FEB2004-D02771). Ethics approval was granted for a period of 3 years, on condition that an annual report was submitted each year, as per standard practice at Macquarie University. During this period, one amendment to the conditions was applied for and granted. This related to the committee's approval for research assistants to have access to recorded data.

As the analysis of data continued for longer than the initial three year period, a second application was made to the same Ethics Review Committee in 2007. A second approval was received, this time for a period of five year as a result of policy changes at the university (Reference: HE25MAY2007-D05262).

All audiologists employed at the Macquarie University Audiology Clinic with clinical responsibilities were invited to participate in the study. These included the participants of the focus group meeting who had given direction to the study, and expressed their interest, agreeing that the focus group meeting would serve as the starting point for the study. All staff members working in the clinic agreed to participate in the study. General consent was obtained for data to be collected during clinic appointments, and for focus group meeting information to be used, and additional focus group meetings to be arranged. In addition, audiologists were made aware whenever individual appointments were to be recorded, and a verbal check for approval was obtained on the day. Audiologists were free (as were patients) to withdraw their participation generally at any stage, and, in addition, to request that individual appointments not be used in the study. There were no incidences of either form of withdrawal during the course of the study.

All clinic patients are requested to sign consent to their clinical findings being used for research purposes, including the audio and /or video recording of appointments. However, for the purposes of this study, additional steps were taken to ensure that patients granted specific consent for participation in this study. Patients booked in for appointments that had both diagnostic and rehabilitative aspects were approached by the researcher. This was done the day before their scheduled appointment, by telephone wherever possible. All patients who were approached (with one exception) agreed to participate in the study. The purpose of the study and the consent forms were explained before their appointment and patients signed the consent form with the researcher before the appointment commenced.

#### **4.4 Naturalistic Data Collection**

The clinic is hard wired to allow for recording and monitoring from a remote site within the clinic. This meant that recordings of appointments could be controlled from a remote room. The researcher could start and stop recording without being present in the clinic room. There was no noise (e.g. tape noise or camera movement) introduced into the clinic room. This was important as any additional noise in the room might have compromised the standards of quiet needed for audiological assessments.

The recorded data included both video recordings onto VHS tape, and digital audio recordings.

##### *4.4.1 Video Recordings*

A single video camera was mounted onto specially installed brackets placed in each clinic room so as to maximize the view of audiologist. The brackets were mounted high in the corners of each room.

Video cables were placed from the camera output to the clinic wall box video connector using cable with RCA connectors.

Video recording equipment and a television monitor were placed in the clinic's monitoring room. Video and audio cable with RCA connectors were used to connect the "Video In" connectors on the video recorder (VCR) to the camera (via the hard wired connections set up in the clinic).

Sound input to the VCR was obtained through the microphones set up for the digital audio recording (see below) to avoid relying on the camera microphone for audio recording linked to the video.

Appointments were recorded onto blank VHS tapes. Each tape was labeled with the date and initials of the participating audiologists and patients for reference.

The video recordings of appointments were obtained primarily to serve as a backup to the audio recordings, and to provide additional contextual information as required. Ideally, multiple cameras would have been used for these recordings and useful visual information would have been obtained to allow for detailed transcription of facial expression, gesture, and nonverbal cues used by participants in conversation. However, one constraint of recording in the audiology clinic was that only a single camera could discreetly be placed in one corner of each room. This was positioned so as to obtain the best available image of all participants, but in most cases, in order to capture all participants, the image is one of participants in profile, which is not useful for any microanalysis of nonverbal communication, thus limiting the later analysis of data to verbal utterances only.

#### 4.4.2 *Digital Audio Recordings*

The primary recordings were digital audio recordings.

Two microphones were placed in the clinic room, secured to the table and facing the audiologist and towards where patients typically are seated.

The microphones were connected to the M-Audio Buddy preamplifier using microphone cables. The preamplifier was placed near the clinic wall, which required a power adapter to a power outlet. Line outputs connected the M-Audio Buddy Preamplifier to the wall box audio RCA connectors. All cables were secured using tape to prevent movement and minimize hazards created by additional cables being placed in the room.

In the monitoring room, the audio signals taken from the output connector on the monitoring room wall box to the direct line inputs of the M-Audio Duo unit. The M-

Audio Duo unit was set up to record in stand alone, line level in and line level out modes.

The Audio signal from M-Audio Duo unit (line out) was connected to a double adaptor RCA connector, and cables taken from this double adaptor to the VCR audio in connector (as described above).

The M-Audio Duo unit was connected to a notebook computer via a USB connection.

Goldwave recording software (Goldwave Inc) was installed on the notebook computer. This was set up to record from the input from the M-Audio Duo unit connected via a USB connection.

The audio and video recordings were started and stopped simultaneously by the researcher. Digital recorded files were named to be cross referenced to the videotapes for later analysis.

After the recording was completed, the wav files were moved to CD for storage and privacy, and were accessed only by the primary researcher and appointed research assistants as per the requirements of the ethics approval.

The set up and checking of the recording equipment took between 15 and 30 minutes to complete. Just one recording set up was available and so only one appointment could be recorded at any given time, even though there might have been more than one appointment involving hearing aid discussions at any one time.

The first focus group meeting was recorded using a cassette recorder and multiple microphones array. This was later re-recorded into a digital format. The second focus group meeting was recorded digitally using a digital recorder.

## **4.5 Organization and Selection of Recorded Data**

The organization and selection of recorded data followed the process recommended by Roberts and Sarangi (2005). This was achieved as follows:

1. All recordings were listened to and examined for their content.
2. Transcription of selected cases (to varying levels of sophistication, as dictated by the analysis).
3. Once transcribed, the initial analysis involved reading and re-reading the transcripts.
4. Trends were identified across the appointments recorded.
5. Case studies were selected for conversation analysis and critical periods in the appointments were transcribed in the detail required for that form of analysis. Comparative analysis of particular phases of selected appointments was then undertaken.

### *4.5.1 Number of Recordings*

As this study was most concerned with clinical interactions that shifted from diagnostic to rehabilitative, appointments that were likely to involve both aspects were targeted in the data collection. However, it was not certain that appointments that were booked for the purpose of rehabilitation planning necessarily reached this stage. Therefore, the data needed to be screened and checked for content.

The data was all recorded during university breaks (mid year 2004 and end of year 2004/2005) when students were not allocated to the clinic for teaching purposes. This was to ensure that the audiologist conducted the appointment. On some occasions, students from Macquarie University were present in the clinic due to special circumstances. Students were asked to observe only during those appointments to avoid confounding the data with clinical education that typically takes place in this setting.

Between four and ten appointments were recorded for each participating audiologist. In total, forty-six appointments were recorded during the period July 2004 to March 2005.

#### *4.5.2 Initial Screening of Recorded Data*

The researcher listened to each of the forty-six recordings and cross checked these with the video recordings, marking each with identifying labels for easy identification. The data was checked for the completeness of the recording, and to cross check references to audio and video versions. The audio recordings were then used for analysis, and the video recordings only for cross checking.

The sequential order of clinical activities was noted for each of the 46 appointments. The researcher listened to each appointment and noted down the occurrences in sequential order. Each recording was coded as to whether the appointment had diagnostic and rehabilitative aspects. The researcher made note of who was present in the appointment, how long the appointment lasted, what time was devoted to the case history, assessment and counselling sections, and what the outcome of the appointment was (i.e. whether hearing aids were recommended, agreed to, not recommended or recommended but rejected by the patient). As an initial scanning of the data, this method relied on the clinical experience of the researcher to identify typical and common features.

Records of the recorded data were made on an Excel spreadsheet allowing for sorting and searches of data. From the summaries for each appointment (as exemplified in Table 4.2), the types of appointments that were recorded was extracted and is shown in Table 4.3.

**Table 4.2 Example of an Excel spreadsheet record made by the researcher for each of the 46 recorded appointments**

	82 year old patient
Audiol 1	Hearing aids for 10 years, obtained from university clinic
Consent given	0h01 - says feels nervous
30-Nov-04	using only one hearing aid - has binaural
Tape 4	Giving vague information - using aid for 5 years
Code 0411xx1	Asks open ended questions
Test and Discussion	Paraphrases
Place on Video: 02h05 -	Asks specific questions re monaural and binaural
Place on cd: 0h00 -	Asks about hearing without hearing aid in interview
	Asks about tinnitus
	Interview - approx 10 minutes
	Asks about dizziness, medications
	Asks re ENT, wax removed by GP previous day
	Tests hearing
	0h53 gives results
	Shows results, explains results in terms of frequency and left
	Discusses hearing aids after this
	Pt asks about digital hearing aids
	Identifies person who is difficult to follow
	Wants monaural aid
	Discusses cost of aid
	Variety of styles
	Not keen on remote control
	Asks about cost
	Audiologist decided on costs because of volume control
	Discusses multiple programmes
	Introduces more sophisticated hearing aid - quite confusing
	Discusses timing issue
	Appt not really planned - gives decision to patient
	Pt is quite clear – wants one not two, and wants one decent
	Wants simplicity and efficiency
	Asks audiologist to decide
	Audiologist hasn't mentioned brand of aid or costs until 1h12
	Discusses realistic expectations
	Takes impression
	Pt asks about cost
	Pt is willing to have more sophisticated aid - but audiologist has
	Pt happy with low cost
	Says aid is on trial for a month - but hasn't explained process of
	Asks re parking
	Signs for Medicare / gives quote – end of appointment

**Table 4.3 Description of 46 recorded appointments**

<b>Total no of recorded appointments</b>	<b>46</b>
<b>Years of clinical experience in audiology for each participating audiologist</b>	<b>2 years or less: 2 2 – 4 years: 2 4 – 10 years : 1 More than 10 years: 2</b>
<b>Gender of participating audiologists</b>	<b>Males: 2 Females: 5</b>
<b>Gender of participating patients</b>	<b>Males: 30 Females: 16</b>
<b>Appointment types</b>	<b>Test and Discussions: 35 Test only: 1 Discussion only: 5 Follow Up: 5</b>
<b>Age of participating patients</b>	<b>Mean age: 69 yrs Min age: 32 yrs Max age: 89 yrs</b>

Forty of the forty-six recorded appointments involved the discussion of hearing aids, indicating that the targeted recording had been successful in obtaining the types of appointments that were of interest to the research question involving both diagnostic and rehabilitative phases in the same appointment. As shown in Table 4.3 thirty-five of those involved the full diagnostic process and discussion of rehabilitation. Five appointments were consultations about rehabilitation only with the assessment previously completed. Also shown in Table 4.3, is the gender distribution of participating audiologists (2 male and 5 female) and the participating patients (30 male and 16 female). The mean age of participating patients was 69 years. The appointments were recorded from seven different audiologists, who had a varied amount of experience, also shown in Table 4.3.

### 4.5.3 *Selection of Data for Further Analysis*

As the focus of the study was the microanalysis of interaction, not all this data could be analysed in detail within the constraints of the study. Therefore half of the appointments that involved rehabilitation decisions (20 appointments) were selected for transcription. The selection of those twenty appointments was made on the basis of the following:

- Representation from both male and female participating audiologists.
- A balance between the number obtained from patients who had previous experience of hearing aids and those who did not.
- A distribution across audiologists with varying levels of experience.
- A distribution of possible outcomes of the appointment (recommended hearing aids or not, and decided to go ahead or not).

The twenty appointments selected are described in Table 4.4.

**Table 4.4 Description of 20 appointments transcribed for detailed analysis**

(M = Male, F = Female, \* denotes features that were used for selection of transcripts for detailed analysis, remaining features describe the twenty appointments transcribed and analysed)

Gender of Audiologists *	Male: 9 Female: 11
Gender of patients	Male: 14 Female: 6
Patient – audiologist gender mix	M-M: 8 M-F: 8 F-M: 2 F-F: 4
Age of patients *	Mean: 67 years Range: 33 – 80 years
Experience of audiologists *	<2 years: 6 2 – 4 years: 7 4 – 10 years: 2 > 10 years: 5
Patients' experience with this audiology clinic *	Patients new to this clinic: 12 Patients returning to this clinic: 8
Previous experience with hearing aids *	No hearing aids obtained previously: 11 Hearing aids obtained previously from this clinic: 3 Hearing aids obtained previously from other clinics: 6
Symmetry in hearing loss across ears	Symmetrical: 17 Asymmetrical: 3
Degree of hearing loss (in better ear where there is an asymmetry)	Mild: 3 Moderate: 10 Moderate to severe: 3 Severe: 5
Outcome of this appointment *	Will consider options and contact clinic : 5 Decided to trial hearing aids: 9 Monaural: 5 Binaural: 4 Decided against hearing aid trial although recommended : 3 New hearing aids not indicated: 3
Cost of hearing aids agreed to by the 9 patients who agreed to a trial at this appointment	Basic (A\$1600 - \$A1800 per aid): 2 Middle range (A\$2300 - A\$2700 per aid): 1 Top of the range(A\$3000 - A\$4000 per aid): 6
Long term outcome from this clinic for each of the 20 patients	Cancelled appointments for hearing aid trial: 1 Contacted clinic to arrange a hearing aid trial: 1 Did not contact clinic again although advised to: 4 No of patients who trialed hearing aids: 10 No of patients who retained hearing aids: 7 No of patients who returned hearing aids after trial: 3 No of patients who exchanged hearing aids for different models after trial: 2

In order to further analyse the recordings, the twenty appointments selected for further analysis were transcribed. The purpose of these transcriptions was to enable the reading of the transcripts, examining each appointment for content and sequence of events. These initial transcriptions were made orthographically and did not attempt to indicate overlapping speech or interruption accurately, as would be required for the CA analysis adopted later. Obvious overlaps, pauses, and laughter were indicated on the transcripts.

The data was worked with in transcribed form which allowed for the de-identification of the data in terms of who the patients and audiologists were (see discussion above).

Three cases were selected out of the twenty transcriptions for detailed CA transcription and analysis of the critical moments (or phases) as highlighted to be of interest to the study (establishing rapport, the case history, giving results and discussing hearing aids in terms of expectations, commercial aspects and psychosocial aspects). As noted by Coupland (2007), case studies, while not focused on generalizations, can illustrate what it is possible to achieve interactionally, given knowledge of the context.

It was considered important to provide sufficient detail in each of the cases to ensure that the questions raised in the introductory chapters could be explored and illustrated (ten Have, 2007). The progression of the whole case, in order to demonstrate sequencing organization and the effect of one phase of the appointment on another, was retained through focusing on a small number of cases. This allowed for cases to be examined in their entirety, as is the tradition in case studies used to illustrate phenomena in medicine (Sarangi, 2006). In selecting three cases for detailed analysis, there was a compromise between quantity and depth of analysis, as is common to such studies (Silverman, 2005).

The twenty orthographically transcribed appointments were thus used to both inform the selection of three cases for detailed microanalysis of interaction, and to support the interpretation of findings. They allowed for the linking of the findings

from the CA analysis to a wider data set, and for the discussion of experience levels of audiologists and outcomes.

#### 4.5.4 *Conversation Analysis (CA) Transcriptions*

Recorded data, in order to be subject to CA analysis, requires detailed transcription. Transcriptions for CA analysis are, to the uninformed, difficult to read (Hutchby and Wooffitt, 1998) and are presented in the published literature in varying degrees of detail and complexity. As noted by ten Have (2007), all transcriptions involve some degree of translation, as the analysis and transcription process influence each other directly. Transcription of recorded data is crucial to the validity and reliability of conclusions resulting from a CA analysis. The list of transcriptions conventions used in this study appear in the front pages of this thesis, and follow recommended practices (Schegloff, 2008)

In examining the phases of the appointment, key phases were transcribed as they related to the establishment of rapport, the case history, the presentation of results, and the rehabilitative decision-making. Those phases were transcribed in detail by the researcher as required by CA, with pauses, false starts, repetitions, interruptions, overlapping speech, volume, speed of delivery, and intake of breath noted for their significance and in order to reflect the orderliness of conversation (Wooffitt, 2001). In a deviation from convention, and making use of current technologies, key utterances discussed in the text were marked in blue to highlight those moments for the reader. Turns, but not lines were numbered.

Those parts of the texts that were transcribed for CA purposes were boxed in the complete transcript so that the reader could see which parts of the appointment were analysed. The three case studies are presented in the Appendix. All twenty transcriptions are available from the author on request.

## 4.6 Focus Group Meetings

The transparent collection of contextual information from participating audiologists was achieved through two focus group meetings. The first focus group meeting was held at the start of the study, prior to any recordings of appointments. The meeting provided a focus for the study, and provided what Myers (2007) describes as an opportunity to discuss ideas that might otherwise not be addressed. The participating audiologists were, through their participation in the focus group meetings, instrumental in the development and design of the research process, and helped provide the focal themes (see chapter five) to guide the investigation. The second focus group meeting was arranged to provide preliminary results after the initial analysis of the data obtained, and to obtain group perspectives on the findings.

Focus groups have been used widely in a number of contexts, including marketing, healthcare and within organizations. Focus groups or group interviews are cited by Morgan (1996) as serving as points of data collection, acknowledging the researcher's role in gathering this data, and situating the data collection as coming from within a particular group. Focus groups offer opportunities for participants to share ideas and compare and contrast experiences, in an open manner (Marková, Linnell, Grossen and Orvig, 2007).

The proceedings of the focus groups were recorded and transcribed, with contributors de-identified. The commentary from participating audiologists was used to guide the interpretation of the results of the analysis of data. It is recognised that the analysis of the focus group meetings could form a separate study, and that the interactional patterns within the groups, the group identity, and the motivations of the group may well have influenced the meeting proceedings, as discussed extensively by Marková, et al. (2007). However, such an in-depth analysis of the focus group proceedings was beyond the scope of the present study, which adopted a pragmatic, if somewhat superficial, approach to the analysis of the focus group meeting data.

The participating audiologists demonstrated their commitment to the study through their attendance and active participation in the meetings. Table 4.5 shows the attendance of the participating audiologists, the researcher and the research supervisors at the two focus group meetings that were held during the course of the study.

**Table 4.5 Focus groups - participating audiologists**  
Involvement of participating audiologists (labeled A – H) at each stage of the research process.

	<b>Focus Group 1</b>	<b>Data Collection</b>	<b>Focus Group 2</b>	<b>Individual Meetings</b>
<b>Participating Audiologists</b>	A,B,C,D,E, Supervisor 2	A,B,C,D,F,G,H	A,B,E,F,G,	C, H
<b>Facilitator</b>	Supervisor 1		Supervisor 1	
<b>Others</b>	Researcher & Observer (PhD student)		Researcher	Researcher

#### 4.6.1 Focus Group 1

The first focus group meeting was held in the early stages of the study to shape the research area (following Merton, 1987). The aim was to gain information from clinical audiologists about their clinical interactions. All audiologists involved in clinical service delivery at Macquarie University at that time were invited to attend the meeting. Five audiologists, with experience in the field ranging from under one year to more than ten years, attended the meeting. In addition, two supervisors for this study attended. The primary supervisor facilitated the focus group meeting. The associate supervisor, an experienced audiologist, participated in the meeting. In addition, the researcher and another PhD student (not an audiologist) who was also planning an investigation within the audiology site, attended.

The meeting was audio recorded onto cassette and then converted to a digital recording. The recording was transcribed for purposes of extracting the main

themes and comments. All comments were de-identified. In some cases where there was a difference of opinion, experience level or professional interest of a participant was noted for possible explanatory purposes. As mentioned above, the focus group material was used in a traditional sense in that the content was extracted. As this is a discourse analytic study, it is worth noting again that the extraction of content did not include the analysis of interactional aspects of the focus group meetings, even though these are recognised (Marková, et al., 2007) as influencing the content of the discussion. Although this is recognised as a limitation of the analysis, the use of the focus group meetings in this study was supplementary to the analysis of naturalistic data, and did not stand alone. The bias of the group as being participants in the study is another limitation, which is recognised, but was a compromise to enable the researcher as insider to access the participating audiologists' views in a way that was both efficient and open.

Each participant introduced him or herself briefly, and the facilitator asked the group to identify the challenges faced in interaction with patients. The main findings from the meeting were as follows:

1. The audiologists' scope of practice and professional identity, the influence of the medical profession and the nature of the hearing aid industry were all factors that emerged from this focus group meeting as direct influences on patient – professional interactions in clinical settings in audiology.
2. The most professionally challenging interaction with patients in clinical settings for these audiologists was the discussion about hearing aids. This was not surprising, given the background to the hearing aid industry presented in the introductory chapter to this study.

The first focus group meeting provided a clear indication that investigating appointments where there are discussions concerning the choice of hearing aids would be a valuable exercise and one in which this group of audiologists would agree to participate in.

#### 4.6.2 *Focus Group 2*

The aim of the second focus group meeting, held in October 2007, was to report back to participating audiologists on the data recording and analysis. This was considered important for the following reasons:

1. The participating audiologists' commentaries on the findings was important to ensure that the comments and interpretations were representative of the audiologists working in the research site, and not just those of the researcher.
2. The audiologists had generously allowed their appointments to be recorded, and deserved a follow up account of how the data was being used. The researcher understood this to be a form of reassurance that identifying or incriminating findings were not being targeted.
3. The findings of the study were to ultimately be shared with the broader audiology community. The researcher needed to be certain that the participating audiologists were able to see the data and the direction of the study first hand, and be able to comment on the findings, and feel reassured that the process protected their identity.

The second focus group meeting was facilitated by the primary supervisor for the study, who had facilitated the first focus group meeting. All audiologists who had participated in the first focus group meeting, and/or had contributed to the data collection were invited to attend. Participants were given the option of attending the group meeting, having an individual meeting with the researcher, or not attending any meetings. One participant refused the opportunity to attend any follow up meeting, saying she was "interested only in reading the thesis". One could not attend due to work commitments and attended an individual meeting at a convenient time. A third agreed to attend but was not able to at the last minute, and so also attended an individual meeting.

As can be seen in Table 4.5 (above), participating audiologists labeled A, B and C were involved in each stage of the study (focus group meetings and data collection). E was involved in both focus group meetings, but was not part of the

data collection. F, G and H joined the department after the first focus group meeting, and were involved in the data collection and follow up. Both C and H requested individual meetings for follow up as they could not attend the second focus group meeting, one of whom requested an individual meeting for practical reasons. The attendance by participating audiologists demonstrated their commitment to this study during the extended time period over which it was undertaken, even though many of them (A,C,D,F,G and H) had resigned from their positions in the university.

The second focus group meeting served to share the research process and findings from the study to date, and to gain further insights and perspectives from the participants. The content of the second focus group meeting included a summary of the research process and a summary of the findings from the second level of analysis. A PowerPoint presentation was used for both the focus group meetings and the individual meetings, to ensure consistency of information shared.

Focus Group 2 began with a presentation by the researcher, reminding the participating audiologists of the content discussed in Focus Group 1, a summary of the data sampling, transcription, and main trends were presented to the participating audiologists.

The presentation of results was followed up with a discussion amongst participating audiologists of the interest of the findings to the profession generally, and their more recent experiences across various aspects of audiology outside, and within, the university clinic. The topics covered included the following:

1. Apparent tensions between commercial and professional roles.
2. Rapport with patients – the use of everyday conversation in clinical contexts.
3. Multiple roles (e.g. diagnostic, decision making, matching assessment findings to solutions) of the audiologist and forms of language used (specifically question types).
4. Clinical skills – what is taught versus what is learned in practice.

5. Coping with challenging patients (e.g. types of patients, degrees of deafness, family support).
6. Commercial versus professional decision-making.
7. Technical versus professional service delivery.
8. The type of data collected and the research procedures thus far.
9. Translating the study into action – dissemination of results to the Audiology community.
10. Counselling role in audiology.

The second focus group meeting thus achieved a dual purpose of sharing the research process with participants, as well as gaining their perspectives on a number of key issues. A valuable outcome of the focus group meeting was the indication of the participating audiologists' support for the dissemination of these results to the Audiology community<sup>13</sup>.

#### **4.7 Results: Format of Presentation**

The presentation of results in this thesis is centred on three case studies that were selected because they contained elements that allowed for the exploration of focal themes that are of concern to the profession. Chapter five serves to introduce the focal themes from the focus group meeting, which are linked to general ethnographic observations made regarding the specific research site. The three case studies are then introduced. An interim overview of findings provides an orientation to the reader, preparing for the presentation of the results in chapters six through to eleven. Within each chapter that discusses the results (chapters six to eleven), the three cases that were analysed in detail using CA are used to exemplify and explore focal themes that arose from the ethnographic observations, focus group meetings, and examination of all twenty transcribed appointments. This approach relies on the richness of data to demonstrate interactional phenomena, and privileges fine grained, detailed qualitative analysis over the demonstration of numerous examples of similar phenomena.

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<sup>13</sup> With the consent of the participating audiologists, limited findings from the data set regarding discussions about the cost of hearing aids were presented in poster form at the Audiology Australia National Conference in 2008 (see Collingridge, 2008)

## **Chapter 5 Themes and Findings: An Interim Overview**

Chapters one to three provided background information to the audiology profession, introducing themes of diagnostic and rehabilitative audiology as separate but related, audiometry versus audiology, societal views of D/deafness, and discursive demands inherent in clinical practice. Chapter four introduced CA as a qualitative methodology suited to the study of professional issues by an insider-researcher. Even though this insider-researcher/ author had wide experience of audiology at the start, the identification of key issues for the profession by any one person may not have been the same issues that concern a wider group of audiologists. As introduced in chapter four, many discourse analytic studies face similar issues of relevance because discourse analysts do not necessarily know at the outset what is important within a particular research site (Roberts and Sarangi, 2003; Sarangi and Candlin, 2001).

Roberts and Sarangi (2005) addressed this issue by focusing discourse analytic studies on “focal themes” (p. 639) that were identified as sources of concern or interest to the profession under study. They used a variety of discourse analytic tools, presented as “analytic themes” (p. 634) to explore focal themes which were issues of concern, in their case, to the medical profession. They thus addressed the issue that has already been introduced (see chapters one and four) of “joint problematisation” (p. 639) through what they referred to as “theme oriented discourse analysis” (p. 632). The joint problematisation in their case was between medical practitioners and discourse analysts, and had as its objective ensuring that what was being studied from a discourse analytic perspective was of professional relevance.

The present study follows the same principle of theme oriented discourse analysis with, in this case, focal themes which arose out of the issues that were raised by the participating audiologists as issues of professional relevance to them in their clinical practice. While clearly still not a representative sample of all those practicing the profession, the participating audiologists nonetheless determined focal themes which were of concern to them. The researcher having multiple roles

(as already discussed) could verify that these were issues that were all relevant to their professional work. These issues in turn were used to direct the discussion and focus of the case studies.

Candlin and Jones (2007), following Roberts and Sarangi (2005), refer to focal themes of professionals as being *made relevant* to the analytic themes of discourse analysts. Similarly, in the present study, the analytic themes emerged through the application of conversation analysis to the data. The focal themes served to focus the analysis on issues for members of the Audiology profession who were also participating audiologists in the study.

This chapter offers background information as to the focal themes that emerged through the focus group meetings. These are presented against the background of the researcher's ethnographic observations of the clinic. Having identified the focal themes, the chapter continues by examining the timing of the transcribed appointments. Next, details of the three cases studies selected for microanalysis are presented. This chapter closes with an overview of findings obtained in the analysis of the data. The overview of findings includes a brief explanation of the translation of focal themes to analytic themes.

## **5.1 Focal Themes**

Four broadly interrelated focal themes were identified by participating audiologists at the first focus group meeting. These are listed, in no particular order, as follows:

- Rapport
- Distinctions between diagnostic and rehabilitative audiology
- Funding models and their influence on clinical practice
- Professional boundaries

Background information about the day-to-day activities in the clinic of patients and audiologists is presented in this section. Concerns that participating audiologists have regarding their clinical practices, as raised during the first focus group

meeting, are presented together with the ethnographic commentary so as to offer some insight into the origin of these focal themes.

Table 5.1 provides an outline of a typical clinic day at the Macquarie University Audiology Clinic (hereafter referred to as the clinic) in 2004 / 2005.

**Table 5.1 Outline of a typical day in the Macquarie University Audiology Clinic in 2004 / 2005**

9 am – 12.00 noon	Patients booked in to clinic for either 30 minute appointments (children), 60 minute appointments (adult diagnostic or hearing aid fitting or follow up), or 90 minute appointments (appointments where patients have indicated their interest in rehabilitation that require both diagnostic and rehabilitative aspects)
12.00 – 12.30 pm	Buffer to allow for paperwork, returning phone calls, and general administration
12.30 – 01.30 pm	Lunch Time
01.30 – 04.00 pm	Patients booked on same basis as morning appointments
04.00 – 05.00 pm	Administration

Table 5.1 illustrates the breakdown of activities that were undertaken on a typical day, showing the range of appointment types and length.

Patients usually contacted the clinic themselves by telephone to make appointments. The receptionist, being their first point of contact with the clinic, acted as a gatekeeper as to the type of appointment booked and the time allowed for the booking. In most cases, patients waited for between six and eight weeks for an appointment. The receptionist not only made the original appointment, but also was confirmed all appointments the day prior. By the time the patient arrived for their appointment with an audiologist, they would already have had at least two telephone conversations with the receptionist.

Because of the funding arrangements that billed Medicare for assessments in the clinic (as discussed in chapter four, p. 119), a referral from a doctor was recommended by the receptionist. The alternative (very seldom taken up) was for

the patient not to obtain a referral, and to pay for the first consultation themselves. Because referrals were required to be made to the clinic director (an ENT specialist), some patients were under the impression that they would be seeing a medical specialist. In some cases, patients only realised they were to be attended to by an audiologist when they arrived at the clinic.

Audiologists knew in advance if patients were booked for diagnostic assessments only (sixty minute appointments) or if they had both diagnostic and rehabilitative components (ninety minute appointments). During the focus group meeting, participating audiologists reported more anxiety when anticipating those appointments that had a rehabilitative component than those that were purely diagnostic. The anxiety reported was not attached to technical aspects of hearing testing, but related to how rehabilitative decisions would be made in interaction with patients. The audiology literature (see related discussion on p. 69 ) cites time constraints and lack of training as reasons for not engaging with rehabilitative issues. A related factor, and one identified by the participating audiologists as a source of concern, related to the separate funding of diagnostic and rehabilitative services. "Bulk billing" meant that claims were made to Medicare for diagnostic services. Patients did not need to pay towards the cost of any diagnostic appointment for which they had been referred. The cost of any rehabilitation in the form of hearing aid fittings, or more rarely, communication skills training and counselling, was charged to individual patients, and was not recoverable from Medicare. Depending on individual circumstances, some patients had private health insurance that covered some costs associated with audiology, but typically this was limited cover, covering a small portion of the cost of hearing aids only. In other cases, patients who were eligible for services funded through OHS (including hearing aids and limited rehabilitation) could attend the university clinic for the assessment (billed to Medicare) or they could attend a service provider who was able to claim for the assessment and rehabilitation by virtue of their contract with OHS. The participating audiologists expressed concern about discussing financial implications of rehabilitative decisions with patients who might be eligible for funding if services were obtained elsewhere. They also expressed concern about discussing the differences in funding for diagnostic and rehabilitative phases. A clear focal theme emerged in relation to funding models and their impact on the

profession. Examining the way that patients and audiologists interacted in diagnostic and rehabilitative phases of these appointments needed to be examined in light of the funding model adopted, yielding two closely interrelated focal themes, that of the distinction between diagnostic and rehabilitative audiology, and that of funding models adopted across the sector.

On arrival at the clinic, patients were required to complete a clinic card (with details such as name, address, date of birth, and contact details) and to sign a consent form giving permission for the release of test results to referring doctors and for the results of their assessment to be used in recorded form for teaching and/or research purposes, provided anonymity was maintained. Once this was completed, the patient provided the referral letter and their Medicare card to the receptionist, who partially completed it, and the patient then waited for their audiologist to collect them. During the waiting time, patients had the opportunity to read the qualifications of audiologists which were displayed on the walls of the clinic. It was during this time that patients could establish that they were going to be attended to by an audiologist, and not a medical specialist.

The interaction between patients and audiologists began in the reception area. Audiologists collected their patients (and accompanying paperwork) from there. The audiologist would typically glance over the clinic card and referral letter before introducing themselves to the patient. The written details provided an impression of the patient's age and living arrangements for the audiologist. The audiologist would need to identify which of the patients sitting in the waiting area was their next patient. This could be achieved through asking for an indication from the receptionist, or through matching the personal information on the clinic card with the range of waiting patients. Audiologists introduced themselves to their patients, referring to themselves using their first name, and the patient by their title and surname. These conventions in greeting were formalised in the clinic policy. The audiologist walked with their patient and any others who were attending with them, from the waiting area to the clinic. The clinic policy also called for audiologists to minimise professional discussion on walking from the reception area to the clinic. This is because this is a public area (the passage is shared with the Linguistics Department) and walking alongside patients in a public place is not conducive to

maintaining privacy, or effective communication with anyone with a hearing loss. Patients, however, often tended to raise topics of concern during the walk down the passage. As described in chapter four (p. 114), audiology clinic rooms contain much equipment, and the placement of the patient for the hearing test requires the patient (ideally) to be at a 90 degree angle to the audiologist to avoid the patient responding to visual and not auditory cues. For the case history and discussion portions (the first part and final parts of the audiology consultation), face to face interaction is preferred. Most appointments started with some negotiation around seating to accommodate these two different requirements – that is face to face versus angled seating. At the end of the appointment, if patients were to return to the clinic, they were returned to the reception area, where subsequent appointments were rebooked by the receptionist. The audiologists in such cases, took their leave of the patient in the waiting area, and typically, collected the next patient. If patients were not returning to the clinic, the audiologist would typically take their leave of the patient outside the lift, in the department's foyer, which was a public area.

Audiologists and patients were required to establish rapport in this environment which was either very public, or very isolated. As discussed in the introductory chapters, rapport is expected to be established early on in appointments (see p. 45 for the introduction of this topic). Not surprisingly, audiologists at the first focus group meeting identified the establishment of rapport as their first professional challenge in any given appointment. The acquisition of skills associated with rapport, and the complexity of rapport as appointments shifted between different clinic phases (as was shown in the flow diagram of the clinical process on p. 39) were identified by audiologists as professionally challenging and difficult to teach. Rapport was thus readily identifiable as a focal theme for the study. The complexity of rapport was considered at each stage of the appointment, as presented in chapter six.

After the appointment was over, and the patient had signed the claim form for Medicare, the claim was submitted to the Health Insurance Commission on behalf of the clinic director, who was duly paid for the audiology services carried out. Additionally, the audiologist wrote a letter back to the referring doctor, which was

co-signed by the clinic director. Those arrangements ensured that a relationship between the referring general practitioner, the clinic director (also a medical practitioner), the patient and the attending audiologist was evident during each appointment. Audiologists in the focus group meetings expressed their concerns about overstepping boundaries between medical and audiological services. Professional boundaries between medicine and audiology which were introduced earlier in the thesis (see p. 57) thus formed another focal theme. This theme is not independent of the other focal themes identified. The medical / audiological boundaries were not isolated from the funding model, which in turn were closely related to the related to the distinct phases (diagnostic and rehabilitative) of the clinical process as discussed above. Rapport is a construct which is necessarily interrelated to the other focal themes already named.

This study brought a new way of investigating professional practice to audiology. The discourse analytic approach allowed for the exploration of these focal themes which are not new to the profession, but which are awkward and difficult to articulate without an analytic frame that considers their interrelatedness, and a means by which they could be identified and characterized through the discourse of the consultation.

## **5.2 Audiology Appointments – Timing and Process**

Time constraints in appointments are so often cited in the audiology literature (see p. 69 for the introduction to this topic) that an analysis of appointment times is included here to assist the non-specialist reader to understand the context of the case studies.

Appointments were made for specific times in the clinic in all cases. The length of these appointments was significantly longer than most medical or service oriented appointments. Unlike some other medical clinics, where appointments times are loosely adhered to, the policy in this clinic was to work to booked appointment times. This meant that audiologists were required to manage the timing of each appointment. Appointments where there was a rehabilitative as well as diagnostic

component were long, and tended to extend beyond the time booked on many occasions. As shown in Table 5.2, all appointments were clearly delineated between initial case history gathering, assessment and discussion sections, with the exception of Cases 10 and 17, which did not include any assessment in either case. In Case 17, the discussion about rehabilitation constituted the whole appointment.

**Table 5.2 Timing information (minutes)**

Description of 20 appointments that were transcribed and analysed in terms of the time allocated to each section of the appointment. Summary statistics for each section of the appointment and the total time of appointments is given. \* Denotes the three case studies.

APPOINTMENT	NO OF MINUTES DEVOTED TO THE CASE HISTORY	TIME IN MINUTES DEVOTED TO THE ASSESSMENT	TIME IN MINUTES DEVOTED TO THE DISCUSSION AFTER THE ASSESSMENT	TIME IN MINUTES OF THE TOTAL APPOINTMENT
1	7	25	28	60
2	13	39	42	94
3	7	36	32	75
4 (case 3)*	11	45	34	90
5 (case 1)*	8	38	73	119
6	16	38	35	89
7	10	36	35	81
8 (case 2)*	10	10	77	97
9	18	33	12	63
10	9		38	47
11	6	39	45	90
12	8	15	28	51
13	10	5	36	51
14	22	38	45	105
15	11	47	39	97
16	6	11	37	54
17			27	27
18	7	30	51	88
19	12	10	7	29
20	7	22	32	61
<b>Mean</b>	<b>10</b>	<b>29</b>	<b>38</b>	<b>73</b>
<b>Std Dev</b>	<b>4</b>	<b>13</b>	<b>16</b>	<b>25</b>
<b>Mode</b>	<b>7</b>	<b>38</b>	<b>45</b>	<b>90</b>
<b>Min</b>	<b>6</b>	<b>5</b>	<b>7</b>	<b>27</b>
<b>Max</b>	<b>22</b>	<b>47</b>	<b>77</b>	<b>119</b>

The case history section absorbed less clinical time than the other two sections of the appointments, with a mean amount of time being 10 minutes to gather the

history. The assessment took double that time on average and the discussion three times as long, on average. The discussion section formed the longest section of these appointments. As not all appointments were the same length, the time allocated to each section was expressed as a percentage of the total time of the appointment. These figures are shown in Table 5.3.

**Table 5.3 Timing information (percentage)**

Timing of the 20 appointments that were transcribed and analysed expressed as a percentage of the total time of the appointment. Summary statistics for each section are given. \* Denotes the three case studies.

APPOINTMENT	% OF TIME GIVEN TO CASE HISTORY	% OF TIME GIVEN TO ASSESSMENT	% OF TIME GIVEN TO DISCUSSION
1	12	42	47
2	14	41	45
3	9	48	43
4 (case 3)*	12	50	38
5 (case 1)*	7	32	61
6	18	43	39
7	12	44	43
8 (case 2)*	9	10	80
9	29	52	19
10	19		81
11	7	43	50
12	16	29	55
13	20	10	71
14	21	36	43
15	11	48	40
16	11	20	69
17			100
18	8	34	58
19	41	34	24
20	11	36	52
<b>Mean</b>	<b>15</b>	<b>36</b>	<b>53</b>
<b>Std Dev</b>	<b>8</b>	<b>12</b>	<b>19</b>
<b>Mode</b>	<b>11</b>	<b>34</b>	<b>43</b>
<b>Minimum</b>	<b>7</b>	<b>10</b>	<b>19</b>
<b>Maximum</b>	<b>41</b>	<b>52</b>	<b>100</b>

Expressed as percentages in Table 5.3, it can be seen that the mean percentage of time devoted to case histories for these twenty transcripts was 16 %, with the discussion section covering just over 50 % of the time. Of interest is that the timing data presented here indicates that on average 66 % of time is spent interacting –

either in the case history section or the discussion section. The timing data indicates that there is much similarity across these appointments regardless of experience levels of either audiologists' clinical experience or patients' previous experience of audiology. Of interest is the clear delineation across the three sections, which was evident in all appointments. Those where there was no delineation (appointments 10 and 17) were booked in to the clinic as discussion appointments only, where a previous diagnostic appointment had been attended to in the recent past.

### **5.3 The Case Studies**

The three case studies on which the analysis of the interactionally achieved clinical goals is based are summarised in the pages that follow. Each case is written in a different colour (violet for Case Study 1, green for Case Study 2, and magenta for Case Study 3) for ease of reading.

Three cases were considered sufficient to demonstrate a range of interactionally achieved clinical tasks as examined through the lens of the interrelated focal themes identified above. These focal themes do not exclude the recognition of other factors that might have contributed to clinical outcomes in individual cases, such as (but not limited to) the previous experience of each patient with audiology, degrees of deafness, available services or technology.

All patients in these case studies were male, and all had some previous experience of audiology. Two of the audiologists (A1 and A2 were female) and one (A3) was male. The experience level of the audiologists spanned from two to four years (A3) to more than ten years (A2). The appointments were all appointments where rehabilitation decisions were made, and there was a shift in the clinical process from diagnostic to rehabilitative. The outcomes of the appointments varied. P1 agreed to proceed with hearing aids but later cancelled the arrangements, P2 was fitted with a hearing aid during the appointment, which was retained, and A3 deferred the decision and later proceeded with the recommendations of A3.

The intention is that the summary of each case will be referred to by the reader while reading subsequent chapters when contextual or sequential information related to a particular case may need refreshing.

	<i>Case Study 1</i>	<i>Case Study 2</i>	<i>Case study 3</i>
<i>Participating Audiologists (A) and Patients (P) referred to as:</i>	A1 and P1	A2 and P2	A3 and P3
<i>Experience level of A</i>	4 – 10 years	> 10 years	2 – 4 years
<i>Gender of A</i>	Female	Female	Male
<i>Age of P</i>	83 years	67 years	32 years
<i>Gender of P</i>	Male	Male	Male
<i>Duration of Appointment</i>	119 minutes	97 minutes	90 minutes
<i>Case History Findings</i>	<p>P1 had noticed hearing loss 12 years previously. He had attended another service provider who had fitted binaural hearing aids through the OHS scheme. He had recently been advised by that provider that no further adjustment of the hearing aids was possible. He reported using one hearing aid only in selected situations, and continued to have difficulty in hearing in many situations. He was referred to the university clinic by a former senior official of the university who also attended the audiology clinic. He attended the audiology clinic alone. He lived with his wife.</p>	<p>P2 had been tested previously at the same clinic but questioned the test results, as the assessment had been carried out by a student. He had a history of ear surgery (mastoid surgery) on the left side during childhood. He was diagnosed with a neurological condition associated with balance problems, although his hearing loss was not attributed to that problem, it was being monitored by his neurologist. He suffered from tinnitus. His main complaint was difficulty hearing in noisy situations. He had previously expressed an interest in hearing aid fitting. He attended the appointment alone. He had a wife and family.</p>	<p>P3 was diagnosed with a hearing loss while in primary school, and used hearing aids until age 13, after which he stopped of his own accord. Hearing aids had been obtained as a child through the government service. He worked in a demanding job in the IT industry and experienced difficulties hearing at meetings. Watching television without captions was difficult. He lived overseas for a while, and noticed difficulty with unfamiliar accents. He consulted a private clinic approximately one year previously and did not follow up the recommendations, reporting that they had adopted a sales attitude that he was not comfortable with. He attended the appointment accompanied by his partner, who was associated with the audiology field through work.</p>

	<i>Case Study 1</i>	<i>Case Study 2</i>	<i>Case study 3</i>
<b><i>Assessment Findings</i></b>	Moderately severe bilaterally symmetrical sensorineural hearing loss across the frequency range. Middle ear function was normal in both ears on immittance measures. Speech discrimination ability was normal at high intensities but reduced at conversational levels. Results are suggestive of a cochlear site of lesion	Bilateral steeply sloping sensorineural hearing loss, slightly more severe on the left than on the right side. Middle ear function was normal on the right side, and the pattern of acoustic reflexes was consistent with a middle ear condition on the left side, consistent with his history of surgery. bilaterally. Speech discrimination scores were good at slightly raised intensity levels with no signs of rollover. Results are suggestive of a cochlear site of lesion.	Bilateral symmetrical sensorineural hearing loss with a gently rising configuration. Middle ear function was normal on immittance measures. Acoustic reflex thresholds were recorded at normal hearing levels, suggesting a hearing loss of cochlear origin. Speech discrimination abilities were slightly reduced at high intensities in both ears.
<b><i>Rehabilitation Options</i></b>	As P1 was part of DVA and therefore OHS eligible, A1 suggested returning to the previous provider. This was rejected. P1 wanted to trial privately fitted hearing aid. A1 advised that improved use of the aids including regular use of two hearing aids would be necessary if benefit was to be derived from a new hearing aid. Patient agreed to this.	P2 expressed a preference for a monaural hearing aid fitting. Binaural options were presented, but the patient preferred a monaural fitting. He was suited to an open fitting hearing aid, and this was trialed at this appointment after the discussion.	Binaural behind the ear hearing aids were recommended by A3.
<b><i>Commercial factors in the hearing aid discussion</i></b>	P1 described himself as well off and not minding having to pay for new hearing aids. He expressed an interest in obtaining the top of the range hearing aids.	P2 was aware of the costs associated with the hearing aid before the appointment began, having had a preliminary discussion previously. He asked if the price was negotiable, and when that was refused, he agreed to the university's costs and conditions of hearing aid fitting.	P3 advised A3 that he was willing to spend sufficient money to obtain top of the range hearing aids. A3 recommended mid range hearing aids, suggesting that top of the range hearing aids would not have easily identifiable benefits over top of the range aids.

	<i>Case Study 1</i>	<i>Case Study 2</i>	<i>Case study 3</i>
<i>Psychosocial effects of hearing loss</i>	P1 expressed a frustration at not hearing in social and business environments. He was not concerned with the appearance of the hearing aid, reporting that he was interested in the performance of the hearing aids. He did suggest that this point of view had resulted from an abandonment of an attempt to conceal the hearing loss.	P2 commented on the size of open fitting behind the ear hearing aid and that he had asked his hairdresser to leave more hair around his ears. A2 demonstrated the invisibility of the hearing aid, referring to it as virtually invisible. Discussion followed about match to hair/skin colour, hair style, association with aging, changing hair colour with A2 encouraging P2 to trial different colours and reinforcing the invisibility of the aid. After the hearing aid fitting the patient referred to himself as a poor deaf old man, suggesting that the hearing loss was having an effect on his psychosocial functioning.	P3 described his rejection of hearing aids in adolescence as being his own rejection of the aids related to his attitude to them. He reported preferring in the ear style hearing aids as he did not want to have a visible hearing aid at work. A3 advised that he needed to choose between better hearing with a behind the ear hearing and visibility of the aid. A3 did not recommend in the ear hearing aids for P3.
<i>Outcome of the appointment</i>	Binaural top of the range behind the ear hearing aids with conventional earmolds were ordered and hearing aid fitting and follow up appointments were made	P2 selected and was fitted with one top of the range behind the ear hearing aid (open fitting). Follow up appointments were made.	P3 agreed to consider the options, and advised he would seek additional information and carry out his own research into the hearing aids. He advised he would contact the clinic.

## 5.4 Overview of Findings

### 5.4.1 *Focal Themes and Main Findings*

The results of the study were organized to reflect the sequential organization of diagnostic functions preceding rehabilitative functions (see chapter three p. 39). The content of the appointments was examined to identify how the diagnostic and rehabilitative phases were accommodated into a single appointment, in light of the focal themes identified above. The data was examined to identify how this was managed interactionally given the different competing discourses associated within each phase.

As a general observation of all appointments examined, the diagnostic phase of each was uniform in that each had a case history, with comparable content, a defined assessment phase, and the sharing of results. The time allocated to each phase within the diagnostic phase was similar across all twenty appointments examined. The uniformity suggests that the diagnostic phase of these appointment represents a genre (Bhatia, 2004).

It was possible to identify phases of the appointment where the establishment of rapport was attempted before beginning the clinical task of obtaining the case history, as expected from other studies of clinical interaction (as discussed by Leahy and Walsh (2008) in relation to speech pathology), and as introduced on p. 45. However, building rapport was not confined to the initial phase of the study, and it was possible to identify that rapport was also built through the undertaking of clinical tasks. The study of rapport as characterised by orientation to the patient through everyday talk and forms of address revealed a developmental aspect to the findings. Clear trends were seen across the twenty appointments that related to the use of everyday talk during clinical activities. Appointments where participating audiologists had considerable clinical experience evidenced this use of everyday talk more than those where participating audiologists were less experienced. Forms of address adopted were also associated with experience level of the audiologists. More experienced audiologists tended to use more formal

ways to address patients than did less experienced audiologists. While these findings are in line with studies of experience that demonstrate that more experienced professionals are able to attend to relational aspects of interaction (Candlin, 2002; 2008), the focus on everyday talk and forms of address was not adequate to fully conceptualise rapport. Rapport appeared to be evident in appointments where there was no evidence of everyday talk and where the form of address adopted was not in line with the trend identified. The co-constructed nature of rapport as dependent on the particular social circumstances of each clinical interaction was thus demonstrated. Further research into the process of establishing and using rapport could include patient perspectives as well as the examination of nonverbal cues that pass between participants. Such studies would enhance the analysis of the data analysed here.

All appointments included a clearly defined case history portion (as introduced on p. 49) where questions were asked that provided a statement of the problem from the patient, followed by case history questions. These questions were similar across the cases examined. One important difference marked case histories that were diagnostically oriented, in comparison to those that had a rehabilitation focus. This difference was the degree and nature of responsiveness by the audiologist to information that was obtained from patients. This marked similar questions as being associated with different activities (Levinson, 1992; Steensig and Drew, 2008) and prompted the identification of two different sequential formats for case history taking. The first involved a sequence of Question–Answer–Acknowledgement–Question (abbreviated QAAQ), which conformed to a medical model of case history taking (Duchan, 2004; 2005). Where audiologists responded to the information from patients, this altered the format, to create a sequence of Question–Answer–Response–Acknowledgement–Question (abbreviated QARAQ). This represented a deviation from the medical model, and showed evidence of audiologists anticipating the rehabilitative phase of the appointments, from within the case history section. The QARAQ sequence was seen not only to allow for probing questions and obtaining more detail than originally offered by patients, but it also allowed for anticipation of the rehabilitative phase that followed the diagnostic phase. Responsiveness also served to build rapport during the clinical activity of case history taking. Not surprisingly, there was a developmental aspect

to the way that the rehabilitative phase was anticipated, which, as shown above, was associated with rapport. In the three cases that were examined in detail, the more experienced clinicians showed evidence of anticipating the rehabilitative phase during the case history, whereas the less experienced clinician did not.

The appointments all devoted some time in the post assessment phase to the presentation of the audiological diagnosis. The concept of the audiological diagnosis as a description of the degree, type and configuration of the hearing loss was introduced on p. 56. The interactions examined in this study all were characterised as monologic styles of delivery of the audiological diagnosis with the full disclosure of results, which represents a common way of presenting audiology results reflecting the context, as discussed by Duchan and Kovarsky (2005), of the audiological diagnosis. The presentation of results in the monologic style might be interpreted as a demonstration of the audiologist's power in the interaction, as has been interpreted in many studies of medical diagnoses, including Heritage (2005b). However, audiological diagnosis, being an incomplete diagnosis that is subject to revision by medical practitioners, was seen to be presented within this style as a defensive strategy. This served to avoid extending the appointment beyond the professional scope assigned to audiology. This was made evident in this analysis when the influence of medicine was examined in the context of these appointments. The presentation of the audiological diagnosis served as a buffer between the diagnostic phases and rehabilitative phases, even in cases where the rehabilitative phases had been anticipated early on in the appointments.

The rehabilitative phase (as introduced on p. 65) was characterised by less uniformity across appointments than the diagnostic phase, with a variety of approaches adopted by audiologists and a number of diverse outcomes. All of the appointments, however, displayed an orientation towards technological solutions, almost exclusively hearing aids. The focus of the analysis thus became how hearing aids were talked about and in particular, how expectations of hearing aids were managed, rather than a comprehensive account of rehabilitative options. The apparent disorganization of the talk about hearing aids was captured in a model of how expectations of hearing aids were managed in these appointments. The model was based on that of Candlin and Lucas (1986) and was termed the Model

for Managing Expectations of Hearing Aids (hereafter referred to as MMEHA). This model allowed for the linking of macro influences (in particular the commercialism of hearing aid fitting and psychosocial aspects) to micro patterns of interaction within these appointments. The trajectory of each discussion about hearing aids for each case study is shown through the model, along with extracts that explain the interactional patterns within each appointment.

The model allowed for the representation of how the rehabilitative phase was approached in each of the cases. The pathways through the model allowed for the identification of macro as well as micro influences on the talk-in interaction. The analysis of discourses present in audiology appointments demonstrated that the effect of macro influences (such as third party funding) was to mask specifically audiological discourses. The audiological interest in the psychosocial implications of deafness was present in these appointments, but was hidden behind the technological focus. The technological focus is common to both audiometry and audiology. This was seen to contribute to the ongoing lack of distinction between audiologists and audiometrists. The identification of orders of discourse related to medicine, testing, sales, and the hidden psychosocial discourse allowed an understanding of why the distinction between the differently qualified technicians (audiometrists) and professionals (audiologists) persists in Australia. Contributing to the lack of distinction between audiologists and audiometrists and the commercial domination of rehabilitation are the funding structures for audiology services. Modelling was able to show the effects of “bundling” the costs of hearing aids with professional services as contributing to the lack of distinction between audiologists and audiometrists. Third party funding regulations in Australia (determined by OHS) were found to have an influence on the practice of audiology within the private sector, as well as within the sector that they fund. This was because of patients accessing both private and OHS services at different times. The technological focus of OHS thus filters to the private sector. The importance of broadening the scope of funded services to include the audiological, as well as the current scope of the audiometric, was demonstrated through the examination of these appointments. Professional boundaries between audiologists and others (including audiometrists) had been a key focal theme to arise out the focus group meetings, and which was addressed through this investigation.

Within the MMEHA model, the role of advising was identified as essential to the achievement of shared decision making, a clinical activity that was considered appropriate to this particular clinical context. In line with other studies that have demonstrated the co-construction of advice giving (Heritage and Sefi, 1992; Silverman, 1997), audiological advice was not always readily accepted, nor was it always forthcoming from audiologists. Effectiveness of advising, in terms of how shared decisions were reached, was shown in this context to be related to the explicit statement of advice; positive statements of advice; and advice as grounded in patient expectations. This study of interaction using a fine grained analysis was able to identify mechanisms of responding and to demonstrate their effect in decision making.

The models of case history taking (QAAQ and QARAQ) and managing expectations of hearing aids (MMEHA) that resulted from this analysis inform the profession of the micro-level of interaction that can serve to demonstrate how to respond to patients during clinical tasks.

#### 5.4.2 *Focal Themes made Relevant to Analytic Themes*

Applied CA techniques (such as turn design, sequential organization, membership categorization devices and repair strategies) that were used to explore the focal themes allowed for the translation of the recorded data into discourse analytic concepts. The CA focus on linking turn design and turn taking to social action as achieved through conversation allowed for the teasing out of discourses and understanding their influences on one another. The CA analysis allowed for the conceptualizing of clinical audiological practice in line with other professions that have been investigated using discourse analytic methods such as social work (Hall, et al., 2006), speech pathology (Leahy and Walsh, 2008), nursing (Candlin, 2002; 2008) and pharmacy (Watermeyer and Penn, in press), and adding to the already large literature on the field of medicine, presented by Heritage and Maynard (2006). This methodology allowed for the exploration of the interrelated

focal themes without losing complexity. The multiple orders of discourse - diagnostic, rehabilitative, medical, commercial, and psychological - that have been discussed in chapter one were seen to compete and combine to form new discourses (such as technological discourse that has a masked psychosocial component) that are unique to this context.

Instances of interdiscursivity were revealed where discourses (for example of technology) appeared in discussions where other discourses (psychosocial adjustment for example) might have been adopted. Explanations for this interdiscursivity may be related to macro level influences (Layder, 1993; 1997) such as the influence of third party funders who primarily fund technological solutions to hearing loss.

Interactional hybridity as defined by Sarangi (2000 p. 13) as a “conflation of activity and discourse types” (p. 13) and as introduced in this thesis on p. 72, is exemplified in the data analysed where one form of discourse (questioning is one form noted in this data set) is used to serve multiple purposes (for example both for extracting information as in a regular case history and also for making suggestions to the patient about possible treatment options). Roberts and Sarangi (2005) and Candlin (2000) refer to hybridity as occurring especially in contexts when uncertainty arises. Their conclusions were reinforced by this analysis where interactional hybridity was shown to occur across the boundaries of diagnostic and rehabilitative phases of appointments, where there were multiple sources of uncertainty (regarding roles, possibilities and outcomes). Hybridity allowed for the adoption of a recognised format (in the form of case history questions) while stepping into the less certain area, that of rehabilitation. Roberts and Sarangi (1999b) refer to discursive hybridity as a dynamic shifting that may result in an apparent lack of order. This was true in the present case in that a superficial reading of suggestive case history questions might conclude that counselling was offered in an unexpected phase of the appointment. In fact, when the discourses were analysed, the appearance of counselling in the case history phase is an indication of a highly strategically ordered response to the particular set of circumstances and therefore an instance of professional expertise realised through discursive expertise.

Interdiscursivity and interactional hybridity are closely aligned concepts. In this study, hybridity and interdiscursivity both appeared in the discourse that was analysed, sometimes with both phenomena co-occurring. Both were seen as creative and strategic (Carter, 2004) uses of language adapted to the particular institutional context. It appeared from the data that interactional hybridity was possibly more sophisticated and subtle than was interdiscursivity. For example when counselling discourse emerged during case history taking in an example of hybridity, it retained the form (questions) of the traditional history. This allowed for the uncertainty of the patient's response to the suggestions to be managed by the audiologist, who could have reverted to traditional question / answer sequences if the reaction of the patient had so dictated.

Interdiscursivity appeared in many of the cases analysed. Interactional hybridity, however, appeared more commonly in appointments where the audiologists were highly experienced. This analysis suggests, in line with Candlin (2006), that professional expertise is reflected in the flexible and adaptable use of discourses within the particular situation. Arguably, using the strategy of interactional hybridity involved a high degree of awareness and flexibility on the part of the audiologist. The scope of the audiology profession which is both discursively uncertain (in relation to the medical and psychological roles), as well as reluctant (as in the selling role), thus offered the opportunity to examine how discourses were adapted to the professional circumstances under investigation.

The analysis clearly demonstrated the co-constructed nature of clinical interaction of which responsiveness by the audiologist is a key indicator<sup>14</sup>. Responsiveness to patients is important to ensuring patient focus (as discussed by Sarangi (2007), in relation to patient-centredness as practiced by the medical profession).

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<sup>14</sup> This study has an unashamed bias towards analysing the professional role, which limits the analysis (see chapter four p 112 for the justification of this). The scope of the study would have been broadened and the analysis deepened through the inclusion of patient perspectives. This might have been achieved through focus group meetings with a group of participating patients. However, the multiple roles of the researcher as manager, clinician and researcher meant that important relationships could be risked through the inclusion of patients from this clinic into the analysis, and ethical concerns would have arisen that would have been difficult to address. To avoid raising concerns amongst patients as to the nature of interaction with their audiologists, this study did not involve patients in any focus group discussions. This is clearly an area for further research.

Responsiveness to patients by these participating audiologists was demonstrated through rapport that was evident both outside of, and within, clinical tasks. It was co-constructed and more complex than suggested in prescriptive accounts offered to audiologists as to how to respond to their patients, as in, for example, Citron (2000). Responsiveness during the case history marked those appointments as anticipating the rehabilitative phase of the appointment. Responsiveness was sometimes marked by the strategic adoption of interactional hybridity (as discussed above). Responsiveness to patients during the diagnostic phase created a context for discussing rehabilitative issues. Responsiveness to patients during the hearing aid discussion ensured shared decision making.

The study demonstrated that patient-audiologist talk in clinical interaction is more complex than the concepts of information giving (Dillon, 2001) or informational counselling (Sanders, 1982) suggest. While information sharing was intricately associated with the case history, audiological diagnosis, and rehabilitative decisions, it was seen as insufficient on its own to capture the co-constructed and socially situated nature of clinical interaction. Rather, responsiveness to patients, which is already documented in the audiology literature as being of importance to the outcome of clinical interactions (Boothroyd, 2007; Clark and English, 2004; English, 2005; Luterman, 2008), needs to combine with information sharing for clinical interaction to be effective in achieving the goals of clinical audiology. Arguably, responsiveness involves the sophisticated use of discourse strategies such as interdiscursivity and interactional hybridity, as discussed above.

## **Chapter 6 Results: Establishing Rapport**

The establishment of rapport as an interactional achievement of the audiology consultation was introduced in chapter three (p. 45). Rapport was identified as being recognised within the profession as important to establish at the start of the appointment. Audiologists are encouraged to mark the relationship as respectful through appropriate forms of address. Rapport was identified as having different purposes for diagnostic and rehabilitative aspects of audiology, in that there are different types of relationships involved in each of these aspects. Diagnostic audiology involves a short term relationship, where the focus is hearing, whereas rehabilitative audiology involves an ongoing relationship, where the focus is use of hearing in everyday life. Of interest to the appointments analysed in this study was that they had both a diagnostic and rehabilitative orientation, with the diagnostic preceding the rehabilitative, suggesting that either the relationship might change during the course of the appointment, or that the initial rapport might anticipate the therapeutic relationship that would be required for the achievement of the rehabilitative goals of these appointments. How rapport was established and demonstrated in these appointments was therefore of interest.

This chapter identifies first how participating audiologists understood rapport, which was identified as a focal theme (see previous chapter) from the discussions in the focus group meeting. Focus group comments that relate to rapport were extracted and are used below to illustrate what is understood in this context by rapport. Secondly, the chapter identifies how rapport was established in the initial stages of the appointments analysed in this study, examining in particular the reliance on everyday talk and forms of address to establish the relationships within the appointment. The final section of this chapter examines how rapport was used during clinical tasks and moments of tension in the course of these appointments. This is presented under the following headings:

- Participant audiologists' understanding of rapport
- Establishing rapport in the initial stages of the appointment
- Using strategies associated with rapport during appointments

The analysis illustrates the co-constructed nature of rapport as situationally determined. Rapport is relied on and developed during the course of appointments, and is not a finite phase of appointments, although it might be understood as an important focus at the start. The complexity of rapport, politeness/forms of address; and the use of everyday talk both before and during clinical tasks, are shown through the analysis of extracts from the appointments. Rather than being a simple task involving the adoption of prescribed communication strategies (i.e. everyday talk before starting the clinical process), the establishment of rapport is seen here to rely on sensitivity to the social context and responsiveness to patients. Rapport, from this analysis, appears as sensitivity to relationships within the clinical setting, demonstrated through awareness of self and others, and responsiveness to others. This analysis highlights the individuality of rapport, providing an explanation as to why it is noted by clinicians to be difficult to explain and teach.

## **6.1 Participating Audiologists' Understanding of Rapport**

The focus group meetings provided the opportunity for audiologists to express their understanding of rapport, and to identify the challenges they felt were associated with establishing and maintaining rapport. Their comments related to:

- Establishing rapport early in the appointment (Focus Group Comment 6.1)
- Experience and rapport (Focus Group Comment 6.2)
- Everyday talk as part of rapport (Focus Group Comment 6.3)
- Rapport and aptitude (Focus Group Comment 6.4)
- Everyday talk as difficult to sustain (Focus Group Comment 6.5)
- Relationships with patients as changing in diagnostic versus rehabilitation phases (Focus Group Comment 6.6).

### **Focus Group Comment 6.1**

..the minute I meet the client and I know I have to have a rapport with them in either half an hour or an hour. Tops. In fact, I feel I have to have a rapport with them the minute I see them in the waiting room.

**Focus Group Comment 6.2**

And I find that, now at my age and doing this for so long, I don't find that too difficult, it's almost I can go into an act. I know that sounds terrible but I'm also being honest with you. It's almost like I take on a certain veneer or something, yeah persona and away I go. But then when it comes to students somehow I want them to do that right away as well and if they don't seem to interact really professionally with the client right away I sometimes say to myself, how come they don't know how to do this? Do you know. I think rapport is the first thing I find challenging.

**Focus Group Comment 6.3**

Well I think that with rapport as you say that less experienced audiologists don't seem to have the every day chitchat. I think part of that would be because they're probably so stressed-out about what they're going to have to do in the appointment because they're new, is that they're kind of thinking okay just have to get in and get started, so they kind of get straight into it and you know look at the referral and then they're right into it. Whereas as you get a bit more experienced, you know a bit more relaxed and you kind of take them in and you take your time and you know you're not going to take as long, so I think that would be a definite reason as to, one reason as to why.

**Focus Group Comment 6.4**

I mean I think that rapport with people is something that comes naturally to some people as well, so even some new audiologists might be a lot better than others at it.

**Focus Group Comment 6.5**

Yeah, well I guess that's always like up the corridor as well, you use that you know to judge before you even get into the room which I guess isn't reported too, there's that, sometimes there's a bit of chit chat - so by the time, sometimes there's, older people take a while to get up to the room, so by the time you've got there you've kind of exhausted everything. [laughter]

**Focus Group Comment 6.6**

It is managing all of that and by the end of the discussion that your client has the same faith in you in you've done the test and explained the test results because up to that stage they have all the faith in the world in you, well it seems to me, and then when you start talking about hearing aids because I can understand test results and I can relate it back to what they told me before and so they can see it they can understand the picture whereas when I go off on a tangent for hearing aids, which is a whole new ballpark for them, and I don't feel as comfortable with it, I feel almost in some cases that I've lost my client.

The focus group comments shown above indicate that at least some of the audiologists had difficulty expressing clearly what rapport means to them and how it is achieved in clinical settings. The audiologists recognised that everyday talk as being somehow related to rapport, and it was sometimes difficult to sustain everyday talk, especially for less experienced clinicians. They referred to rapport as being easier for some audiologists than for others, and to it becoming automatic with ongoing clinical experience.

While the participating audiologists recognised the importance of establishing a relationship with their patients at the start as a signifier of rapport, they also recognised that the relationship with their patients could change as the purpose of the appointment shifted from diagnostic to rehabilitative phases. This suggests that maintaining rapport is an ongoing process during the appointment, rather than something that is just established at the start, which is consistent with recent accounts of rapport as not being a finite activity external to clinical activities (Leahy and Walsh, 2008). Spencer-Oatey (2005a, p. 95) refers to “rapport management” whereby participants engage in a process of monitoring the rapport between themselves and others. This might, in the clinical context where the rapport is between patients and audiologist, involve a process of modifying approaches to rapport building, and repairing if rapport breaks down.

This understanding of rapport by the participating audiologists provided the focus for examining the recorded data for evidence of rapport at the start<sup>15</sup>, and during the course of clinic appointments. Not surprisingly, given the nature of rapport as co-constructed and permeating, but changing, across the whole interaction, studies of interaction provided additional information about the nature of rapport in these clinical interactions. This is consistent with other accounts of rapport, such as that

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<sup>15</sup> The recorded data for each case began when the audiologist and patient entered the clinic room. By this time, there was already some basic information available to each of them, and an opportunity to establish rapport while walking along the passage towards the clinic. Not surprisingly, conversational openings in the clinic room varied considerably across the recordings made for the study as a consequence of this, because some considered the appointment to have started already, and others reintroduced themselves for the purpose of the recording. In a few of the recordings, the opening utterances appear to be a continuation of a conversation started on the walk down the passage.

of Gremler and Gwinner (2008) that investigations of rapport are enhanced through direct observations of interaction.

## **6.2 Establishing Rapport in the Initial Stages of the Appointment**

### *6.2.1 Everyday Talk to Establish Rapport in the Initial Stages*

Two openings to audiology appointments are presented in Extracts 6.1 (from Case 1) and 6.2 (from Case 3). In Case 1 there was the adoption of everyday talk, whereas in Case 3 there was none. Both appointments begin with attention to seating and introductions. The cases are examined below in terms of their adoption of everyday talk in these opening stages. Everyday talk is understood here to be the introduction and maintenance of topics that have no direct relationship to the professional tasks being undertaken. They are topics that might arise in general conversation, or in professional encounters not involving audiology.

#### **Extract 6.1 Case 1 Opening Statements**

1. A1: -back there if you like (.) actually I'll just move the chair here (.) we'll be starting with this machine
2. P1: righto  
(.)
3. A1: just have a seat there (1) -:NOW my name's A1:
4. P1: xxxxxx (.) xxxxxx?
5. A1: huh well not quite [laughs]
6. P1: [laughs] =not quite that's the name of a xxxx?=  
7. A1: [that's true]
8. P1: =I get that from doing crosswords.
9. A1: I like doing crosswords too (.) you do them every day?
10. P1: do the Herald every day and I do the Ag:e every day
11. A1: >yeah< I like doing the Herald one
12. P1: yeah I only do the simple one

13. A1: yeah me too (.) it's a bit hard to get it all out though  
isn't it?
14. P1: got it this morning?
15. A1: You [did?]
16. P1: [uh uh]
17. A1: I haven't seen it yet today ha (.) you must be pretty good if  
you got it all out
18. P1: well I have a book. (.) crossword books (.) n I've got a  
little machine >if I get stuck<
19. A1: ah yes (.) I've heard of those
20. P1: they're very good.
21. A1: yeah (.) ok. now um (.) you've come in today?

Case 1 opened with a fairly long exchange (19 turns) of everyday talk including the topics of names and crosswords. A1 opened the appointment by referring to the procedures that were to take place (turn 1) but when the patient engaged in everyday talk, she allowed this to continue and maintained that talk until turn 21, when she shifted to a professional mode, with a downward intonation of “now”, marking the change in topic. That this was responsive to the patient is indicated in that both turns 3 and 21 contain the “now” that suggests the introduction of the professional talk. A1 allowed this engagement in everyday talk, and used the opportunity that was created by P1 to display alignment with him through a shared interest, recognised as a key strategy to establishing rapport (O'Grady and Candlin, 2007).

Everyday talk was introduced by P1 through making a humorous comment about A1's name (turn 4). P1 presumably could not follow typical convention and introduce himself (following A1's introduction of herself at turn 3) as he knew that A1 already knew his name from the paperwork, and introductions would have been made in the reception area. Talk about names, place names, and weather were common everyday topics in these appointments, also cited by Coupland, et al (1994) as topics that typically serve the phatic, or relational purposes in medical interactions with elderly patients. The humour served to avoid starting the audiological consultation, and this was maintained over several turns. At turns 5 and 7, A1 did not add to the topic, but did not close it either. Turns “huh well not

quite” and “that’s true” are continuers (Hutchby and Wooffitt, 2008) that serve to allow P1 to continue with the everyday talk. A1 allowed the topic of crosswords to be maintained once it was introduced, (turn 8 onwards), on which they found common ground. At turn 9, after the initial introduction of the topic of crosswords, A1 initially allowed for a pause which was a point at which she allowed the patient the option to take a turn, and perhaps respond to her initial attempt at turn 3 to focus the conversation on the purpose of the appointment. When he did not take up this turn, A1 maintained the crossword topic, by asking a direct question. At this point, either participant could have initiated the case history portion of the appointment, but both chose to continue the everyday conversation until P1s statement at turn 20, which served to close the topic, as shown by the downward intonation at the end of the utterance (“good.”). At turn 21, A1 did allow a pause which might have been taken by P1 as a point at which he could have continued with the topic. However, he did not, and A1 successfully introduced the professional aspect of the conversation as shown by the discourse markers of pausing, followed by “ok now um” followed by a direct question as to why P1 had come in for the appointment.

Of interest is that the everyday talk (the crossword topic) was introduced by P1. This was used by A1 to establish common ground, and build up rapport, which was based on general interest, not just the professional relationship that they had. However, the everyday talk maintained differences between A1 and P1 in roles and asymmetries of power throughout the 21 turns that would not be expected in true everyday talk. The topic was controlled, and the patient remained the focus of the talk. A1 agreed with P1, showing alignment, but did not introduce her own experiences about doing the crosswords, except in this form of agreement. This suggests that the use of everyday talk in establishing rapport is thus not simply making polite everyday conversation, but sets the patient focus for the appointment. A1 offered information about herself and her interest in crossword puzzles, which served as a strong link between herself and P1. The focus, however, remained P1 throughout the interaction. A1 used a common interest to achieve relational work, but at no stage was reciprocity demanded. This would appear to be a case of managing rapport (Spencer-Oatey, 2005a) by A1, in that

the interaction was not random, but aimed at ensuring that there was a harmonious relationship between A1 and P1, that was at the same time patient-centred.

In contrast, Case 3 showed no evidence of everyday talk in this initial (or any) stage of the appointment. Extract 6.2, the appointment opened with A3 explaining his role and that of the observer (a student, St) who was present in the appointment.

### **Extract 6.2 Case 3 Opening Statements**

S = P3's partner who attended the appointment

St = student observer

1. A3: just watch your step now as you come over he:re. (.) now P3 I might get you to have a seat here for me
2. P3: sure
3. A3: just there
4. S: (inaudible)
5. A3: that's fine there ((laughs)) (1) sk °ok alright° .hhh (.) now um (.) >P3 my name's A3 so I'll be doing the test for you today.< and this is St. she's a student so she's going to be helping us out? all right? umm I thought perhaps if you star:^t, just by telling me a little about your hearing?
6. P3: ok er I was (.) um >diagnosed I suppose< when I wa:s (.) i:n >primary school<
7. A3: [mmhmm]
8. P3: [umm I] (.) I'm (.) my understanding is um that my ears they (.) my ears >haven't developed properly< and (.)

After seating the participants in the appointment, A3 (turn 5) marked the start of the appointment by allocating roles for himself (doing the test), the student (observing) and P3 (starting by telling them about his hearing). Also present in the room was S, P3's partner. A3 did not assign her either a seat (turn 1) or a role (turn 5) and was noted to not address her directly during the appointment. A3 might have engaged in everyday talk in the passage (that was not recorded in this study). He might also have negotiated an observer role with S in that time, making it unnecessary to repeat that in the consulting room. However, it is also possible that these preparations did not occur. It would not be unexpected for novice clinicians

(A3 had less experience than either A1 or A2) to attend less to the relational aspects than more experienced clinicians (Candlin, 2002).

The absence of everyday talk in Case 3 does not imply necessarily that rapport was lacking, but it does indicate that it was not achieved through the use of everyday talk. This study is limited in its reliance on audio recordings of the appointments for the detailed analysis. The video recordings were used only as backup, and were not sufficiently sophisticated to accurately examine any nonverbal aspects of communication. This would have been particularly interesting in this case where rapport may have taken a non-verbal form. This might have allowed for a comparison with other studies that have examined markers of rapport, such as Gremler and Gwinner (2008) and Poskiparta, Kettunen and Liimatainen (2000). The social circumstances of Case 3 were that A3 and P3 were closer in age than is routine in clinical audiology. They were also the same gender (male). Two observers were present in the room (a student, St and partner, S), both of whom were female, and, the appointment was being recorded for the purposes of this study. It is unlikely for any two males in that set of circumstances to be expected to engage in “chitchat”, as the everyday talk was referred to in the focus group meeting. Case 3 illustrates that while it may be assumed that making small talk where there is a generation gap is difficult (as suggested in the focus group comments above), there are other clinical circumstances that might yield everyday talk as inappropriate. A3 did engage in the positive politeness strategy (Brown and Levinson, 1987) of addressing P3 by his first name (see discussion below), which is understood to reduce social distance and bring participants closer. It would seem that neither A3 nor P3 considered it necessary or appropriate to engage in everyday talk. However, A3 did rely on the allocation of roles to establish the relationships in the appointment. This may have been necessary to ensure that there was no role confusion between the student observing and himself. A3 very clearly asserted his role as being in charge of the appointment in that all the directives he gave were qualified as being for him (turn 1 “for me”; turn 5 “telling me”). A3 used an even form of delivery, with no pauses once turn 5 was underway, which did not allow for interruptions or create any opportunities for any others present to take a conversational turn. In CA terms, A3 designed this utterance as a single turn

construction unit, not allowing any transition relevance point for anyone else to take a turn (Hutchby and Wooffitt, 2008; ten Have, 2007).

Contrasting Cases 1 and 3 highlights for this study that establishing rapport is far more complex and dependent on the particular social circumstances than simply engaging in everyday talk or not. This analysis provides examples of the socially constructed nature of rapport, as explained by, for example Watts (2003) and Mills (2003b). In Case 1, the use of everyday talk was strategically used to build rapport. In Case 3 it was not. This analysis suggests that rather than having prescriptive guidelines that suggests that everyday talk builds rapport (as is common in many clinically oriented texts), the social (or rather clinical) circumstances should dictate how rapport should be established.

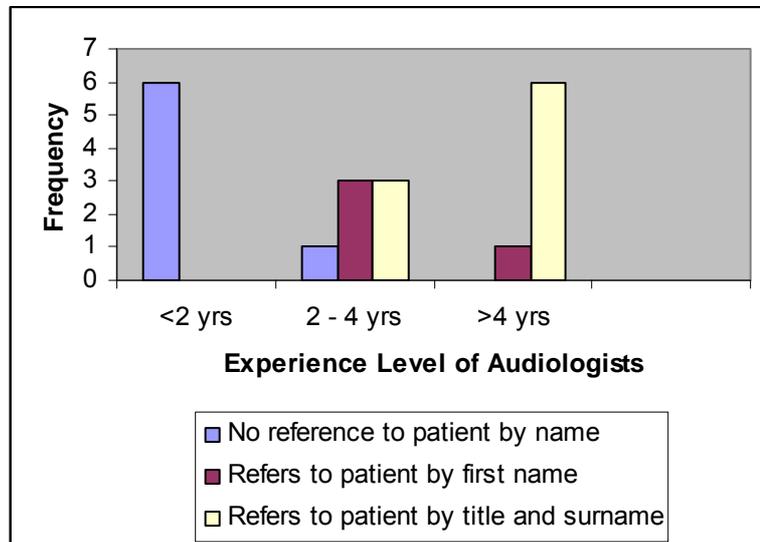
While this analysis does not provide any clear guidelines to the audiology profession as to what is an effective or appropriate way to establish rapport, it does explain to the profession the complexity around the use of everyday talk. It also explains why it is difficult to teach novice clinicians about rapport, as noted in the focus group comments. It appears that sensitivity to social circumstances, and an ability to adapt to the circumstances of a particular appointment, are the skills that novice clinicians require in order to build rapport into their appointments. Although scripts are sometimes recommended to help participants to establish rapport (Gremier and Gwinner, 2008), this analysis suggests that scripts might not be useful because rapport was demonstrated to be co-constructed. Rather, the ability to establish rapport might be enhanced through an awareness of discourse and conversational strategies, as suggested by Leahy and Walsh (2008).

### 6.2.2 *Forms of Address in the Initial Stages of the Appointment*

Forms of address are tangible indicators of the relationship between individuals as explained by, for example, Wood and Kroger (1991). They are of interest to the study of rapport as they can be seen to mark deference within relationships (Eelen, 2001). As noted in chapter three, using formal terms of address is recommended

in audiology texts but inexperienced clinicians tend towards more casual forms of address, as are typical of a younger generation (Coupland, 2007). The ways that patients were referred to in each of the twenty of appointments was analysed. This analysis generated a very clear pattern that linked the term of address used with patients, to experience level of the audiologists. This was a clear cut finding in this study that could be captured in a quantitative way, and the results are presented in Figure 6.1.

All the audiologists in this study introduced themselves using their own first names. As shown in Figure 6.1, audiologists with two years of experience or less did not refer directly to their patients using either form of address. Clinicians with some experience were found to display the most variety in terms of forms of address, suggesting a change or learning pattern may be occurring. The most experienced clinicians referred to their patients by title and surname, unless, as was the case in one instance, the patient was well known to the audiologist, and a first name was used.



*Figure 6.1 Forms of address*  
*Bar chart illustrates the range of forms of address (none, first name or title and surname as a function of clinical experience of participating audiologists)*

Experienced clinicians, in adopting formal terms of address, appear to recognise that the relationship with patients is not a purely personal one, but is goal specific and constrained within the clinical/institutional context. The clinic, like other institutions, calls for a depersonalized and distant relationship (Harris, 2003). Less experienced clinicians appear to prefer to close any social distance between themselves and their patients, in their use of first names (a positive politeness strategy as described by Brown and Levinson, 1987). This places the audiologist's need for less social distance above the patient's possible need for autonomy. It could be, as noted by Holtgraves (2005), that clinicians use social closeness in an attempt to elevate their own status relative to that of their patients, who they may perceive as having higher status by virtue of their age and/or life experience. Inexperienced audiologists face a discursive struggle (Locher and Watts, 2005) in that following clinic guidelines and audiology texts would mean adopting formal terms of address which increase social distance. They wish to establish closeness in order to relatively elevate their own perceived low status. This discursive struggle results in the abandonment of all forms of address. It seems that if they cannot reduce social distance between themselves and their patients through positive politeness strategies, then inexperienced clinicians will take the next closest option, and avoid all forms of address. Avoiding all forms of address is possible in the clinical context where there is only ever one patient present in the room. Even if there are accompanying people in the appointment, they are not the focus of the appointment, and so audiologists can still talk effectively to the patient without using any form of address. While this may be a creative and strategic approach to the discursive struggle (Carter, 2004), the avoidance of negative politeness strategies that reinforce patient autonomy and distance might limit the interactional options (particularly in moments of tension) in the clinical setting. Some patients request that clinicians use their first names. Novice clinicians often accept this as a simple wish for a closer relationship. However, by closing the social distance, the interactional options for the audiologists are limited if a more formal approach is required (for example in the negotiation of costs or treatment plans). This strategy of not appealing to the negative face of patients removes the option of maintaining autonomy, where this may be needed later on, especially if communication breakdown in the appointment is a potential threat (Harris, 2003).

If negative politeness strategies were clearly more polite than positive politeness strategies (see Eelen (2001) for a critical account), it would be reasonable to argue for novice clinicians to forego their positive politeness strategies. Such suggestions are present in many clinic guidelines and audiology texts. Such a stance is overly simplistic, with appropriateness of politeness strategies being determined by the context, including the power relations inherent in the interaction (Holtgraves, 2005). It would seem from this analysis that it is the use of first names in a particular context that is recognised by experienced clinicians as inappropriate, in particular clinical contexts, not the practice *per se*. Age differential is one of those contextual factors that might determine the use of title and surname as more appropriate to a particular context and less risky (Eelen, 2001). Thus, as Holland (2007) suggests, casual conversation with patients is inappropriate when conducted by novice clinicians, but what is being objected to is the use of casual conversation in a particular context, rather than the use of casual conversation *per se*.

The three case studies selected for detailed analysis illustrated the pattern identified in Figure 6.1. A3, who had between two and four years of clinical experience, referred to A3 using his first name. A3 and P3 were close in age to him and of the same gender. A1 and A2, both of whom had more than four years of clinical experience, referred to their patients by title and surname. Both patients (P1 and P2) were of the opposite gender to their audiologists, and there was a large age differential between the participants in those cases. In terms of Brown and Levinson's politeness theory (1987), A3 adopted a positive politeness strategy which served to close any social distance, and A1 and A2 adopted a negative politeness strategy which maintained the patient's autonomy, and allowed for the social distance to be maintained.

A3 used P3's first name twice in the opening turns of the appointment (Extract 6.2 above) and once when he was emphasizing his own neutralism regarding the purchasing of a hearing aid (see below and Chapters 10 and 11). This suggests that the use of P3's first name was strategic in that it was used at the time when rapport is being established and at a moment of tension within the appointment. It is possible that P3 requested his first name be used when introductions were made

in the waiting room, before the recording of the appointment began. Alternatively, A3 may have made an assumption that it would be acceptable to use a first name. This case is unusual in that there is less age differential between A3 and P3 than between most patients and audiologists. P3 did remark on his own name at the end of the appointment, as shown in Extract 6.3.

**Extract 6.3 Case 3 Forms of Address**

384. A3: -and your surname is XXXX is that right?=  
385. P3: =yes::(.) >strange name<  
386. A3: ok (.) right.

At turn 384 of Extract 6.3, A3 only confirmed P3's last name in the third last turn of the appointment. This prompted a response from P3 (turn 385 "strange name") that was similar to other appointments where comments on names or the weather appeared to be neutral topics that allowed for the establishment of a relationship without participants knowing much about each other. The comment from P3 (turn 385) did serve a relational purpose in that although this appointment was closing, a long term relationship through the fitting of hearing aids was possibly being considered by the patient. Drawing attention to his "strange" surname serves a relational function and also draws attention to the surname, which had not been used throughout the appointment. It was an attempt to introduce everyday talk. A3 did not respond in as might be expected in casual conversation, such as with a question about the origin of the name. His response at turn 386 (ok, right) with its downward intonation served to close the topic (ten Have, 2007). This suggests that P3 was deliberately avoiding everyday talk in the appointment, as he avoided it even when it was initiated by P3.

**6.2.3 *Establishing Rapport: A Developmental Perspective***

The analysis of recorded data demonstrated that the establishment of rapport can be achieved in different ways, depending on the particular circumstances. As a general observation from this study, less experienced clinicians use little everyday

talk in establishing rapport, and do not appear to be comfortable using titles and surnames to consolidate what is possibly an existing social distance (by virtue of an age differential) between them and their patients. Adapting to the social situation, and not overtly contradicting guidelines offered by the profession and/or institution, novice clinicians avoid using either form of address, as well as only limited use of everyday talk. If, like A3, this group had relied on positive politeness strategies of referring to patients by first name, this would pose a dilemma when (as in most cases) patients are older than they are. The avoidance of any form of address may be the outcome of that dilemma – a preference for positive politeness to close the social distance may be preferred, and may be considered appropriate for this generation that tends towards casual forms of address (Coupland, 2007). However, the age differential acts against the use of first name terms, as do clinical guidelines that recommend more formal forms of address.

Engaging in everyday talk while in the clinical context involves presenting a mixture of identities (personal, and institutional/ professional) to the patient (Sarangi and Roberts, 1999a). Even though this could allow for the closing of social distance, this approach might not be taken up by less experienced clinicians, who consider everyday talk to be a distraction from the audiological focus, or perhaps a risk (Candlin, 2002) that the audiologist will lose control of the interaction if it is not focused on the topics that can be controlled by the clinician. Avoidance of everyday talk and focus on the audiological places the audiologist in a perceived position of (relative) power given their knowledge base in audiology. Engaging in everyday talk places both participants on a more equal basis, which may not be desirable to a novice clinician aiming to assert their professional role. This makes the rapport situation more complicated for less experienced clinicians than for more experienced clinicians. Less clinical experience is usually associated with less life experience, and more social distance from patients, who tend to be older in most audiology clinics, including the research site for this study. The inexperienced clinician appears to reduce social distance by using first names, but avoids everyday talk that might reveal lack of experience, and reduce their credibility. Engaging in small talk potentially could be face threatening for the inexperienced audiologist if it revealed a lack of experience. In this way, the accepted strategy of establishing rapport (using everyday talk) could itself be

responsible for preventing rapport. This complexity is perhaps an explanation for why it is difficult to explain and teach novice clinicians how to establish rapport. Rapport is shown, through this analysis to be situation dependent, and complex.

The more experienced clinicians in this study adopted more formal forms of address with their patients, and relied on everyday talk to establish a relationship with the patient, but the everyday talk was not casual conversation. It demonstrated a very clear patient focus, and as such was not symmetrical. It appeared from the further analysis of everyday talk that occurred later in the appointments, that experienced audiologists rely on everyday talk to continue to build rapport and to overcome tensions within appointments. Without this, the less experienced clinicians would not have these resources. However, as demonstrated above, the circumstances contributing to rapport cannot be simply manipulated through the adoption of strategies that experienced clinicians adopt, as this could introduce lack of congruence and genuineness that are core values of the therapeutic relationship (Rogers, 1951). Rather than dictating ways in which rapport should be established, it would seem that the audiology profession needs to recognise the complexities associated with establishing rapport, and prepare clinicians (novice and clinical educators) for functioning within a wide variety of social circumstances such as arise in clinical settings. An example of how the complexity of rapport has been presented to novice nurses is offered by Candlin (2008) who, focusing on a lifespan approach, demonstrates how clinicians learn to adapt to circumstances and respond to individual needs.

As such, it is not everyday talk alone, or a specific form of address that grounds the patient – professional relationship in rapport. Rather, rapport is socially constructed with everyday talk and forms of address being choices dictated by the circumstances. This is examined further in the next section where the use of rapport in the course of the appointment is explored for Cases 1 and 2.

### **6.3 Using Strategies Associated with Rapport During Appointments**

Each of the case studies showed evidence that the audiologists attend to the relationship with their patients in the course of the appointments, and that rapport is not something which is achieved just at the start of the appointment. The analysis below includes an example from Case 2 that illustrates how everyday talk can be adopted during the carrying out of clinical tasks. The use of the patient's first name is demonstrated in Case 3 to be a strategic choice used to emphasise closeness and roles in the appointment. Finally, Case 1 illustrates how rapport can be unsettled as a result of clinical activities and then restored again through the specific attention to relationship building.

These illustrations are not exhaustive, and were not the only incidents in these three cases where rapport was evident. They were selected as illustrative of rapport as an interactive, co-constructed process that occurs across appointments, and is not confined to a single phase of the appointment.

#### *6.3.1 Everyday Talk as Part of Professional Activity*

The experienced clinicians, as shown above, did engage in everyday talk with their patients. While many appointments started with the adoption of everyday talk, some also incorporated everyday talk during the course of the appointment. Given the association between everyday talk and rapport explained above, it is understood that this served a relational purpose, building up the relationship in the course of the appointment. Extract 6.4 from Case 2 illustrates how everyday talk was built into the clinical activity being undertaken. The appointment had progressed from the diagnostic to the rehabilitative phase which included the fitting of an open fitting behind the ear hearing aid in one ear. The quote for the hearing aid had been given, as had an explanation of the hearing aid trial, with A2 noting the festive season was a good time to trial hearing aids.

#### Extract 6.4 Case 2 Everyday Talk and Clinical Tasks

1061. A2: ye:s yes (.) do you have Christmas at your. place (.) this year
1062. P2: we're having two? Christmas dinners=
1063. A2: [o::h]
1064. P2: =[we're] having one with our in-laws
1065. A2: [right]
1066. P2: [my] my daughters-in-laws and one one=
1067. A2: [okay].
1068. P2: = [she's] she's um she's at XXXXX and she's she's just coming out
1069. A2: your daughter-in-law?
1070. P2: my daugh:ter is no.
1071. A2: [yeah]
1072. P2: [she's]
1073. A2: oh lovely yeah.
1074. P2: she's a XXXXX.
1075. A2: oh, is she? ri:ght.
1076. P2: she's got a wonderful position there=
1077. A2: [yeah]
1078. P2: [she's] just been made an assistant professor=
1079. A2: [does she like] her work?
1080. P2: =[at XXXX]
1081. A2: her work?
1082. P2: oh yes (.) well XXXX of course is is the pla^ce you know.=
1083. A2: [right] (.) yeah.
1084. P2: =[if] you're in XXXX (.) anyhow they=
1085. A2: [yeah].
1086. P2: [XXX]XX holidays don't fit in with anybody's so of course they are a law of their own aren't they
1087. A2: yeah-Yes >have you been over to see her?<
1088. P2: [yes]

1089. A2: [ye-]
1090. P2: I've lived at XXXX myself =
1091. A2: =right.
1092. P2: but we were over there in in in in er in September.
1093. A2: I'll just pop that over there (.) it's nice to catch up with family even though I know it's a long way a long way away-
1094. P2: Oh yes. (.) she's coming out=
1095. A2: [hmm].
1096. P2: [for] >she arrives on Christmas day< so we're .hh =
1097. A2: [yes].
1098. P2: we're having the Christmas dinner with her i:n-laws on Christmas day and then we're having our our own family=
1099. A2: right.
1100. P2: on Boxing day >so that will be a good test for it<
1101. A2: that'll be lovely. Yes. So just initially what you need to do thought is is to probably start out a little bit conservatively yourself (.) because you you've got something -
1102. P2: in what way?

The appointment continues with counselling about adjustment to wearing a hearing aid.

Extract 6.4 is an illustration of the way that everyday talk can be mixed in with professional talk, which of course is not available as a resource to clinicians such as novices who, for various legitimate reasons as shown above, may avoid everyday talk. A2, being highly experienced, demonstrated ease in shifting between everyday talk and linking current events (Christmas) to the professional task (hearing aid trial). At turn 1093 A2 referred to putting something down ("I'll just pop that over there") which is evidence that she had been undertaking an activity (probably setting the hearing aid or attaching tubing) and achieved this at the same time as undertaking everyday talk. A2 creatively linked the topic of hearing and communication to the family relationships that the patient raised as everyday talk (turn 1101). A2 responded to P2's story ("that will be lovely") in a positive way, and then linked that to the hearing aid trial within the same turn. What is notable about this extract is the ease with which both A2 and P2 engaged in both everyday and professional talk. P2 clearly wanted to tell the story of his

daughter to A2. A2 conveyed her interest in the patient, a key feature of rapport. The interaction was not purely social and was not symmetrical. The roles of service provider and patient were retained throughout this interaction. A2 conveyed her interest in the patient through her use of continuers and overlapping speech to maintain the topic of P2s family, but did not volunteer information about her own family or plans for the holiday season<sup>16</sup>.

### 6.3.2 Strategic Use of Terms of Address During Appointments

During Case 3, the patient's first name was used on 3 occasions. The first two occurrences were in the opening statements, interpreted (shown above) as an attempt to develop a close relationship with the patient. During the course of the appointment, A3 referred to P3 by name on one other occasion. This is shown in Extract 6.5.

#### **Extract 6.5 Case 3 First Name Usage**

278. P3: right I think I'll think >I'll take it home<I'll definitely gonna get them=
279. A3: yeah
280. P3: =it's a done thing but=
281. A3: yeah
282. P3: =I've just got to sit there and work out how much I'm going to end up paying
283. A3: yeah that's fine. and look P3 it's (1) it's my job fir:st of all to >help you out with your hearing< right ok and whichever hearing aid you get it doesn't worry me. ok whether you spend this amount or this amount >I don't. care.< ok um first your hearing ok and then then all that other stuff later on ok

As will be shown in chapters ten and eleven, A3 encouraged P3 to make an independent decision about which hearing aid to obtain. This was resisted by P3,

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<sup>16</sup> Note that there were other occurrences in the interaction in which the audiologist did offer some information related to her own family and interests, but this was always in response to topics introduced in relation to the patient first.

but at turn 278, he began to make a decision and assured A3 that he would make the final decision at home (turns 278 and 282). The use of A3's first name during turn 283 ("and look P3") occurred at the point in the interaction when A3 wanted to ensure that P3 would definitely do as he said he would, and make the decision about hearing aids himself. But, in doing so, this created the need for A3 to re-establish his own role, and as shown in the later chapters, achieve this without adopting a sales role. He therefore re-established the social closeness using P3's first name, and, coupled to that, provided an outline of his own professional role.

This example shows how the building of rapport through the form of address can be renewed in the course of an appointment, and is not a complete achievement that occurs at the start. The example above also provides further evidence that the use of the first name was not accidental, but was adopted in a strategic way by A3.

### 6.3.3 *Restoring the Status Quo*

Once a relationship has been established along certain lines, professional activities undertaken may unsettle that relationship, as explained in the participating audiologist's explanations of rapport in Section 6.1 (above). Rapport can be used to resolve conflict where this occurs. Clinicians who adopt everyday talk (more experience clinicians in this study) in their interactions can rely on this as a resource to restore relationships that may become unsettled in the course of professional activities. This is achieved through some blurring of relational and transactional goals (Coupland, 2003), as is shown occurred during Case 1.

During the taking of the case history, A1 began to question P1's use of his hearing aids, using questions<sup>17</sup> to raise his consciousness about possible contributions from his own lack of optimal use to his limited success as a hearing aid user. This did not elicit agreement from P1, who expressed a resolve to find a technological solution to his difficulties. The appointment proceeded with a standard assessment technique that did not involve any patient response (immittance measures). This involved the sealing of the ear canal with a probe tip, and varying

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<sup>17</sup> Questions are discussed in Chapter 7 in detail.

air pressure while presenting a tone, which, depending on the sound level, reflects changes in admittance. During the test procedure in this appointment, the patient unexpectedly experienced some coughing, and the audiologist offered to bring in some water. Coughing was expected (and can occur reflexively) when items are inserted deeply into the ear, and, although it is unusual to elicit a cough reflex during immittance measures, this might have been seen as a reflexive cough that would pass once the procedure was completed. However, Extract 6.6 illustrates how both patient and audiologist used the everyday task of getting a drink of water in response to coughing to restore the relationship that had been established in the first turns of the appointment (Shown in Extract 6.1), but had been unsettled when the challenging questions about hearing aid use had been presented.

**Extract 6.6 Case 1 Re-establishing Rapport**

122. P1: (coughing)
123. A1: you ok? Mr P [yeah?]
124. P1: [coughs] wouldn't mind a little drink =
125. A1: =drink of water? ok I'll just go and get it for you
126. P1: thanks ° dear. ° that's blocking the ears: (coughs)
- ((A brings in water after 1 minute - silence in room - no coughing ))
127. P1: thank you very much -
128. A1: that's all right=
129. P1: [I chair]a mee:ting. once a month.=
130. A1: =[I got it for you]
131. A1: I got it for you in a nice cup too- ((referring to plastic cup))(laughs)
132. P1: =they (.) they they they tell you all to speak up and speak up and they found me a er (.) well they found a er (.)I got a kind of mat in front of me there are three little speakers down the board room
133. A1: mmm
134. P1: and I switch this over (.) and I can hear every:bo:dy.
135. A1: [right]
136. P1: [it's a ] special circuit

137. A1: that's right
138. P1: makes a difference=
139. A1: [it makes a bi:g difference].
140. P1: =they should put one on every dining table (laughs)
141. A1: yes it's good that it made a difference though
142. P1: thank you ((putting down plastic cup))

At turn 122, the coughing that P1 was experiencing elicited a caring response from A1, where she asked if he was "ok". In that turn, A1 referred to P1 as "Mr P" thus using the title and surname that characterised way she addressed him throughout the appointment. In response, he requested some water, which A1 promised to obtain for him. He thanked her, referring to her in turn 126 as "dear". He may have called her this because he had forgotten her name, although it is unlikely given his specific comment on her name in the opening turn. Rather, it appears that the term of endearment is a response to her caring attitude, and reinforces his identity of a man who others take care of, and her identity as being the carer in their relationship.

A1 appeared to recognise P1's need for care, and, perhaps feeling that he was possibly used to better treatment, made a joke about the plastic cup that she brought the water in (turn 131). When P1 did not appear to hear her comment about the cup, she repeated it. While it may not have been all that important for P1 to hear the comment about the cup, it did appear to be repeated, perhaps as an indication that the purpose of this comment was more important than the comment itself – that is to re-establish the rapport and easy communication had been established at turns 1 – 21 (see Extract 6.1), and which was disrupted when attempts were made to elicit responses that the patient was reluctant to give, concerning his use of hearing aids.

A1 appeared in this extract to be attending to relational aspects through her form of address, and through focusing on the patient's needs – both his physical need for water, and his emotional need to feel cared for. The work done by A1 to restore this served to re-establish the roles that P1 was comfortable with, and which he

had established in the early part of the appointment – that A1 was there to meet his needs, and that he was an important person who others served in this way.

A1 contributed to this re-establishment of roles, and made no further challenging comments about his use of technology. Her comments at turn 141 (“yes it’s good that it made a difference though”) were supportive and positive. That comment was one made as a personal response, one that any person, not necessarily an audiologist, could make in response to this situation if aiming to maintain or restore a relationship. The complexity of the relationship between A1 and P1 is shown in that in order to achieve professional goals, they needed rapport. Rapport in this case, as established early on, involved specific role relationships. The adoption of the roles preferred by the patient, even though they might appear to be based on personal grounds, were in fact strategically adopted by A1 in that she used what appeared to be a congenial and caring personal relationship to achieve her professional goals. Relating on a personal level was asymmetrical in that there was a clear bias towards a patient focus. The audiologist would not have received the same level of care from the patient if she had been coughing, thus still marking this relationship as a professional one. Because the interaction between A1 and P1 is not reciprocal as in true everyday talk, it allows for what Harris (2003) refers to as the *essential distancing* between participants, which makes it institutional talk, even though it has an everyday topic. Thus, the mixing of personal and professional identities can be seen to be occurring here in a highly strategic and patient-focused way.

#### **6.4 Establishing Rapport: Summary of Findings**

The analysis found that rapport was not established just at the start of an appointment, but that it was developed and relied on during the various phases of the appointments analysed here. Rapport involved a polite orientation towards patients and their needs as evidenced in asymmetrical conversations oriented to patient interests and needs. Rapport in this clinical setting was therefore not simply the transfer of an equal congenial relationship into a professional context. Rapport was achieved through co-constructed mechanisms that relied on both

patients and audiologists orienting to the particular circumstances of each appointment. Mechanisms were differently adopted – in some cases everyday talk was used, in others not, and the same applied to politeness strategies that varied across the particular circumstances of each appointment.

Patterns of everyday talk were consistent in the reports by clinicians in focus group meetings and observations in the recorded data that more experienced clinicians engage more easily in everyday talk. Noted in this study was that those experienced audiologists often responded to patients' initiation of everyday talk and thus exploited a clinical resource, rather than introducing it themselves. This finding leads to the question that possibly patients engage more in everyday talk with more experienced clinicians because they perceive less social distance and find it easier to achieve this.

A clear pattern was identified in the forms of address used by audiologists in interaction with their patients. Less experienced audiologists tended not to refer to their patients using any form of address, more experienced audiologists did, adopting a formal form of address (title and surname). The complexity of reasons for this was again shown, through the illustrations in this analysis, to be dependent on particular circumstances of each appointment.

The consultations where audiologists were more experienced thus were characterised by more everyday talk, and more formal forms of address. These two resources may seem to work together to allow for a patient-centredness while maintaining institutional distance. Less experienced audiologists may not have these same resources available, feeling less comfortable with everyday talk with patients where commonly there is already more social distance. They tend to aim to close the social distance by using less formal forms of address (first names) and not engage in everyday talk, possibly maintaining authenticity and genuineness in the process.

While experienced audiologists appear to have greater resources for dealing with conflict and potential breakdown in appointments as a result of the communicative resources they employ, the analysis suggests that the simple adoption of the same

strategies that experienced audiologists adopt might not be appropriate. Rather, responsiveness to patients may need to be fostered in socially appropriate ways that are developed through heightened awareness of the benefits and consequences of rapport, and the need to attend to the relational as well as transactional aspects of appointments in socially appropriate ways.

This analysis illustrates the complexity of rapport in clinical situations. It is not an exhaustive analysis of all possible strategies that might be employed in establishing rapport. It demonstrates, however, the notion that rapport is co-constructed, and situationally dependent and continuing throughout the interaction. The notion of rapport will be returned to in subsequent chapters in relation to the clinical phases of appointments that are examined – the taking of the case history, the presentation of results, and the discussion of rehabilitation options. Although not a comprehensive discussion about rapport in all clinical settings, this demonstration of co-constructed complexity nonetheless suggests this is an area for ongoing clinical enquiry, from the perspective of professional practice, professional development, and training of novice clinicians.

## **Chapter 7 Results: The Case History**

The case history, as explained in chapter three, serves different purposes for diagnostic and rehabilitative audiology. The diagnostic case history was introduced in chapter three as having its primary goal that of obtaining information about the individual's hearing loss to formulate appropriate plans for the assessment and to help interpret test results (see p. 49). This contrasts with a rehabilitation case history that aims to elicit information from the patient about their (and others) coping with the communication difficulties that arise from hearing loss (see p. 66). The amount of detail obtained and attended to in the course of the case history, and the amount of time devoted to the obtaining of the history, are determined by each particular clinical context. Of interest to this study was how the case histories in these cases that incorporated both diagnostic and rehabilitative phases, were carried out.

Each of the twenty appointments analysed in this study began with a case history, as expected. The case histories were uniform across the appointments in terms of the amount of time that was devoted to them. The duration of case histories was, on average, ten minutes, which was 15 % of the total duration of the appointments (see chapter five p. 144). There was just a four minute standard deviation from this mean of 10 minutes, as shown in the table of results in chapter five. To exemplify this, Cases 1, 2 and 3 devoted eight, ten, and eleven minutes respectively to the case history.

Case histories analysed for this study were similar in terms of the types of questions asked by the audiologists. Questions were designed to elicit information about the hearing history of patients, oriented towards conducting the assessment and arriving at an audiological diagnosis. Questions were yes/no type questions, designed to narrow the audiologists' hypotheses about the type of hearing loss in terms of type, degree and configuration. Patients' responses to those questions tended to be detailed, offering more information than was requested by the case history questions.

While the questions and responses to the case histories were similar enough for the observer / analyst to recognise the case history as a genre (Bhatia, 2004), there was a marked difference in how the patients' responses to questions were reacted to by audiologists. As mentioned in the interim overview of findings in chapter five, the distinguishing feature between diagnostic and rehabilitative foci within the case history was the response of the audiologists to the patients' replies to case history questions. Where a diagnostic focus was evident, the audiologists acknowledged replies from patients and then led immediately to the next case history question. This was labeled as a Question – Answer – Acknowledgement – Question (abbreviated QAAQ) model, for the purposes of this study, and was consistent with the medical model of case history taking, lending itself to the diagnostic purposes of the appointment. An alternative model was adopted by audiologists who anticipated the rehabilitative phase of the appointment, even within the initial case history. The response section was where there was further probing by the audiologist and clarification by the patient. Audiologists responded to the replies of patients by commenting, probing or requesting additional information before acknowledging their replies as complete, and moving to another case history question. For the purposes of this study, the model adopted in those cases was described as Question – Answer – Response – Acknowledgement - Question (abbreviated QARAQ).

The interaction that occurred during the response phase marked the interaction as oriented to the rehabilitative and social aspects of deafness. Such an orientation represented a deviation from the traditional medical model (Duchan, 2004). Inserting a response between case history questions altered the interaction such that the two formats QAAQ and QARAQ were seen to represent two different activities. The QAAQ model represented gaining information only from the patient. The QARAQ model involved gaining information and conveying a response (demonstrating support or probing for further information). Responsiveness to information presented by patients not only served the ideational purpose of clarifying information, but it also allowed for rapport to be developed through the clinical task of case history taking. This demonstrated (as suggested in chapter six) that rapport building was not confined to an initial “establishing rapport phase”

outside of clinical activities, but was part of the clinical activity of case history taking.

The findings from this analysis of case histories provide clear directions for the training of novice audiologists in a manner that represents a deviation from the standard guidelines offered in clinical education. In particular, the teaching of novice clinicians in how to undertake a case history that serves both diagnostic and rehabilitative function is informed by these findings. Audiologists, if trained to respond to patient replies to case history questions, could learn to address both the diagnostic and rehabilitative aspects of the appointment within the case history.

This chapter begins with an examination of how the purpose of these appointments was presented by the audiologists at the start of the consultation. The analysis identified roles and activities that served as the primary focus for each appointment. This is followed by an examination of the opening questions in the case history, in which requests for statements of the problem as understood by the patient were made. In the final section the two different formats for undertaking case histories (QAAQ and QARAQ) are presented and discussed in terms of the restrictions and opportunities that each of these formats presents in the clinical context.

## **7.1 Purpose of the Appointment**

The participating audiologists provided the patients with an indication of the purpose of the appointments in the early stages of the clinical interaction. In most cases (15/20) the purpose of the appointment was presented as “testing”, with the audiologist referring to their role as the person who will conduct the tests. In those appointments where testing was not mentioned, issues such as broken hearing aids were raised by patients at the start. Case 3 provides an example (Extract 7.1) of how the audiologist’s role as “tester” was mentioned at the start of the appointment.

### **Extract 7.1 Case 3 Purpose of the Appointment**

5. A3: ....(.) >P3 my name's A3 so I'll be doing the test for you today.< and this is....

Even though the appointments analysed in this study were scheduled to accommodate both diagnostic and rehabilitative purposes, the audiologists, like A3, promoted their role as to be that of “doing the test”. Doing the test, or referring to testing as the purpose of the appointment was adopted in most cases. The alternative purpose of the appointment might have been presented to the patient as that of investigating any difficulties that the patient might be having related to hearing. The professional role might then have been conveyed as audiologist, rather than tester.

The tendency for audiologists to present their role as testers, but not their other roles (as related to rehabilitation) in these appointments may have been related to the specific context of this clinic, and its incorporation of Medicare funding through the clinic director (see chapter two p. 34 and also see chapter four p. 118). Within that model, as previously explained, individual test procedures were billed for. Consultation time was not billed for under the Medicare system. The diagnostic portion only was paid for by Medicare in this way. The Medicare funding model validated the testing role, but not the rehabilitative role of audiologists. The third party funding may have made it easier for audiologists to present themselves as testers, rather rehabilitationists, as patients were required to pay for that service themselves. The rehabilitative aspects were all charged to each patient's own private account. Participating audiologists, some of whom had access to other audiology clinics by the time of the second focus group meeting, commented that the introduction of audiologists to patients as being “testers” was not common in hearing aid clinics, where the purpose of the clinic, as shown in advertisements and marketing schemes, was clearly the fitting of hearing aids. This further supports the claim that a funding model that pays for individual tests validates the testing role of audiologists, and in so doing, hides the rehabilitative / consultative role of the audiologist.

Audiologists working in clinics that either advertise that they fit hearing aids, or where the diagnostic process is undertaken separately to rehabilitation planning,

would more easily promote their role as being specifically related to hearing aids. The audiologists in this study, however, needed to negotiate their role through the clinical process as it shifted from diagnostic to rehabilitative. They positioned themselves in the role that was both the first to occur and the one that was validated by external / funding bodies – the role of tester. The significance of the testing over other clinical activity, and thus the audiologist's role as tester over other roles is exemplified in Focus Group Comment 7.1.

**Focus Group Comment 7.1**

and they could be crying and you only have half an hour and just have to get on with the tests

This comment suggests that the role of audiologist is far more complex than conducting tests, but the focus on testing, because this is what was funded, prioritized that aspect over any other supportive role that might be called for (as in working through patient's difficulties that might be emotionally upsetting for them). The representation of self as 'tester', even though there are multiple roles in the appointment, is one way that audiologists themselves do not differentiate their role from that of lesser trained audiometrists, who are trained as 'testers'. This reflects the lack of distinction between audiologists and audiometrists by third party funders, and illustrates how this macro influence impacts on the conducting of appointments. As presented in chapter five, the focal themes for the study were those of funding models, professional boundaries, and diagnostic versus rehabilitative audiology. It is possible to see from these opening statements how these focal themes interrelate with each other and emerge in clinical interaction. This is investigated further in chapter ten, where the roles adopted in the rehabilitative phase of these appointments is explored.

Although testing was the most common clinical activity mentioned in relation to the purpose of the appointment, the emotional difficulty that some patients may have with the appointment was recognised by some of the audiologists in the way that the purpose of the appointment was presented to the patients. Case 1 contrasts with Case 3 in how the purpose of the appointment was presented.

### **Extract 7.2 Case 1 Purpose of Appointment**

1. A1: -back there if you like (.) actually I'll just move the chair here (.) we'll be starting with this machine
2. P1: righto

A1 (Extract 7.2 turn 1) provided reference to the testing aspect of the appointment when she referred to the “machine” that was to be used. The label “machine” was used to refer to audiological equipment. This is not a commonly used term technically, and its use suggests that A1 was aiming to reassure P1 who may have been unfamiliar with the equipment that was in the room without directly mentioning the reason for the test – that is the hearing loss. The audiology equipment was thus acknowledged, and labeled with a commonly used term (machine) rather than the more technical term (audiological equipment or audiometer). Use of the term ‘machine’, rather than ‘audiometer’, is an example of the strategic use of a membership categorization device, rather than a specific category (Schegloff, 2007). This may be seen to be taking the patients needs into account. The context for this utterance, being the first in the recorded data, is not known. The patient may have made some comment during the walk from the waiting room to the clinic that prompted A1 to begin the appointment with this particular form of categorization.

In contrast, A3 (Extract 7.1 above from Case 3) referred to himself as being responsible for the test (“I’ll be doing the test for you”). In Case 2 (Extract 7.2) A2 referred to both her and the patient (“we”) as using the machine. The context of the audiologist moving the patient’s chair closer to the equipment provides the indication that “we” referred to them, and was not intended to refer to herself as a member of the group of audiologists. “We” might be understood to be used with a coercive purpose, in not allowing the patient any choice in the activity (Leahy and Walsh, 2008), which may be the case given the nature of the consultations, but nonetheless it is still inclusive, even if coercive. This contrast in the use of pronouns reflects the general orientation in Case 1 towards the co-constructed, co-operative nature of the clinical process and the separate and defined roles in Case 3. Attributing roles was seen to be important to A3 as shown in Chapters 6 and 11. Roles were specified by A3 through role separation between what the audiologist and the patient would each be responsible for.

This brief examination of how the purpose of appointments is oriented to at the start reflects both macro and micro level influences. The influence and validation for the testing role through the third party funders appeared to influence the audiologists in this study to present their role to patients as testers. That identity was influential at the micro level as influencing audiologists as to how they identify themselves, and whether they include patients in the process, or consider themselves as performing a test for the patient.

## **7.2 Statement of the Problem**

Most case histories analysed for this study began with audiologists asking an open ended question, which, in cases where everyday talk is used to establish rapport, marked the end of the everyday talk and the beginning of the case history. The way the open-ended question was asked provided further insights, building on the identities and roles uncovered in statements as to the purpose of the appointments shown above. Cases 1 and 3 are contrasted below in terms of how the statement of the problem was elicited.

### **Extract 7.3 Case 3 Statement of the Problem**

5. A3: .....umm I thought perhaps if you star: ^t, just by telling me a little about your hearing?

### **Extract 7.4 Case 1 Statement of the Problem**

21. A1: yeah (.) ok. now um (.) you've come in today?

22. P1: HOPING =

Both of the open-ended questions shown in Extracts 7.3 and 7.4 fit within the constraints of the activity of opening the case history (Levinson, 1992). These two questions that superficially appeared to be the same activities, represented in fact two different activities. Extract 7.3 has a diagnostic orientation in that the question asked by A3 related to hearing only. In contrast, the question asked by A1 in Extract 7.4 is much broader in asking for the patient's reasons for attending the clinic. The question asked by A1 was not complete ("you've come in today?")

which is an indication that it served to open the topic, but not focus it in any way. How the statement of the problem was elicited determined what information was obtained from the patient. That in turn provided the focus for the case histories in each case – diagnostic, and following a medical model in Case 3, and anticipating the rehabilitative phase of the appointment in Case 1.

The orientation to either hearing, or the patient, coupled to the orientation of “we” versus “I” as shown in relation to the statement of purpose of the appointments, were seen to influence the way that case history questions were used in each of these cases. A1, who focused on the patient and his experiences introduced “shades” of counselling (Candlin, 2006, p. 31) into the case history section, whereas A3 who asked about hearing, and specified roles for himself and the patient, restricted the case history activity to diagnostic purposes.

Adopting a broad based question focused on the patient (for example: why have you come in today?) is recommended in audiology texts to open the case history (Clark, 1994b). When this approach was applied to Case 1, this provided an opportunity for A1 to understand P1’s categorization (Potter and Wetherell, 1987) of his difficulties. A series of statements from P1 built up a clear understanding of how he categorised his problems which could then be contrasted with A1’s own categorization, which formed the basis for counselling discourse (Sarangi, 2000) to be introduced into the case history. Establishing concordance through this process of understanding the categorization of the problem is needed for effective intervention (Candlin, 2000). The eliciting of the patient’s reason for attending the appointment, obtained without imposing any constraints though the broad (and incompletely formed) question served to elicit a statement of the problem that anticipated the rehabilitative phase of the appointment.

In Case 3, the audiologist categorized the problem for the patient in the structure of the question that called for an account of hearing. The use of the word “hearing” in the question imposed a constraint on what could be said by the patient. The opportunity was not created for P3 to state his reasons for the visit, which were presupposed by A3 as shown through the constraints imposed by the opening question.

Hall, Slembrouck, and Sarangi (2006), in studying client-social worker interactions, similarly found categorization (even though fundamental to social work practice and accountability) occurred only at the start of appointments. Similarly, during these audiology appointments, it appeared that the categorization that occurred at the start (either imposed by the audiologist to some extent, or elicited from the patient). The categorization determined the focus for the remainder of the case history. The social work interactions reported by Hall et al (2006) were characterised more as particularization processes (Billig, 1985) than categorization processes. These audiology appointments were found to be similar in the categorization of the problem that occurred at the start, was not returned to, and the remainder of the appointment involved the exploration of alternatives within that categorization. If the patient's categorization was not elicited, because, as in Case 3, a diagnostic frame/medical model was imposed by the audiologist at the start, then this resource was not available during that appointment.

### **7.3 The Case History: Questions, Answers and Responses**

In teaching audiologists how to take a case history, it is common to focus on the types of questions that audiologists should ask – to cover the onset and progression of the hearing loss, occurrence of associated symptoms such as tinnitus and vertigo, family history, history of noise exposure, medical history, level of conversation that is difficult to follow, and history of previous assessments or hearing aid use. The cases examined in this study all provided examples of comprehensive case histories, as might be expected from this research site based in a university. The orientation of most diagnostic case histories is to obtain highly specific information that guides the testing, allowing the audiologist to hypothesise about the type, degree and configuration of the hearing loss.

As discussed in chapter three, audiologists, like doctors, are generally taught how to ask case history questions. It is expected, in traditional models of teaching, that patients will provide neutral answers to questions and address the questions in the way anticipated by the audiologist. It is not common for audiologists to be taught

how to respond to the information that they obtain. The participating patients in this study however, did not conform to the prototype relied on in traditional models of teaching. They did not offer only information that audiologists requested from them. The language use demonstrated here, as expected, conforms to the principles of language used in all other contexts. The utterances of both patients and audiologists served multiple purposes which might be described as ideational, interpersonal and textual (Halliday, 1994). At times the information that patients offered had emotional content. At other times the information was incomplete, but might have proved to be important for the rehabilitative stage.

The way that information obtained from patients was responded to by audiologists distinguished between two types of case histories, which, as mentioned in the introductory paragraphs to this chapter, either conformed to the medical model or deviated from it.

**Question – Answer – Acknowledgement – Question (QAAQ):**

In this model, the patient's answers were acknowledged (for example with "ok" or "right") and then generally the next case history question was asked. This pattern conformed to a medical model typical of diagnostic case histories. The answer might have been undertaken over several turns with continuers being offered by audiologists, or might have involved just one turn. This model is exemplified by Case 3 in this study.

**Question – Answer – Response – Acknowledgement – Question (QARAQ):**

In this model, patient answers were responded to by audiologists. The response involved probing for more information, asking related questions that typically yielded additional information obtained over several turns, and commenting. The response was acknowledged before the next case history question was asked. This model did not conform to the medical model of Question - Answer sequences, with the responses by audiologists marking these case histories as serving multiple purposes, not just that of obtaining information. The probing allowed for specific and detailed information to be obtained. Responses to information offered by patients served to build rapport through the clinical task of case history taking. This again illustrates the multifunctional nature of the language used (Halliday,

1994) in these clinical interactions. The QARAQ model is exemplified by Case 2 in this study. Responses to patient replies changed the Q-A format to a Q-A-R format, inserting the response into the sequence. Sequences that contain a response following questions and answers are common to both education (Sinclair and Coulthard, 1992) and speech therapy (Leahy, 2004) contexts. The three parts identified in teaching and speech pathology are described as request – response – evaluation (RRE) three pair parts (Leahy, 2004; Sinclair and Coulthard, 1992). Teaching and speech pathology have a different orientation to audiology with a key difference in this study in that the interaction was between adult participants, suggesting that responsive section might be less evaluative, and more supportive or probing. In discussing counselling in the audiology context, Luterman (2008) provides six different possible responses to patients (content responses, counter-questions, affect responses, reframing, sharing self and affirmation) as markers of different counselling styles, each leading to different possible paths through the counselling process. In the QARAQ format, the responses tended to be probing and/or relationship building, and changed the case histories from being within the medical model. The resulting case histories were not purely rehabilitative, but appeared to be the result of the rehabilitative phase being anticipated, while at the same time attending to the diagnostic.

The incorporation of rehabilitative and diagnostic aspects into a single appointment is a relatively new activity for audiology. More traditional is the separation of diagnostic and rehabilitative work, and, even newer is the fitting of hearing aids within the same appointment (as made possible through recent technological advances). As Sarangi (2000) noted in the context of a new field of genetic counselling, and Candlin and Maley (1997) have noted in the evolution of mediation and alternative dispute resolution, new activities call for new ways of using language and indeed come to signal the presence of such new professional work, or new directions in a profession, and to establish and maintain them. New forms of language introduced into activities typically result in, and reflect, interdiscursivity (Candlin, 2006). The findings of this analysis of case histories suggest that the form of talk in the case history where rehabilitation is anticipated is different to that where the diagnostic phase is kept separate. This relates, not to the types of questions asked, but to the responses that audiologists offer. This

form of discourse thus suggests interdiscursivity. Responses to the patient that are expected in therapeutic discourse are present in the case history stage, a section of the appointment traditionally devoted to diagnosis. The case history is, however, still identifiable as a case history from the questions asked. It would appear that these audiologists have partly let go of the medical model (Duchan, 2004), but retain the markers of authority and questioning that are characteristic of the traditional case history.

Examples of the QAAQ and QARAQ formats are presented below. This is followed by an example of a suggestive case history that shows how the case history can be used to serve nontraditional purposes, while retaining the traditional format.

### 7.3.1 Case 3: QAAQ Format

Case 3 was characterised by the traditional sequencing of case history, followed by assessment, followed by rehabilitative aspects, as is typical of the medical model as applied to audiology (Duchan, 2004). A3's structuring of the case history was matched to the "voice of medicine" described by Mishler in his seminal work, as being dominated by closed ended questions; dis-attending to the personal life context of the patient, with the professional control of topics (Mishler, 1984). In asking direct questions, the audiologist elicited replies, to which there was a brief acknowledgement that also served to mark the topic as closed. There was little probing or comment on the patient's replies.

Extract 7.5 contains turns 5 to 112 from Case 3. This is a very long extract that captures the complete case history as occurred over ten minutes. It is presented here to demonstrate the repeated QAAQ format over the whole case history. Questions are marked in blue for easy identification by the reader. A commentary on the questions and responses to questions follows the extract.

### Extract 7.5 Case 3 QAAQ Format

Case history questions are marked in blue

Responses to case history questions are marked in black

Acknowledgements leading to the next case history question are underlined.

5. A3: umm I thought perhaps if you star:^t\_v just by telling me a little about your hearing?
6. P3: ok er I was (.) um >diagnosed I suppose< when I wa:s (.) i:n >primary school<
7. A3: [mmhmm]
8. P3: [umm I] (.) I'm (.) my understanding is that umm that (.) my ears they (.) my ears >haven't developed properly< and (.)... I have a similar problem with my ey:es. (.) but that doesn't affect my sight >at all< um (.) and I haven't got ((voice high pitched)) all the the hai:rs that cover a:ll >the frequencies< in >sort of< layman's terms=
9. A3: ok
10. P3: =um it's all the figure that's always been thrown around was forty percent deaf (.) deafness (.) I wore >hearing aids< up until (.) I wa:s ((high pitched voice)) >about thirteen<=. .hhah
11. A3: ok
12. P3: =and I haven't worn them since- umm tsk yeah and basically I think ei- either old age is catching up with me o:r (.) um yeah but I've badly need em
13. A3: ok.
14. P3: and (.) >it's long overdue<that I start wearing them again
- (4)
15. A3: so um (.) where did you get your old hearing aids from?
16. P3: er ((clears throat)) I'm from Adelaide so it would have been (.) the National Acoustics Laboratory
17. A3: [yeah]
18. P3: [in Adel]laide
19. A3: yeah
20. P3: I haven't go them with me today but I have them at home.
21. A3: that's ok. (5) and so did. you say that you haven't worn any. hearing aids at all since you were thirteen is that right?
22. P3: yeah probably (.) thirteen to fifteen >sometime around that<
23. A3: ° ok alright °

(3)

24. P3: for no other reason but probably myself

25. A3: [yeah.]

26. P3: [there] wasn't any external influence >it was all.< stuff >in my head<

27. A3: o^k a:^ll ri^ght tha^t's fine. um can I just check just a few questions about your hearing itself =

28. P3: [yeah]

29. A3: =[ummm] is the hearing better in one ear or are both ears about the same?

30. P3: my left ear's a >lot better< my right ear i:s (.) basically useless too: f'r communication and for to hear people speak

31. A3: ok k

32. P3: when you see the plots of the frequency response (.) there doesn't seem to be much variation but fro:m my perspective there's a hu:ge difference.

33. A3: ok. all right (5) when was the last time you had er: (.) your hearing tested?

34. P3: u^mmm yeah (.) I I've got an audiogram here (.) I went to a clinic in um Xxxx probably (.) er at least a few er a number of months ago (.) probably three months um and I: (.) just. it sort of [turned me off ]

35. S: [it was over] a year ago

36. P3: sorry?

37. S: o:ver [.] a [.] year ago

38. P3: ohh was it?

39. A3: yeah that's right January 2003. yeah yeah

40. P3: .hh I thought it had been six months [laughing]

41. A3: [laughing]

42. P3: anyway yeah so I had the test done there and I just wasn't impressed. with (.) umm considering I was going to spend >a lot of money.< I just wasn't impressed wi:th. (.) their (.) >technical expertise< or nnd .hhh I don't know it sound it was to me it was like (.) ca:^r salesman's talk [rather than]=

43. A3: [ok]

44. P3: =professional talk

45. A3: right.

46. P3: and yeah I just deferred it?=  
47. A3: ok.  
48. P3: = buy- yeah purchasing  
(4)  
49. A3: .hh and so um do you think probably (.) since early 2003  
you've been wanting to do something about your hearing is  
that ri^ght?  
50. P3: aah yes. yeah but we were (.) just recently >living in the  
United States< which sort of made it a bit difficult but for  
probably two years yeah (.) I've been working in the same  
pla:ce (.) in Sydney for two years. (.) and I've had a huge  
amount of difficulty yeah the office environment talks very  
quietly =  
51. A3: ok .hh ehemm  
52. P3: =when I was in the US it wasn't because Americans talk very  
loud  
53. A3: ok hhahh ahall ri:ght  
54. P3: long live loud talking [haha]  
55. A3: [haha] all. ri^ght. (.) um so what sort of work do you do? um  
56. P3: er electrical engineer=  
57. A3: ok.  
(2)  
58. P3: =work with the XXXX at the moment we've got algorithm  
developments with software systems design.  
(5)  
59. A3: and do you think that is where you have the mo:st problem  
with your hearing when you're at wo:rk (.) and talking in  
that office kind of situation - anywhere else?  
60. P3: I would say yeah- at work is the pinnacle of the problem but  
that's only because yeah (.) outside of that I don't I'm not  
that invo:lved with that many people all at once and (.) an  
open plan office ah people just ta:lk at a lower a level=  
61. A3: yeah  
62. P =that I've never sort of (.) encountered behhaafore=  
63. A3: ok  
64. P3: um but even at ho:me (.) I mean the TV (.) yeah I have I  
basically watch TV without really (.) listening to it  
65. A3: ok all right

(2)

66. P3: but in terms of per:sonal life usually I can control the situation enough. (.) then it's ok?=  
67. A3: ok.

68. P3: =but only at work I don't have that <sup>o</sup>luxury<sup>o</sup> (2) particularly as you go up. the ladder. at work there are meetings

69. A3: right

70. P3: and um (.) yeah that's the issue

71. A3: ok (6) um you mentioned the TV just a second ago um do you find if you turn the volume up does that help at all or=  
72. P3: I turn it up to the point I get told off (laughs)

73. A3: ok all right um and have you ever used a tv with captions on the bottom the the subtitles?

74. P3: umm in the US I did. (.) but here we haven't got the teletext

75. A3: ok all right

76. P3: I would have it (.) in seconds if we had it here but it's ingenious

77. A3: right.

(3)

78. P3: I do a lot more work. if (.) because I can't certainly watch TV

79. A3: right ok hahaha (.) um how do you go with er your talking on the pho:ne?

80. P3: with what sorry?

81. A3: ON THE PHO:NE

82. P3: umm (.) generally not too bad umm yeah it's very dependent on the quality of the phone I've noticed (.) but that yeah generally it's not (.) too bad (.) I'm not as good >you know< as a person with >normal hearing< but I can usually get by

83. A3: ok (.) ehem and just talking to one or two people in a quiet room you have any problems picking up the wo:rds?

84. P3: usually that's fine (.) I've got to lipread (.) anybody with a beard

85. A3: ok

86. P3: things like that and also (.) the frequency that they talk at (.) like I've noticed a >couple of the guys at work.< have got a very monotone

87. A3: ok yep

88. P3: and straight with the bandwidth where where I I^ am and I just ca:nnot(.) =
89. A3: ok
90. P3: =hear them (.) different languages - people with accents
91. A3: yep
92. P3: and that's usually (.) if I (.) if I'm with them after a while. you get used to the way they talk and you can you can also the way their lips move as well I suppose
93. A3: [yeah ok ]
94. P3: [that's def]initely an issue- >particularly as I'm sort of< managing a team at the moment and there's one individual there who yeah they're from overseas (.) and they don't. (.) their mou:th does not when they talk they talk and never change their mouth and I'm yeah=
95. A3: ok right
96. P3: =I have a >great deal of trouble<
97. A3: right makes it hard then doesn't it?
98. P3: umm I feel sorry for the (.) guy it's my problem not his (.) but he. suffers .hhahh
- (7)
99. A3: ummm all right do you think your hearing's cha:nged at all since the last. test. or do you think it's >pretty much< the same?
100. P3: em ahaha a year ago (.) umm I think it's been yeah I haven't noticed a reduction I've I would say in the la:st. 5 years (.) yeah there has been a deterioration=
101. A3: ok.
102. P3: =but I don't know whether that's just because the environment has changed and the nature of my (.) how I work at work has changed but
103. A3: yeah
104. P3: I still think that overall still
105. A3: pretty much the same?
106. P3: pretty much the same but? (.) I'm having more trouble now than what I did
107. A3: ok
- (6)
108. A3: right. do you ever get any ti^nitus. ri^nging noises. buzzing noises. in your ears?

109. P3: mmhmm
110. A3: have you ever had any infections in your ears at all?- any operations on your ears?
111. P3: mmhmm
- (4)
112. A3: all right (.) well that's probably all I need to ask for now, if I think of something later on I'm sure I'll ask you but um we'll get started with the test ok I'll just have a quick look in your ears and then I'll explain everything ok

### 7.3.1.1 Case 3: Questions

The case history questions in Extract 7.5 were direct questions that related to the patient's hearing history. They could have been answered simply, with several being of a yes/no question format. The questions exemplify the way that audiologists would be taught to take a case history (see chapter three and discussed above) within a medical model (Robinette and Cevette, 2002). The list of topics that were introduced through the case history questions is as follows:

1. Previous use of hearing aids (turns 15 and 21)
2. Symmetry of hearing (turn 29)
3. Previous hearing assessments (turn 33)
4. Occupation (turn 56)
5. Progression of hearing loss (turns 49 and 99)
6. Hearing at work (turn 59)
7. Hearing the television (turn 71)
8. Telephone use (turn 79)
9. Conversation in quiet (turn 83)
10. Associated symptoms (tinnitus) (turn 108)
11. Associated medical history (turn 110)

### 7.3.1.2 Case 3: Patient Answers

Many of P3's answers to the case history lasted for several turns, with "ok" and "right" offered by A3, acting as continuers. P3 used some of the pauses in which A3 was writing (46 seconds in total between turns 5 and 112) to offer additional information, using the pauses in the same way as the continuers. P3's answers did not conform to the medical model adopted by A3. They provided more information than had been requested, and information of a different nature. Expansions of this nature are described by Stivers and Heritage (2001) in relation to medical history taking. Much of the information that was offered was a description of P3's experience of deafness, whereas the questions had been focused on hearing. These expanded answers were linked to the questions, but offered more information than the patient was asked for. The information that was offered by P3 during the case history included the following:

1. Diagnosis of hearing loss during primary school years (turns 8 – 10)
2. Dissatisfaction with hearing aids during adolescence (turns 10 – 26)
3. Communication difficulties (turns 30 – 32; 50 – 54; 84 - 98)
4. Dissatisfaction with his previous service provider (turns 34 – 48)
5. His partners implied frustration related to the communication difficulties (turns 35 – 37)
6. Willingness to spend money on hearing aids (turn 42)
7. Self image in the workplace (turn 68)
8. Effect of hearing loss on lifestyle (turns 64 – 67)
9. Difficulty with the telephone (turn 82)

Extract 7.5, while clearly conforming to the genre of the audiological case history, displays inherently a mismatch between the questions asked by the audiologist and the information provided by the patient. The questions were of a diagnostic nature, yet the answers were oriented to rehabilitation. This suggests that P3 may not have been familiar with the medical model of sequencing diagnostic and rehabilitative aspects. His lived experience of deafness did not easily conform to the clinically imposed divisions that are reflected in the case history questions. He used this opportunity to convey his experience, and if not asked the specific questions, might have provided this account as a narrative. Narrative accounts are

suggested by Duchan (2004) to be an alternative model of eliciting information to the traditional case history. These findings suggest that eliciting information (in particular where the clinical interaction is likely to lead to rehabilitation) using a narrative format may be valuable.

### 7.3.1.3 Case 3: Responses

A3 acknowledged P3's replies with "ok" and "right" which served as continuers (backchannels), as mentioned above. Luterman (2008) would classify these responses as "affirmations" (p100), acting to encourage the patient to continue. Acknowledgements were used to mark one topic as closed before asking the next case history question. This occurred as a pattern over the case history, and is exemplified in turns 98 – 99, reproduced below:

98. P3: umm I feel sorry for the (.) guy it's my problem not his (.)  
but he. suffers .hhahh

(7)

99. A3: ummm all right do you think your hearing's cha:nged at all  
since the last. test. or do you think it's >pretty much< the  
same?

After a statement about communication difficulties (turn 98), a long pause of 7 seconds occurred in which A3 was writing notes<sup>18</sup>. During this pause, P3 did not add any further information. In the following turn (99) A3 marked that topic as closed ("umm all right") and then followed this on with a typical case history question ("do you think your hearing has changed..?").

There was little comment on, or probing of, the difficulty that P3 experienced in life. A3's response at turn 27, ("ok all right that's fine") to P3's disclosure about rejecting hearing aids, his lack of acknowledgement or probing of P3's dissatisfaction with his previous service provider (turn 34), and his objectification of P3's hearing in referring to "the hearing" (turn 29) are all evidence that A3 was not focused on P3's experience of deafness during the initial case history, but on

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<sup>18</sup> While taking case histories, audiologists need to record information. However, it appears that in some cases, the pauses between conversational turns are such that they signal to the patient that they may continue with their conversational turn, in what is referred to re-completion by the speaker, accommodating a within turn pause into their turn (Ten Have, 1999). Jefferson (1989) suggests that in conversation, pauses of up to a second are tolerated. Longer pauses will be filled or mark the conversation in some way.

categorizing his hearing loss in audiological terms. Turn 97 was one exception, when A3 responded empathically by paraphrasing for P3 (turn 97, “right makes it hard then doesn’t it”). This was an acknowledgement of P3’s feelings, but did not probe further how he had coped with his difficulties. A3 delayed attending to the psychosocial until the diagnostic phase (case history and assessment) had been worked through, in line with the medical model.

While the case history did appear to progress conventionally, the follow up to this case history after the assessment shown at turns 125 – 141 in Extract 7.6 (below) demonstrates that when a rehabilitative focus is not anticipated in the case history portion, the audiologist (in this case A3) risks not attending to information that is considered irrelevant for diagnostic purposes, but, which becomes relevant later in the appointment. Not responding to the patient or probing for additional information is not an indication that the information obtained from the patient was not attended to by the audiologist. However, subsequent questioning in Case 3, with A3 requesting some of the same information that had already been offered by P3, suggests that this was the case here.

**Extract 7.6 Case 3 The Rehabilitative Phase**

125. A3: ok I was just having a quick look at the test that you had from last time and it doesn't look like there is too: much of a difference from last time to now.
126. P3: oh ok
127. A3: um yeah basically P you have what is called a mo:derate hearing loss in both ears (.) ok ok do you know why: you've lost your hearing? has anyone ever told you why you your hearing's ba^d?
128. P3: cause um yeah I was born like that-
129. A3: [ok]
130. P3: [my] my ears hadn't for:med properly.
131. A3: [oh that's]
132. P3: [and my eyes] also
133. A3: right that's right yeah you di^d tell me that (.) yep yep ok and is it that they didn't pick that up until you were a tee^nager? is that right?
134. P3: no no until er primary school

135. A3: primary school.
136. P3: yeah during sch- normal school hearing tests I was found (.) and I was to:ld it was surprising. that I could spea:k properly.
137. A3: oh ok. all right.
138. P3: I don't know that I had a lot of testing done when I was little
139. A3: umhmmm ok  
(6)
140. P3: my parents always thought I was (.)a quiet kid who liked to play in the corner but that's because I didn't hear anybody
141. A3: ok right ok. umm

During turns 125 – 141 in Extract 7.6, which occurred after the assessment, A3 verified information that had been offered during the case history. From the supplementary case history questions asked by A3 during these turns, (turns 127 and 133) it was apparent that A3 had not remembered and/or recorded all the information that was given during the case history, in spite of the long pauses during the initial case history when he was writing notes.

The questions at turns 127 and 133 about etiology and age at diagnosis were different to the initial case history questions, in that they attempted to build on information already given. However, that information was not accurately recalled by A3. At turn 133, for example, A3 mixed up the facts that were given earlier, in checking if the hearing loss was diagnosed during adolescence, when what had occurred, was that during adolescence P3 had rejected the use of hearing aids.

What is remarkable about this case is that although the information that had been offered was not accurately recalled by A3, this did not appear to disrupt the flow of the appointment, and the apparent rapport that existed between A3 and P3 did not appear to change as a result of this misunderstanding. A3's acknowledgement of his mistaken recall in turn 133 ("right you did tell me that") may have contributed to smoothing over this misunderstanding. However, the QAAQ model for the case history did not allow for A3 to probe rehabilitative areas during the case history.

### 7.3.2 Case 2: QARAQ Format

When, as occurred in this study, audiologists respond to patients' answers to case history questions, the interactional sequence changes from QAAQ to QARAQ. This change in format marks the difference between rehabilitative and diagnostic orientations. The case history questions asked in both formats covered similar topics, indicating that the QARAQ format does not exclude diagnostic aspects, but incorporates the diagnostic, while at the same time anticipating the rehabilitative aspects of the consultation. The responses tended to be *content* responses and *affirming* responses (Luterman, 2008). Case histories that did demonstrate a wide range of response types, and did shift to a rehabilitative mode (what Luterman would refer to as *counterquestioning*, or *affect* responses), retained the focus of information sharing, but were markedly different to the medically oriented QAAQ sequences in diagnostic case histories.

During the case history taken for Case 2, there were some occurrences of the QAAQ format. However, there were in addition, five identifiable sequences that conformed to the QARAQ format. In most cases the Answer-Response sections extended over several turns, interspersed with backchannels from the audiologist. An example of one QARAQ sequence from Case 2 is presented in Extract 7.7.

#### **Extract 7.7 Case 2 QARAQ Format**

Case history questions are marked in blue

Audiologist responses to replies are marked in violet

25. A2: now you said umm (.) since July you feel your hearing has got wor:se. (.) can you=  
26. P2: =I think so(.) yes. (.) [I think] -  
27. A2: [um why.] is that do you think. is=  
28. P2: I=  
29. A2: can you relate it to any i:ncident? [or.]  
30. P2: =[no]. (.) I have a neurological pro\_vblem.=  
31. A2: right. yes?  
32. P2: and I that's I saw my ((swallows))neurology guy yesterday. >I see him every year< (.) I've got something called ata:sia of the bi:g ar:teries under the brai:n (.) and I have a bad

33. ba-:lance. problem. walking problem=
34. A2: ri:^?ght (.) I noticed when when you walked in.
35. P2: yes.
36. A2: right.  
 .....(( ongoing discussion))
81. A2: what um areas do you find give you most trouble to hear?

### 7.3.2.1 Case 2: Responses as Probing

A2 responded to P2's replies by probing. At turn 27 A2 asked P2 why he thought his hearing had worsened, and at turn 29 she rephrased the same question as to whether the change in hearing could be related to any incident. These responses, being requests for additional information would be classified as *content responses* according to Luterman's classification (2008, pp 995 – 99). A2's use of continuers (*affirmations* in Luterman's classification) (turn 31 "yes" with a rising intonation) served to elicit additional information without asking additional questions.

### 7.3.2.2 Case 2: Responses as Relationship Building

The probing questions elicited information that P2 was hesitant to offer about his neurological condition<sup>19</sup>. The difficulty that P2 had in presenting the information about his condition resulted in A2 responding in a way that combined the personal and professional, and served to build the relationship between them. A2 chose to respond to P2's admission of his neurological condition, referring to her own observations of this at the start of the appointment (turn 33). This reassured P2 that she had noticed his condition, and that his admission was not news to her. The message conveyed was also one of support for him, responding with the use of the first person "I". This served a relational purpose, in conveying that although A2 had noticed the condition early on, this was not the main focus of the appointment. This was important as the neurological condition can carry a stigma, sometimes mistaken for other behavioural conditions such as excessive consumption of alcohol, in particular when gait is disturbed, as in this case. In an audiology context, observing such characteristics of a patient is an indication of professional expertise, as audiologists, like other health professionals, combine their own observations of the patient with information obtained during the case

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<sup>19</sup> This is explored in Chapter 8.

history. By acknowledging P2's neurological condition, A2 demonstrated her professional awareness of P2's condition; and in responding within a personal frame, the same response achieved further establishment of the relationship between them. That rapport was built up through this particular hybrid response – that characterised both personal and professional characteristics.

### 7.3.3 Case 1: *The Suggestive Case History*

In some cases, the response to patient information was not immediate, and occurred after a sequence of questions and answers, thus conforming to the QARAQ model that included responsiveness, but not necessarily ordering the turns in that exact sequence. Case 1 provides an example of where the audiologist adopted a counselling mode within the case history through the particular structure of the questions asked. The use of questions to serve multiple purposes is well established in the literature, so that questions, as shown in this example, can serve to share information and reshape thinking (Steensig and Drew, 2008). This example (Extract 7.8) is presented here to illustrate how the case history is used, and is discussed further in chapter eleven, where co-constructed nature of advice in the rehabilitative phase of appointments is discussed.

#### **Extract 7.8 Case 1 The Suggestive Case History**

21. A1: yeah (.) ok. now um (.) you've come in today?
22. P1: HOPING =
23. A1: mmmm
24. P1: =that you can find some gear that can allow me uh (.) to hear better [because] I've got this. I've got
25. A1: [mmhmm]
26. P1: I've got two hearing aids >I've got one in my pocket< uh
27. A1: yeah
- (1)
28. P1: uh I'm at a loss half the time because I can't hear if I'm in a (.) dining. with people

29. A1: [right]
30. P1: [that's not] very good yet I wear a um a remote control on the television (.) and I can hear very well [as it]
31. A1: [mmm]
32. P1: comes into the right into my ears  
(2)
33. A1: and how long have you had those hearing aids?
34. P1: these ooh five or six years I've had hear hearing aids for about ten years (.) I go to Xxxx.
35. A1: right
- .....
99. A1: right (.) does it help. if you've got bo:th. hearing aids in?
100. P1: well I never I only ever wear=
101. A1: you only ever wear one?
102. P1: = one
103. A1: yeah (.) ok (1) do you wear do you wear the hearing aid all day?
104. P1: no-:
105. A1: no? ha how often would you wear it?
106. P1: whenever I want to talk to somebody or if I humm a::h (laughs)(.) ho:ney. (.) I put it in if I'm (.) going to have a conversation. (.) I just put it in a while ago (.) b't I drove here without it I feel happier (1) without wearing it:-
107. A1: ri:ght.
108. P1: so I drove here (.) came in(.) spoke to the desk put my hearing aid in to speak to them
109. A1: right. Ok. (5)umm ok? well I'll just have a look in your ea:rs first >can you hear< if if you haven't got your hearing aid in can you hear can you still hear?
110. P1: yes and I can hear my wife? when she speaks to me loudly?
111. A1: yep

Case 1 adapted the question / answer style of the case history to make suggestions, thereby posing possible alternative solutions to the patient's understanding of his own communication difficulties within the initial case history phase.

Extract 7.8 shows, in turns 21 – 35, that, P1 hoped for a technological solution to his hearing difficulties. However, it was evident from these turns in Case 1 that in order for a satisfactory outcome to be achieved, P1 would need to consider behavioural as well as technological changes. Turns 21 - 35 are presented here to provide the context for understanding the purpose of the following questions. It is not unexpected for the patient and audiologist to have different categorizations of the patient's problem (Sarangi and Candlin, 2003a). In a diagnostic appointment it is not consequential to the outcome, as the task does not necessarily involve co-operation between the patient and the audiologist. However, in this appointment, in order for a positive outcome to be achieved, it was apparent that P1 would need to change his perspective on rehabilitation if a measure of concordance between him and the audiologist was to be reached. A1 initiated this process through adapting the case history question and answer format to incorporate suggestive questions, which served the purpose of gaining information and beginning to present an alternative view to the patient.

#### 7.3.3.1 Case 1: Suggestive Questions

From turn 99 onwards, the questions asked by A1 were readily identifiable as direct case history questions (“does it help if you’ve got both hearing aids in?” at turn 99; and “do you wear the hearing aid all day?” at turn 103). However, these questions were not designed simply to gain information, but introduced the idea that the patient's use of the hearing aid(s) was contributing to his disappointment with them. The questions were thus suggestive. Turn 99, prefaced by a marker of authority (“right”) and a suggestion of benefit (“does it help”) are intended to preference agreement. The audiologist structured the question at turn 99 using the word “help” before mentioning two hearing aids. By preferencing agreement (Hutchby and Wooffitt, 2008) in this way, A1 was hoping to elicit a response from the patient that might enable him to reach his own conclusions about his difficulties (Luterman, 2008), or create an opportunity to use a perspective display sequence (Maynard, 1992), both of which might have been strategies adopted to encourage decision making that would be agreed by both participants to lead to an improved outcome. Mechanisms for decision-making are discussed in more detail in chapter eleven.

### 7.3.3.2 Case 1: Answers to Suggestive Questions:

P1's answers to A1's suggestive questions (turn 100 – “well I never I only ever”) are dispreferred (Pomerantz, 1984). P1, in his replies demonstrated that he was aware of the suggestion that was implied in the questions. P1's replies were vague in comparison to previous replies to direct questions. He adopted a strategy at turn 106, which suggested an attempt to avoid the admission that A1 was attempting to elicit. By referring to her as “honey” within this turn, he used a word that is not considered appropriate in professional settings, but which is selected here for use for the particular discursive purpose of reacting to the suggestion made by A1 (Locher and Watts, 2005) that he was implicated in his own lack of effective hearing aid use. It can be assumed from this reaction by P1, that A1's form of questioning had the effect of unsettling the interaction. By presenting this suggestion to P1 in the form of case history questions, however, this strategy allowed for the suggestion to be made, and then the activities associated with the diagnostic process resumed.

A1 assumed a professional activity at turn 109 where she asserted that she would examine P1's ears. Her questioning of his ability to hear without his hearing aids was marked by hesitations and repetitions, indicating that she was aware that the questioning about his use of hearing aids had not achieved a simple admission from him. She persevered, albeit hesitantly, indicating that her approach had generated discomfort. This portion of the appointment did not allow for the in depth discussion such as is typically termed “counselling”. Such a change in discursive orientation could have compromised the audiologist's ability to complete the required assessment procedures in the time allowed for the appointment. P1's response can be taken as an indication of how unsettling such suggestions can be in the clinical context. In order to overcome the time and activity constraints operating in the appointment, A1 adopted the style of the case history to attempt to achieve the goals of rehabilitation. The case history questions thus took on a dual (hybrid) purpose, as has been found in studies of other health professionals such as nurse counselors (Poskiparta, et al., 2000).

#### 7.4 The Case History: Summary of Findings

- The purpose of appointments as stated by audiologists is often not aligned with the content of the appointment.
- The diagnostic case history format is not recognised by patients who tend to offer unsolicited information.
- The diagnostic format is characterised by direct questions and very little probing or acknowledgement of patient replies, consistent with the medical model.
- Strategic adaptation of the case history format can address rehabilitative issues in the initial stages of the appointment.
- Responding to patient answers to case history questions is a deviation from the standard diagnostic case history. This serves a relational function that is anticipatory of the rehabilitative aspects of the appointment.

This chapter, at the outset, was seeking to identify how case histories were structured in appointments that included both diagnostic and rehabilitative aspects. This was of interest given the dominance of the medical model in teaching clinicians how to take case histories and the recognition that the diagnostic case history is not suited to rehabilitation planning (Alpiner and Schow, 2000).

The results illustrated two different approaches to the diagnostic / rehabilitative dichotomy. Case 3 adopted a sequential approach with the initial case history being diagnostic in nature, and then an attempt to shift the appointment to a rehabilitative footing after the assessment was complete. The other two cases showed evidence of anticipating the rehabilitative aspects from the start of the appointment. In particular, Case 1 demonstrated this with the open-ended opening question (see above) and the suggestive use of case history questions. Case 2 demonstrated the audiologist's anticipation of the rehabilitative phase, with a responsive pattern to the patient's utterances throughout, that both built up rapport and served to elicit detailed information.

Sarangi (2000) refers to the phenomenon of *hybridity* (introduced on p. 72) whereby discourse types (for example *counselling*) can be adopted strategically

into other activities (for example *gathering information*), noting of course that the label counselling refers to (is) both an activity as in 'counselling' and a discourse type as in 'Counselling'. In these cases the activity of case history taking was uniform across appointments from the point of view of the types of questions asked, but the case histories achieved different clinical tasks based on the audiologists' responses to the patients' answers to case history questions. The QAAQ format was modified to add a response, which changed the activity from the medical model to a responsive model, characterised for the purpose of this study as a QARAQ sequence.

By asking questions the audiologist was conforming to the activity type (*questioning*) that is expected during the case history portion of the appointment. However, the questions at this stage of the appointment served a purpose that included the gathering of information as well as suggesting possible solutions to the patient. Anticipating rehabilitative phases of appointments served not only to develop the relational aspects of the clinical context, but also to position the rehabilitative phase as central, from the start, thus preventing a repeat (and time wasting) of information that has already been shared.

The notion of how time is used in appointments is important to clinic management, as the amount of time available for appointments can be arbitrary. Effective use of time is thus an important professional skill. However, a demonstration of what can be achieved within the available time, given that patients are offering required information, is an area that should be made explicit within the profession to promote the merging of roles as diagnostician and rehabilitationist. The ability to merge diagnostic and rehabilitative roles when the clinical context so requires may be helpful in overcoming the difficulty that clinicians reported in the focus group meetings, that they are uncomfortable with their role in rehabilitation because it alters the relationship with the patient. By establishing a rehabilitative purpose to the appointment from the start, this would not require a shift in relationship, but perhaps a deepening of the relationship that might be easier for audiologists. This would probably be more communicatively (and thus professionally) demanding, and might only be expected of more experienced clinicians.

The case history questions asked by all audiologists were very similar. They were direct questions aimed at obtaining the patient's history. The patients also replied to questions in a similar way. In response to the direct questions the patients tended to give long answers with more information than was called for. During the case where a strictly diagnostic focus was maintained by the audiologist during the case history, the audiologist did not respond to the patient's replies further than to mark them as acknowledged and closed topics – the QAAQ model. A contrasting interactional structure was seen in those appointments that anticipated the rehabilitative focus during the initial case history. This represented a deviation from the medical model. In those case histories the audiologists acknowledged the patients' answers and either probed or added to them, before asking the next question – the QARAQ model. It is fair comment that most audiology training and text books focus on the questions the audiologist should ask during the case history, with different questions being asked for diagnostic and rehabilitative case histories (Tye-Murray, 2004).

It is evident that patients do not distinguish between the diagnostic and rehabilitative phases of the appointment. They responded to the specifically focused questions by providing as much information as they could, making use of available cues such as pauses to add unsolicited information. This may have resulted from the patients' orientation, which was that the appointments were arranged with a primarily rehabilitative focus – that is the end result was to decide about hearing aids.

The orientation of this chapter has been to demonstrate how deviation from the medical model facilitates the early incorporation of rehabilitation into these appointments. Incorporating, or merging, the rehabilitative into the diagnostic ensures that the audiologist's role is not simply that of "tester" as was presented to patients at the start of these appointments. Evidence from the data shows that when the rehabilitative aspects are going to be addressed, then it is appropriate to attend to them at the time the information is offered. Not only does this save time within appointments, but attending to issues raised by patients also presents a more competent image in that information need not be repeated later in the appointment. Delaying attending to information offered by patients introduces the

risk of poor memory or processing by the audiologist which has the potential to adversely affect the relationship between the patient and the audiologist. Arguably, it is this ability to attend to information offered by patients that marks the difference between audiometrists/testers and audiologists. The ability to merge diagnostic and rehabilitative aspects of the clinical process was competently demonstrated in these cases by experienced clinicians.

## **Chapter 8 Results: The Audiological Diagnosis**

The presentation of the audiological diagnosis was introduced in chapter three (p. 56). Of interest to this study was how the two models identified in the audiology literature (full disclosure and individualized approaches) are adapted to the competing discourses in audiology related to medicine, audiometry, and audiology. It was suggested in chapter three that the limited scope of practice in diagnostic audiology (that is not addressing underlying causes of hearing loss) might be an influence on how the audiological diagnosis is presented.

All appointments in this study involved the audiologists presenting audiological diagnoses to patients. In some cases the patients were to return to their referring doctor, but in most cases, with these being appointments to cover both diagnostic and rehabilitative aspects, the audiologists explained the results as a lead in to the discussion about hearing aid options. The presentation of results typically took place after the assessment (case history and basic test battery) was completed. The section of the appointment devoted to presenting the results was marked by long, largely uninterrupted turns by the audiologists in which each of the test results<sup>20</sup> was explained – thus conforming to a full disclosure model. In most cases, the conversational turns in which the results were presented were the longest single turns in the appointments.

The presentation of the audiological diagnoses did not conform to the commonly adopted conversational strategy of perspective display sequences associated with the delivery of bad news (Maynard, 1992). As already mentioned (see p. 62) perspective display sequences are advocated (and presumably adopted, although this has not been directly investigated to date) in the paediatric audiology field. Parents whose children are diagnosed as deaf are expected, by audiologists, to classify the diagnosis as bad news (Maddell, 2000), although this can be complicated by factors such as a preference for the diagnosis of deafness over other possible diagnoses such as cognitive impairment or autism, and the

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<sup>20</sup> The basic test battery at Macquarie University includes pure tone audiometry, speech audiometry, and immittance measures (standard tympanometry and acoustic reflex thresholds).

welcoming of deafness by families who are Deaf. Luterman (2008, p. 79) describes the involvement of parents in the diagnostic process as a “collaborative diagnosis”. The collaborative diagnosis incorporates the principles of perspective display sequences involving parents in reaching their own conclusions about their children’s hearing status. The information giving aspect of the diagnosis is not denied by Luterman, but the information is given when requested by parents, at a time when they are ready to process the information. The basis for the collaborative diagnosis and the attention to counselling strategies in children is the assumption that a diagnosis of deafness in children is bad news. The same focus has not been given to adults who are given an audiological diagnosis (Clark and English, 2004), and this is reflected in the results of this study.

The audiological diagnoses did not display common strategies for conveying bad news, even though it is assumed that the audiologists were familiar with those strategies as part of their everyday conversational skills, as well as their training in paediatric audiology. One possible reason that perspective display sequences were not adopted was that at some level of the audiologists’ consciousness, for adults with hearing loss, the audiological diagnosis is not considered “bad news”. Audiologists may consider that if serious underlying medical conditions were found to underlie the hearing loss, it would be the presence of underlying disease that would constitute the bad news, not the hearing loss *per se*. The hearing loss itself is not attended to by audiologists as “news”. Any bad news about hearing (that is the medical diagnosis) would not be delivered by the audiologist. Even in the case of asymmetrical hearing, that is not in itself necessarily bad news, but might be an indicator of possible bad news to follow, which would be presented by the medical practitioner.

As noted by Maynard and Frankel (2006), medical diagnoses are not all bad news – diagnoses may constitute good news or uncertain statements about patients’ conditions. There are differences in presentation style identified by Maynard and Frankel that are adopted depending on whether the diagnosis is good or bad news. They found that in presenting “good” news to patients, there was less hesitation and the diagnosis could be presented without the presequences to the delivery of bad news. While the audiological diagnosis may not be good news, it is

nonetheless incomplete and uncertain, because of the limited scope of practice for audiologists.

The findings of this analysis suggest that in addition to any medical diagnosis as bad news, another form of potential bad news might be the need for a hearing aid that makes the hearing loss visible, rather than the audiological diagnosis itself. The audiologists in this study used the presentation of the audiological diagnosis, having adopted the full disclosure model without interruption, to introduce the notion of amplification and hearing aids. The presentation of results acting as a buffer between sections of the appointment may serve to boost the authority of audiologists and to assist them with the shift in role to that of rehabilitationists / hearing aid practitioners, which they identified in the focus group meeting as being sometimes difficult.

The analysis of how the audiological assessment is presented in audiology appointments is presented below under the following headings:

- The format for presenting results
- The relationship between medicine and audiology
- The audiological diagnosis as a buffer between diagnostic and rehabilitative aspects of the appointment

## **8.1 Format for Presenting the Audiological Diagnosis**

The presentation of the audiological diagnosis was characterised by a monologic style of delivery, with long uninterrupted turns containing information about the results obtained from each test in the test battery. The style of delivery and content of the information are discussed separately below.

This format of presenting the diagnosis, as a monologue with each test accounted for, is reported by Martin (1994) who provided sample dialogues following an adult evaluation, the first of which was remarkably similar to the presentation of results in this study.

Martin (1994, p. 50) presents the following example:

AUDIOLOGIST: “Let me show you the audiogram we drew based on the test you took when you listened for those soft tones. The red circles represent the intensity at which you could barely hear each frequency at threshold, and the blue X’s represent your left ear. Intensity refers to the loudness of the tones, and frequency is the term for the different pitches you heard. Threshold is the intensity at which each tone was barely heard. The further to right on the graph we go the higher the frequency, or pitch. The lower on the graph, the louder, or more intense, each sound had to be before you could just barely hear it. The red and blue arrows represent your ability to hear by bone conduction.”

In Martin’s example, the way that assessment results are recorded on the audiogram is explained to the patient, along with technical terms such as intensity, frequency, threshold, and bone conduction. Martin’s critique of the above example (not specified as to whether it is fictional or clinical data) is that the use of such terms in interaction with patients assumes both understanding and retention will take place. He continues, along with other examples to suggest that the high level of informational content may provide the audiologist with a false sense of information having been conveyed. As the pattern of results that is reported by Martin is similar to that in this study, the monologic approach with each test explained can be identified as a genre within the audiology consultation.

### 8.1.1 *Monologic Style of Delivery*

The presentations of the audiological diagnoses were easily identified in the transcriptions, based on the length of the turn, and the position within the appointment. They tended to be characterised by long turns with little interruption or questioning by the patients. The format for the presentation of the diagnoses in Cases 1 and 3 are presented below in Extracts 8.1 and 8.2.

### Extract 8.1 Case 1

154. A1: ok well the outcome of the testing is that um is probably no surprise that there's a hearing loss in bo:th. ears: they appear to be rea:sonably equal there's just a sli:ght. difference um er in the high end in the high pitches (.) very slight though with the right ear being just a little bit worse .hhh you've got a hearing loss across a:ll the range that we test it is fairly mild in the low range and then gets worse. as we go down the range. so it's worse. in the mid pitches in the mid to high pitches. .humm? for the speech test you did quite- really well? when it was loud enough for you (.) you got most of them right. the other test that we d- that I did over there was just looking at um the eardrum umm looking at eardrum movement that seemed to be ok in both ears tk so the problem with your hearing is (.) the a deterioration of the h- hearing nerve so it is ri:ght inside the inner ear its not a middle ear problem. .hh so (.) just getting back to your problem (.) the reason that you've come in for the hearing aids. (swallows)(.) now I thi:nk that um (.) .hh if you've >you're really unhappy< with these hearing ai:ds you don't wan-want us to um: have a loo::k at them o::r see if we can um change the settings or adjust them in any way?
155. P1: I'd rather
156. A1: you'd rather get new ones?
157. P1: I'd rather do what you advise me.

A1 provided a lengthy account of the findings, with little interruption by P1. The very long turn (turn 154) lasted for 90 seconds, and was presented in a very measured, deliberate manner, with each word having almost equal emphasis. There were no interruptions by P1 and relatively few hesitations. P1's response at turns 155 and 157 was to focus on what to do about the hearing loss, rather than to comment on the audiological diagnosis.

Case 3 is similar in the way the results are presented to the patient, in a monologic fashion, as shown in Extract 8.2.

### **Extract 8.2 Case 3 The Audiological Diagnosis**

374. P3: that's very good (.)what was the sum up of my: (.) of the  
>nature of my deafness?<
375. A3: oh ok? I should have shown you that (.) sorry? umm thi<sup>^</sup>s is  
the test you had la<sup>^</sup>st time. ok. and this is the test you had  
today?-so the circles are your right ear the crosses are your  
left? ear? low frequency sounds over this side going across  
to the high pitches (.) soft sounds up the top going down to  
the loud sounds at the bottom (.) ri<sup>^</sup>ght. what we say is  
nor:mal. hearing. is anything here at 20 or above. ok so we  
are trying to find the softest sounds you can hea<sup>^</sup>r. for  
you:. (.) before your press the button we have to turn them  
up (.) this degree ok. so in this region here this is a  
mo:derate. hearing. lo:ss. °ok° and this region is kind of  
mi:ld. a mild hearing loss in the very high pitched sounds  
ok. alright. the speech test you did it just shows us that  
when we turn the sounds up (.) you do better?
376. P3: ok.
377. A3: yeah um and the pressure test on your eardrums just checking  
to see if everything's working all right there and everything  
seems to be ok yeah all right

A3 referred to the audiogram, and presented the information with much variation in intonation, and not allowing interruptions. The shifts in tone (“thi<sup>^</sup>s”, “la<sup>^</sup>st”, “ri<sup>^</sup>ght”, “hea<sup>^</sup>r” in turn 375) offer a sing-song quality to the presentation that suggests recitation. One of the participating audiologists in the first focus group meeting commented as follows:

#### **Focus Group Comment 8.1**

it's almost like I take on a certain veneer or something, yeah, persona and away I go...and just roll the stuff off...

All three examples (Cases 1 and 3, and the example taken from Martin, 1994) were remarkably similar in format. In all three examples the audiologists did appear to be “rolling the stuff off” in providing the audiological diagnosis. The patients adopted a passive role in all of them, not commenting on the diagnosis. The lack of patient response to diagnostic information is common to the medical field (Heath, 1992; Peräkylä, 2006), which is usually attributed to the authority of medical practitioners. The lack of response to the audiological diagnosis may therefore be seen to be an indication of these patients' recognition of the authority of their audiologists. This is not, in itself, a negative effect, as patients cannot be expected to have the same level of knowledge as the audiologists do. Additionally,

as noted by Lehtinen (2007), monologic styles of delivery are co-constructed in that recipients (patients) often pass up the opportunity to take a turn in the delivery of diagnoses. In Extract 8.2 there are clear pauses and lexical items (e.g. “right”) that could have been taken as points where transitions might have taken place to the patient, but which were not taken up.

The monologic style of delivery does allow the audiologist to have control over the timing of the appointment and the release of information (Luterman, 2008). The control over the timing and topic suggests that power is claimed by the audiologist in this phase of the appointment (Leahy and Walsh, 2008) as the talk adopts a nonreciprocal pattern (Poskiparta, et al., 2000).

The funding model adopted within the audiology profession cannot be ignored as a possible influence on this style of delivery of the audiological diagnosis. Because consultation time is not charged for (to either individual patients or third parties) audiologists do not engage in interactional practices that might take a long time. The mode of delivery observed in this study is consistent with the funding model adopted in the research site, with the delivery clearly under the control of the audiologists. Individually tailored approaches to the audiological diagnosis could potentially adopt perspective display sequences, but risk taking longer to complete. Thus, the model of funding is one influence as to why the discourse of the audiological diagnosis is presented the way that it is. However, the funding model alone is unlikely to be the only reason. This monologic style of delivery was shown to be common to Australia and the USA (with the example from Martin illustrating this), even though there are various funding models in operation across these two countries. It would seem that there must be additional influences contributing to the uniform delivery style across the profession. Tradition and the apprenticeship model of clinical teaching is another possible influence (see discussion below). The influence of the limited scope of practice is another possible influence. Audiologists may focus on test results because this is within their prescribed scope of practice. By adopting the monologic delivery style, patients are not encouraged to ask questions which might either highlight the limited scope, or force the audiologist to overstep the boundary of their scope of practice. These influences – funding models, clinical education, and the scope of practice are all influences that

can be seen here to influence the discourse that emerges in the audiological diagnosis as dominated by the “audiometric”.

In addition to the monologic style of delivery of results, the audiologist in Case 2 did offer an interpretation of some test results while undertaking the assessment. She did so in addition to presenting the audiological diagnosis. As shown in Extract 8.3, A2 provided information about the results in between carrying out various assessment procedures. This offered feedback to the patient about the test results. Extract 8.3 illustrates this strategy.

**Extract 8.3 Case 2 Feedback During Assessment**

351. A2: that's ve^ry goo^d (.) okay: now we'll just take all that off  
(.) there we go (.) just have a rela:x. °for a minute° (.)  
the:re we are. (.) you can pop your er gla:sses back on and  
relieve you of the (.) button okay. (3) alright. (3)  
there's just one other thing I'd like to do. (1) um (.) when  
we finish this part of the test ah and so far it's very  
similar to last time -

352. P2: oh that's interesting isn't it(.) that's good

353. A2: um, so that's good, isn't it

P2 had, earlier in the appointment, requested a repeat assessment of his hearing. A2 did not wait until all the tests were complete before giving P2 feedback on the tests. Rather, she did report to P2 at turn 351 that the results were “so far it's very similar to last time”. This served to reassure P2, who had expressed concerns that his previous test may have been inaccurate, as it had been conducted by a student. P2's hearing thresholds were possibly linked to a degenerative condition, and as such, the feedback during the assessment served to reassure him of the lack of change to his hearing. P2's response was to express his relief at turn 352, with a preference for agreement (Hutchby and Wooffitt, 2008) by A2 that the similarity of findings with a previous assessment was good news. By concurring (turn 353), A2 aimed to relieve anxiety that P2 might have been experiencing regarding the test results. Feedback during the assessment (as shown in Extract 8.3) did not replace the section devoted to the assessment, but it did lead up to it. This form of involvement of the patient in the diagnostic process is in line with Luterman's collaborative diagnosis, as applied to an adult patient. By informing the

patient of test results during the assessment, the sharing of the audiological diagnosis is less unexpected.

The design of this study did not allow for the researcher to obtain perspectives of patients regarding their experiences of being presented with audiological diagnoses (see chapter four p. 112). Further, the interpretation of these findings regarding the audiological diagnosis is fairly restricted because patients did not react to the presentation of the full diagnosis, giving little evidence in the recordings as to whether the full disclosure model delivered as a monologue was beneficial or detrimental to these patients.

Martin (1994) suggests that the full disclosure model has a negative effect which is to be found later in the rehabilitation process, when patients become dissatisfied with outcomes to rehabilitation. It would be valuable to investigate the long term impact of the full disclosure model, as well as the alternative of the individualized approaches. Ideally the perspectives and preferences of patients for feedback during testing, and their response to the audiological diagnosis would be explored and contribute to this discussion.

### *8.1.2 Accounting for Each Test in the Battery*

The full disclosure model (presented as a monologue as shown above) of presenting the audiological diagnosis was widely represented in the data analysed in this study. This model was clearly dominant over the alternative, individualized model.

As shown in Extracts 8.1 and 8.2 (above), the results are explained in terms of frequency, intensity, ear specific information, site of lesion, pitch, loudness, and threshold. These concepts, which typically take some weeks for audiology students to grasp, are used in the presentation of the audiological diagnosis to patients, most of whom would not have the background knowledge to understand them.

The disclosure of each test result is consistent with the style of delivery of diagnosis termed explication of evidence (Peräkylä, 2006). The explication of evidence provides the opportunity to assert authority that is not necessarily assumed. The findings of the focus group meetings clearly indicated that the audiologists did not consider their scope of practice to have the same status or impact as the field of medicine. Following Peräkylä's findings that medical practitioners adopt an explication of evidence model where the diagnosis is uncertain, or where the examination may not be directly evident to patients, it is reasonable to expect that this style would be adopted for the audiological diagnosis, characterised as it is by uncertainty and incompleteness. The audiologists, however, appear to be presenting information that is of interest to them as audiologists, rather than being framed in terms of the patient's lived experience of deafness, which again privileges the discourse of the audiometric over the audiological. The adoption of the full disclosure model is consistent with audiologists presenting their role to patients as testers (see chapter seven p. 187) and the effect of the medical model to shape each patient's experience to fit the clinical task at hand, in this case the audiological diagnosis.

Professional tradition is an undeniable influence on these interactional patterns identified in the presentation of the audiological diagnosis, and, as suggested by Duchan and Kovarsky (2005), the diagnosis (as process and communicative event) is grounded in the culture of the participants. Dillon (2001) advocates the full disclosure model of presenting the audiological diagnosis (p. 323) and refers to published literature only in discussion of the value of counselling prior to hearing aid fitting, but does not refer to published literature in his explanation of how to present hearing test results to patients. His account appears to be based on the common clinical practices of audiologists in Australia. The common practices he describes have been reinforced through his publication of them as recommended practice, but the research basis for them appears to be lacking. Silverman (1997) reports a similar phenomenon in relation to HIV counselors and the presentation of test results. Guidelines for HIV counselors suggest working up to the diagnosis, and gaining the patient's approval for the counselling agenda before presenting test results. Counselors have been seen to follow this recommendation even when

patients' results are negative. The counselors thus appear to withhold information even when there is little need to do so. This has been shown, through Silverman's conversation analytic studies, to yield responses from patients that sometimes express surprise, bordering on annoyance, at the withholding of information.

The full disclosure model has been criticized for its effect on both audiologists and patients. Martin (1994) and Luterman (2008) both refer to the effect of offering full disclosure to patients as being the generating of formulaic responses that are not tailored to the individual patient. This, according to Martin, often results in the use of technical terminology that can be confusing to patients. Information that is confusing is frequently forgotten or misunderstood (Margolis, 2004). The full disclosure model is closely associated with the monologic style of delivery, as shown in this study. The long monologic full disclosure accounts presented to patients in this study were formulaic in that they covered the same information (all test results) for all patients. Given the lengthy, uninterrupted turns at talk by audiologists, it is not likely that the information was retained. The criticisms against this style of delivery (technical information, too much information, poor retention) can thus be applied to the data that was analysed for this study, although further investigation, in particular taking the patient's perspective into account, is needed.

The participating audiologists commented in the focus group meeting that they found it difficult to know how to pitch the level of information. Focus Group Comment 8.2 exemplifies this:

**Focus Group Comment 8.2**

oh well it's a lot to do with their personality...some like minimal information and then there are others who are perhaps asking questions beyond your knowledge

The participating audiologists agreed in the second focus group meeting that hearing test results do tend to be laid out to the patient by way of information, rather than in any form of consultation. The information presented was, in these appointments, an account of each of the test results. There was no crossover from audiology into medicine and no attempts to explain underlying causes. The consequence of presenting the results of each test in the test battery was that some of the information, if received by a listener without knowledge of the auditory

system, might be seen to be contradictory. Because different parts of the test battery test different aspects of the auditory system even someone with a significant hearing loss may, for example, have normal middle ear function in both ears. Without knowledge of auditory pathophysiology, the terminology used may be seen to be conflicting. As an example, in Extract 8.1, A1 used the following ways to describe the patients hearing loss:

Slight difference

Very slight

Little bit worse

Loss across all the range

Fairly mild in low range

Gets worse

Worse in mid pitches

Really well

Most of them right

Seemed to be ok

Deterioration

Not a middle ear problem

Similarly, in Extract 8.2, A3 used the following descriptions:

Normal hearing

Moderate hearing loss

Kind of mild

Mild hearing loss

Do better

Everything seems to be ok

It appears that going through each of the test results, which necessarily yield variable results with some tests showing 'normal' results even in the presence of a hearing loss, means that presenting all the information to patients might be confusing. The confusion is heightened because the terms may have specific audiological meanings and need some negotiation (Wright, 2003). The different

tests which measure different parts of the auditory system also generate results which, without a full understanding of the field, might appear contradictory.

Patients generally did not comment on the audiological diagnosis, which makes it difficult to establish in this study if the conflicting terminology did, or did not confuse them. The presentation of each test in the test battery appears to be of importance to the audiologists, if not to the patients, but introduces conflicting descriptions that might be confusing to patients. The audiologists did not, in general, offer patients the opportunity to ask questions about the test results. The presentation of each test result in the basic test battery allowed the audiologist to interpret the findings of each individual test it seems was as much for him or herself, as to deliver these to the patient.

## **8.2 The Relationship between Medicine and Audiology**

In chapter three (p. 56) the influences of medicine, audiology and audiometry were predicted to influence the presentation of results. In the focus group meetings the participating audiologists in this study highlighted the contrasts between their professional scope and that of medicine as a limiting factor in the practice of audiology. They reported difficulties in maintaining boundaries when patients asked for information that they knew or suspected, but that was beyond the scope of audiology to confirm. This information related mostly to causes of hearing loss, and treatment options. This was reported to be common amongst children who suffer from middle ear pathology, more so than with adults. Some of the audiologists reported presenting their personal (as opposed to professional) identities in order to discursively manage the limited scope of the audiology profession when faced with having knowledge that they would otherwise have to withhold from patients. In the data recorded in this study, audiologists maintained a separation between their field and that of medicine in the giving of the audiological diagnoses. It is possible that this separation was achieved because the participating audiologists, being aware that the appointments were being recorded for research purposes, specifically avoided overstepping the professional boundary. It may also have occurred because within the funding model that was

operating, all patients required a medical referral, and so each patient had a dedicated medical practitioner who the audiologist would later communicate with in writing, so that the separation between medicine and audiology was built into the model of service delivery. There were, however, instances in these appointments that illustrated how the medical profession is brought in to audiology appointments. This is discussed below in relation to the co-presence of doctors and audiologists in audiology appointments, and the vigilance that audiologists display in seeking audiological signs that may have medical implications.

### *8.2.1 Medicine and Audiology Co-Present in the Appointment*

The relationship between the medical profession and the audiology profession was expressed by one audiologist as follows:

#### **Focus Group Comment 8.3**

..any problems that we talk about in audiology look pretty you know, small potatoes.

Patients present in audiology clinics with serious and sometimes life threatening medical conditions, which can serve to contextualize audiology as less important than their medical conditions. Additionally, audiologists are alert to hearing loss as a signifier of possible disease that requires referral to medical specialists. Identifying disease requires medical investigations that are not within the scope of audiology, so that within the confines of the audiology appointment, the disease remains an uncertainty even if the hearing loss is verified through the assessment. Whereas audiologists use the test results to identify if there are any indicators of possibly significant underlying causes that warrant referral to appropriate specialists, medical practitioners use the same test results in conjunction with other tests (such as general medical histories, blood tests, and scans) to formulate medical diagnoses. In some cases the hearing loss may be just a possible symptom, and in other cases it may be a defining symptom of an underlying disease.

Case 2 is one example where the patient (P2) had previously been diagnosed with a neurological condition, which the patient reported as having an unclear association with hearing loss. P2 had recently discussed his hearing with his neurologist, who wanted to monitor his hearing. Any change in hearing was therefore significant to P2, as it may have signified a worsening of his degenerative medical condition. P2 therefore wanted to be certain of the accuracy of the test results. P2 queried the previous test results obtained by a student, wanting to be certain of the thresholds obtained. Extract 8.4 (below) exemplifies the relationship between medicine and audiology, as it evolved during Case 2.

**Extract 8.4 Case 2 Medical Concerns**

30. P2: =[no]. (.) I have a neurological pro<sub>v</sub>blem.=
31. A2: right. yes?
32. P2: =and I that's I saw my ((swallows))neurology guy yesterday.  
>I see him every year< (.) I've got something called /ætæsiə/  
of the bi:g ar:teries under the brai:n (.) and I have a bad  
ba-lance. problem. walking problem=
33. A2: ri:~?ght (.) I noticed when when you walked in.
34. P2: yes.=
35. A2: [right.]
36. P2: =[and ]I I I've got to be very careful.
37. A2: right(.) okay.
38. P2: and um hh and hh it hh um hh it cau:s'es? the signals err to  
short-circuit >they think<. the pressure of these big  
arteries under the brain =
39. A2: [right?]
40. P2: =[causes] some of the things to short cir:cuit (.) it's- I've  
had it for about five years it but it sort of it's it's s  
sta:ble but decreasing you know ha ha ha ha ha
41. A2: yeah. right.
42. P2: and um that's why I'm under u er under under observation for  
it
43. A2: hm.  
.....
56. P2: you know until I get- and and tha:t. um is par:t of the (.)  
he's anxious to sort of watch my hearing becau:se of that.=
57. A2: [hm-hm.]
58. P2: =[I said] my hearing was degenerating he said from °your°- .hh  
^I take one medica:tion or two medications actually one is

- called ser:c.=
59. A2: hmmhmm.
60. P2: =and that decreases the pressure in the ea:r.=
61. A2: right. okay then.
62. P2: and that's to help with the balance =
63. A2: [hm.]
64. P2: =[so ]I don't know whether that has anything effect=
65. A2: [does that um] -
66. P2: =[in your:. ar]ea or not=
67. A2: does that (.) do you feel that that he:lps you:?
68. P2: yes.
69. A2: uhumm.
70. P2: I take serc and a thing called stu:geron.
71. A2: right.
72. P2: s-t-u-g-[e-r-o-n]
73. A2: [hm-hm. ok]
74. P2: and that's a medication that's, er, not available in Australia (.) I get it imported from England and it's for sea sickness [laughter]
75. A2: oh okay. o:^h that's stra:nge isn't it? yeah [laughter]
76. P2: the combination of the two keep me mobile -
77. A2: oh, right.
78. P2: I don't think I'd be so mobile if it wasn't for a combination of those two things.
79. A2: okay. so um as regarding your hearing.
80. P2: hm.
81. A2: what um areas do you find give you most trouble to hear?

Extract 8.4 consisted of turns 30-43, and 56-81, which were selected to illustrate the medical discourse within the audiology appointment. At turn 30, after a pause, P2 admitted to having a “neurological problem”, his statement continued (turn 32) although with some hesitancy, to admitting to what his condition is. He mispronounced the condition as /ætæsiə/, in place of /ætæksiə/ (turn 32). The mispronunciation was associated with the general uncertainty that surrounded the

condition for P2, even though he reported the diagnosis to have been made five years previously. At turn 38, he expressed this uncertainty in terms of what effect the condition was thought to have (“they think”). P2’s discomfort with the degenerative nature of the condition was evident at turn 40, where he described the condition as stable but decreasing and followed this with laughter. A2 did not laugh in response thus demonstrating her recognition for the seriousness of the condition (Haakana, 2001), which was also shown by her acknowledgements at turn 41 (“yeah, right”).

Like many audiology patients, P2’s concern about his medical condition was interrelated to general concerns about aging. At turn 40, P2 made the contradictory statement about his condition as being “stable but decreasing”. He referred to being under observation (turn 42). He was less clear about the relationship of his hearing loss to the neurological condition. At turn 56, his incomplete statement “that is part of the...he’s anxious to sort of watch my hearing because of that” suggested that P2 did not want to fully articulate all that he knew or suspected about his hearing as it related to his medical condition. In his following utterance (turn 58), a continuation of turn 56, P2 adopted the voice of the neurologist (“he said from your”) and again left the utterance incomplete. P2 thus brought the presence of the neurologist into the appointment through voicing, that is by using words he attributed to the neurologist (Wetherell, 2001) but left the detailed information out. A2 was not given information about whether the neurologist believed that P2’s hearing loss was associated with the neurological condition or not, as the sentence could have been completed as either “because of your condition” or “because of your age”. P2 appeared to involve the audiologist in an attempt to verify, or test, the neurologist’s conclusions. This was shown in turns 64 which extended to turn 66, where he asked if any of this was the audiologist’s area or not. A2, in reply, returned to the functional effects of hearing loss (her area of professional expertise) in asking if the medication was helpful to the patient. When P2 interpreted this as a request for more information about the types of medication used, A2 interrupted him (see the overlapping of turns 72 and 73), which indicated clearly that she was not going to comment on the medication. Her comment at turn 75 (“oh that’s strange isn’t it”) appeared to be her personal rather than her professional voice (Sarangi and Roberts, 1999a). This could be a

response to the invoking of the neurologist's presence by the patient in that A2 was seeking to establish herself as not having an opinion that could conflict with the medical opinion that had been brought into the appointment. She thus responded in a way that was supportive, but did not convey a professional stance on the information that P2 had presented, returning to the topic of P2's experience of hearing (turn 81). This was similar to the approach reported in the focus group meetings where medical information is requested by parents and audiologists respond on a personal, rather than professional level. Focus Group Comment 8.4 below is consistent with this response by A2:

**Focus Group Comment 8.4**

sometimes in my answer as a parent, you say well, if it was my child I would perhaps do this and this

The response to the audiology profession's limited professional scope shown in this study is for audiologists to respond to medical questions from a personal, rather than from a professional perspective. Thus, meeting the discursive challenge by the professional boundaries between medicine and audiology appears to be discursively addressed through the adoption of an identity that is not a professional one (Sarangi and Roberts, 1999a).

*8.2.2 Medical Indicators from Hearing Test Results*

Although audiologists disassociate from a medical role, as shown in the previous section, they are nonetheless vigilant about the medical implications of the hearing tests they carry out. The most significant marker from the basic test battery for audiologists of possibly serious underlying medical conditions is that of asymmetrical hearing. However, as shown above, audiologists disassociate from their professional identities when faced with medical concerns. They do not typically explain what their concerns are regarding the implications of test results, but do report on the symptoms that are of concern (asymmetry).

Asymmetrical sensorineural hearing loss can occur in a range of pathologies (Cueva, 2004; Prasad and Cousins, 2008), although audiologists are mostly concerned with the referral of patients to ear specialists with potentially life threatening retrocochlear pathologies, such as space occupying lesions. The difficulty of addressing information that may have medical implications with patients is shown in Focus Group comment 8.5.

#### **Focus Group Comment 8.5**

In doing diagnostic testing there is a test that we do that looks at the integrity of the auditory nerve and they ask you afterwards, well how was that? Do you tell them that I wasn't any good...it's very difficult because we're not doctors.

Commenting about the symmetry of hearing (with the implications regarding neural pathology) was common in the appointments analysed. Although there were only three truly asymmetrical hearing losses in the data set of twenty appointments examined, symmetry was commented on in half (ten) of these cases. In Case 1, the patient did not report symptoms of asymmetry, and the test results met the criteria for symmetry. Asymmetrical hearing was thus not a concern for Case 1. However, the results were presented in a way that highlighted the differences between P1's ears. This is shown in Extract 8.5.

#### **Extract 8.5 Case 1 Symmetrical / Asymmetrical Hearing**

154. A1: ok well the outcome of the testing is that um is probably no surprise that there's a hearing loss in bo:th. ears: they appear to be rea:sonably equal there's just a sli:ght. difference um er in the high end in the high pitches (.) very slight though with the right ear being just a little bit worse .hhh you've got a hearing loss across a:ll the range that we test it is fairly mild in the low range and then gets worse. as we go down the range. so it's worse. in the mid pitches in the mid to high pitches. .humm?

A1 referred to the hearing as being "reasonably equal with just a slight difference" and "very slight though with the right ear being just a little worse". The use of the terms slight and little worse refer to the differences between the ears, the asymmetry, not the hearing loss per se. Thus, even where there is no significant asymmetry, audiologists like A1 tend to refer to the symmetry. Some of this appears to be the audiologist providing the audiological reasoning, or verbalizing their diagnostic decision-making (as in the explication of evidence reported by

Peräkylä, 2006, discussed above). The audiologists in these extracts appeared to use the account to the patient to determine for themselves if the hearing loss was significantly asymmetrical or not. Contributing to this is the lack of clarity as to what constitutes a significant difference between two ears, which has been debated for more than 30 years, as may be seen by looking back at, for example, Dobie (1980), and which continues to be a site of uncertainty within the profession. The result, however, is that the information that is presented to patients could be seen to be confusing to one unfamiliar with the terminology of audiology. A1, as shown in Extract 8.5 made an initial clear statement about the hearing loss, that the loss is present in both ears. She then qualified this with a more confusing statement “there’s just a slight difference um er in the high end in the high pitches very slight though with the right ear being just a little bit worse”. This appears to be more structured to reflect her own audiological diagnosis as related to the configuration of the loss, than information that is useful for the patient.

### **8.3 The Audiological Diagnosis as a Buffer**

Explaining assessment findings in a diagnostic appointment is usually provided at the end of the consultation. In the appointments analysed for this study, where the consultation continued beyond the diagnostic to include consideration of rehabilitation options, the presentation of the audiological diagnosis acted as buffer between the diagnostic and rehabilitative phases. As already mentioned in chapters six and seven, in some cases the rehabilitative phases were anticipated during the early parts of the appointments. However, the format of the interaction still conformed to the diagnostic process preceding the rehabilitative decision-making, as expected and recommended. The presentation of results appeared to act as a buffer between diagnostic and rehabilitative orientations, in some cases linking the case history and rehabilitation in an explicit manner. Cases 2 and 1 are used to show how this was achieved in these appointments.

Case 2, as mentioned above, had provided feedback to P2 during the course of the assessment, and had also offered the audiological diagnosis once all diagnostic tests were complete. During the presentation of results section, A2

linked both the case history and amplification decisions to the hearing test results, as shown in Extract 8.6.

### **Extract 8.6 Case 2 Linking Case History and Amplification**

A2 had presented the results, explaining threshold, intensity and frequency effects for each ear. P2 had not asked any questions during the explanation.

397. P2: [hm-mm].

398. A2: [in the ]the hi:gher pitches.=

399. P2: [hm hmm]

400. A2: =[ah and] u:m so the right ear i:s a >little bit down there< but its its not too ba:d=

401. P2: [mm hmm]

402. A2: =[and that's] what you feel yourself.=

403. P2: [mmhmm]

404. A2: =[perceptively.] that the [right ear] is okay.

405. P2: mmm mmm

406. A2: um: but it's the left that we need to raise up the level a [little bit].

407. P2: [mmm].

A2's account of the hearing loss was interspersed with continuers from P2, which did not serve to interrupt her account of the degree and configuration of the hearing loss. At turn 402, A2 adopted the voice of the patient, stating that the test results had shown a pattern that was consistent with experiences reported by P2 ("what you feel yourself"). This strategy of referring to P2's report linked the information obtained during the case history to the audiological diagnosis. At turn 406, A2 led on to P2's amplification needs by referring to what needed to be raised up (amplified). P2 gave general agreement throughout this stage of the appointment, with overlapping "mmhmm" across these turns.

In Case 1, A1 also used the presentation of results to link to the discussion of hearing aids. Extract 8.7 shows part of turn 154, which highlights this.

### **Extract 8.7 Case 1 Linking Case History to Findings**

154 A1: ...so the problem with your hearing is (.) the a deterioration of the h- hearing nerve so it is ri:ght inside the inner ear its not a middle ear problem. .hh so (.) just getting back to your problem (.) the reason that you've come in for the hearing aids. (swallows)(.) now I thi:nk that um (.) .hh if you've >you're really unhappy< with these hearing ai:ds you don't wan-want us to um: have a loo::k at them o::r ....

After explaining to P1 that the problem was that of a sensorineural hearing loss, A1 shifted the topic to the patient's stated reason for coming in to the appointment – that is to obtain new hearing aids. An intake of breath and a pause preceded the utterance “just getting back to your problem”, which referred to the patient's statement of the problem as being his hearing aids. The pause and marking of the change in topic could have signaled a transition relevance point, where the patient could have taken a turn, and asked further questions about the audiological diagnosis. This did not occur (see discussion above) and A1 continued the turn to re-introduce the topic of hearing aids. Maynard (2004) describes similar patterns in the interactions between doctors and parents of children with disabilities, in that the presentation of evidence (test results) shifts to treatment recommendations which serves to reinforce and support the interpretation of test results in a cyclic manner.

In both cases illustrated here (Extracts 8.6 and 8.7), there was no orientation provided by the audiologists to the change in phase from the audiological diagnosis to the introduction of the hearing aid topic. The audiologists in the focus group meeting expressed their concerns about introducing the topic of hearing aids, as discussed above, noting the relationship change that occurred when the appointment shifted to the topic of hearing aids (See Focus Group Comment 6.6 on p. 160 ff). It is possible that audiologists strategically led the introduction of the topic of hearing aids on directly from the test results, where there was little challenge from patients. This appeared to be supported in that they tend not to ask patients if they have processed the information, but rather to immediately follow the recommendations on from the assessment findings. The hearing aid discussion is discussed in full in the next three chapters, and this notion is fully developed in the remainder of the thesis.

## 8.4 The Audiological Diagnosis: Summary of Findings

- Audiology test results are typically presented with little interruption from patients, in a monologic style.
- Each test in the test battery tends to be explained in full, which often results in contradictory descriptions being used to explain an individual's hearing loss, which are confusing without prior audiological knowledge.
- The presentation of individual tests appears to facilitate the separation between audiological and medical uses of audiologic assessment results.
- Where medical discussion occurs, audiologists use their personal voice (in contrast to their professional voice) to overcome the limited professional scope.
- The results section acts as a buffer between assessment and rehabilitation aspects, serving the purpose of clarifying results and implications for audiologists, who attempt to convey their audiological reasoning to patients.

Although this study was not able to investigate whether the full disclosure monologic delivery model was beneficial or not to patients, the way the diagnoses were presented was not individualistic, and displayed a dominance of the audiometric discourse over the medical or audiological discourses that were nonetheless present. With the complexity of reasons contributing to the delivery style, it may of interest to the profession to explore alternatives and to examine the effect of this on patients and long term outcomes.

One restriction related to the experimentation in clinics with alternative forms of delivery of the audiological diagnosis is that individualistic models are likely to be more time consuming. Audiologists within the funding models currently adopted in Australia, bundle the cost of consultations with that of hearing aids, and do not charge separately for their time. Adding a time consuming clinical activity to the clinical process, even if the outcome is beneficial, is difficult to implement for audiologists working within that model. If third party funding (for example Medicare or OHS) incorporated payment for consultations and counselling into their payment schemes, audiologists would be encouraged to offer patients more time to process the audiological diagnosis. The current system penalises audiologists who offer

patients more time for this form of clinical activity, because it does not recognise this as a service that is paid for. If audiologists were paid for the time that was spent in offering individualized diagnoses, in the interest of benefiting the patient in the long term, they might be encouraged to do so. This might encourage audiologists to adopt different models of service delivery, such as possibly the separation of testing from discussion, which might be less taxing for some patients. This analysis of presenting the audiological diagnosis indicates great uniformity in the presentation of results amongst the participating audiologists. Given the wide variety of patients in the study, it is unlikely that a single approach was optimal for all of them. The uniformity and lack of individualism suggests that university courses and ongoing professional education have not focused on alternatives to the full disclosure model. Clinic infrastructures, with limited time allowed for appointments dealing with both diagnostic and rehabilitative aspects, also restrict the individualisation of presenting the audiological diagnosis. The analysis undertaken in this chapter could be used as a demonstration of conversational strategies such as turn taking, lexical selection, and provision of conflicting and contradictory information that is currently offered to patients, to draw these issues to the attention of both audiologists and managers/third party funders, in order to make any necessary adjustments to accommodate the needs of individual patients, and to prompt further research in this area of professional practice.

## **Chapter 9 Results: A Model for Managing Expectations of Hearing Aids**

### **9.1 The Rehabilitation Phase**

#### *9.1.1 Introduction*

The appointments in this study all shifted from diagnostic to rehabilitative phases after the presentation of the audiological diagnosis. As discussed in chapter eight, the presentation of the audiological diagnosis led, often within the same conversational turn, to the topic of hearing aids. The decisions taken were firstly about whether to proceed with hearing aids or not. The cases varied in the way that the rehabilitation phases were conducted. If hearing aids were indicated, as they were in all three of the case studies selected for this analysis, most cases resulted in decisions that were made about which type of hearing aids to select (for example Case 1) but in some cases those decisions were deferred until after the appointment (as in Case 3). In most cases the hearing aids (or earmolds) were custom made and were fitted at a subsequent appointment. In a small number of cases, such as Case 2, open fitting hearing aids with no custom made parts were fitted at the same appointment in which the decisions were made. In all cases analysed in this study, hearing aids were the central focus of rehabilitation.

Making decisions about hearing aids required the patients and audiologists to understand each other's expectations about what particular benefits and limitations of hearing aids could be expected in each individual case. Managing expectations about hearing aids involved achieving a balance between audiologists and patients being sufficiently optimistic about hearing aids to trial them while accepting that hearing loss is not cured through the use of technology. For some patients, wearing hearing aids could, in fact, contribute to a heightened awareness of the hearing loss when meeting strangers who might otherwise not have been aware of any hearing loss on first meeting the individual. Setting realistic expectations of what hearing aids can achieve, while at the same time encouraging their trial, was reported by audiologists in the first focus group meeting to be professionally challenging, as captured in Focus Group Comment 9.1.

### Focus Group Comment 9.1

Can I just say that I think that the hearing aid thing, we try and talk the clients into getting hearing aids because that's our role I think to a certain extent.. rehabilitation so we talk them into going for it and then we spend the rest of the time kind of dampening their expectations....[laughter]

This comment captures the audiologist's persuasive role, which has within it a measure of duplicity, in that the limitations might be reason enough not to proceed with a hearing aid trial. This investigation attempted to uncover how the duplicity of encouraging a hearing aid trial while at the same time setting realistic expectations was interactionally achieved. The central finding is that each of the participating audiologists in this study did formulate advice<sup>21</sup> about hearing aids for their patients. However, the expression of that advice as recognisable, explicit advice, and the reception of the advice by patients, varied across the cases analysed. A defining characteristic of these appointments is therefore the formulation of advice. What marks each appointment as different from each other is the way that the advice was expressed, and how it was received in the particular clinical context.

Extract 9.1 (below) from Case 1 is used to illustrate the nature of the advice offered in this context.

#### Extract 9.1 Case 1 Audiological Advice

253. A1: [amplif]ica:tion.(.) for your hearing loss- so you'd want something that you that's going to: give. you. (.) really. give. you [a good]
254. P1: [((coughs))]
255. A1: a good. range. (.) °um ok° so it looks like >that one is about the be:st< for this for your hearing loss that gives you
256. P1: [yeah]
257. A1: [good] good amplification there .hh what we could do is we could or:der it. if if you're happy to try it out? this particular hearing aid is the one that you just put on and you don't have to do. anything you don't have to change programmes. you could try it out like tha:t without a remote control umm so if you got a remote control you'd be overriding that automatic function. (.) .hh so that's one option to try something like that out. (.) .hh um but you do:

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<sup>21</sup> Solutions to hearing difficulties, advice to patients, and recommendations are terms that are used interchangeably in the context of managing expectations of hearing aids.

need to wear two.

258. P1: o^k.

259. A1: yea:h you need to be a bit more sort of diligent. about wearing them all the time you can't sort of carry them around in your pocket (.) umm you have to make an effort. to wear them

260. P1: ok?

A1 offered explicit advice that a particular hearing aid was suitable in this case (turn 255). The benefits expected from that hearing aid were stated positively, as a preferred, proposed course of action for P1 (Heritage and Sefi, 1992; Leppänen, 1998). The advice was accepted by the marked acknowledgement (Silverman, 1997) from P1 (“yeah” at turn 256). The advice from A1 was then explained further at turn 259, where she proposed a further course of action regarding P1’s use of his new hearing aids for optimal benefit.

The offering of advice by audiologists is promoted in some of the published literature to favourably influence patient satisfaction and long term benefit from hearing aids. For example Taylor (2006) found the provision of solutions to patients to be a core determiner of satisfaction. However, other influential viewpoints, such as Luterman (2008), advocate the adoption of professional counselling methods that aim to facilitate patients finding their own solutions to their hearing difficulties. The findings of this study are consistent with a distinction that audiologists commonly make between the type of ‘counselling’ that they undertake, in comparison to that offered by professional counsellors (Clark and English, 2004). The findings of this study suggest that advising is central to the rehabilitative phase of these appointments, and is closely associated with decisions about hearing aids. The sharing of audiological advice observed in this study was complex in the sense that the advice offered was not always explicit, and was not always readily acknowledged by patients. Thus, the formulation of advice could be differentiated from the interactionally achieved sharing and acting on the advice, in the form of decision-making. The formulation of advice by audiologists can be understood as a cognitive activity, based on information from the case history and the assessment, as well as knowledge of available hearing aids. However, the sharing of this advice can be understood as a social activity,

achieved in interaction, which at times requires highly skilled communicative strategies. The advising/counselling distinction can thus be understood, with reference to activity types and discourse types (Sarangi, 2000). That is, in order to operationalise advice within audiology appointments, counselling (as a discourse type, as discussed by Sarangi, 2000) was adopted, whereas Counselling (as an activity type) was not evident in the rehabilitative phase of appointments analysed in this study.

For audiologists to effectively share their advice (that is, to facilitate patients taking up their advice) audiologists are required not only to formulate advice, but to adopt communicative strategies that allow for the expression of this advice in ways that patients are receptive to. Responding to expectations that patients had about hearing aids can be likened to communication strategies that have been identified in other clinical contexts and described as modified perspective display sequences (Maynard, 1992; Silverman, 1997); formulations (Buttny, 1996; Peräkylä, 2005) and accounts (Waring, 2007a; 2007b). The giving of advice thus did not preclude the use of such strategies, but they were adopted in various ways to facilitate the acceptance of the advice, given the constraints and influences of the audiology context – in particular the commercialism inherent in hearing aid fittings, and the psychosocial effects of hearing loss.

### 9.1.2 *Organization of Chapters 9, 10 and 11*

The analysis of the role of advising in the management of expectations of hearing aids is examined over the following three chapters.

This chapter begins with a description of the rehabilitation phase of these appointments, and is followed by the presentation of a model of the management of expectations about hearing aids (abbreviated as MMEHA) which recognises and explains the central role of advising in the rehabilitative phase.

Chapter ten provides an explanation of how the model is applied to the three case studies. Incorporated into that discussion are the macro influences of

commercialism in audiology, and the psychosocial nature of deafness. The co-constructed nature of giving and receiving advice in this audiology context is discussed in chapter eleven.

Chapter ten links macro and micro level influences to the advice that is offered. Chapter eleven focuses on the co-construction of advice. Some readers (perhaps those with a conversation analytic orientation) may choose to read chapter eleven before chapter ten. However, for readers with knowledge of audiology, the issues dealt with in chapter ten are expected to preface those of chapter eleven.

## **9.2 Description of the Rehabilitative Phase of the Appointments:**

### *9.2.1 Timing*

The participating audiologists in the study were accustomed to conducting diagnostic assessments in appointments that were allocated 60 minutes. The appointments recorded for this study (which involved both diagnostic and rehabilitative phases) were scheduled for 90 minutes, allowing what might appear to be just 30 minutes for the rehabilitative phase. However, audiologists were expected to manage their time within appointments so as to accommodate both diagnostic and rehabilitative phases. As was demonstrated in chapter seven, some audiologists anticipated the rehabilitative phase early on in the appointment (for example by using case history questions to serve a counselling function).

While rehabilitation was anticipated in some cases, all of the cases devoted the post assessment portion of the appointments to rehabilitation issues. The time devoted to this portion of the appointment for the twenty appointments analysed in this study (see chapter five p. 144) ranged from seven to 77 minutes, with an average of 38 minutes. The mode (most commonly occurring amount of time allocated to this portion among the 20 appointments) was 45 minutes, or half the scheduled appointment time. Appointments that ran for longer than the scheduled

90 minutes did so by using time created through buffers, breaks or cancelled appointments.

The timing of the post assessment phase reproduced from Tables 5.2 and 5.3 (see p. 144) for the three case studies analysed in depth in this study is shown in Table 9.1

**Table 9.1 Post assessment phase of the appointment  
Timing information for the three case studies analysed in this study**

	<b>Total time (in minutes) of the appointment</b>	<b>Time (in minutes) in the post assessment phase</b>	<b>% of time of the total appointment allocated to the post assessment phase</b>
<b>Case 1</b>	119 mins	73 mins	61 %
<b>Case 2</b>	97 mins	77 mins	80 %
<b>Case 3</b>	90 mins	34 mins	38 %

As shown in Table 9.1, all three appointments filled or exceeded the 90 minutes allocated. The three case studies differed in the amount of time that was allocated to the post assessment phase – with Cases 1 and 2 allocating more time (in real time and proportionately) to the discussion than Case 3. In Case 1, there were cancellations on either side of this appointment, allowing additional time for that appointment, and so the total time of the appointment was long (119 minutes) with most of the extra time taken up in the post assessment phase. Case 2 fitted all the activities (including a hearing aid fitting) within the basic time allocated. This was made possible by the allocation of a very high portion of the appointment to the post assessment phase by the audiologist. In contrast, Case 3 allocated just 34 minutes to the post assessment phase. The reasons for this are not clear, as there appeared, from the recording, to be no particular obstacles to managing the time

allocation with the appointment (such as equipment failure or inconsistencies across tests in the test battery that might have extended the diagnostic phase). However, given the audiologist's introduction of himself to the patient as the person who will be "doing the test" and the adoption of the medical model in this case (see chapter seven) meant that any consideration of rehabilitative issues was delayed until the assessment was completed. The result was that Case 3 had less time for the post assessment phase (almost half the time) than the other cases analysed. As is shown below, the process of reaching decisions can be time consuming, and not allowing for time may constrain the interaction that is required in order to reach shared decisions. The examination of use of time in these appointments suggests that clinical experience (of which A3 had less than either A1 or A2) may be a factor in learning to deviate from the medical model and to proportionately allocate time (and sequencing of phases) to the diagnostic and rehabilitative phases in these types of appointments.

### 9.2.2 *Content of the Rehabilitative Phase*

The three patients in the selected case studies were all expecting that hearing aids would be indicated for them, and all audiologists were in agreement with these views. The rehabilitation phases, in each case, extended to which particular hearing aids should be selected. The interaction between patients and audiologists leading to these specific decisions included the following topics:

- Monaural versus binaural hearing aid fittings
- Appearance / style of hearing aids
- Cost of hearing aids
- Process of fitting hearing aids in the University clinic (trial periods, follow up)
- Features of hearing aids as linked to brand and model

Once decisions were made about the particular hearing aids to be fitted, the discussions focussed on the practical planning of the rehabilitation programme; taking impressions of ears (if needed) and, in Case 2, fitting hearing aids, which involved physical fitting in the ear, and setting up of hearing aid settings using computer software.



between Poles A and B (see Figure 9.1) and was extended by the medical profession, who could offer directives, or prohibit actions, as shown in the extension beyond Pole B. Diagnostic audiologists operate similarly within a restricted data evaluation and interpretation model (see chapter eight for a discussion about the audiological diagnosis) which is extended by the medical profession to identify cause and medical treatment options (the medical diagnosis), which can either add to or alter the audiological diagnosis.

In contrast to diagnostic audiology, when managing expectations about hearing aids the audiologist is the sole professional responsible. As hearing aids are a nonmedical solution, the medical profession does not have wider scope or knowledge of hearing aids than do audiologists. There is no other professional with greater knowledge of hearing aids than the audiologist. Audiologists thus can access the full range of counselling functions when discussing hearing aids. Outside influences do impact on the decision making (such as manufacturers of hearing aids, institutional practices, family members, or other healthcare professionals) but they are not more or less influential or authoritative than the audiologist is.

The data examined in this study informs a model for the managing of expectations about hearing aids. This model, as presented in Figure 9.2 (below) is named as the Model for Managing Expectations of Hearing Aids (henceforth abbreviated as MMEHA). It builds on the Candlin and Lucas model and incorporates the finding from this study that audiologists formulate advice in the course of managing expectations about hearing aids. It places *advising* in a central role in that process. The terms *educating*, *contraindicating*, *directing* and *prohibiting* are borrowed from Candlin and Lucas. Each represents points along a continuum and they are not necessarily the only communicative resources that are strategically adopted in the process of managing expectations of hearing aids, but rather are symbolic representations of the process, shown as points along the continuum.

The model presented in Figure 9.2 (below) and the key points are listed in the text box that follows.

## MANAGING EXPECTATIONS OF HEARING AIDS

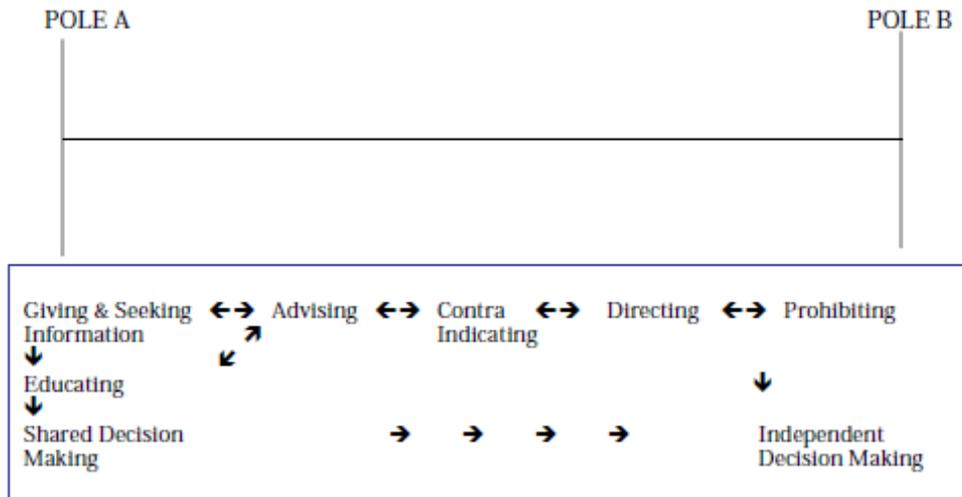


Figure 9.2 Model of the process of managing expectations of hearing aids (MMEHA)

### Key Principles of the Model of Managing Expectations of Hearing Aids (MMEHA)

**Co-construction**: Stages along the horizontal and vertical axes in the model are not attributed to either the audiologist or the patient, but are dependent on the interactional achievement and co-constructed discourse between them.

**Advising**: is the link between information sharing and reaching shared decisions. It is the means by which audiologists share their expectations with patients facilitating education of both participants. It is shared information (expert knowledge and specific patient information) that facilitates shared decision making.

**Continuum of Communicative Resources**: The horizontal continuum is labeled with key points (information giving and seeking, advising, contraindicating, directing, and prohibiting), but as a continuum, there are communicative resources that may fall between these points. Communicative resources are strategically selected to achieve the goals of managing expectations of hearing aids.

**Context**: Preference for decisions made at Poles A or B are determined by the clinical context.

## 9.4 Model of Managing Expectations of Hearing Aids Explained

### 9.4.1 Overview

The Model for Managing Expectations of Hearing Aids (MMEHA) shown in Figure 9.2 illustrates decision-making as being either shared (at Pole A), or independent<sup>22</sup> (at Pole B). Shared decision-making is facilitated through vertical shifts at Pole A (from the top left hand corner to the bottom left hand corner). Shared decision-making is arrived at through these vertical shifts from information giving and seeking, to education, to shared decision-making.

The horizontal axis illustrates bi-directional movement along the continuum from gathering and giving information to advising to contraindicating to directing to prohibiting. This horizontal continuum represents communicative resources that are available to use when managing expectations of hearing aids.

A triad of information-giving/seeking, advising, and education that leads to shared decision making is centred at Pole A. This illustrates the finding from this study that advising, informed by information obtained from the patient, is essential to the mutual education of participants that leads to shared decision-making.

The co-constructed nature of the managing of expectations is depicted in this model. While some of the communicative strategies might be asymmetrical when adopted, they are dependent on interaction between to both audiologists and patients. For example, advising might be understood to be the domain of the professional who has expert knowledge. However, advice is only effective if it is taken up and the reception of advice is thus as important as the giving of the advice (Heritage and Sefi, 1992). Additionally, patients also may advise audiologists on some aspects over which the audiologist has no knowledge, such as what might be possible in terms of what they are able to pay for hearing aids.

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<sup>22</sup> The term “independent” is used here with some reservation. It refers to the decision making of the individual in the interaction (audiologist or patient) as independent of the other. It does not suggest that the decisions are independent of other influences, such as commercial, psychosocial, medical, or other influences.

Advising, based on shared information is the key resource that facilitates education that is necessary for the establishment of shared decisions. Advising is a co-constructed activity, the outcome of which is dependent on both delivery and reception thereof (Silverman, 1997; Waring, 2007a).

#### 9.4.2 *Advising*

When advice is not taken up, the audiologist has the communicative resources depicted across the horizontal axis to strategically adopt in order to modify the content and presentation of the advice.

#### 9.4.3 *Information Giving and Seeking*

Information giving and seeking is placed to the left of “advising” within the model. This is to illustrate how information informs advising. The term “information seeking and giving” implies that this is information that is related to a particular patient, as well as general knowledge about the field. Advising that is informed by information about an individual patient allows for the adoption of individualized advice that can be presented within a format that can facilitate acceptance of the advice such as perspective display sequences (Maynard, 1992), interview formats for advice giving (Silverman, 1997), and resolving discrepancies in explanation (Lehtinen, 2007). The strategic use of information within this model is consistent with accounts in the audiology literature that information sharing is central to the process of audiological service delivery, such as are explained by, for example, Dillon (2001). However, this model illustrates that information giving alone cannot result in shared decision-making, but that advising is the link between information giving and seeking, and shared decision-making. Advising may be resisted, in which case additional resources such as directing and prohibiting may be adopted strategically within an appointment.

#### 9.4.4 *Horizontal Continuum of Resources*

Advising, placed second along the horizontal continuum in the model is the key to facilitating shared decision-making. Advice, when based on individual circumstances, is more likely to be acknowledged (Silverman, 1997). Thus, advising is placed to the right of information seeking and giving along the horizontal continuum. When advice is resisted, audiologists have the resources to return to the information giving and seeking function, and/or, move to the right along the continuum towards contraindicating, directing and prohibiting. The movement along the continuum is shown as bi-directional, as these resources may be adopted within appointments with the goal of returning to the advising stage and facilitating shared decisions. As mentioned, the points along the continuum are representative and not exhaustive of communicative strategies that might be adopted in individual cases.

#### 9.4.5 *Mechanisms of Decision Making*

Neither mechanism of decision-making in the model (shared or independent) denies the patient focused nature of audiology. Patient focussed healthcare has received much attention and widespread acceptance since being named as such by Balint in 1964. The concept is accepted without criticism in audiology (English, 2005) as it is difficult to conceptualise audiological practice that is not patient centred. Audiology, grounded as it is in communication, is by definition, patient focussed. Sweetow (1999b, p. 12) describes client<sup>23</sup> centred services as “the client is a partner in decision making and the eventual outcomes. Your goal as the counselor is to encourage the client to make decisions”. In this statement Sweetow refers to client focused approaches interchangeably with client

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<sup>23</sup> This study refers to patients rather than clients. Holland (2007) refers to neither the term 'client' nor the term 'patient' being entirely suitable. Patient implies sickness, and "individuals with hearing loss" is too cumbersome. She refers to "clients" for simplicity, currency and clarity. Luterman (2008) also refers to clients. In the context of healthcare, most healthcare professionals have patients (Lubinski, Golper and Frattali, 2007). The use of the term does depend in the context. Audiology services in hospital settings would, no doubt be carried out for hospital patients, not clients. Those referred by a medical practitioner (as all the patients were in this study) would no doubt be sent as patients.

involvement in the decision-making process. In so doing he suggests that the two are synonymous, which is not an uncommon suggestion in the healthcare literature (Sarangi, 2007). What Sweetow and others in audiology often fail to consider is that some patients might require or desire the professional to make independent clinical decisions. When this is the case, audiological services may not lack patient focus, in fact, they could be highly patient focused, but decisions would be made on behalf of patients.

MMEHA assumes a patient focus, regardless of whether the decision making mechanism is shared or independent. Thus, paternalistic mechanisms of decision-making identified in medical contexts by, for example, Wirtz, Cribb and Barbera (2006) are excluded from this model. In some contexts independent decision-making may be entirely appropriate. Patients who resist advice may make independent decisions. For example, where patients opt for smaller hearing aids than an audiologist recommends for them, or if they opt for a monaural fitting but hope to achieve better hearing in noisy situations that would require two hearing aids, some audiologists might proceed on the understanding (often received in writing) that the patient is proceeding against their professional advice (a Pole B decision). In other cases, patients who are cognitively impaired may be unable to engage in the process of advising leading to shared decision-making, and it might be entirely appropriate for an audiologist to make an independent decision on their behalf (another Pole B decision but arrived at for different reasons to the previous example). Purely commercially driven decisions (as in the case of internet sales of hearing aids, or ones based on patient responses to advertising rather than their communication needs) might also be understood to be independent Pole B type decisions. Thus, the context determines whether decision-making should be shared or independent, according to this model, but within the clinical audiological context, all pathways remain patient-focused.

Although *independent* decision-making can be patient-focused, as shown above, in many clinical contexts additional influences determine that audiologists subscribe to the principles of *shared* decision-making, justifying this from a motivational (Harvey, 2003), as well as a commercial (Jacobson, Newman, Sandridge and Mc Caslin, 2002) perspective. The patients in the present study were all private

patients who were actively seeking assistance and exploring options for which they would be paying (as opposed to patients seeing for rehabilitation within third party funding structures). Most audiologists working in this particular clinical context would consider that shared decision-making, based on realistic expectations, would contribute to the satisfaction and benefit of hearing aids of any patient (see chapter three p. 74).

Knowing to what extent to involve patients in decisions can be difficult. Medical doctors are requested to be flexible and responsive to patients' preferred level of involvement in decision-making (Zandbelt, Smets, Oort, Godfriedb and de Haes, 2006). Doctors are encouraged to familiarise themselves with their patients sufficiently to assess their preferred model, or to ask them (Towle and Godolphin, 1999). Elwyn et al (2001), investigating decision-making in medical interactions found that doctors did not discuss the decision-making process per se, but involved the patients in the decision making in an implicit manner. They cite time constraints as a limiting factor in establishing patient preferences. Arguably, audiologists spend considerably longer with their patients than do medical practitioners, and as such might be able to devote some time to this issue, but as discussed, time alone is insufficient to resolve patient preferences.

The nature of the decision-making may well determine the level of patient involvement in the decision. The decision-making in audiology is not simple, apart from the first decision about whether to proceed with hearing aids or not. In relation to specific hearing aid decisions, patients may prefer audiologists to make some decisions for them, but not others. For example, they may prefer the audiologist to select a brand or model of hearing aid, but prefer to choose the style themselves. Patient preference may also be influenced by the specific relationship that they have with their audiologist. Depending on their level of trust in the audiologist, they may request an audiologist to make a decision about some aspect of hearing aid fitting that they may not request another audiologist to decide on. Thus, decision-making is locally managed during the course of audiology appointments, as seen in this study.

## **9.5 MMEHA: Summary**

This chapter has provided a model for understanding the process of managing expectations of hearing aids. Building on previous work in related fields of advising, the model provides an explanation for the role of advising, which was found to be a core activity during the rehabilitation phase of the cases examined in this study.

The model is applied to the three selected case studies in the next chapter, with discussion of the influences (such as commercial and psychosocial) that guide the particular pathway taken in any individual case.

## **Chapter 10 Results: Application of MMEHA to Clinical Practice**

This chapter applies the Model of Managing Expectations of Hearing Aids (MMEHA) to the three cases used in this study. The model captures the communicative resources that were relied on in each of the appointments, and the process, which occurred over a fairly long period (ranging from 34 minutes to 77 minutes in these three cases, as discussed in chapter nine). Examples of how the communicative resources were adopted within trajectories through the model are shown for each case. Key issues (macro and micro influences) are highlighted through these cases. The MMEHA serves to platform the discussion of how the micro (local) and macro (societal) influences combine to determine the decision-making processes employed in each of these cases. In this section, the fine grained analysis of situated talk that has constituted the analysis thus far is combined, in an applied sense, to the consideration of macro influences (Layder, 1993; 1997) that might influence all audiology appointments.

The analysis revealed a privileging of the discourse of technology over commercial and psychosocial discourses in these cases. Contributing to this were both the influences of funding structures within private audiology, as well as the regulations governing the influential OHS in Australia. Commercialism, inherent in the process of fitting hearing aids, evidenced through the privileging of the technological over the commercial and psychosocial, was seen to be influenced also by the desire for audiologists to distance themselves from “sales” talk. As mentioned at the start of chapter ten, the defining characteristic of the discussions about hearing aids was that audiologists did formulate advice for their patients, which if given explicitly, could have been interpreted as persuasion, or selling. Managing the tensions created between advising and selling was approached differently in each of these three cases. The analysis has implications for the profession that relate to funding of audiology services, and the identity of audiologists as distinct from other hearing service providers.

The three cases analysed were all similar in that the patients were all already committed to the notion of amplification as a solution for their hearing difficulties.

These patients were actively seeking assistance as private patients within the university clinic. Not surprisingly, given these circumstances, none of these three audiologists made decisions on behalf of their patients. However, although there were some similarities across these patients, each of the cases adopted different mechanisms of decision-making, which are reflected in the applications of the MMEHA to each of them. Individual circumstances and the context of the appointments led to the adoption of particular communicative strategies by participants that resulted in different pathways to decision making. Interestingly, and not surprisingly, given the complexity of the decision-making, none of the audiologists in this study asked their patients what their preferred model of decision-making was. Rather, the decision-making evolved locally and was evident in the texts associated with each of these appointments.

This chapter serves to both to test the MMEHA, and to use it to illustrate differences between these three case studies. In so doing, it draws together the macro and micro level influences that determined how the model was navigated in each of these cases. The critical evaluation of differences in approach across these three case studies serves to inform the profession as to how decision-making can be influenced, and vary, across and within appointments.

Case 2 is presented first. This case highlights the way that interactional hybridity (Sarangi, 2000) is actualised. These findings are developed further in the analysis of Case 1, where influences from third party funders were evident. Lastly, the model is applied to Case 3, which highlights how concerns about the presentation of a professional self may influence the decision-making process. Throughout the analysis in this chapter, there is an attempt to link the micro level analysis using conversation analytic methods to the macro level influences inherent in the appointments.

## 10.1 Case 2

### 10.1.1 The MMEHA Trajectory for Case 2

Case 2 illustrates how information obtained from patients, and expert knowledge, are central to the formulation of personalised, audiological advice. Figure 10.1 illustrates, as shown by the green trajectory, the pathway of the rehabilitative phase of this appointment, using the MMEHA.

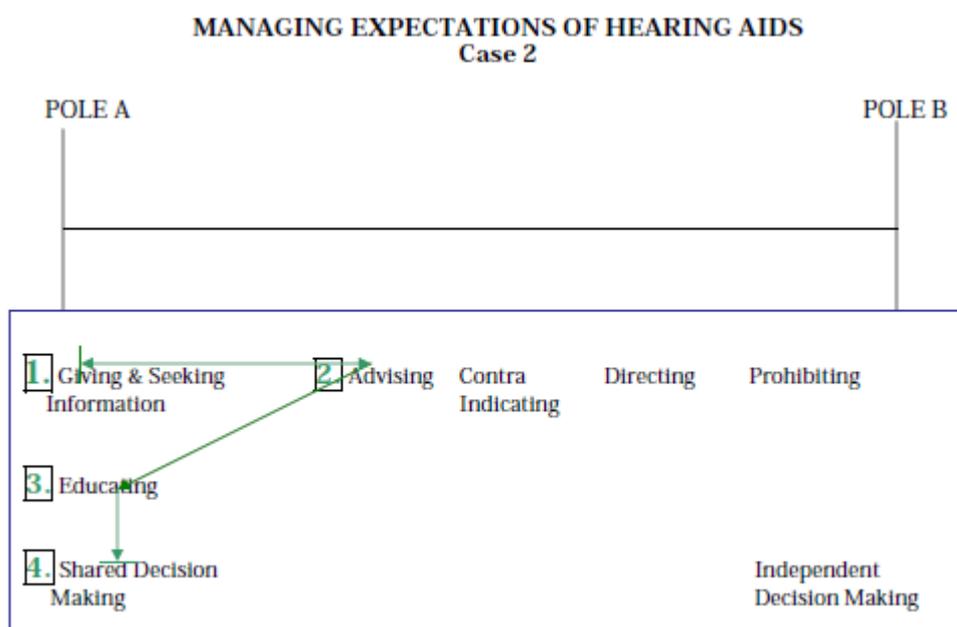


Figure 10.1 MMEHA applied to Case 2

The green trajectory marks the path through the model in the rehabilitation phase of the appointment, starting at point 1 and ending at point 4.

Case 2 relied on information that was provided by the patient, and the expert information of the audiologist in the formulation of advice. Information giving and seeking is thus shown as starting point (1) of the green trajectory in Figure 10.1. This informed the Advising (2) that in turn facilitated the acceptance of the advice by the patient, represented as shared education of A2 and P2 (3), which resulted in shared decision-making (4). In Case 2, there was little resistance to the advice offered by the audiologist and the trajectory through the model is relatively simple.

Both macro and micro influences can be seen to be interacting to influence the trajectory through the MMEHA. P2 had expectations of obtaining an invisible hearing aid, based on a previous appointment. This was a micro level influence specific to this case, which had its origins in the macro level influence of stigma that exists in society. The reason P2 wanted an invisible hearing aid was because he was aware of the stigma (a macro level influence) associated with wearing hearing aids. A2 was able to address his concerns with an available technology (open fitting hearing aid) that, while superficially appearing to satisfy the patient's expectations (and simplifying the trajectory through MMEHA), contributed to the veiling of the underlying issues associated with the patient's attitude to deafness and the use of hearing aids. Although this satisfied the professional justification of taking steps to assist the patient (Sarangi, 2007), as well as the institutional demands to sell hearing aids for financial gain, there does appear to be a gap in the treatment offered to the patient as a result. This gap is that while the advice was grounded in information from the patient and was thus accepted, the process did not challenge the patient's beliefs. Those beliefs about stigma could have a long term effect on his rehabilitation and were not addressed.

The awareness of P2's sensitivity to the stigma of wearing a hearing aid was acknowledged and accommodated by A2 during the appointment, but it was not challenged or explored. Extract 10.1 illustrates the alignment that A2 showed towards P2 in her recognition of P2's concerns about stigma.

#### **Extract 10.1. Case 2**

The preceding turns addressed the question of what colour hearing aid of the open fitting type was most appropriate, with A2 suggesting that two different colours be tried and P2 make a choice.

596. A2: ah that's the kind of (1) picture it looks like >you know<  
behind someone's ear: yeah so you're not really
597. P2: it's fairly [small].
598. A2: [yeah] it is ve^ry sma^ll ahh=
599. P2: I'll talk to my barber about leaving bit more hair around my  
ears [ha ha ha]
600. A2: [ha ha ha] oh yeah right fair enough. fair enough yeah. and  
you can actually see now both these people. have the device.  
on=

601. P2: hm.

602. A2: =and you just can't tell.

603. P2: yeah.

604. A2: and we'll look at the mold in a minute ((coughing)) you can use it on the pho^ne?

605. P2: you ga:ve me that I think la:st. time

606. A2: [yes that's right].

607. P2: [I was quite imp[re]ssed with that type of technology.

608. A2: so you can have a look there as well

609. P2: hm.

610. A2: you see it's virtually (.) invisible yes=

611. P2: hm.

612. A2: and I'll show you, I'll just measure you up in a minute?

....

788 A2: ah so I'll just pop this one on again >the the< grea:t thing about it is that whatever you choo:se is it's not really very noticeable you know anyway -

789 P2: hm.

790 A2: so but I think [this is ]-

791 P2: [it really] is a sign of (.) being a geria^tric. when you've got to get a hearing aid I think ha ha ha

792 A2: oh we:ll not neces[sarily?]

793 P2: [I've co:me] to ha terms with it ha ha=

794 A2: not necessarily but-

795 P2: =I've come to terms with it I think (.) I THINK. ha ha ha

796 A2: ye-:s (.) okay well I'll just get the mi^rror excuse me.

A2 was considerate of P2's concern for having an invisible hearing aid. She did not challenge his need for an invisible hearing aid, but demonstrated her support for his request, reassuring him that his expectation was met. At turn 596 she demonstrated the appearance of the open fitting hearing aid by showing him pictures of others wearing the hearing aid, and noting that that particular design of hearing aid was not visible. A2 shared the laughter with P2 about his hair length (turns 599 and 600). P2's expectations were thus met for the lack of visibility.

These strategies clearly showed that the advice that A2 offered was grounded in information from P2.

At turn 788, A2 reassured P2 that, whichever colour hearing aid he chose, neither was noticeable. There was little attempt to challenge A2's attitude or concerns. At turn 791, P2 expressed his belief that wearing a hearing aid was a sign of being a geriatric. At turns 792 and 794 A2 presented an alternative view that it was not "necessarily" so, but did not follow this up with an account (Waring, 2007a). This did not open the discussion but rather acted as a continuer for P2 to continue with voicing his concerns about wearing the hearing aid, at turn 795. His statement that he had come to terms with his hearing (aid) is followed in that same turn with a qualifier "I think" repeated and spoken louder the second time, which indicated that he had possibly not come to terms with his hearing loss. A2 responded to this (as she did at several points in the appointment), by reassuring him that the hearing aid being selected was not visible.

The focus of this appointment was restricted to the management of expectations of hearing aids, and there was no attempt by A2 to explore P2's underlying concerns about his hearing loss. Extract 10.2 (below) occurred later in the appointment, after the hearing aid had been fitted and the appointment was drawing to a close. The topic of hairstyle to cover the hearing aid had been raised earlier, and P2 had discussed his loyalty to his hairdresser, who he believed would know how to cover his hearing aid. In spite of the invisibility of the open fitting hearing aid, and A2's reassurances that the hearing aid would not be visible, P2 persisted with the topic of hairstyle and visibility as shown below.

**Extract 10.2 Case 2**

1291. A2: I just wanted to show you (.) have a look there you see it's really and you can actually pop your hair over there if you want to grow it a fraction longer =

1292. P2: I'll get XX:XX to work out how to cut my hair. ha [ha ha]

1293. A2: [oh ri:ght] ha ha [laughter]

1294. P2: come on XXXX you've got a challenge now!=

1295. A2: yeah [she has]

1296. P2: [I'm a] >poor deaf old man<.  
1297. A2: yeah oh well no (.) not at all  
1298. P2: [ha ha ] ha  
1299. A2: [we^ll you] rea:lly ca:n't apart there's a I mean you can't  
a^ctually even see the pla^stic because I mean your hair? is  
covering it so I mean (1) you can't actually see anything  
1300. P2: >and you didn't you don't< see this bit at all?  
1301. A2: no not at all (.) not at all [yeah.]  
1302. P2: [well] the mastoi:d gap of course =  
1303. A2: [mm.]  
1304. P2: =[it's] fitted into that qui:te well ha [ha ha]  
1305. A2: [ha ha ]yeah yes well that's it it's all it's a kind of now  
uh you really wouldn't know you actually had a hearing aid  
1306. P2: that's good? news.

After saying that his hairdresser now had the challenge to cover his hearing aid (turn 1292) which A2 agreed with (turn 1293), P2, at turn 1296 he stated (while he had the hearing aid in his ear), "I'm a poor deaf old man". This voicing of his concern represented his belief that this is how he will be perceived by others (Clark and English, 2004). The use of the term "poor" is ambiguous. It could refer, grouped as it is to "old" and "deaf" to being one to feel sympathy for, rather than poor, as in lacking in money. However, the reference to poor may also refer to the fact that P2 was about to part with A\$3 000 in payment for the hearing aid. His statement was followed by his own laughter, which was not shared at the next turn by A2, suggesting that she interpreted the "poor deaf old man" in the sense of needing sympathy. The laughter following this statement reinforces that the patient is presenting himself in an unfavourable light (Haakana, 2001). A2 did contradict his statement (turn 1297 "no not at all") but again did not provide an account for her contradiction. This was a repeat of the same pattern identified in Extract 10.1 (turn 792) where A2 offered an alternative view without an account.

Laughter was shared later on, in reference to the hearing aid "fitting" in to the mastoid area (space created behind the ear resulting from surgery as a child) at turns 1302 and 1303. That laughter is perhaps a reflection that the "fitting in" of the hearing aid is a mismatch to both of their understandings about the hearing aid.

Both A2 and P2 recognised that A2 was very concerned that the hearing aid would affect his own ability to conceal his hearing loss from others, and hence his ability to “fit in”. Describing the hearing aid as “fitting in” personalised the hearing aid and transferred some of his own concerns about his social relationships to the hearing aid itself. A2 and P2 both appeared to understand this, as evidenced by the shared laughter and the empathy for P2’s condition on the part of A2, which, she demonstrated through advice which was grounded in P2’s expectations and concerns, which (according to the MMEHA in Figure 10.1), achieved shared decision-making about the use of the hearing aid.

### *10.1.2 The MMEHA Trajectory as Discursive Practice: Case 2*

#### 10.1.2.1 Technological Discourse

There are a number of discourses contributing to the trajectory through the MMEHA in this case, which to some extent compete, but also are strategically combined and hybridised (Candlin, 2006), so that the technological discourse is the most readily identifiable. Empathy for the patient’s concern about stigma shaped the advice that was offered by the audiologist about the type of hearing aid that was suitable. In this case advice to the patient about hearing aids (technological discourse), which was closely linked to information he conveyed himself reflects both commercial (Taylor, 2006), and psychosocial (Holland, 2007; Luterman, 2008) discourses. The technological discourse reflects commercial influences because patients who feel supported and listened to are more likely to purchase hearing aids. The technological discourse is also psychosocial, because the specific advice about hearing aids was grounded in the P2’s expectation of obtaining invisible hearing aids, thus demonstrating support and empathy for his position.

The discourse of technology attempts to address psychosocial issues in the sense that the invisible solution is seen to mask the need to address the underlying psychosocial effects of the hearing loss. The technological focus on hearing aids, recognised as dominant in many clinical audiology sites (see chapter three) is shown here to absorb the psychosocial discourse that is present in the appointment.

Rather than simply selling a device, this audiologist has reshaped the notion to be that of selling a solution to the patient's fear of disclosing his hearing loss through the wearing of a visible hearing aid. The technological discourse is understood here not to dominate, but rather to absorb and veil the psychosocial discourse that is inherent in it. Rather than dominance of one discourse over another, this study shows that hybridity is characteristic of this clinical audiology site. It is difficult to identify overt "selling" of hearing aids in Case 2, and there is equally rather veiled handling of the psychosocial issues, although they are very much recognised by the audiologist.

The question remains as to why this hybridity occurred in the way that it did in this particular case. Reassuring the patient that the hearing aid was not visible was the primary means through which the decision was made. In this case the audiologist did not address the underlying psychosocial issues directly, even though they were evident in the interaction, and she had demonstrated her awareness of them by strategically focussing on his needs and addressing his concerns. Why was the psychosocial handling of the patient's fear of stigma not addressed directly, but rather absorbed into the technological discourse and thus indirectly addressed? Although audiologists recognise that attitude to hearing aids are a strong determiner of benefit and long term outcome (Wong, et al., 2003), and there are very clear indications that P2 had concerns about his hearing loss being associated with both a degenerative medical condition (see chapter eight) and aging (as above), these issues were not explored directly.

There do not appear to be obstacles to exploring psychosocial issues at the local, micro-level of this interaction. The appointment was grounded in rapport (see chapter six), the appointment was sufficiently long and there were no unexpected obstacles in the diagnostic portion and the hearing aid fitting could have been deferred to a later date in order to focus on underlying issues. The audiologist was highly experienced and, as shown in the microanalysis above (and in chapter eleven following), was strategic in her approach in demonstrating her awareness of this patient's concerns.

The macro-level influence of the funding of audiology services may well have contributed to the pattern of hybridising technological and psychosocial aspects in this particular way. The commercial benefits to audiology clinics to fitting hearing aids cannot be ignored as a significant macro level influence that may have determined the nature of this hybridity. Rehabilitative audiology in Australia is funded through the bundling of costs of hearing aids and professional fees. What this means for clinical practice is that without a hearing aid fitting, time spent with patients is not paid for. Audiologists are thus driven to push for hearing aid fittings, as these are the only way that funding can be obtained for their clinics. The paradox is that audiologists, as discussed in chapter three, are reported to reluctantly adopt a selling role. The discursive hybridity is thus a creative solution (Carter, 2004; 2007 acknowledges that that he has based his explanation of this on the work of Candlin in healthcare interaction and alternative dispute resolution/mediation) to this particular context of rehabilitative audiology. This case, like all three case studies selected for this analysis, was one where hearing aids were being considered by patients. The adoption of technological discourse may thus be seen as patient-centred (Sarangi, 2007). It did, as shown in the MMEHA trajectory, in this case, lead to shared decision-making, and the long term outcome for Case 2 was that the hearing aid was retained.

In other cases, however, where technology is not a complete solution (such as where it is rejected, or offers just a partial solution) this strategy would not be expected to be effective. What would be required in cases of rejection of technological solutions would be direct attention to the underlying causes for the rejection of technology, such as a wish to conceal the hearing loss (Hetu, 1996). Where a hearing aid is only a partial solution, counselling and communication training in the form of rehabilitation would need to supplement the hearing aid fitting (Boothroyd, 2007). In such cases, unless audiologists can bill for their consultation time (like other professionals), those in private practices are unlikely to take on these tasks and directly address the psychosocial impact of hearing loss.

The bundling of hearing aid costs and professional fees also results in the professional being hidden, an invisible and unrecognised component of the rehabilitation process. The focus on technology is widespread in audiology, and in

particular, through the policies adopted by OHS, and the technologically focussed government funded clinical service, Australian Hearing.

#### 10.1.2.2. Implications of Dominance of Technological Discourse

As introduced earlier (see p. 34), the perceived lack of difference between audiologists and audiometrists in Australia is reflected in the sharing of common funding models (Office of Hearing Services Australia, 2008). The veiled addressing of psychosocial issues identified in this study through technological discourse, arguably, is the micro-level reflection of this macro-level influence on the profession. Audiologists themselves, not being rewarded financially for addressing the psychosocial aspects of deafness contribute to the difficulties that the audiology profession in Australia has in differentiating between its scope of practice, and that of audiometrists, by masking its own contribution to the psychosocial under the umbrella of technology. This study demonstrates that these are not just issues that relate to the perceived status of audiologists and audiometrists (as referred to early in this thesis), but rather, these are macro-level issues that impact on the micro-level of clinical interaction and clinical decision making that have implications for patient care. Patient-centred professional practice would thus call for addressing these issues within local, professional practice, as well as by professional associations.

To summarise this important finding: audiologists in this study, who had tertiary level university training, and several, like A2 in this case study, who had many years of clinical experience, privilege the technological over the psychosocial, even when faced with patients who express concerns about psychosocial issues. Arguably, technological solutions might be the domain of both audiologists and audiometrists, but the psychosocial is the domain of the audiologist, as reflected in the content of university training programmes. However, as long as audiologists hide the psychosocial discourse behind the technological, the distinction between audiologists and audiometrists may remain obscure, and those responsible for third party funding of audiology and referring agents will continue to categorise these two distinct service providers as the same. Unless funding models allow for

psychosocial discourse to emerge in clinical interactions, it is unlikely that the distinction between audiologists and audiometrists will be realised.

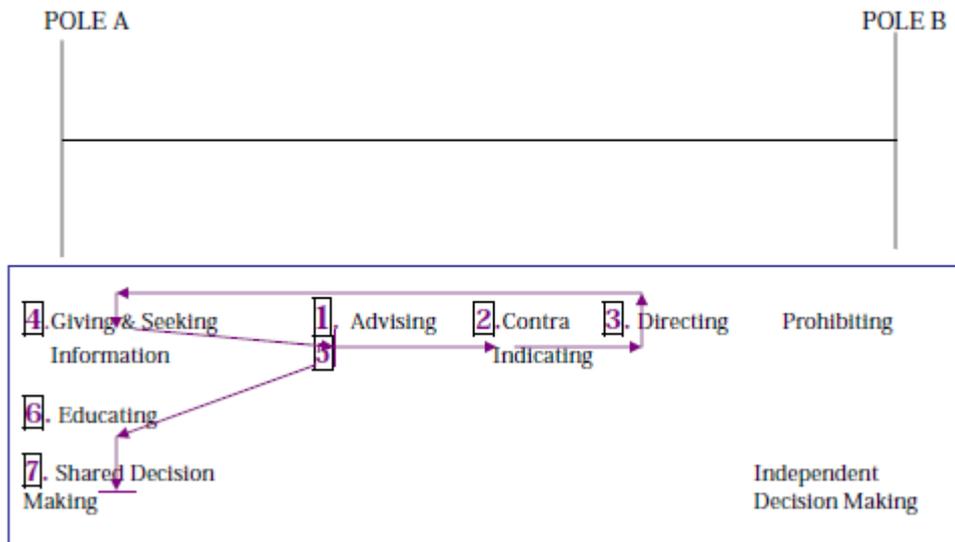
## **10.2 Case 1**

The presentation of Case 1 in terms of the MMEHA provides another example, as did Case 2 (above) of the influence of information from patients on the uptake of audiological advice. Further, the proceedings in the course of the trajectory serve to further expand on the discussion above regarding the macro influences on the micro level decision-making in relation to the privileging of the technological over the psychosocial in rehabilitative audiology, in the role that third party policies can have on the practice of rehabilitative audiology.

### *10.2.1 The MMEHA Trajectory for Case 1*

It has already been shown in chapters six and seven that P1 was “hoping” (Case 1, turn 22) that a technological solution could be found for his hearing difficulties. However, he displayed less than optimal use of his existing hearing aids, having one in his pocket (Case 1, turn 26) and preferring to use one rather than two hearing aids (Case 1, turn 46). The audiologist knew that he would need to modify his use of his hearing aids if he was to obtain additional benefit from newer technology (Case 1, turn 164). This mismatch in how the problem was categorised (Makitalo, 2003) by each of them, which was the starting point for the pathway through the MMEHA for Case 1 shown in Figure 10.2.

**MANAGING EXPECTATIONS OF HEARING AIDS**  
Case 1



*Figure 10.2 Managing expectations of hearing aids – Case 1*

The trajectory marked in violet passes from Advising (1) through to shared decision making (7) through a route that passed along the horizontal continuum and back to Advising (5) before education of both participants was reached and shared decision making could be facilitated.

The trajectory begins at Advising (1) because A1 offered advice about P1's use of his hearing aids (shown as the starting point (1) in Figure 10.2). This advice was grounded in information that P1 had provided, but the advice was contrary to P1's expressed expectations. A1 was aware that the advice would be resisted by A1, as did occur. P1, after being offered advice that was not grounded in what he believed would be his solution, persisted with his expectation that a technological solution could be found. Part of his persistence can be seen in the extracts below to relate to a belief that paying money for hearing aids would ensure improved benefit. A1 drew on a number of other communicative resources, in addition to advising, in order to find a way to resolve this mismatch in their separate understandings of the problem. This is represented as shifts along the horizontal continuum towards contraindicating (2) and directing (3). The directing included A1 obtaining information about options that P1's eligibility for OHS funded services presented. The directive for P1 to return to an OHS service provider was rejected by P1, even though this was clearly the preferred option presented by A1. P1 opted for a private hearing aid fitting at the university clinic. When P1 insisted on

purchasing private hearing aids, A1 presented advice about P1's use of hearing aids for the second time (5). This time, the advice was coupled to information about technology, which is what he was hoping for from the start of the appointment. This served to facilitate P1's acceptance of the advice, which led to education of each of them (6), and a case of shared decision making (7) about how to proceed.

This process in the rehabilitative phase was adaptive to the patient's expectations that paying for hearing aids (as opposed to receiving third party payment through OHS) would ensure optimal benefit. It reflects the influence of third party funding in Australia on the expectations that individual patients have about hearing aids, as shown in Extract 10.3.

### **Extract 10.3 Case 1**

178. A1: you you're also er a a veterans affairs aren't you- you can ei:ther go back >because you can get hearing aids through the government.. you can either go back via that. -avenue and you can get them through the government but you can get what is called a top up (.) scheme so you c'n they pay for like the bAsic hearing aid but you can get a more expensive one (.) if that is what your choose o:r (.) you can just go private and. get um a private one- we don't fit the government ones here (.) this is a private clinic we only see patients who: (.) who are private who pay. for the hearing aids um up front-

(3)

179. P1: I'm a wealthy. (.) ma:n

180. A1: right (.) ok

181. P1: >so I'm still taking your advice.<

182. A1: (laughs) alright but I I'd I'd y'know I I just want to do what is be:st. for you. (.) so um with the if you: if you if if you want something that's it's um sort of state of the ar:t we can show you what there is

.....

(( A1 contacted OHS service providers. A1 and P1 discussed the recovery of costs through OHS / DVA))

408. P1: ...(.) let's bu:y it. and you fix me. and look after me all right? .hhh I'm just >fE::d up<

409. A1: You're sure Mr P?

410. P1: Yeah I told you I'm a wealthy man.

411. A1: [ha ha ha]

412. P1: [ha ha ha]

Turn 178 was part of three alternative rehabilitation options presented to the patient. Three part lists are typically designed to signify preferred and dispreferred options (Hutchby and Wooffitt, 2008). The first option was to adjust his existing hearing aid, which in the preceding turn was designed as a dispreferred option (Pomerantz, 1984), because after making the suggestion A1 contradicted herself by referring to the lack of available computer software. The second option was to make use of OHS as a Department of Veterans Affairs (DVA) patient which would require attending a different clinic, and the third option, also mentioned at turn 178, was to obtain new hearing aids from the university as a private patient. This three part list of options can be understood as a rhetorical tool to persuade and guide decisions about intervention (Jefferson, 1990). Examining turn 178, it would appear that A1 was structuring the information such that the option of going to an OHS provider might be preferable. She cited the option of “top up”, the OHS term for making financial contributions towards more sophisticated hearing aids. In so doing she relied on the patient’s expectation that paying money would ensure benefit. This was designed to persuade him to return to his previous provider. At turns 181 and 182, P1 stated again that he was wealthy man, and A1 responded to his decision to obtain private hearing aids as “ alright but I l’d l’d y’know I I just want to do what is be:st. for you...”. The “but” in turn 182 is significant, as this indicates that P1 has selected the option dispreferred by A1 (Pomerantz, 1984). The turns from 178 to 182 are marked by repetitions, fillers and pauses. A1’s laughter at the start of turn 182 suggested that the audiologists knew that the patient “taking advice” meant taking advice on technology, rather than the advice she was offering about using his hearing aids optimally. The laughter was not shared, and thus served as a response to P1 saying he was taking her advice (Jefferson, 1984), when he had clearly rejected her advice thus far in the appointment. These communication strategies clearly demonstrated A1’s preference was for P1 to return to the OHS system.

Later in the appointment, at turn 408, P1 expressed his decision to order the hearing aids through the university. His reference to being fed up in that turn was in relation to the previous provider, whom he had already expressed his disappointment with several times during the appointment. The expectation that wealth can buy a solution is indicated at turn 408, where P1 stated again that he

would be “buying” a solution, that the audiologist can fix him, and that he can adopt a passive role in the process by being “looked after”. In response, there is shared laughter, perhaps signifying that P1 was starting to recognise that A1 did not believe that spending money on hearing aids was the best option, or that an improvement would be obtained without attending to the use of the hearing aids, in addition to using advanced technology. A1 was possibly laughing because she recognised that there would be a professionally challenging path ahead, in attempting to achieve an optimal outcome for P1.

### 10.2.2 *The MMEHA Trajectory as Discursive Practice: Case 1*

The trajectory that is identified for Case 1 through the MMEHA involved the rejection of advice about how to use hearing aids for optimal benefit. This was grounded in the hope that paying money for hearing aids would provide a better benefit than the patient currently obtained from his existing hearing aids, supplied from OHS. P1’s rejection of her advice led A1 to direct him towards a return to his OHS approved hearing services provider. This was also rejected by P1, and a decision was reached to obtain the hearing aid privately through the university. This is marked as a shared decision, as it was agreed to by both parties. It was, however, as noted, not A1’s preferred decision. Her preferred option was for P1 to return to the OHS system.

To the outsider, it might seem odd that an audiologist might prefer a patient to seek services elsewhere. This might be understood as A1’s preference for P1 to return to the OHS system because she suspected that he would not follow her advice, and that any further intervention would result in the patient’s dissatisfaction in the longer term. The discourse in the appointment was thus OHS discourse, grounded in technological solutions and expectations that paying additional money can solve hearing difficulties. An imaginary discourse (Fairclough, 2005), not actualized in this appointment, is that of rehabilitative audiology, grounded in counselling and communication training. This discourse is imaginary because the appointment did not include the consideration of a rehabilitation programme designed to facilitate

P1's acceptance of and adjustment to life with an acquired hearing loss. This rehabilitation option was not considered. It might have been differently conceived in that A1 could have arranged to see P1 over a series of appointments and, after a comprehensive assessment of his functional communication and attitudes, could have worked through with him his attitude to hearing aids, his acceptance of his changed hearing, and the impact of this on himself and others. This could have been offered, quite apart from the technological aspects of obtaining new hearing aids and using them optimally. A comprehensive rehabilitation programme might have incorporated individual and group intervention, graded tasks and opportunities for practice (Hull, 2005).

The absence of rehabilitation discourse in the appointment was not based on an inaccurate assessment of the patient – A1 clearly and repeatedly demonstrated that attitude and behaviour change were indicated. P1's reluctance to modify his stance when given advice in the course of the appointment was an indication that changing his attitude would require more than telling him what he needed to do. This reflexive examination of the appointment indicated that addressing psychosocial issues before considering new hearing aids (similarly to Case 2 above) would have been justifiable clinical practice. It is possible that this process might even have ensured that P1 began to use his existing hearing aids, as well as other appropriate communication strategies optimally, and might not have needed new hearing aids at all.

So, why did A1 not orient the appointment towards this end? Two possible reasons emerge from this case and the specific context of the appointment. The first relates to the patient's strongly held beliefs that are based on his past experience with OHS, which have shaped his belief that technological solutions can offer a solution. The second relates to the funding model adopted for audiology, which has already been introduced above in relation to Case 2.

#### 10.2.2.1. Relationship between OHS and Technological Solutions

P1's notion that hearing aids offer a complete solution provided that they are worth the money appears to be driven by the policies of OHS, which he had previous experience of. The OHS scheme in Australia is device driven. The assessment of hearing, fitting of hearing aids, and maintenance of hearing aids are paid for by the scheme. There is an option to offer limited counselling instead of hearing aid fitting. Recently, limited rehabilitation has become mandatory for those patients fitted with fully subsidized hearing aids, but is available to patients only after the fitting of hearing aids. The system has no option for cost recovery for audiologists who offer counselling that is offered before the hearing aid fitting, or as follow up years after the fitting, such as appears to be crucial for optimal use of technology for patients like P1.

OHS policies thus are seen here to reinforce the notion that technology can overcome hearing difficulties, provided the technology is sophisticated enough. The patient and audiologist are seen to play minimally important roles in the outcome. The OHS orientation is clearly represented in this appointment in the expectations held by this patient.

The expectation that benefit can be bought is reinforced by the system of "top up" referred to above. Within the OHS system, all patients are required to be informed about "top up" options (Office of Hearing Services Australia, 2008). Fully subsidized hearing aids are required to meet criteria set by OHS. Top up hearing aids are also required to meet criteria set by OHS, but they have features additional to the fully subsidized hearing aids. Top up hearing aids are paid for in part by OHS (directly to the hearing services provider), and in part by the patient, who pays a fee to the hearing services provider. The top up arrangement within the OHS scheme suggests that the fully subsidized hearing aids are inadequate, and that paying money for hearing aids implies additional benefits. Top up features might include a more cosmetically appealing hearing aid, or a more highly featured hearing aid. P1, in this study, had been fitted with hearing aids through the scheme some time previously. It was not specified if his previous hearing aids were "top up" hearing aids or not. There is no question that he had doubts about

their value, as he compared his benefit to others, and repeatedly stated that he believed that paying for hearing aids would improve his benefit.

#### 10.2.2.2. Bundling of Hearing Aid Costs and Professional Fees

The prognosis for improvement after spending money on hearing aids without an attitude change is not good, and as an experienced clinician, A1 would have predicted that P1 would not be satisfied with his hearing aids and would return them after the trial period. Directing him to the OHS provider was strategic in that she could anticipate that many hours of work would be spent, which would not be recovered in terms of their costs within the current system.

In the university system, hearing aid trials (usually 30 days) could be extended if patient circumstances required a longer trial. This was often the case for patients who were not ready to accept the limitations of hearing aids. Regardless of the length of the trial, and the number of consultations attended during the trial, the clinic retained a fixed amount of A\$200 for any returned hearing aids. This fee included the initial assessment appointment, which in this case was scheduled for 90 minutes, but extended to 119 minutes<sup>24</sup>. The amount of time that could potentially have been spent with this patient in the course of a trial was up to six and a half hours. This would place the value of the audiologist's time at approximately A\$30 per hour. This amount would be expected to cover administration and reception, equipment costs, rental of clinic space, and other costs associated with running a clinic, estimated to be at least A\$80 per hour, excluding professional salaries. From a commercial view it would be more worthwhile for the audiologist to bill the patient for this appointment, and not engage further with him about hearing aids, as his dissatisfaction (without addressing the underlying beliefs and attitudes) is predictable.

The appointment that was recorded for this study could have been billed to Medicare Australia, who would have paid the medical doctor / clinic director for the tests conducted as part of the assessment. There is no fee for the consultation as

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<sup>24</sup> Note that in Case 1, DVA was eligible to pay for the assessment. But, as the patient was to proceed with a private hearing aid fitting, the claim to DVA was never submitted. When the patient changed his mind and did not return to the clinic for a private hearing aid, his claim was never put through, and there was no payment for this appointment at all.

such, and the total paid to the medical practitioner in 2004 would have been less than A\$50. Given the scheduled time for this appointment, this would amount to a fee of A\$33 per hour. Given the actual time of the appointment, the fee paid would have been A\$25 per hour. Moreover, this was not paid to the audiologist, but to the medical practitioner who had an employment relationship with the audiologist, as per the Medicare arrangements. There are not many professionals who can afford to offer their valuable professional services for between A\$25 and A\$33 per hour. Most of the patients attending the university clinic would be spending far more than this on a visit to a hairdresser or manicurist. But, audiologists, within the current model, are expected to offer services for these types of fees. Through OHS, a slightly more representative figure of approximately A\$114 for an assessment was paid directly to service providers (audiometrists and audiologists alike). This was, however, paid regardless of the amount of time needed to complete the consultation. The OHS system, by allocating a fixed amount to audiologists and audiometrists alike, gives recognition to the testing carried out, but not to the consultation time or professional skills needed to solve complex communication difficulties.

Audiology clinics often compete with hearing aid businesses and organizations that advertise free hearing tests, free hearing aid trials, and offer automated hearing tests over the telephone. These marketing strategies may advertise services to the public, however, they further undermine the professional time and skills associated with the delivery of audiology services and are indirectly paid for in the high cost of bundled hearing aid fees. The underlying belief of many is that audiologists should not charge for services. A recent investigation into the attitude of patients to pay for counselling offered by pharmacists (Malfair Taylor, et al., 2008) identified third party funders of public health as being responsible for the attitude that two thirds of their participants displayed, that they would not pay for regular counselling by pharmacists, even though the same patients found that counselling enhanced their benefit from products.

The funding arrangements create the need for audiologists to charge high fees for those hearing aids that are fitted. Because the fees for hearing aid fittings cross-subsidise diagnostic assessments for the reasons mentioned above, and because

they include hearing aid trials, three year warranties on hearing aids, and follow up appointments included in the warranty period, the fees are high. It is not unusual to be fitting top of the range hearing aids that cost A\$9 000 for a pair, without accessories such as FM attachments to assist in noise and meetings. Hearing aids with accessories to accommodate bluetooth connections to mobile phones and other accessories are in the order of A\$11 000 for a pair. Fees for top of the range hearing aids, bundled as they are to professional fees, are not competitive in the same way that other technologies (for example computers or mobile phones) are competitively priced, in spite of competition amongst manufacturers.

The pricing structure of private hearing aids compensates audiology clinics for the lack of recognition by third parties of professional time required for audiology service delivery. This model is based on high prices for fee-paying patients to compensate for those who do not go ahead with hearing aid fitting. Time linked billing (as an hourly rate) is not used in audiology in Australia. The participating audiologists in this study were not involved in any commission-based pay, as is common in the field. Had they been, it would be expected that this would have complicated the discourses inherent in the clinical setting even further.

Should A1 have been in a position whereby a consultation fee could have been charged for her time that covered the actual costs of service delivery (estimated to be A\$120 per hour in the University clinic currently), an individual rehabilitation programme, arguably presented over a further six sessions (excluding the current one) might have been sufficient to cover the patient's difficulties and make progress towards acceptance of the hearing loss and hearing aids. Assuming an hourly rate of A\$120, a fee of A\$900 might have offered a reasonably comprehensive rehabilitation package. This is one tenth of the quoted cost of new hearing aids for this patient. If hearing aid fees were unbundled from services, it would matter little to the audiologist (commercially) as to the number of sessions required to reach a point of where the patient was ready to trial new hearing aids, and this would be time that would be saved later on when the patient did not reject hearing aids because they were better prepared for them. Alternatively, and highly likely, is that patients like A1 might progress with rehabilitation and, for those with

hearing aids already, they might learn to use their hearing aids and to communicate effectively so that they might not require new hearing aids.

Arguably, this patient might have paid A\$900 for a rehabilitation programme and reached a point of satisfaction with his hearing loss according to this scheme. In the existing model, he would be required to pay A\$9 000 for top of the range hearing aids – ten times the amount, and even if they were returned, there was no structure for offering the counselling / communication based rehabilitation that he is shown, from this analysis to require, and, after the trial he would have been in the same position he was at the start of the process.

The power of the third party funders in Australia (OHS) who do not distinguish between audiologists and audiometrists is that the services that would be distinctively audiological – that is counselling and communication training for which audiometrists are not trained – are not even present as discourses within many appointments, as shown in this study.

The bundling of fees has another effect, which is to create the impression that hearing service providers overcharge for their services. This is a perception that patients bring to appointments that audiologists in this study were seen to address. In most of the appointments analysed (14 of the 20 that were transcribed for analysis) there was some questioning of the audiologist's professionalism. This occurred as references to dissatisfaction with other service providers, costs of hearing aids, reported dissatisfaction with hearing aids in general by others, and commission arrangements that audiologists in other clinics benefit from.

Case 3 (below) is one example of how the funding arrangements in audiology, driven as they are by the models adopted as shown above, were highly influential in the appointment. The issues identified in Cases 2 (above) and 1 (in this section) are developed further in the discussion of Case 3 where it is shown how commercialism is perceived by patients and audiologists, and how it can influence clinical interactions.

## 10.3 Case 3

### 10.3.1 The MMEHA Trajectory for Case 3

Case 3 was similar to the other two cases for decision making about the style of hearing aids (behind the ear style) and the exclusion of a basic hearing aid as meeting P3's needs. For these decisions, explicit advice was offered by A3 to which he agreed. This is shown through the trajectory in Figure 10.3.

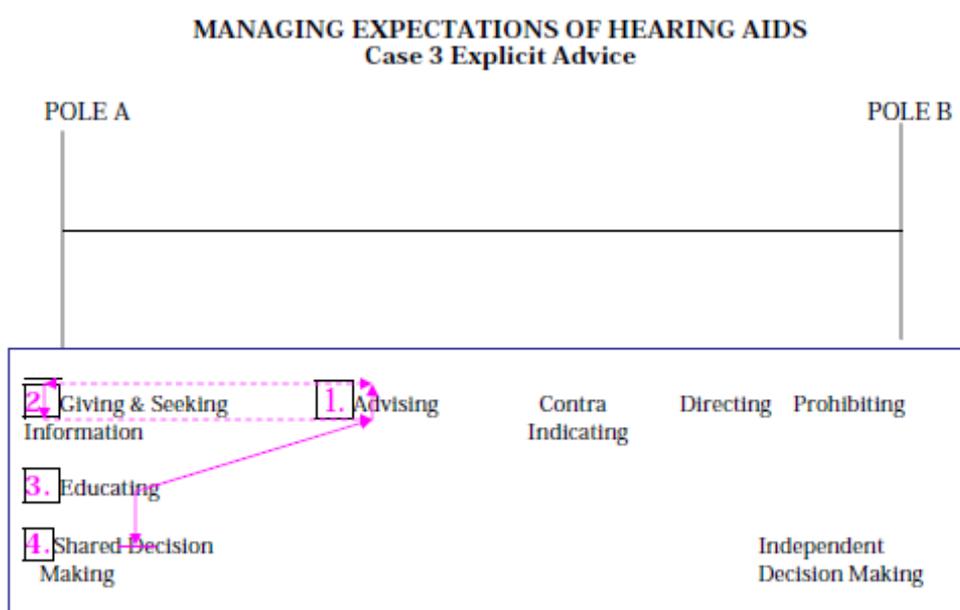


Figure 10.3 Explicit advice as shown for the MMEHA for Case 3

Giving and receiving information is represented as the second (2) stage because in the course of the interaction general advice was offered first, and then accounted for (Waring, 2007b) through relying on information obtained from the computer software programme about P3's type of hearing loss. The trajectory in Figure 10.3 is similar to the others in that the sharing of advice is mediating, leading to each knowing what the other understands about the problem (education, at 3) leading to shared decision-making (4).

Explicit advice was offered only early on in the rehabilitative phase. The style of advising changed from explicit to implicit advice after the patient stated that he was willing to spend a considerable sum (A\$8 000) on purchasing new hearing aids.

This occurred at turn 167. P3 was told that the decision-making about which brand and model of hearing aid to choose was his responsibility, and that A3 did not care which hearing aid was purchased. P3 was told to make these decisions independently. However, A3 conveyed, implicitly, which brand and model he recommended. The implicit advice was shown through the preferencing of a mid range hearing aid. This was at odds with the patient's expectation of spending an amount of money that would purchase top of the range hearing aids. The contradiction between being told to choose independently, and the implicit advice which was not recognised created a confusing situation for P3. The MMEHA for implicit advice that also steered the patient towards an independent decision making process is shown in Figure 10.4.

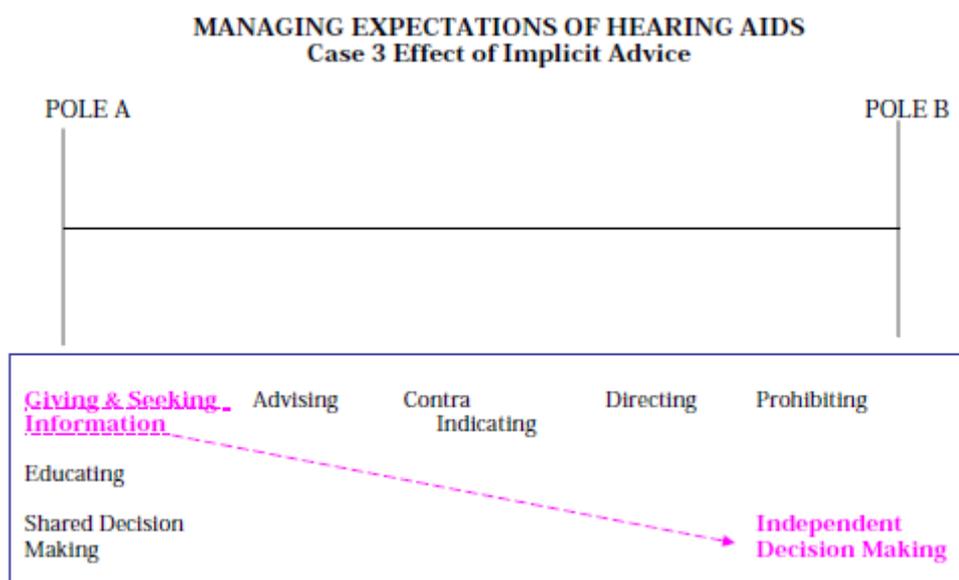


Figure 10.4 Trajectory through the MMEHA: implicit advice – Case 3

As already mentioned, within this clinical context, shared decision-making was valued. While (as shown in the previous section) advice was offered at the start of the appointment, explicit advice was not offered about the model or brand of hearing aid that might be suitable. It appears that the decision not to offer further explicit advice about these particular features of hearing aids was a deliberate choice. P3 did not reject the advice from A3, nor was A3 unsure of what it was that he wanted to advise. Why then, in this case, was the MMEHA so different to the other cases? Why was A3 not willing to advise P3 explicitly? And why did A3

direct P3 towards an independent decision, which was contrary to general clinic practice in this site? An examination of a critical moment (the concept was introduced on p. 92) that occurred just two minutes into the appointment provides the answers to this, and builds on the already demonstrated key issues of commercialism and professionalism within the clinical context discussed above.

Just two minutes into the appointment, P3 made reference to his previous experiences in an audiology clinic as being perceived as “car salesmen’s talk” as shown in Extract 10.4 below.

#### **Extract 10.4 Case 3**

34. P3: u^mmm yeah (.) I I’ve got an audiogram here (.) I went to a clinic in um Xxxxx probably (.) er at least a few er a number of months ago (.) probably three months um and I: (.) just. it sort of [turned me off ]
35. S: [it was over] a year ago
36. P3: sorry?
37. S: o:ver [.] a [.] year ago
38. P3: ohh was it?
39. A3: yeah that’s right January 2003. yeah yeah
40. P3: .hh I thought it had been six months [ha ha ha]
41. A3: [ha ha ha]
42. P3: anyway yeah so I had the test done there and I just wasn’t impressed. with (.) umm considering I was going to spend >a lot of money.< I just wasn’t impressed wi:th. (.) their (.) >technical expertise< or nnd .hhh I don’t know it sound it was to me it was like (.) ca:^r salesman’s talk [rather than]=
43. A3: [ok]
44. P3: =professional talk
45. A3: right.
46. P3: and yeah I just deferred it?=  
47. A3: ok.
48. P3: = buy- yeah purchasing
- (4)

In reference to his previous experience with a hearing services provider , P3 referred, at turn 34, to being “turned off”, at turn 42, to being not “impressed with their technical expertise” and “car salesman’s talk” which he differentiated from “professional talk” at turn 44. This complaint about the absent service provider was made by P3 during the activity of seeking background information about the reason for the visit, which marks this as similar to other complaints to professionals as reported by Ruusuvuori and Lindfors (2008)

P3 made reference to the stereotype of car salesmen (sic), which is commonly portrayed as the “...slick, oily con-artist looking to make a quick buck. Part of this may be due to the larger commissions used-car salesman make on each sale, thus encouraging them to complete as many sales as possible” (The Princeton Review, online resource, 2008). A3 did not need to ask P3 what he meant in his reference to car salesmen (sic) in relation to audiology, and did not attempt to continue the topic – as shown by “right” (turn 45) and “ok” (turn 47) which can be seen to be markers that serve to close the topic (Levinson, 1983). A3 did not contribute to this potential complaint in the sense of encouraging P3 to say more about it (Heinemann and Traverso, 2008), even though P3 wanted to say more about this, and perhaps expected more response or encouragement from A3 to continue with his explanation. Lehtinen (2007) suggests that is common for professionals to respond to statements from patients that they do not agree with. A3 did not respond, which was perhaps unexpected by P3, who might have been seeking a discussion of his complaint about the previous service provider. That this was being structured as a complaint is supported by the extreme case (car salesman) analogy, and the positioning of the complaint at start of the appointment, as both phenomena are consistent with typical patterns of complaints to professionals (Ruusuvuori and Lindfors, 2008). P3’s next utterance (turn 48) was incomplete, but did clearly position commercialism as a central part of this interaction. S (P3’s partner present in the appointment) interrupted his account of his visit to his previous provider (turn 35). She referred to the date of that previous appointment as more than a year previously. This interruption by S served several purposes – she appeared to be putting some distance between that previous visit and the current one, which served the purpose of apologizing for the face threatening aspect of what her partner was saying about the other service provider. She was

also interrupting the flow of the conversation, with her overlapping with the previous utterance where P3 stated that he was “turned off” – indicating that she was familiar with his views on this experience and perhaps wanted to avoid him explaining this in detail. She may also have been indicating that she was aware of the time lapse since the previous visit because she, as P3’s partner, was also living with the effects of the hearing loss. This is just one of two places where S interrupted in the appointment. The other was to ask a question about the style of hearing aid towards the end of the appointment. The role of partners in audiology appointments requires further research, given the social nature of hearing loss and the perceived stigma associated with it, but a detailed analysis of this aspect is unfortunately beyond the scope of this study.

Turn 48 was followed by a long (4 second) pause, in which it was assumed that A3 was documenting the content of the interaction. The case notes, which were written up during the appointment do not specifically refer to the dissatisfaction with the previous appointment, but did record the date of the previous assessment and who the service provider had been.

With the framing (Goffman, 1981; Maclachlan and Reid, 1994) of the appointment in commercial terms by P3, A3 deliberately avoided appearing to be motivated by commercial interests during the rest of the appointment. He offered explicit advice about style of hearing aids (recommending behind the ear hearing aids) and the exclusion of basic hearing aids as meeting P3’s communication needs (as discussed above). However, after the commercialism was reintroduced and specified when P3 mentioned how much money (A\$4 000 per aid) he was willing to spend on hearing aids (Case 3, turn 167), the advice that A3 offered about brand and model of hearing aids was all implicit. The amount of money that P3 was willing to spend on hearing aids positioned him to be fitted with top of the range hearing aids. After this was made known, A3 implicitly steered P3 towards a mid range product, one that he could spend half the amount of money he had allocated to hearing aids on. This implicit advice was clearly formulated (the mechanisms of which are shown in chapter eleven). P3 did not want to offer advice that might be interpreted as selling, and so he downgraded his recommendation so as not to be accused of acting like a “car salesman”, and did not state his recommendation

explicitly. His recommendation was, nonetheless stated strongly, but implicitly. P3 however, did not appear to receive that advice (possibly because the hearing loss interfered with some of the subtle cues necessary for picking up this message, or because he wanted a top of the range product) and responded as if he was not being given any information by A3. The avoidance of explicit advice meant that P3 did not receive information to guide decision-making, which he was told he needed to do himself. The effect on P3 is shown in Extract 10.5

### **Extract 10.5 Case 3**

199. A3: and whether you go fo:r umm err say the more expe:nsive one or the less expensive one um HHHH (.) again it's a bit hard for me to say what kind of difference. you'd notice >I'm not sure about that.<
200. P3: alright ooh yeah I just yeah I find that (.) find that hard.
201. A3: [.HHH]
202. P3: [especially] as an engineer=
203. A3: yeah!-.
204. P3: =to sort of who you know you go into a sho^p and you buy something? and you research hha it and you hha=
205. A3: [yeah yeah]
206. P3: =[here] I am going to spe:nd (.) close to something >to the order of< ei^ght gra:nd.
207. A3: [yeah yeah]
208. P3: =and I can't find out anything? about? it?=((high pitched voice))
209. A3: [yeah yeah]
210. P3: =[and just] told it's my decision

At turn 199, and elsewhere in the interaction, A3 refused to give specific answers, relying on “I don't know” and its variants to avoid specific advice. As an audiologist in full time employment at a university it may be assumed that the denial of knowledge was strategic, rather than actual (Hutchby, 2002; Schegloff, 1984). At turn 200, P3 referred to finding the process “hard”, not being given information (turn 208) and being told it was his decision (turn 210). As discussed in chapter

nine, there are occasions where independent decision-making by either audiologists or patients may be appropriate. However, in this case, P3 was willing to discuss the options, he asked questions in an attempt to obtain information about the differences between mid-range and top of the range products, and, as shown at turn 199, P3 did not provide him with explicit information that he recognised, and the implied advice may have been too subtle for him to pick up on with an unfamiliar speaker. The lack of explicit advice, and denial of an opinion did frustrate P3, and could be interpreted as being resistive on the part A3 (Hutchby, 2002). Thus, according to the MMEHA, there was no advice grounded in information that could facilitate shared decision-making. A3 deliberately attempted to force an independent decision from P3, while at the same time having clearly formulated recommendations for a mid range product that he presented as implicit advice.

### *10.3.2 The MMEHA Trajectory as Discursive Practice: Case 3*

#### 10.3.2.1 Clinical Interaction as Potentially Face Threatening

Given that the audiologists all aimed to present a professional face in these (and all) appointments, P3's distinction between sales talk and professional talk in this appointment can be understood to be face threatening (Goffman, 1967) to the audiologist. In other appointments recorded for this study, audiologists themselves raised issues related to professionalism and commercialism. By raising these issues themselves, the audiologists appeared to be taking preventative measures against having to respond to concerns about professionalism that might otherwise have been raised by their patients. The participating audiologists in this study spent considerable time in their appointments attempting to create a favourable impression of the profession and clinic, and often attempted to overcome already held views of patients that were negative. Negative views of the profession are likely to be face threatening to individual audiologists (Spencer-Oatey, 2005b), and to elicit defensive reactions from them. The negative views of the patients were formulated from their previous experiences with hearing service providers, and because of their attitude to hearing aids themselves. The reasons they held those views are complex – stigma associated with hearing aid use, poor benefit from devices and high costs are three identifiable factors that contribute to patients

having negative impressions of the audiology profession, as introduced earlier. For example, audiologists frequently mentioned that the clinic's purpose was teaching, and that the audiologists did not receive commission for hearing aids fitted. The university clinic does attract patients who perceive that there is less commercialism attached to that clinic than would be the case in other clinics. Perhaps this was the reason for the frequency of this topic in these appointments. Nonetheless, they reflect how audiologists are perceived by at least some of the patients who require audiology services. Importantly, decisions made for and by individual patients about hearing aids are influenced by attempts by audiologists to compensate for negative perceptions that patients may have about the profession, and in particular about practices that are commercially driven.

#### 10.3.2.2 Audiologists as Stigmatized for their Role in Selling

As introduced in chapter two (p. 29), stigma, as explained by Goffman (1957) can arise from a number of sources within an individual, including one's *association* with others who carry a stigma (which could refer to professional associations as a member of group, some of whom are known to undertake blatant commercial practices).

Decisions about hearing aids are frequently cited as being influenced by the stigma of wearing them (Epsmark and Scherman, 2003; Hetu, 1996 and see chapter three of this study). However, Case 3 illustrates how the stigma of selling hearing aids influenced the decision-making process. Deeply discrediting to the audiologist would be to be identified as a "salesperson". Goffman refers also to the "victimization" (1963, p. 9) of stigmatised individuals whereby cures are sold to overcome conditions that carry a stigma. Being one of those who prey on stigmatised individuals is a second form of stigma – so the victimiser (that is the audiologist) also becomes the stigmatized, for selling "cures" to an already stigmatized individual.

Given the perception of at least some patients that the fitting of hearing aid is comparable to the selling of cars, it can be understood why P3 avoided the giving of explicit advice, which he feared might be interpreted as selling a hearing aid, which would mark him as a "victimizer" and stigmatize him. Although the audiology

literature suggests that selling and counselling of hearing aids are synonymous (Campbell-Angah, 2007; Sweetow, 1999a), in the clinical interaction analysed here, the audiologist avoided the sales role to such an extent that his advice became inaccessible to the patient. This analysis illustrates that the high costs of hearing aids that results from price bundling, which identifies the profession as charging inappropriate fees for hearing aids, is recognised by patients and can influence the outcomes of clinical appointments.

Of interest to the profession, but beyond the scope of the present study, is to investigate how these negative perceptions of the profession impact on the reluctance of patients to consult audiologists. This study was limited to the analysis of interactions within a clinic, and did not consider the views of patients who did not present in audiology clinics. Anecdotal evidence from social interactions with potential hearing aid users is that they want to avoid consulting audiologists because they do not want to be sold hearing aids. Often they will say that they do not want to be pushed into purchasing a hearing aid by a commercial enterprise. This is of course a complex response as many people choose not to consult audiologists for fear that they might require hearing aids that would make their hearing losses visible to others. To date, most of the audiology literature (see chapters one to three) has identified stigma and cost of hearing aids to the patient as determiners of hearing aid outcomes. The reflexive discourse analytic approach adopted in this study demonstrates however, that the co-constructed clinical interactions are indicative of macro influences from both commercialism and the psychosocial effects of deafness impacting on audiologists, as well as patients. While patient views are obviously central to the process, no less are those of the audiologists.

It may be easier for the profession to address the issues from the point of the view of the audiologist, and certainly, awareness of the effect of macro influences on local contexts ought to enlighten the audiology profession and provide direction for future change. While the funding arrangements continue to constrain clinical practices as shown in this analysis, it remains difficult to separate the technological discourse from the psychosocial, and it is the psychosocial aspects that get less

recognition, reinforcing notions that there are not significant differences in services offered by audiologists and audiometrists.

#### **10.4 Application of MMEHA to Clinical Practice: Summary**

This chapter has drawn on macro influences that influence the discourses that are identifiable in clinical interactions that are concerned with the managing of expectations of hearing aids. The MMEHA that was introduced in chapter nine was applied to each of the three case studies selected for detailed analysis. This served to both test the model, and to illustrate how macro influences on the individual clinical interactions influenced local decisions. In examining the process of managing expectations about hearing aids the privileging of technological discourse over rehabilitative was evident. Reasons were shown to include the funding model that is currently adopted within the audiology profession in Australia, whereby the cost of hearing aids is bundled together with professional services. Not only does this prevent distinctions between the roles of audiologists and audiometrists, but it contributes to public perception that hearing aids are excessively expensive. In the course of this chapter an alternative funding model is presented whereby a time based fee structure is adopted for the profession that would allow a clear distinction between device costs and professional services, and which would establish rehabilitative services such as counselling and communication training and viable and sustainable treatment options within the profession, and would contribute to audiologist's presentation of their professional selves as distinct from audiometrists and other hearing aid salespeople.

## **Chapter 11 Results: Co-Constructing Advice**

Chapter ten provided an illustration of how the offering of advice by audiologists facilitated shared decision-making in consultations. Offering explicit advice was seen in that chapter to be avoided by audiologists, when, it seems, they did not want to adopt a selling role. This chapter, which is the final chapter that presents results of the study, aims to uncover the co-construction of advice that was observed in the rehabilitation phase of the appointments analysed.

While this study (as already presented in the previous chapters) found *advising* to be central to the activity of managing expectations about hearing aids, audiologists do not often refer to what they do using that term. The activity that is described here as *Advising* is more typically described by audiologists as either *counselling* or *selling*, depending on the clinical context (as introduced on p. 81). Participating audiologists used neither of these terms, but instead referred to the rehabilitative phase of the appointment as the “hearing aid discussion”. This term was introduced in chapters one and three of this thesis. The term that the participating audiologists used to refer to the whole appointment was the “test and discussion” and the rehabilitation phase was referred to as a “hearing aid discussion”. This label “hearing aid discussion” serves as a membership categorization device (Schegloff, 2007) as it avoids reference to both the categories of selling and counselling, which, as already argued, are not activities that these audiologists promoted as part of their professional identities. The description of these types of appointments as “test and discussion” reflects the two identities of the audiologists as being linked to the activities that they acknowledged that they undertook with their patients. As already discussed (chapter seven, p. 189), the participating audiologists in the focus group meeting expressed their reluctance to shift from their preferred role as “tester” to their “other” role associated with rehabilitation (including their role in the selection of hearing aids) during appointments.

Distinguishing between *selling* and *counselling* assumes that these are different activities. As previously mentioned, Sweetow (1999a) considers that they are

synonymous (see the discussion regarding Sweetow's account of selling as counselling on p. 81).

A dictionary definition of *selling* is that of the exchange of goods for an agreed sum of money (<http://wordnetweb.princeton.edu/>). The definition assumes that there is an agent (a seller), who uses persuasive means (possibly via a range of semiotic means including language) in order to secure a transaction. Closely associated is the activity of advising, defined by Heritage and Sefi (1992, p. 368) as what occurs when a professional "describes, recommends or forwards a preferred course of action" *Advising*, as so defined, might be seen to be one of the communicative resources that might be drawn on when *selling*. Advice might be given as regards the value of the goods in question that leads to a decision to go forward with the transaction. *Advising* is, according to Silverman (1997) also part of *counselling* as shown in his analysis of counselling interviews observed by him in HIV clinics. It would seem then that *advising* forms part of both *counselling* and *selling*. Silverman (1997) acknowledges that advising may be observed in many counselling interviews (and see the discussion introduced in chapter one earlier regarding the work of Sarangi, 2000, in which activities conflate to achieve hybridity). Most professionals distinguish between 'Counselling' and 'Advising' as different activities. It may be possible, in the way that Sarangi differentiates between counselling and Counselling, to also differentiate between 'advising' (the communicative resource) and 'Advising' (as a professional activity).

In many professional contexts, 'Counselling' has a specific meaning involving patients being allowed to explore issues until reaching their own decisions, as explained by Luterman (2008). However, 'Advising', is understood as being more directive. Once advice is given, symmetry and power relationships are altered between participants (Hutchby, 1995). Waring (2007a) suggests that demonstrations of knowledge imbalance shift power relations even when these are recognised as asymmetrical from the start. In analysing the advice acceptance of university students, Waring notes the advice acceptance by recipients, designed as they are to restore a more equal balance of power, are evidence that Advising creates a shift in the balance of power. Even where a power imbalance is part of the context for the situation (such as a professional consultation), both participants

can aim for more equal distributions of power (as in a Counselling activity), or to reinforce or increase the power imbalance (as in an Advising activity). But, as noted by Sarangi (2007), asymmetries of power and expertise are typically associated with professional service delivery. Thus, one might argue that *Advising* might be considered as one of the hallmarks of professional service delivery, in particular for those who are not engaged in Counselling, and that a necessary outcome of effective Advising is a shifting in power. This would explain how a less experienced audiologist might avoid an Advising role, as they may not feel equipped to discursively manage the power asymmetry that necessarily would accompany this. The communicative strategies in the giving and uptake of advice in this audiological context were found to be comparable to published findings derived from investigations of Advising in other professions such as HIV counselling (Silverman, 1997), nursing (Heritage and Sefi, 1992; Leppänen, 1998; Poskiparta, et al., 2000), psychology (Buttny, 1996; Peräkylä, 2005), medical practice (Maynard and Frankel, 2006; Sarangi, 2000; Stivers, 2006), and student counselling (Waring, 2007a; 2007b). This match between the patterns seen in the present study and these published accounts served to contribute to the decision to refer to what it is that audiologists in this study were doing, as Advising.

The specific set of contextual constraints associated with the advice given by audiologists such as managing the uncertainty of the outcome of hearing aid fittings, and addressing the patient's expectations while establishing realistic goals, were seen in this study to result in creative and strategic advice giving, which this chapter seeks to uncover through the application of CA techniques. This analysis demonstrates how both information from patients and expert knowledge held by the audiologist contribute to the acceptance of advice, and how that advice, when positively and explicitly stated, can be readily acknowledged and acted on. In this way the uncertainty of hearing aid performance can be managed in a way that allows for counselling discourse (where patients contribute to decision-making) to dominate over a selling discourse (where persuasion on the part of the seller leads to a transaction). The advising seen here, however, did contain elements of both counselling and selling discourses. The analysis of the co-construction of advice thus builds on the findings presented in chapter ten that technological discourse is hybridised and veils the underlying psychosocial discourses. This chapter seeks to

uncover what communicative resources are adopted by both participants in the giving and receiving of advice.

Advising, as shown in Focus Group Comment 11.1 (below), is not understood as a simple or easily achieved task, for some, if not all, audiologists. It is intended that this analysis of the co-construction of advice will serve to explain to audiologists what it is that they are doing, and to assist with training and professional development within the field.

**Focus Group Comment 11.1**

I would say exactly the same that is my main thing that I don't feel I know enough about the hearing aids to be able to - particularly if they start asking questions to explain it all - something new will come out and you're trying to recommend this hearing aid and why it's better and oh well um they just tell us it is, sort of thing...it's in my head what hearing aid would be best for this person but then also at the back of my mind is this thing that maybe it is wrong that well I have to give the person all the options and I that I want to give the all the options and bring it down to the one you want to give...I think maybe that's where I run into trouble ....

For the reader who is a non-linguist, a brief introduction to Speech Act Theory<sup>25</sup> (Austin, 1962; Searle, 1969) may assist with recognising the differences between 'activities' and 'communicative resources' that are referred to above, and are taken up again throughout this chapter. Speech acts are those acts that are achieved through the use of language. Speech acts may be one of five different types, labelled as *representatives*, *directives*, *commissives*, *expressives* and *declarations* (Searle, 1976). Speech acts require conditions (termed *felicity conditions*) to be met in order for the act to be successful. In the case of some speech acts (of which *advising* would be one) felicity conditions require co-operation from others to enable the act to be achieved. Actions associated with utterances are described, according to speech act theory, as *locutionary* (the making of the utterance), *illocutionary* (what the utterance intends) and *perlocutionary* (what effect the utterance has).

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<sup>25</sup> This very brief account is not intended to contribute to the ongoing field of pragmatic theory, and may appear highly simplified to any reader with particular linguistic knowledge.

In keeping with the constructivist view presented throughout this thesis, it is the *perlocutionary* effects that are of particular interest in attempting to understand the co-construction of advice that occurred in these audiology appointments. Utterances made between participants may only constitute ‘advice’ if those utterances are taken up as such, that is if the *perlocutionary effect* is evidenced in the interaction. This means too, that utterances that are taken to be advice, but which may not have been intended to be, also constitute advice. Grice (1975) provides a framework against which to understand interaction amongst participants, in which he identifies, in what he calls the *Co-operative Principle*, the adherence to four conversational maxims (*quality, quantity, relevance and manner*). The *Co-operative Principle* suggests that even when these maxims do not appear to have been adhered to on the surface (as is the case in most conversations) that they are nonetheless being taken into account at a deeper level. This implication, that the maxims are nevertheless being taken into account, is termed by Grice a *conversational implicature*. *Conversational implicature* can explain how acts such as Advising might be achieved even when utterances are not formulated in such a way that makes them readily identifiable from their surface textual *illocutionary* markers as ‘advice’. This is exemplified in the examples below which looks at both explicit and implicit forms of advice.

The constructivist view introduces a number of interesting questions such as whether *recommendations* made by audiologists become *advice* when patients take them up, whether *advice* morphs into *counselling* if patients are responsive and contribute to the decision-making, whether *counselling* becomes *advice* if the patient adopts a passive stance and requests the professional make decisions on their behalf, whether *advice* becomes *selling* when money is mentioned, whether the activity undertaken is *selling* if the audiologist does not benefit financially from the decisions and whether information sharing<sup>26</sup> that did not achieve the intentions of the audiologist, would be understood as *information sharing* only, and not constitute for the hearer, *counselling* or *advice*.

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<sup>26</sup> As already discussed much earlier in this thesis (see p. 71), the audiology profession has attempted to avoid overstepping professional boundaries by framing the ‘counselling’ that they undertake as ‘information sharing’

It would be overly ambitious to attempt to address all of the above important questions in this final section of this thesis. However, an attempt is made to reveal, using CA techniques, what it is that audiologists do in the part of the appointment that they call the “hearing aid discussion” and which, for the purposes of this study, has been labelled as “Advising”. Advising is used in this chapter to refer to the intentions of audiologists, even if these are not presented explicitly or if they have not been responded to as *advice* by the patients. The analysis builds on the profession’s “stock of interactional knowledge” (Peräkylä and Vehviläinen, 2003, p. 727). Most notably, this addressed the framing of patient-audiologist interaction as information sharing or informational counselling.

This analysis reveals what occurs in the process of Advising. The interpretation, in offering candidate explanations for what is occurring in interaction, allows for possible correction of practice and/or training (Antaki, Barnes and Leudar, 2007). This is not to suggest that the communicative resources identified here as means to co-construct advice are to be used mechanistically (Spencer-Oatey, 2005b) or that this study serves to prescribe practices. Rather, the co-constructed nature of advice is identified here to illustrate what facilitates shared decision-making in the particular context under investigation.

Three key aspects of *Advising* were identified in this analysis: linking patient information to advice, offering explicit advice, and the positive framing of advice. Each of these key aspects facilitated shared decision making, and were strategically adopted in the particular context of making decisions about hearing aids.

This chapter is organised under the following headings:

- Explicit Advice: Information Giving as related to Advising
- Implicit Advice: Offers and Responses
- Negative Versus Positive Statements of Advice

## 11.1 Explicit Advice: Information-Giving as related to Advising

Silverman (1997) differentiates between advice that is presented in an information format, which is general advice, and that which is presented in an interview format, which is tailored to an individual. This study found, similarly to Silverman's research on HIV counselling, that advice that was offered to patients based on the audiologist's general knowledge tended to be rejected by patients, whereas personalised advice that incorporated the patient's expectations facilitated acceptance. Thus, Advising was found in this study not to be the simple transfer of information, which is suggested in some of the audiology literature (notably Dillon (2001) and others associated with the technical aspects of audiology) , but rather, as is suggested by Boothroyd (2007), the interaction with patients about hearing aids involves more than "telling". It involved listening to patients, recognising their expectations and building on those in the formulation of advice.

Case 1 is used to illustrate the complex relationship between information offered by patients about their expectations and advice offered by audiologists. First, the way that P1 conveyed his expectations about hearing aids is presented, to allow for an understanding of the specific context of the advice giving. This is followed by an analysis of two critical moments (Candlin, 1987) in the appointment when advice was offered, each with different outcomes.

During the first of the critical moments, advice was offered which was based on A1's assessment of what was needed by P1. P1 did not accept this attempt at offering advice. During the second critical moment, A1 linked her advice to P1's expectations, which resulted in an acceptance of the advice by P1. Shifting from one form of advising (based on general knowledge) to another (based on patient expectations) is seen here to be strategic. The advice when presented as information was rejected, which, as mentioned above, challenges the notion that a simple information transfer can serve to motivate patients to make decisions in line with audiological advice. It does nonetheless endorse the close relationship between information and advice, as has been shown by, for example, Poskiparta, et al. (2000).

### 11.1.1. *Expectations about Hearing Aids*

P1's high expectations that new hearing aids would solve his difficulties emerged as a dominant theme early in Case 1, as shown in the opening statements about the appointment (Extract 11.1). This opening to the appointment was discussed in chapter seven.

#### **Extract 11.1 Case 1 Expectations of Hearing Aids**

21. A1: yeah (.) ok. now um (.) you've come in today?
22. P1: HOPING =
23. A1: mmmm
24. P1: =that you can find some gear that can allow me uh (.) to hear better [because] I've got this. I've got

P1, in response to the open-ended question about the purpose of the visit (turn 21), posed his request for the audiologist to "find some gear that can allow me to hear better" (turn 24). His reference to hearing aids as "gear" and his incomplete utterance at the end of turn 24, where did not verbalise the term hearing loss or hearing impairment suggested that he may not have been comfortable admitting to his hearing loss, but was hopeful that technology would offer a complete solution .

The term "gear" to refer to hearing aids avoided mentioning them, or admitting to the need for them, and presented some indication that the reason that P1 was not using his hearing aids optimally was because he had not come to terms with the hearing loss itself. The term "gear" is a general term used here to refer to a very specific item - that is a hearing aid. One can argue that the term was used here as a membership categorization device (Sacks, 1974; Schegloff, 2007). Referring to the category of hearing aid would have required an acknowledgement of the so far unspoken presence of the hearing loss, and need for hearing aids. The use of the membership categorization device instead of the category itself suggested hesitancy on the part of the patient regarding his hearing loss. Hope for a technological solution was thus associated with hope that the solution would mean not having to admit to, or disclose, the presence of the hearing loss (see discussion of the complexity of disclosure on p. 28).

P1 expected to benefit from a new hearing aid, even though he had not achieved optimal use of his existing hearing aids. This is shown in Extract 11.2, in which he discussed the use of the hearing aids he already owned.

**Extract 11.2 Case 1 Use of Hearing Aids by Self and Others**

25. A1: [mmmhmm]
26. P1: I've got two hearing aids >I've got one in my pocket< uh
27. A1: yeah  
(1)
28. P1: uh I'm at a loss half the time because I can't hear if I'm in a (.) dining. with people
29. A1: [right]
30. P: [that's not] very good yet I wear a um a remote control on the television (.) and I can hear very well [as it]
31. A1: [mmm]
32. P1: comes into the right into my ears  
(2)  
((turns 33 - 42 omitted here))  
.....
43. A1: oh that's ok Mr P [that's fine]
44. P1: [it was a er u ]little one and I had both ears
45. A1: yeah
46. P1: I couldn't stand both ears-I lost one in Africa =
47. A1: right (.) you lost one [in Africa?]
48. P1: =[then I went] on to that and they said um I said give me one with an ae:rial
49. A1: right
50. P1: and I was er at Bowls the other day (sniffs) (.) and er one of the bowlers he had this machine (.) and the er he had three little things on it that carried around on it (.) >about that big.< he had three different levels of hearing [on it]=
51. A1: [right]
52. P1: =and he said that was very very good

P1 expressed a preference for using one hearing aid even though he owned two. At turn 26 he stated that he had two hearing aids, but one was in his pocket. At turn 46, he stated that he did not like wearing two hearing aids. Coupled to this was his comment that he continued to have difficulties hearing in noisy places. In stating that he derived benefit from other devices, such as the television aid (turn 30), he was expressing frustration that he did not derive the same benefit from his hearing aids. But, such benefit was unlikely to be experienced with one hearing aid (at least) in his pocket (turn 26). He stated a preference for advanced technology which he perceived would solve his difficulties (turns 50 and 52) based on reports of others. In this way he restated his expectation, voicing clearly (turn 52) that he expected to experience the same benefit that was reported by his associate if he used the same type of technology, even if he used it selectively and in only one ear.

P1 expressed the expectation that if he paid sufficient money, that he would obtain the solution to his hearing loss. This is shown in Extract 11.3.

**Extract 11.3 Case 1 Expectation that Money can Buy a Solution**

53. A1: right.

54. P1: I'm fairly well off ha and I don't mind if I have to pha:y for it ha ha ha

55. A1: mmmm

56. P1: ah and I thought I want to find out what's the best? and if somebody can do. something : for me :

P1 stated that he would pay for the hearing aid (turn 54), provided he could obtain the best hearing aid that was available (turn 56). As discussed in chapter ten, this was made in reference to his eligibility for third party funding, which he had benefitted from in obtaining his existing hearing aids.

The above illustration offers grounds for assuming that P1 expressed his expectations that if he paid sufficient money for hearing aids that they could solve his communication difficulty and avoid him having to address the underlying cause of his difficulties, which was his permanently impaired hearing.

### 11.1.2. Audiologist's Advice

A1 understood that even if P1 was to purchase a new hearing aid, the most highly featured hearing aid would be limited in benefit if only worn in one ear (Arlinger, et al., 2008), and see discussion of binaural hearing aid fittings in chapter three, p. 86). In A1's understanding, P1 required a behaviour and attitude change towards his hearing aids in order to obtain the benefit he sought. This was recognised by A1 during the case history phase of the appointment. As already discussed (chapter seven p. 207 ff) is that A1 adopted a suggestive approach to questioning P1 during the case history stage which served to challenge P1's belief that sophisticated technology would improve hearing without a change to his habits when using his hearing aid(s). When this happened, P1 displayed his discomfort with having to adjust his use of his hearing aids to achieve a better outcome, and changed footing (Goffman, 1981) in response.

A1 thus had prior warning that P1 might react negatively to advice offered that related to his use of his hearing aids. As shown in Extract 11.4 (below), P1 asked for A1's advice, but did not accept it.

#### **Extract 11.4 Case 1 Advice (1)**

157. P1: I'd rather do what you advise me.

158. A1: right?

159. P1: all? right?

160. A1: yeah

161. P1: and if I could (.)improve it

162. A1: yeah

163. P1: I'd be deli::ghted?

164. A1: right. (.) well. **this is my advice** the only way you are going to **improve?** your hearing is if you wear two hearing aids and if you wear them most of the time um and that means um that you you you've got to accept the hearing aids you- you're wearing and if you're not if you don't like those um if you're not happy with them anyway we'll have a look at them first (.) I I don't know though if we've got this software this is a different hearing aid to the ones we fit

165. P1: there was one that er (2) this chap had the other day I er I  
forget the name of the one that he told me

166. A1: mmm

In response to P1's request for advice (turn 157), A1 checked that he did really want her advice. This checking acted as a preannouncement, necessary for what she perceived would be unwelcome news (turns 158 – 160). The giving of advice is potentially face threatening (Goldsmith, 1999) to the recipient. The advice which A1 provided at turn 164 was about P1's behaviour and attitude to hearing aids, not advice about technology as he had requested, was potentially face threatening to P1, who was arguably reluctant (as shown in Extract 11.1 and discussed above) to even admit to the hearing loss and need for hearing aids.

Although the advice was based on the information that the patient had given in the case history, A1 presented this as general information. There was no attempt at the perspective display sequences that Maynard (1992) and Silverman (1997) identify as being adapted from the task of giving bad news, which, as Silverman states, can serve to minimise resistance to advice that is offered. A1 did align herself with P1 in an attempt to moderate the face threatening potential of her advice (Goldsmith, 1999). A1 attempted to align herself with P1's position by using the same word "improve" at turn 164 as he had used in turn 161. However, because each of them had different understandings of the meaning of "improve", this was not an effective strategy in minimizing resistance to her advice. P1 used the term in reference to improving "it" which could have meant his hearing (still seeking a cure) or his single hearing aid. A1 however, used the same word "improve" to unambiguously refer to P1's use of his hearing aids. Thus, the attempt at alignment, while well intentioned, did not result in an acknowledgement of the advice because each of the participants had their own understandings of what it was to "improve". The status quo remained whereby each of the participants had different categorizations of the same problem, which was not unexpected given different perspectives of the patient and audiologist (Sarangi and Candlin, 2003a).

The offering of advice in a personalised form is described by Silverman (1997) as a modified form of perspective display series identified in the giving of bad news (Maynard, 1992 and see chapters three and eight of this thesis). Personalised

forms of advice facilitate the positive acknowledgement of advice through incorporating the perspective of the person for whom the advice is intended. The preannouncement at turn 158 (“right?”) indicated that A1 was aware that P1 may not accept her advice. The statement of advice at turn 164 was bald, but the hesitation on the part of the audiologist was shown by the checking that the advice was being sought (turn 158), and by the hesitations and repetitions (for example “um and that means um that you you you’ve...”) that characterised the turn. It appears from these preannouncements and hesitations that A1 was not expecting a positive acknowledgement of the advice that she was about to offer. After offering the advice, A1 backtracked in the same turn, and suggested that adjusting P1’s hearing aid settings may be another option.

P1 responded to this delivery of advice with an assertion of knowledge (Heritage and Sefi, 1992; Leppänen, 1998; Silverman, 1997) in referring to the benefit his associate received from his hearing aids (turn 165). This was not an overt rejection of the advice given, but was a form of resistance to accepting the advice in that P1 persevered with his original expectation that a new hearing aid would benefit him, without acknowledging the advice from A1. This signaled to the audiologist that the advice had not been taken up, and that the topic was not closed.

When A1 did not offer the advice that P1 was seeking, and P1 did not accept that advice, what followed (from turns 157 through to turn 253), could be termed a long insertion sequence (Hutchby and Wooffitt, 2008; Potter and Wetherell, 1987). The intervening 100 turns (shown in the full transcript) involved attempts to elicit decisions from P1 related to his role in rehabilitation, his choice of service provider, and the brand and model of hearing aid to trial. No conclusive decisions were made. P1 repeated his stance that sufficient money could pay for technology which ought to be available to him, given his status. This process of attempting to reach consensus is similar to that reported in the genetic counselling context where genetic counselors attempt to reconcile their views with those of their patients using interactional strategies that incorporate or address patient views (Lehtinen, 2007).

Extract 11.5 shows that, at turn 253, A1 finally began to offer the advice about technology that P1 had hoped to receive when he requested advice at turn 157. It appeared that a form of compliance was reached from that point onwards in the consultation.

**Extract 11.5 Case 1 Advice (2)**

253. A1: that's the area that the hea:ring aid. um amplifies. so that covers (.) so we **this is your hearing loss that bo:ld line so we'd need something that wa:s (.) a little more (.)** that gave a a bit more um
254. P1: [mmhmm]
255. A1: [amplify]lica:tion.(.) for your hearing loss- so you'd want **something that you that's going to: give. you. (.) really. give. you [a good]**
256. P1: [((coughs))]
257. A1: a good. Range. (.) °um ok° **so it looks like >that one is about the be:st< for this for your hearing loss** that gives you
258. P1: [yeah]
259. A1: [good] good amplification there .hh what we could do is we could or:der it. if if you're happy to try it out? this particular hearing aid is the one that you just put on and you don't have to do. anything you don't have to change programmes. you could try it out like tha:t without a remote control umm so if you got a remote control you'd be overriding that automatic function. (.) .hh so that's one option to try something like that out. (.) .hh um but you do: need to wear two.
260. P1: O^k.
261. A1: yea:h you need to be a bit more sort of diligent. about wearing them all the time you can't sort of carry them around in your pocket (.) umm you have to make an effort. to wear them
262. P1: ok?

There were marked differences between turns 164 (Extract 11.4) and 259 (Extract 11.5), when the advice appears to be taken up by P1. The utterance at turn 259 resulted in agreement from P1 to use two hearing aids, thereby recognising A1's advice that not only the hearing aid itself, but also how hearing aids are used, would be determiners of benefit.

As mentioned, turn 253 can be seen as a turning point in the interaction when A1 began to address P1's expectations about amplification. The orientation towards technology showed a development in P1's responses ("mmm" at turn 254, coughing at turn 256, "yeah" at turn 258, "ok" at turn 260 and "ok" at turn 262). The "mmm" at turn 254 could be understood to be a continuer, rather than a positive acknowledgement, building up to the acknowledgement "ok" which is then repeated.

As noted above, A1's utterance at turn 164 was marked by hesitations and a preannouncement, which suggested hesitation on her part in offering what was arguably intended to be 'advice' at that point. In contrast, turn 259 was marked by audible intakes of breath, but the turn has fewer hesitations (just one instance of "um" and one repetition "if if") than did turn 164. This more confident manner of presenting the advice increased during the turn and with P1's affirmations, which A1 took as acceptance of her advice. A1's reference to P1 not keeping his hearing aid in his pocket (turn 261) was a direct comment about P1's recent behaviour (reported at turn 26, see Extract 11.2) when he referred to having his second hearing aid in his pocket. Pointing this out was potentially face threatening to P1. A1, sufficiently confident that P1 had accepted her advice, now made this direct reference to his behaviour which was a direct contribution to his lack of hearing aid benefit.

The strategy that A1 developed in the interaction was to respond to P1's expectations before suggesting additional considerations that related to her expert opinion regarding his rehabilitation needs. Once she did begin to address the expectations that P1 had about amplification (turns 253 – 259) he was then able to listen to her, that is to accept the advice about use of the hearing aids and also accept the advice about how he was going to use the hearing aids. He agreed to wear two hearing aids (turns 260 and 261) and compliance was reached within the appointment.

This analysis demonstrates the importance of addressing the concerns and expectations of the patient, before or in conjunction with, professional advice. This is not new information to audiologists, taught as they are to listen to the concerns

of patients (Luterman, 2008), and to be patient-focussed (English, 2005). The analysis does not suggest, however, that the process of Advising ought to have taken a short cut by means of incorporating the patient's perspective from the start. It is unknown if that would have been successful in this case. Rather, what this analysis shows is that the negotiation around hearing aid use and new technology was strategic towards the combining of each of the participants' perspectives, until agreement was reached. Arguably, the long insertion sequence was necessary for both participants to work through the relevant issues. Moore, Candlin, and Plum (2001) in their study of healthcare encounters between HIV/AIDS patients and their doctors similarly refer to a long and complex argument presented by a medical doctor as being needed to facilitate a change of attitude in the patient. Thus, while a superficial reading of the comparison between the two critical moments analysed above may lead to the conclusion that it may have been possible to circumvent this long process if the patient's needs had been attended to in the first instance, this may not have been desirable. A deeper reading of the findings suggests, as shown by A1's expectation that the advice would not be accepted in the first instance, that the process was an example of discursive competence. The initial presentation of advice by A1 within an information format (that is as general advice) may be understood to have been strategic. Importantly, this case illustrates how patients and audiologists may need to take time to develop relationships and knowledge, and revisit topics before securing acceptance of advice. In this case, the process of Advising was achieved within the appointment, but the appointment was longer than that scheduled. The suggestion from this case is that in clinical situations where there is insufficient time, and less perseverance on the part of both participants, a point of compliance may never be reached.

## **11.2. Implicit Advice: Offers and Responses**

All three cases in this study evidenced examples whereby audiologists offered both explicit and implicit statements of advice. The selection of the mode of advice as explicit or implicit was understood to be closely associated with risk (Sarangi and Candlin, 2003a). While explicit advice was risky in that it could be rejected (see previous section), there were strategies that could be adopted to facilitate the

advice based on the incorporation of personal information, as already discussed. Offering implicit advice was less risky to the audiologist in the sense that the advice could be offered in a gentler way, which was potentially face saving (Goffman, 1967) to both participants. However, the offering of implicit advice was risky in that patients may not have recognised, or may have chosen not to acknowledge, the implications as advice. There is an increased risk of the former in those with hearing loss for whom subtle cues may be missed, and hence implied messages may be missed. In understanding this matter of implied messages, one can have recourse to Grice's *Co-operative Principle* which was referred to at the start of this chapter. The analysis below illustrates some of the ways that implied advice was offered and received in the interactions analysed in this study.

In this section, input from the audiologist that is taken as implicit advice, but which appears not to have been so intended, is illustrated by an extract from Case 2. In contrast, examples of implied advice that appear to have been intentionally designed as implicit, are taken from Case 3. These two types of co-constructed advice are discussed in terms of their usefulness in the clinical context.

### 11.2.1 *Implications of Questions as Advice*

P2 had a prior expectation that a single hearing aid was sufficient to solve his hearing difficulties. A2 however, was concerned that a single hearing aid would not solve his difficulties, although she did not state this explicitly. Extract 11.6 shows how the questions<sup>27</sup> posed by A2 implied that two hearing aids would be preferable.

#### **Extract 11.6 Case 2 Implied Advice (1)**

199. A2: yes do you find that um like if you were thinking about a hearing aid? umm would you be thinking of one or two (.) hearing aids?.

200. P2: I would be thinking of one.

---

<sup>27</sup> This has already been shown as a phenomenon in relation to the suggestive case history (chapter seven) where Case 1 was used as an example.

201. A2: hmmm do you think [hm]

202. P2: [hhm]

203. A2: which ear do you think do you feel that

204. P2: well the one that like last night at din[ner]

205. A2: [yes].

206. P2: I was turning around=

207. A2: [okay].

208. P2: =[like] that to talk to the lady

209. A2: [yes] so one

210. P2: [and] to to me that's body language tells me that I I I instinctively hearing better in this ear.

211. A2: yes okay. so it's the left ear you feel you need the the boost on?

212. P2: at this stage=

213. A2: hm-hm.

214. P2: =I I'd never consider having two. and that's news. to me.

215. A2: hm-hm. O^h no^ I look the reason-

216. P2: [I I] I'm just sort of you know I mean this is new ground >we're talking about.< hahaha

217. A2: that's right. well we didn't really talk much about hearing aids last time bec[ause=

The question posed by A2 at turn 199 (“would you be thinking of one or two”) introduces the topic that possibly two hearing aids are worth consideration. This provides an example of how questions can serve to offer advice (Steensig and Drew, 2008). P2’s response is unhesitating and clear at turn 200 (“I would be thinking of one”). However, the next question from A2 at turn 201 (“hmmm do you think”) followed by more specific questions about which ear P2 feels would be selected (turn 203) are clear indicators to P2 that two hearing aids would be preferable. The “mmhmm” at turn 201 acknowledges his position, but does not offer full agreement, rather serving as a question, followed with the request for clarification about which ear to select, which serves the purpose of forcing P2 to question his expectation that a single hearing aid would be sufficient. Turns 211 – 214 provide an example of advice that is heard by a patient, but which is not

explicitly stated (Silverman, 1997). At turn 211, A2 verified that it was the left ear that P2 felt he would need the hearing aid on. A2 did not state explicitly that two hearing aids were indicated. However, her question prompted P2 to respond defensively, saying that he would never consider two hearing aids (at turn 214). There was a potential face threatening act at turn 214, where P2's emphatic "I I'd never consider two and that's news to me" potentially risked A2 insisting that he use two hearing aids. However, A2 avoided that by allowing P2 to interrupt her and did not pursue the strategy of simple information giving about why two hearing aids would be better than one (turn 215 was incomplete).

### 11.2.2 *Intended Implied Advice*

In Case 2, the information was implied, and was taken up by P2. This did unsettle the smooth interaction, but achieved the purpose of indicating to P2 that the decision about a single hearing aid that he made at turn 200 required more consideration. In that case, the patient was responsive to the implication.

In contrast, the audiologist in Case 3 appeared to deliberately offer implicit rather than explicit advice. This was risky in that the patient might not have recognised the utterance as advice, or may have chosen not to act on it as advice, as occurred in Case 3. One example is shown in Extract 11.7 (below).

#### **Extract 11.7 Case 3 Implied Advice (2)**

163. P3: yeah no I'm m I a:m. expecting it will cost me quite a bit of money.
164. A3: ok. u^m did you have an idea? of a budget you might be able to spend on the hearing aids. how much money?
165. P3: well we. what were we looking at last time? ((towards girlfriend))
166. S: ((inaudible on recording))
167. P3: we were looking at what four thousand dollars ea^ch
168. A3: ok yeah. yeah. the ones the ones we've got he:re if you went for umm tk (.) say the ve:ry top top top of the range one .hh um >as you say< four thousand dollars each or um if you buy

the two then you get a bit of a discount so seven thousand five hundred dollars? (.) for the pair ((sniffs)) um (.) there's also a *very good top of the range* hearing aid here er which is six thousand six hundred for the pair?

169. P3: ok

170. A3: *umm again I'm not sure how much you are willing to spend-so if that's all? right? then we can do that? one but if you you'd rather go just for something which is kind of middle of the range (.) um there's a very good hearing aid here called a Canta 4. (.) umm which at the moment is is a very good price as well and for that hearing aid (.) umm you are looking at three thousand four hundred dollars. (.) o^k?*

171. P3: for one?

172. A3: for the pair.

173. P3: *for the pair. and so what do you get for your money basically?*

174. A3: [.HHHH]

175. P3: [to go up] I'm mean what's the top?

176. A3: *it's it it's a hard question to answer.*

As discussed already discussed in chapter ten, turn 167 was a turning point in Case 3. Before this A3 had been relatively successful in steering the decision towards his preference, having established a behind the ear style and not a basic product through offering explicit advice. P3 stated (turns 165 – 167), conferring with his partner, that he had been prepared to pay A\$4 000 for each hearing aid at a previous appointment. A3 agreed that for that amount he could expect a top of the range product (turn 168). Once that figure was stated by P3, however, A3's use of language changed. From having described hearing aids in terms of their power and in relation to P3's needs in the previous turns A3, in turn 168 referred to "buying", "discount for a pair", and a "very good price" (turn 170).

Turns 168 – 176 were oriented towards implicitly recommending the mid range Canta 4 hearing aids. A3 provided those hearing aids as one option in turn 168, referring to the fact that hearing aids were available in the top of the range, and mentioned two slightly different prices, but those hearing aids were not named, and none of their features were described, although one was described as a very good

top of the range (turn 168) aid. In a continuation of that utterance at turn 170, A3 dismissed P3's statement made at turn 167 about having been willing to spend A\$4 000 per hearing aid, and P3's comment at turn 152 that he wanted "the best". A3 ignored those utterances when he stated that he did not know how much P3 was willing to spend (turn 170). A3 implicitly steered P3 towards the Canta 4, which he described as "middle of the range" and "a very good price". The Canta 4 was the only hearing aid that was named by A3, thus privileging it over the other hearing aids. P3 followed up this suggestion by asking what would be gained by obtaining top of the range hearing aids (turns 173 – 175). A3 did not provide a direct answer, but said that this was a hard question to answer (turn 176). It can be assumed that P3, as a practicing audiologist did know how to answer the question, but chose, for strategic reasons, not to answer it (Beach and Metzger, 1997).

The implicit suggestion from A3 was that his recommendation was for Canta 4 hearing aids. Canta 4 hearing aids were, in 2004 – 2005 when this data was collected, mid range products with mid level technology (feedback manager, directional microphones, multiple programmes) but without automatic programme changes, volume control, remote control, or adaptive directionality that marked the hearing aids at that time as top of the range. The implicit advice appeared to be achieved through A3 deliberately not providing information about top of the range products, in the hope of steering P3 towards the mid range product. However this was not grounded in P3's expectations. P3 expected that he would be obtaining hearing aids valued at approximately A\$4 000 per aid. The appointment continues, as shown below, to create some frustration for P3, as he persisted with attempts to obtain information about differences between top of the range and mid range products.

The analysis above indicates how implied advice, as a co-constructed activity, may be either acknowledged or ignored. Implied advice is not, however, absent advice. The intentions of the audiologist can be made known without being explicitly stated, as shown above. The use of implied advice is seen here as a strategy employed by audiologists. Offering implied advice may be strategic in introducing topics in a more gentle way, than offering explicit advice. However, in order to be

effective, the audiologists need to be aware of the effect of the form of advice being offered on the patient, and be prepared to change strategies when required.

### 11.2.3 *Follow up to Implied Advice*

The MHEHA presented in chapters nine and ten made clear that Advising was necessary for the co-education of participants, and facilitated shared decision making. The co-constructed nature of Advising is shown here in that advice that is implied, but not taken up by patients, risks not being taken up as advice. Although audiologists may have the intention of conveying their message implicitly for the reasons mentioned above, this strategy risks the patient not recognising their advice. To explore this possibility, Cases 2 and 3 are again contrasted. In Case 2, the implied advice was taken up as such, and this led to shared decision making. In Case 3, the patient expressed the opinion that he did not feel that he was being advised, even though, on examination of the appointment, advice was being offered implicitly. The reading of the transcript for Case 3 suggests that A3 wanted P3 to make an independent decision, but also wanted him to pick up the implied advice. This, as shown in the previous chapters appeared to be a strategy to avoid “selling” a hearing aid. However, this example of the patient not recognising implied advice does show the importance of audiologists monitoring the advice they are offering, and adapting to the effect that it has on their patients, in a reflexive manner (Taylor and White, 2000).

Two extracts, the first from Case 2, and the second from Case 3, are shown below to contrast the follow up to implied advice. In Case 2, the audiologists followed up the implied advice with more explicit advice. In Case 3, there was no change in strategy from implicit to explicit advice, which was seen to be frustrating for the patient.

#### 11.2.3.1 Case 2: Implied Advice Followed Up with Explicit Advice

In Case 2, A2 followed up the topic of monaural hearing aids later in the appointment by offering more explicit advice by using additional strategies, referring to the experiences she had had as an audiologist, in fitting patients with one hearing aid first, and with their following this up with a second hearing aid at a

later stage. The importance of this follow up by the audiologist is illustrated in Extracts 11.8 and 11.9. .

**Extract 11.8 Case 2: Response to Implied Advice**

218. P2: mmm=
219. A2: =it was really your [assessment]
220. P2: [except you:] came up with a new system and I said, "yes, that's the system for me=
221. A2: =yes=
222. P2: =I'd consi:der. [yes]
223. A2: [yes.] that's right. well, we can talk a little bit more about that la:ter.
224. P2: [hm.]
225. A2: [um ]you do have a loss in both ears=
226. P2: [right.]
227. A2: =[but] um it is certainly worse in the: left ear
228. P2: [right.]
229. A2: [and] ah in the right ear it's (.) umm what we would say it's really a mild a mild to moderate [loss ]=
230. P2: [right.]
231. A2: =whereas in the um the other ear the left ear it's grea^ter than that.
232. P2: yeah. [yeah.]
233. A2: [um] but for a lot of the sounds of spee:ch? in the lower mid range you're hearing pretty well. it's in that higher range =
234. P2: [hm].
235. A2: [um ]so -
236. P2: >if I was- if I had your sort of job where I'd be interviewing people all the time<
237. A2: hm-hm.
238. P2: I'd probably want it in both ears -
239. A2: in both ears. yeah. it's it's not unreasonable=
240. P2: I love mu:sic? (.) you know=
241. A2: [right okay.]

242. P2: [I love to] go to concerts and things so I really want to be able to hear [properly?]
243. A2: [yeah yeah.] it's not unreasonable? to start with one. (.) and=
244. P2: right.
245. A2: =then later on if you felt you needed that extra bit you could have one in that [other ear as] well -
246. P2: [okay. alright.]
247. A2: it's not unreasonable you know for that to happen=
248. P2: [okay.]
249. A2: =many people do^ that in fact.
250. P2: we'll um see how we go.
251. A2: that's right.
252. P2: yeah.

This turn follows on from the Extract 11.6, where P2 had understood A2's questions as implied advice. The topic of binaural hearing aid fitting was maintained by A2, but in a tangential way. At turn 219 she referred to the assessment, which was the evidence for the difference between the two ears, a topic which was closely related to the topic of binaural hearing aid fitting. From turn 225 to turn 234 she provided an account of P2's hearing levels in each ear, based on the previous assessment findings. Talking about hearing in two ears turned out to be strategically effective in maintaining the topic of binaural fittings, without giving direct information about the benefits of two hearing aids. As seen at turn 236, P2 reintroduced the binaural fitting option himself, saying that if he had a communicatively demanding job ("where I'd be interviewing people all the time") he would opt for binaural fitting.

The importance of the discussion of binaural hearing aid fitting to the audiologist is again shown at turn 239, where A2 repeated P2's phrase "in both ears" , and extended his utterance to say that it was "not unreasonable" to start with one hearing aid. A2 continues through to turn 247 to state that a single hearing aid was a beginning point, but that the end goal was for a binaural hearing aid fitting.

A2 used a double negative at turn 239, repeated at turn 247, stating that P2 was not being “unreasonable”. This allowed A2 to reassure P2 that his decision was acceptable without endorsing it fully. The message was clearly stated that “not unreasonable” was a start for P2, implying that he would eventually end up with two hearing aids. The purpose of the double negative was reinforced at turn 249, where A2 introduced the notion of what ‘other’ people do, as being evidence for his choice as being acceptable, but only as a start towards a binaural fitting. This post advice account (Waring, 2007b) serves to save both the face of the patient (who wanted a monaural hearing aid) and the audiologist (who believes that binaural hearing aid fittings are more successful).

A2 avoided giving information about binaural hearing aid fittings as such, even when P2 mentioned music (turn 240), an activity that could be enhanced with binaural hearing. A2 treated turn 240 as an insertion sequence, rather than as a change in topic. A2 allowed P2 to maintain his expectation that he would benefit from a single hearing aid. A2’s presentation of information instead focussed on the difference in hearing between his two ears. This served a relational purpose in that it showed P2 that A2 was responsive to his expectations. Also, it is an example of how A2 strategically maintained the topic of binaural hearing aids in a tangential manner, and in so doing achieved the purpose of challenging P2’s expectations about monaural hearing aid fittings.

An examination of the uptake of advice as a shared decision in Case 2 is shown in Extract 11.9.

**Extract 11.9 Case 2 Monaural Fitting Reviewed**

440. A2: ah so I think that um as as you feel yourself the one hearing aid in the left ear would be a good a good way to go.

441. P2: would it? right.

442. A2: ye^s.- now um we we don’t want to (.) um give you amplification in this region here because=

443. P2: [hm.hmm.hm.]

....

620. A2: so (.) what I'll do is just measure you- (.) that you're happy to to go with the -
621. P2: abso:lutely yeah. good.
622. A2: o^kay then? >so we'll just pop that the:re<
623. P2: it's the thought of being blocked up and having um=
624. A2: [yes].
625. P2: =[all] those problems.
626. A2: other extra thi^ngs one doesn't like.
627. P2: yeah.

At turn 440 A2 reviewed the decision to fit a hearing aid to one ear, and stated this in such a way that suggested that she now also considered a monaural fitting to be a good decision. This surprised P2, as shown by his comment at turn 441, where he commented “would it?” This was a positive statement by the audiologist about a dispreferred recommendation. A2 and P2 here appear to have adopted each others' positions in a form of mutual swapping of positions. Through discussion, each modified their expectations and reached consensus (turns 620 and 621). Their education of each other as to their expectations is shown here to be been successful in that each of them takes up (explicitly) each other's preferred position. A point of shared decision-making appears to have been reached.

### 11.2.3.2 Case 3: Implied Advice as a Persistent Strategy

In Case 3, as already shown earlier in this chapter and in chapter ten, the advice offered about specific details of hearing aids (brand and model) was all implied. There was no change in strategy during the course of the appointment. The effect of this was to cause frustration for the patient who, it would seem from the transcript, did not recognise the implications. Extract 11.10 illustrates this effect.

#### **Extract 11.10 Case 3: Effect of Implied Advice**

192. P3: ok mmm do you have? is there any sort of >I don't know< independent magazi:nes or something like that (.) of (.) I don't know e (.) how does (.) the purchaser?
193. A3: I (.) I think y' >I think< I know what you're saying (.) um it its very hard. (.) it i:s very har:d to get um (.) obje:ctive. information abou:t about the different hearing aids- the brochures that I'm going to give you are p put out

- by the hearing aid company
194. P3: [>yeah yeah yeah<]
195. A3: [so umm] every hearing aid company says that their hearing aid is the best.=
196. P3: [yeah]
197. A3: =[so] I think that (.) in terms of the benefit you ge:t whether you go for one bra:nd or another bra:nd you you're probably >all the same< [ok]
198. P3: [ok]
199. A3: and whether you go fo:r umm err say the more expe:nsive one or the less expensive one um HHHH (.) again it's a bit hard for me to say what kind of difference. you'd notice >I'm not sure about that.<
200. P3: alright ooh yeah I just yeah I find that (.) find that hard.
201. A3: [.HHH]
202. p3: [especially] as an engineer=
203. A3: yeah!-.
204. P3: =to sort of who you know you go into a sho^p and you buy something? and you research hha it and you hha=
205. A3: [yeah yeah]
206. P3: =[here] I am going to spe:nd (.) close to something >to the order of< ei^ght gra:nd.
207. A3: [yeah yeah]
208. P3: =and I can't find out anything? about? it?=((high pitched voice))
209. A3: [yeah yeah]
210. P3: =[and just] told it's my decision
211. A3: yeah yeah it's very frustrating I know. and it's fru:strating for us as well because we have to try to explain to people which one's the best one and there's a:ll these different kinds of hearing aids- I think what can happen um and I notice this particularly. with with ol:der people is that if you give them too much information
212. P3: eh
213. A3: then it just gets too confusing all right so I'm trying not

to kind of o:verload you with information because then you are you dEFinitely. wO:n't be able to make a decision.

214. P3: en
215. A3: and and pa:rt of my job again really is to only talk about  
(.) >the ones that are going to be good for you<=
216. P3: [yeah]=
217. A3: =[so] I I won't fit you with something that is not going to  
be suitable [allright?]
218. P3: [yip yip]
219. A3: ok so um rea:lly I am only tossing up between these two three  
different kinds of hearing aids out of a list of (.) you know
220. P3: yes yes >I understand <
221. A3: yeah
222. P3: well could I have a look at the at the at them?
- .....
253. P3: ok all right so how does it work from now what do people
254. A3: alright once you^ decide? once you^ decide? what you want to  
do alright tk um: it's up to you what you whether you want me  
to do this today. if you want I can take an impression of  
your ears for the molds today and just keep them here until  
you decide either that o:r (.) you go away and you think  
about it decide what you want to do and then come back and  
I'll take the molds next time ok (.) after I've taken the  
molds then I can and you've made your decision then I can  
send them away it takes about two weeks to get the hearing  
aids ready for you (.)all right then you come back in fit  
them up for you that's when your thirty day trial starts
255. P3: start

A3's response at turn 193 to the question about objective information comparing hearing aids (turn 192) was vague. A3 did not attempt to interpret information from hearing aid manufacturers for P3, but rather appeared to withhold information from him.

A3 acknowledged P3's frustration, but displayed an atypical response to a patient's expression of a particular problem by countering it with the experience of audiologists as a group, by stating that it is frustrating for "us" (turn 211). While

this may be a form of alignment expected in everyday conversation, Ruusuvuori (2005) describes this type of alignment as common in everyday talk, but notably absent in most professional talk. A3 aligned himself with P3, at turn 193, referring to “knowing” what A3 is saying. At turn 211 A3 again made a clear alignment with P3, referring to the situation as being frustrating for both of them. Ruusuvuori, in examining patient-professional interactions, found that empathy, as opposed to sympathy, tended to be expressed by professionals in response to patients’ expressions of troubles, by maintaining a distance between the patient’s experience and the professional’s experience, thus keeping a patient focus, regardless of the professional’s personal experience of similar difficulties. A3 appeared to do the opposite here and instead aligned himself closely with P3. A3 expressed his understanding for P3’s difficulties, thus demonstrating sympathy, but in so doing appeared to place both him and P3 into powerless positions, by implying that this is the status quo that cannot be changed.

A3 invoked the presence of the hearing aid manufacturers, blaming them for the lack of clarity of information. At turn 211 he blamed patients for not being able to process information (particularly older patients), and avoided answering questions directly by saying that too much information (even though P3 was a young engineer) was confusing to older people. P3’s non-word comments (“eh” and “en” at turns 212 and 214) suggested that he was uncertain how to respond to A3’s justification for not giving information.

It would seem from turn 217 that A3 did have well formulated intentions about using his expertise to guide the hearing aid fitting, but he either was not willing, or was not able, to express this explicitly. A3, in turn 217, appealed to his own professional status as being sufficient to make the correct choice for P3, by stating that he would only select appropriate hearing aids for P3. This followed him stating that the decision was one that the patient needed to make. This provides further evidence that A3 did have clear intentions, and that the implicit offering of advice was strategic. However, P3 did not take up the implied advice. A3 did not respond to this lack of uptake, and continued to offer implicit advice, which served to cause P3 to feel that he was left to make a decision without sufficient information.

P3 asked A3 how the decision was made at turn 253, and A3 explained that it was his decision and then focussed on the practical issues of taking impressions and placing orders for hearing aids (turn 254). Turn 254 was a long monologue, stating the practical steps that A3 would take once the decision was made, but did not provide information to P3 about how to make the decision. The difficulty in deciding which hearing aids to obtain was not addressed by A3, who placed the responsibility for the decision very clearly with P3, although as stated above, he wanted him to follow his implicit advice.

A3 stated on numerous occasions (10 times in the full transcript) that the decision about which hearing aid to obtain was for P3 to make. In direct contrast to this, at turn 217, A3 had stated that he would not fit P3 with an unsuitable hearing aid. Thus, it appears that P3 could make the decision to have a hearing aid fitted provided that it was one that A3 agreed to. As explained above, it appears that A3 had a clear idea in his own mind about which hearing aid he wanted to fit but did not make this explicit, P3 was asked to make a decision without the necessary information.

As shown here, when advice is stated implicitly there is a risk that it is not recognised as advice. A3 was not averse to shared decision-making, and should P3 have followed the implicit advice and agreed to be fitted with Canta 4 hearing aids, then the Advising would have been successful in achieving a shared decision. Arguably, P3 could have rejected the implied advice outright too, which may have posed additional difficulties for A3. It would seem, from this analysis, that while there may be valid reasons for the offering of implicit advice (as discussed in chapter ten), there are risks that the advice will not be recognised, as in Case 3.

### **11.3 Negative Versus Positive Statements of Explicit Advice**

One of the difficulties that audiologists face in Advising is that there is uncertainty as to whether their advice about hearing aids will prove correct in the long term for any particular patient. Given the uncertainty of hearing aid fittings before trials have been undertaken (see chapter three p. 71 ff), audiologists often find themselves, as expressed in the focus group meeting, raising expectations and then countering these with explaining the limitations of hearing aids later on in the rehabilitation process. Examining the data that was collected for this study revealed that audiologists, when presenting explicit advice use both positive and negative statements of advice, in line with studies of medical practitioners such as, for example, Stivers (2006). Negative advice avoids statements that audiologists might need to counter after the hearing aid trial. However, as with implied advice discussed as discussed above, negative statements are risky in that they do not offer specific information to patients about what is likely to work. A key finding in this study was the adaptation of positive advice to the audiological setting, as exemplified by Case 2, whereby positive statements of advice were made about both the audiologist's preferred and alternative options. This strategy managed the uncertainty that surrounds offering advice about specific brands and products. The strategy involved the presentation of the preferred option and the alternatives as both being reasonable solutions that the patient might consider.

This section will first illustrate what is meant by negative statements of advice (Extract 11.11 from Case 3), and then will illustrate the positive framing of advice and alternatives (Extracts 11.12 and 11.13 from Case 2).

### 11.3.1 *Negative Statements of Advice*

#### **Extract 11.11 Case 3 Negative Advice**

162. A3: =umm now ss the situations you've told me whe:re. (.)you feel like you are? having problems with you hearing there's quite a quite a few different places so y'say sometimes when it's quiet n people speak softly um you know in that noisy office environment those kind of things .hh um (.) so what I: would suggest is that if you wanted to go for something which is very very basic sort of bottom of the line kind of hearing aid *it probably wouldn't do the trick for you.*

163. P3: *yeah no I'm m I a:m. expecting it will cost me quite a bit of money.*

At turn 162 A3 combined relating P3's needs to the choice of hearing aid ("..situations you've told me") with making a personal recommendation ("I would suggest.."), but stated this negatively as "wouldn't do the trick for you". A3 did not here, or at any stage in the appointment, explicitly and positively state what would "do the trick" for P3.

Negative framing of advice is reported by Stivers (2006) to contribute to uncertainty in medical consultations. In this case, the negative statement about bottom of the range hearing aids not being suitable was in line with both the expectations of the patient (stated earlier that he expected to obtain expensive hearing aids) and the audiologist (whose preference was for a mid range product). It was not questioned further by either participant, and the topic of the basic hearing aid was not returned to during the appointment. Thus, negatively framed advice, if grounded in the patient's expectations, may be received as intended by the audiologist, as occurred here. The statement of negative advice, however, while perhaps serving to exclude possibilities, does not serve the same purpose as explicitly stating what the patient could, or should, do to help their communication difficulties. The effect of negative advice may be similar to that of implied advice, in that it might be a subtle form of advising, that is risky in that patients may not receive the message (as related to their hearing loss) or, they may choose not to respond as if the message has been sent. Negative advice, like implied advice discussed above, needed to be followed up with a positive statement of advice. The responses and

follow up within interactions is seen here to be of key importance to the process of Advising.

### 11.3.2 *Positive Statements of Preferred Options and Alternatives*

While some of the uncertainty of how to proceed may be clarified through the use of explicit advice, the acceptance of which is facilitated through the personalising of that advice using information obtained from particular patients, this does not remove the longer term uncertainty inherent in the fitting of hearing aids. P2, the most experienced participating audiologist in this study provided examples of how both preferred options, and possible alternatives, that might be trialed if the first option proves less successful than anticipated, might both be presented positively. When both first options and alternatives were positively stated, advice could be revised and modified without loss of face or trust if, at a later stage, it was seen that alternative options were, in fact, more suited to that particular patient.

Although P2 had been presented with an option of an open fitting hearing aid at a previous appointment, and was, as shown above, expecting one, A2 presented alternative hearing aid options, in addition to the open fitting. A2 presented all the options (open fitting and conventional hearing aids) with an explanation of how they could accommodate P2's hearing loss if they were selected. P2 thus merged expert information with P2's needs to explain why certain options would be selected, and under what circumstances. Stivers (2006), reporting on medical consultations, found that positive statements of treatment plans (for example, that an over the counter drug would solve the problem) were less resisted by patients than statements that were negatively framed (for example that antibiotics would not be useful). In Case 2, positive statements of advice not only reduced resistance, but also served to prepare P2 for alternative solutions should his preferred option not prove to be as successful as anticipated. This strategy is seen to be adaptive to the uncertainty of the outcome of the preferred option.

Open fitting hearing aids had recently been placed on the market by just one manufacturer (the Resound Air from GN Resound) when the data was recorded for

this study. This simplified the decision-making for any patient suited to such hearing aids, as a variety of brands and models did not need to be considered. The type of hearing aid was reintroduced during this appointment at turn 445 in Extract 11.12 (below), which illustrates how A2 displaying her preference for the Resound Air open fitting hearing aid.

**Extract 11.12 Case 2 Positive Statement of Preferred Option**

444. A2: [your hearing's] you know pre<sup>^</sup>tt<sup>y</sup> goo:d um so I'll just show you um a a couple of different um designs sk that [we have?]
445. P2: [hm-hm.]
446. A2: we'll go through it systematically=
447. P2: hm-hm hm-hm.
448. A2: =I know that we did talk a little bit about that particular=
449. P2: [hm. hm. hm.]
450. A2: [ah new one] called the Resound Air -
451. P2: [hm. hm.]
452. A2: [and we'll] just (.) present it all to you
453. P2: [hm-hm.]
454. A2: [ah and] but before I do that (.) umm?
455. P2: I have a trial period do I? when I?
456. A2: yes. yes. I'll just explain all of that to you (3) umm so if you like I can talk about that first of all if you if you would like about the trial? period.
457. P2: oh just very briefly. [I er]
458. A2: [yeah. yes.] yes. of course. oh yes. well what happens with any any hearing aid that we have here um say we we fit the hearing aid today =
459. P2: [hm-hm.]
460. A2: [um you] would pay the full amount today
461. P2: hm.
462. A2: ah now for the Resound Air -
463. P2: hm-hm.
464. A2: that is three thousand dollars? for one hea:ring aid.

465. P2: hm-hm.
466. A2: um it's slightly cheaper for (.) for two but but for for the one it is um it is three thousand dollars. .hhum and you have a one? month trial in which you um do exactly that try it in a=
467. P2: [hm-hm.]
468. A2: =[variety] of situations um particularly those areas where you where you want extra help=
469. P2: hm-hm.
470. A2: =ah and during that one month period we invite you back on two other occasions just to see how it you know how thing are going
471. P2: du:ring. the month.
472. A2: during the month. (.) that's right.
473. P2: right. right. hm-hm.
474. A2: so toda:y (.) um if we were to go ahead with the fitting we would make two other appointments
475. P2: hm-hm.

At turn 444, A2 referred to “a few different designs”, which represented a typical way to present hearing aid styles to patients, but mainly focussed on the only open fitting hearing aid that was available at the time. A2 oriented towards the Resound Air hearing aid (open fitting) but did not finalise the decision. Her orientation to the Resound Air was shown at turn 466, where she referred to the cost of the Resound Air aid, and at turn 474, where she referred to going ahead with the fitting on that day – only possible with the open style fitting hearing aid, not others, that would have required custom made shells or molds.

An explanatory note is required to interpret turn 466. A2 referred to two hearing aids being cheaper than one. Two hearing aids purchased at the same time (as in a binaural fitting) were slightly cheaper than two individual hearing aids. This might be seen as a selling discourse, and again a return to the binaural discussion, but this was not overt, and A2 moved on to the trial period, perhaps mindful again that the decision to trial just one hearing aid had already been made.

At turn 446, countering her orientation to the Resound Air, A2 referred to “going through it systematically” which she did do a little later in the appointment,

explaining the features of the open fitting hearing aid. An extract to exemplify how she achieved the balance between orientation to one particular hearing aid and positive presentations of alternatives, is shown below in Extract 11.13.

**Extract 11.13 Case 2 Positive Statement of Alternative Options**

511. P2: =otherwise you block the ear up do:n't you?
512. A2: that's right. yeah. and you'd get um (.) >with a more conventional hearing aids um (.) should you decide to go ahead with one of tho^se -
513. P2: mmhm.
514. A2: you'd get really um a much more blocked feeling.
515. P2: yes.
516. A2: ah a bit like you've got a head in a barrel -
517. P2: [hm. hm.]
518. A2: that's the way ~~people described-~~ describe it. °um (2) I'll just show you° er- quite often what we used to do with say the left ear with the crosses like thi:s >just bear in mind we're trying to amplify in that high pitched region there< what we u^sed to have to fit or (.) what was quite popular with people was a small in the ear hearing aid=
519. A2: that's right. yeah. and you'd get um with a more conventional hearing aids um should you decide to go ahead with one of those -
520. P2: hm.
521. A2: you'd get really um a much more blocked feeling.
522. P2: yes.
523. A2: ah a bit like you've got a head in a barrel -
524. P2: nmhm.
525. A2: ~~that's the way people described-~~ describe it. um I'll just show you er- quite often what we used to do with say the left ear with the crosses like this just bear in mind we're trying to amplify in that high pitched region there what we used to have to fit or what was quite popular with people was a small in the ear hearing aid -
526. P2: hm.
527. A2: but but even those um it's called a completed in the canal hearing aid (.) even those people still felt quite quite blocked up -

At turn 525, A2 made two self corrections that illustrated her intentions in providing positive information to P2 about alternative options. She stated that “people described” and then corrected the tense the present to “describe”. This signaled that alternative models of hearing aids are still currently in use, so that if it transpired later that the open fitting was not successful, alternatives would be considered as viable and current options. A2 corrected herself later in the utterance a second time, stating first “this is what we used to have to fit” and correcting this to “what was quite popular”. This self correction shifted the image presented from a negative one, as in suggesting that this was all that was available (what we used to have to fit) to a positive choice (“popular”). A2 thus appeared to be consciously aware of the strategy of presenting positive information, as evidenced by this self-correction.

This ability to orient to a particular product but maintain interest in alternatives is highly strategic and suited to the audiology context. Presenting alternatives as positive and viable does not appear to be *selling*, in which it would be expected that the superiority of one product over others would need to be shown. The self-corrections represented an orientation away from selling a product. Further, this discourse was marked as counselling rather than selling, by providing information that was oriented specifically to the patient’s difficulties, rather than towards a particular product. Framed in a positive way and using voicing to account for the experiences of other patients and alternative technological solution, signaled experience and confidence in the approach on the part of the audiologist. The effect was that should there have been a need to alter the decision about which hearing aid to choose, this could have been achieved without any loss of face by either the patient or the audiologist.

The difficulty that audiologists in the focus group meeting expressed about raising expectations and then preparing patients for disappointment was managed by A2 in that although she recommended the open fitting, she explained how she would cope with the difficulties the patient might experience if he had to use the other types of technology. The technology of choice was not presented as a positive and the other choices as negatives, but rather, the reasoning behind the choice and what the alternatives would be if another choice needed to be made was

presented. Overselling a product whose performance is unsure was avoided through this strategy of positively stating alternative options.

It would seem from this analysis, that both A2 and A3 adopted strategies that allowed them to avoid *selling*. A3 offered implied advice as an attempt to avoid the selling role. A2 offered positive statements of advice and alternatives. It would appear from this analysis that the positive statement of alternatives is grounded in the audiologist's own experience of those alternatives, and is a discourse strategy that might not be readily available to novice clinicians, who lack first hand experience of the alternatives. A3 had less clinical experience than A2, and this may account for his reliance on implied advice to avoid the selling role. Arguably, A2 had more discursive resources to authentically draw on as a result of her professional experience. This was a clear example of discursive expertise matched to professional experience.

#### **11.4 Co-Constructing Advice: Summary of Findings**

The microanalysis of these three cases identified strategies that were adopted in managing expectations of hearing aids. Offering explicit advice was a key strategy that facilitated the decision-making process. Where advice was formulated but not made explicit, risk was introduced in the interaction that the implied advice may be ignored or not recognised by the patient. Positive statements of preferred and alternative options allowed for the modification of intervention plans at a later stage without a loss of face. The selling role could be avoided through either implicit statements of advice (which introduced risk) or the positive statements of alternatives (which appeared to carry less risk).

A summary of the main findings follows:

- Audiologists formulated advice which was stated either explicitly or implicitly.
- Explicit statements of advice appeared to facilitate shared decision-making in these appointments.
- Explicit advice can be presented in such a manner that alternatives to the preferred option are presented as viable options, thus preparing for altered recommendations in the case of poor success with the preferred option.
- Presenting both preferred and alternative options in positive terms allowed the audiologist distance herself the selling role.
- Where advice is neither explicit nor positively stated (that is negative statements or implied advice), careful monitoring of the patient's responses is needed to ensure that modifications to the approach are made to enable a satisfactory outcome for both patient and audiologist, in the available time.

The detailed analysis of how advice is offered and taken up in the clinic setting has revealed advising strategies can differentiate counselling discourse from sales discourse. This analysis thus informs the profession of useful and valuable ways of approaching the offering of advice and clearly identifies the risks of offering implied advice in this context, where it might be either ignored or not recognised. The understanding of advice as needing to be explicit, positively stated and grounded in information serves to inform management and funders of the complexity of the clinical interaction inherent in these discussions. This is evidence that funding models, clinic programmes and clinical education need to recognise the interactional and co-constructed nature of clinical work.

## **Chapter 12 Conclusions: Implications and Applications of this Study**

This study has demonstrated the importance of responsiveness of audiologists to their patients during clinical appointments. This finding, when related to the focal themes (see p. 139) that were identified by participating audiologists at the start of this study suggests directions for professional change. This chapter discusses two possible avenues for professional change as being those of training programmes (both within universities and as part of ongoing professional education) and funding models. To close, directions for further discourse analytic research to guide the future development of the audiology profession are presented.

Responsiveness by audiologists to patients was seen in this study to contribute to how audiologists both established rapport at the start of appointments, and developed rapport during those appointments. Rapport between patients and audiologists was seen to emerge in the recorded data in ways determined by the interplay of factors such as experience, age and gender. Variation in the way that rapport was demonstrated was consistent with other studies that explain rapport as a co-constructed phenomenon (Spencer-Oatey, 2005a). Responsiveness by audiologists was seen to facilitate the achievement of clinical tasks such as the conducting of case histories, presenting audiological diagnoses, and advising. Deviating from the traditional medical model occurred when audiologists responded to information obtained from patients, which in turn facilitated their anticipation of the rehabilitative phase of these appointments.

The findings of this study demonstrated that responsiveness to patients was closely associated with using information obtained from patients to formulate advice, but the interaction between patients and audiologists, with its characteristic responsiveness, was seen to be far more complex than the simple information-giving that is suggested in much of the previously published audiology literature. Information offered by patients, when used by audiologists in the structuring of advice, served to facilitate acceptance of that advice. Advice that was positively and explicitly stated was effective in facilitating shared decision-making. Responsiveness to patients has been shown in other studies to be a

demonstration of patient-centredness (Sarangi, 2007; Zandbelt, et al., 2006). This study similarly found that responsiveness by audiologists achieved patient-centeredness and facilitated shared decision-making.

Being a responsive audiologist was shown in this study to require both sensitivity to the social/clinical context, and knowledge of the field of audiology. Responsiveness to patients by experienced audiologists showed evidence of creative and strategic language use which was not observed in those appointments conducted by less experienced audiologists.

Recognising that responsiveness to patients is an indication of professional expertise has implications for clinicians, managers of audiology clinics, and educators of audiologists. The remainder of this chapter addresses the question of how the findings from this study might be made meaningful to those within the profession.

Instituting change in the professional context is likely, as suggested by Roberts and Sarangi (2003) to be more challenging than acquiring the data to support that change. A multipronged approach, whereby consciousness is simultaneously raised amongst practitioners, managers, funding/professional bodies, and educators, is proposed as being necessary to promote professional change. Such professional change is likely to have both evolutionary and revolutionary aspects (Corrigan and Boyle, 2003). As is discussed below, evolutionary aspects of change are closely associated with training of audiologists, whereas revolutionary change requires changes to models of service delivery.

### *Changes to Training in Audiology*

Audiologists can learn to respond to their patients if this is taught at university. Newly qualified clinicians would then emerge from universities with knowledge and skills that enabled them to be responsive, confident that their responses were not extending their services beyond the bounds of the profession. This knowledge,

coupled with clinical experience, would produce audiologists who recognise responsiveness as a valued clinical resource. Such a change can be expected to be evolutionary, and take some years to reach clinical practice. However, there has been a recent turn to communication in the field of clinical education in audiology, which, if it incorporated the findings from this study, might be effective in ensuring a faster translation of the knowledge gained in this study, to being implemented in professional practice.

The orientation of the clinical education movement to communication combines well with a discourse analytic approach to studying professional practice. In fact, these two aspects might be considered symbiotic. The importance of matching the current turn to communication with discourse analytic research can be seen from evidence which is close to home for the present study. In 2007 and 2008, an innovative programme of training for clinical educators was introduced at Macquarie University. Clinical educators were encouraged to examine the communicative practices of students under their tutorship. Not having research data available, clinical educators were encouraged to rely on their “knowing-in-practice” (Schon, 1983, p. viii). Turning to communication without research data to provide a “thick” description first (Geertz, 1973) provided an ambiguous message to those being trained. For example, in the area of the case history, there was a broad recognition in the workshop that the case history might involve more than a series of direct questions. The findings from this study are consistent with that suggestion. However, clinical educators were taught to encourage novice clinicians to “achieve effective communication, history taking is client focused and not linear - a cookbook-type approach is unlikely to be appropriate i.e.: don’t interrogate with bald questions such as:–Reason for visit–Which is the better ear?–Onset of hearing loss–gradual or sudden–Associated pain–Tinnitus–Vertigo–Family history” (Macquarie University, 2008, p. 10). The findings from this discourse analytic study, however, suggest a more complex relationship between clinical interaction and questions than was presented at that workshop (see chapter seven of this study). Without knowledge of the multiple purposes that questions might serve, a clinical educator might misjudge student performance and misdirect their learning by encouraging only certain types of questions to be asked. Rather than suggesting that certain types of questions should be avoided and others asked, the

findings from this discourse analytic study suggest that student clinicians need to learn to recognise the impact of their questions, and to respond to the information that is offered by patients. Evidence from the materials produced by that training programme, although representing a welcome turn to communication, is that discourse analytic skills and data from discourse analytic studies are valuable, if not essential, to clinical educators.

Discourse analytic methods are not typically accessible to many audiologists, who have a grounding in quantitative methodologies and a commitment to *evidence based practice*, (Cox, 2005; Sackett, Rosenberg, Gray, Haynes and Richardson, 1996). Audiologists have, as a group, accepted and advocated the principles of evidence based practice (Dollaghan, 2004; Thorne, 2003). A recent call to rely on case studies as evidence (Walden, 2006) is perhaps an indication that some audiologists are developing a critical evaluation of the principles of evidence based practice, such as has recently occurred in other fields such as nursing (Wall, 2008) and medicine (Broom, Adams and Tovey, 2009). Related to this lack of critical evaluation is a lack of familiarity with qualitative research methods and discourse analysis in particular. As Sarangi (2001) warns, discourse analytic studies tend to be illustrative, and that those grounded in a positivist background are likely to need exposure to the value of discourse qualitative methodologies and discourse analytic studies in particular, before embracing the findings from such studies.

Leahy and Walsh (2008) propose the adoption of discourse analytic methods in the clinical education of speech pathology students at the university level. They provide training to their students in discourse analysis. Clinical educators and students are thus able to explore issues such as therapeutic discourse, communicative competence and rapport using discourse analytic methods. This opens the field of discourse analysis to their profession from within their university programmes. Providing professionals with discourse analytic skills creates the opportunity for them to turn to the discourse literature as a clinical resource, and encourages them to contribute to the growing body of knowledge associated with discourse analysis through undertaking research in the field. Teaching discourse analysis to audiologists could similarly offer them a tool for adopting reflexive practice (Taylor and White, 2000) and for undertaking clinical research.

Professional bodies responsible for the ongoing education of clinicians could expand the skills of practicing audiologists to match those of new graduates through exposing them to discourse analytic studies. A project whereby discourse analysts have attempted to share their insights with practicing professionals as an ongoing professional development project is that of lawyer client conferencing (Candlin, et al., 1994). In their training programme, these researchers adopted a four phase training programme of *awareness, knowledge, critique* and *action* which was based on the examination of data from lawyer-client conferencing by lawyers themselves. By building up the analytic skills of lawyers, discourse analysis was brought into the professional development of legal practitioners.

As shown above, the precedent has been set for the adoption of discourse analytic methods in both university training and in professional development programmes.

### *Changes to Funding Models*

Rapid, revolutionary change to the profession would come about if funders and professional bodies were to alter funding models in line with the findings of this study. As it was shown that funding models significantly impact on clinical interaction and rehabilitation, and currently serve to perpetuate the dominance of technological solutions over other possible forms of intervention, funders concerned for the welfare of patients might be prompted to modify their funding models accordingly. Were Medicare Australia to fund audiology services that addressed the psychosocial aspects of deafness, this would constitute revolutionary change. Even more revolutionary in the Australian context would be if a distinction were to be made such that attending to psychosocial aspects of deafness were to be recognised as the domain of audiologists, but not audiometrists, thus providing a clear distinction between these two groups of service providers. Were OHS and private health funds to pay for services to audiologists based on a time based scale (as suggested in chapter ten of this study), not privileging technological solutions over counselling and/or

communication training, this would constitute further revolutionary change within the profession.

It is possible, that clinic managers who have autonomy over the funding models applied in their clinics, might, when faced with the evidence from this study, reconsider their adoption of current funding models to private patients. Managers might seek to implement fees based on an hourly rate, in line with other professionals such as psychologists or medical practitioners, if the consequence of the current practice of price-bundling was demonstrated to them (as shown in chapter ten) as not always ensuring the recovery of costs. Revised fee structures for private patients are more likely to be considered if institutional change amongst third party funders took place. The findings from this study suggest that third party funders should acknowledge that a focus on psychosocial issues is the domain of the audiologist. Disseminating the findings of this study will provide audiologists and professional bodies with the language with which to address these issues in discussion with third party funders. By demonstrating that current funding models can have a negative impact on patient care might prompt third party funders to re-examine, and perhaps review their own practices.

During 2008, significant changes to the OHS clinical pathway were proposed that served to narrow, rather than widen, the difference between audiologists and audiometrists (Office of Hearing Services Australia, 2008) and entrench medical domination of rehabilitative decisions. In the documentation that was produced by audiologists in response to those proposals, it was evident again that audiologists themselves have difficulty articulating their scope of practice as different to that of other service providers (Audiology Australia, 2008). After more than eighty individual responses from audiologists to the proposed changes were received by OHS, a revision of their proposals has been promised. In responding to the proposals, audiologists have relied on their opinions and anecdotes. This study offers an analytic frame through which to view clinical practice, and could serve as a valuable resource to those in the profession and representative bodies such as Audiology Australia, as they seek to explain the effect of existing funding models on service delivery on patient care.

### *Directions for Further Discourse Analytic Research in Audiology*

The present study has been, to the author's knowledge, the first discourse analytic study of professional audiological practice. As discussed above, this study has demonstrated that clinical insights can be readily obtained through discourse analytic investigations of clinical sites in audiology. Expanding this methodology to other sectors of audiology is important for discourse analysis to become a valued and familiar resource to the profession. It is a resource that, as shown in this study, and as discussed above, can serve to instigate and support change, a resource that can guide clinical education, and a resource that provides an analytic frame for discussing awkward and complex topics related to clinical practice. Exposure to what discourse analysis can offer the profession is likely to enhance the acceptance and uptake of these findings, and also to create opportunities for further collaborative research between audiologists and discourse analysts (Sarangi, 2001).

While appointments that addressed both diagnostic and rehabilitative aspects were examined in this study, they nonetheless do not represent all of the types of clinical interaction that are undertaken routinely in audiology clinics. In order to obtain further information about the nature of clinical interaction in audiology, the following areas (at least) could be investigated:

- Diagnostic services (hospital and non-hospital based)
- Paediatric services
- Rehabilitation services (individual and group)
- Hearing aid fitting and follow up services
- Geriatric services
- Tinnitus services
- Community based services

- Services offered for adults and children who are Deaf and where sign language is the preferred mode of communication (with and without interpreters as reflects daily practice)
- Services offered where participants do not share a common spoken language (with and without interpreters as reflects daily practice)

The findings from this study will be consolidated and enhanced through further discourse analytic studies conducted in other research sites within the field of audiology. The research process, begun through this study of naturalistic data in one clinical setting, will thus serve to guide the development of the audiology profession as it continues to seek improved ways to assist those for whom deafness is a significant aspect of their lives.

## Closing

To close, the reader is reminded of the vignette that opened this thesis. Attending to symmetry, a closing vignette is in order, predicting a changed world for audiologists and their patients, one in which professional recognition is achieved and represented in funding models, clinical education and service delivery.

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### *Two professionals (A, an audiologist and B, an engineer) meet socially*

B: what do you do?

**A: I'm an au:diologist**

B: that's interesting I've just come from a consultation with my audiologist

**A: well in that case (2)**

*((A hesitates having had so many experiences of facing the stigma of being an audiologist in similar social situations))*

**umm er then I'll just move over to this side so you can see my face better in the light and so the background noise is behind you**

B: thanks that's just what my audiologist advised in fact she spent a lot of time explaining about communication and deafness and we talked about my problems and of course I also am trialling some new hearing aids

**A: are they useful?**

*((A waits for the usual complaint about hearing aids to come up))*

B: best money I've spent in years my tinnitus is gone and I can hear in meetings (.) in here they seem to be very good too (.) so where do you work?

**A: er I er umm .hh ok I work at the university in a research clinic (.) we do lots of work on clinical interaction in audiology between patients and audiologists**

B: so where did you get your degree?

**A: actually I have a few degrees, and I'm about to submit my PhD for examination**

B: yes I was surprised that not all audiologists have to be medical doctors (.) the one I went to certainly knew more about hearing than my GP did (.) so where is audiology headed in the future?

**A: we've recently gone through a change process to how we work, with new funding models introduced and innovative ways to look at our clinical practice (.) it is very exciting**

B: yes actually my mother who is on the pension said she was told to go in and have a chat to her audiologist about a new policy (.) something about communication or something (.) will make sure she goes along (.) lets keep in touch...

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## Appendix

1. A1: -back there if you like (.) actually I'll just move the chair here (.) we'll be starting with this machine
2. P1: righto  
(.)
3. A1: just have a seat there (1) -:NOW my name's A1:
4. P1: xxxxx xxxxx?
5. A1: huh well not quite [laughs]
6. P1: [laughs] =not quite that's the name of a xxxx?=  
7. A1: [that's true]
8. P1: =[I get that] from doing crosswords.
9. A1: I like doing crosswords too (.) you do them every day?
10. P1: do the Herald every day and I do the Age every day
11. A1: >yeah< I like doing the Herald one
12. P1: yeah I only do the simple one
13. A1: yeah me too (.) it's a bit hard to get it all out though isn't it?
14. P1: got it this morning?
15. A1: You [did?]
16. P1: [uh uh]
17. A1: I haven't seen it yet today ha (.) you must be pretty good if you got it all out
18. P1: well I have a book (.) crossword books (.) n I've got a little machine >if I get stuck<
19. A1: ah yes (.) I've heard of those
20. P1: they're very good:
21. A1: yeah ok. now um (.) you've come in today?
22. P1: HOPIING =
23. A1: mmm
24. P1: =that you can find some gear that can allow me uh (.) to hear better [because] I've got this. I've got
25. A1: [mmhmm]
26. P1: I've got two hearing aids >I've got one in my pocket< uh
27. A1: yeah  
(1)
28. P1: uh I'm at a loss half the time because I can't hear if I'm in a (.) dining. with people
29. A1: [right]
30. P1: [that's not] very good yet I wear a um a remote control on the television (.) and I can hear very well [as it]

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31. A1: [mmm]
32. P1: comes into the right into my ears  
(2)
33. A1: and how long have you had those hearing aids?
34. P1: these ooh five or six years I've had hear hearing aids for  
about ten years (.) I go to Xxxx.
35. A1: right
36. P1: the last time I went they said you've got the best I can't  
help you so (.) I was talking to um Xxxx is a mate of mine he  
was the (names position) here
37. A1: right (laughs)
38. P1: (laughs) he said go along here
39. A1: right (.) ok: (.) so you've had those hearing aids for 5 to 6  
years you said and sounds like you had another set before then  
did you?
40. P1: pardon me ?
41. A1: DID YOU HAVE ANOTHER SET OF HEARING AIDS BEFORE THESE ONES?
42. P1: Yeah I er (2) got one in my pocket somewhere ((searches for  
hearing aids for 3 seconds)) it's gone-
43. A1: oh that's ok Mr P [that's fine]
44. P1: [it was a er u ]little one and I had both  
ears
45. A1: yeah
46. P1: I couldn't stand both ears I lost one in Africa =
47. A1: right [pause] you lost one [in Africa?]
48. P1: =then I went on to that and they said um I said give me one  
with an ae:rial
49. A1: right
50. P1: and I was er at Bowls the other day (sniffs) (.) and er one of  
the bowlers he had this machine (.) and the er he had three  
little things on it that carried around on it (.) >about that  
big.< he had three different levels of hearing [on it]=
51. A1: [right]
52. P1: =and he said that was very very good
53. A1: right.
54. P1: I'm fairly well off ha and I don't mind if I have to pha:y for  
it (laughs)
55. A1: mmmm
56. P1: ah and I thought I want to find out what's the best? and if  
somebody can do. something : for me :

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57. A1: ok (.) hh all right well um we'll get to that later
58. P1: ok
59. A1: I'll just find out a bit more information from you so with your hearing loss is it the same in both ears
60. P1: umm I think one is worse than the other
61. A1: do you know which one's worse? Or you
62. P1: this one I think's worse
63. A1: right (.) how long have you had a problem with your hearing?
64. P1: with my hearing?
65. A1: mmm
66. P1: well ten or twelve years [pause] but it's getting worse
67. A1: it's getting worse ok um have you been exposed to any noise over your working life
68. P1: was in the airforce used to fly
69. A1: right how long did you do that?
70. P1: four years
71. A1: that was a long time ago?
72. P1: 1941 to 45 that's a long while ago most of the guys that I flew with have all got hearing aids
73. A1: right (laughs) and since then has your work been noisy?
74. P1: No I'm a clerk simple clerk
75. A1: ok oh well every u there's ever there's probably nothing simple about being a clerk (laughs) every job is important um have you got any noises in your ears? Like ringing or buzzing?
76. P1: no
77. A1: no do you have any other problems with your ears? For example ear aches, discharge, nothing like that?
78. P1: no
79. A1: no any problems with your balance?
80. P1: balance? Yeah right at the moment yeah I have a lot
81. A1: yeah
82. P1: but that's only recent and they think it's um what did they call it er labyrinthitis so if I get up I have to sit on the edge of the bed for a minute there e but he tested me with his with eyes you know like this
83. A1: yeah
84. P1: the last time I went to him he said it's gone you're getting better so I'm getting a lot better with the
85. A1: was that only happening when you were getting up?

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86. P1: no if I move if I
87. A1: if you move?
88. P1: if I go from prone to sit or from sit to with the other
89. A1: so that's easing now? That's getting better now, is it?  
(louder)
90. P1: yeah I don't feel so giddy I was tending to fall over
91. A1: and when did that start?
92. P1: a month ago
93. A1: and you'd never had that before?
94. P1: doctor said it was a virus
95. A1: right ok now just getting back to the hearing aid problem what exactly are you unhappy about? With the hearing aids? What what's the most
96. P1: well I mean er I'm sitting down with eight people to dinner
97. A1: mmm
98. P1: I hear one third of the conversation
99. A1: right (.) does it help. if you've got bo:th. hearing aids in?
100. P1: well I never I only ever wear=
101. A1: you only ever wear one?
102. P1: = one
103. A1: yeah (.) ok (1) do you wear do you wear the hearing aid all day?
104. P1: no-:
105. A1: no? ha how often would you wear it?
106. P1: whenever I want to talk to somebody or if I humm a::h  
(laughs) ho:ney. (.) I put it in if I'm (.) going to have a conversation. (.) I just put it in a while ago (.) b't I drove here without it I feel happier (1) without wearing it:-
107. A1: ri:ght.
108. P1: so I drove here (.) came in(.) spoke to the desk put my hearing aid in to speak to them
109. A1: right. Ok. (5)umm ok? well I'll just have a look in your ea:rs first >can you hear< if if you haven't got your hearing aid in can you hear can you still hear?
110. P1: yes and I can hear my wife? when she speaks to me loudly?
111. A1: yep
112. P1: and I can hear lots of voices but some voices these are just mumbling to me
113. A1: ok now I'm just going to have a look in your ears (looks with otoscope) Now Mr P the first test I'm going to do is a middle

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ear test you won't have to do anything at all for this test  
I'm going to put a soft plug in your ear

114. P1: A what?

115. A1: A soft plug (louder and slower) like this you're going to feel a bit of pressure change and then you'll hear some loud sounds first in one ear and then in the other but you don't have to say anything during the test

116. P1: I've got a chip on my shoulder (refers to probe assembly)

117. A1: laughs ...I'll just have to get this in a bit tighter

118. P1: all right

119. A1: right I'll have to try a different size

120. P1: got small ears because those little radios I can't get the all keep falling out

121. A1: do they? Maybe I'd better try a smaller one oops sorry can we turn this off? It's whistling a little bit

((Audiologist carries out immittance measures - some mention of test procedures, swapping ears for approximately 12 minutes))

122. P1: (coughing) (

123. A1: you ok Mr P [yeah?]

124. P1: [coughs] wouldn't mind a little drink =

125. A1: =drink of water? Ok I'll just go and get it for you

126. P1: thanks ° dear. ° that's blocking the ears: (coughs)

((A brings in water after 1 minute - silence in room - no coughing ))

127. P1: thank you very much -

128. A1: that's all right=

129. P1: [I chair a mee:ting. once a month.=

130. A1: =[I got it for you]

131. A1: I got it for you in a nice cup too- (referring to plastic cup) laughs

132. P1: =they (.) they they they tell you all to speak up and speak up and they found me a er (.) well they found a er (.) I got a kind of mat in front of me there are three little speakers down the board room

133. A1: mmm

134. P1: and I switch this over (.) and I can hear every:bo:dy.

135. A1: [right]

136. P1: [it's a ] special circuit

137. A1: that's right

138. P makes a difference=

139. A1: [it makes a bi:g difference].

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140. P1: =they should put one on every dining table (laughs)
141. A1: yes it's good that it made a difference though
142. P1: thank you (putting down plastic cup)
143. A1: that's ok just got to check this ear now
144. ((Continues with immittance testing (17 minutes) some reference to probe fit))
145. A1: Has it been a while since you had a hearing test?
146. P1: About er a year they called me in but I said I'd prefer to come to see people that are more interesting mmm
147. A1: (laughs)
148. P1: I didn't tell them
149. A1: ok so this will be similar to the tests that you've had before ((Carries out pure tone and speech audiometry tests ))
150. A1: we're finished the testing Mr P now would you prefer me to talk to you like this or would you like to put your hearing aid back in
151. P1: Either whichever you say
152. A1: Which do you prefer?
153. P1: this
154. A1: ok well the outcome of the testing is that um is probably no surprise that there's a hearing loss in both ears: they appear to be reasonably equal there's just a slight difference um er in the high end in the high pitches (.) very slight though with the right ear being just a little bit worse .hhh you've got a hearing loss across all the range that we test it is fairly mild in the low range and then gets worse. as we go down the range. so it's worse. in the mid pitches in the mid to high pitches. .humm? for the speech test you did quite- really well? when it was loud enough for you (.) you got most of them right. the other test that we did- that I did over there was just looking at um the eardrum umm looking at eardrum movement that seemed to be ok in both ears tk so the problem with your hearing is (.) the a deterioration of the hearing nerve so it is right inside the inner ear its not a middle ear problem. .hh so (.) just getting back to your problem (.) the reason that you've come in for the hearing aids. (swallows)(.) now I think that um (.) .hh if you've >you're really unhappy< with these hearing aids you don't want us to um: have a look at them or see if we can um change the settings or adjust them in any way?

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155. P1: I'd rather
156. A1: you'd rather get new ones?
157. P1: I'd rather do what you advise me.
158. A1: right?
159. P1: all? right?
160. A1: yeah
161. P1: and if I could (.)improve it
162. A1: yeah
163. P1: I'd be deli::ghted?
164. A1: right. (.) well. this is my advice the only way you are going to improve? your hearing is if you wear two hearing aids and if you wear them most of the time um and that means um that you you you've got to accept the hearing aids you- you're wearing and if you're not if you don't like those um if you're not happy with them anyway we'll have a look at them first (.) I I don't know though if we've got this software this is a different hearing aid to the ones we fit
165. P1: there was one that er (2) this chap had the other day I er I forget the name of the one that he told me
166. A1: mmm
167. P1: but it had a it had a [unintelligible] I'll go back to the other
168. A1: go back to the other ok
169. P1: ah he was wearing it at bowls yesterday and he just had the hearing aid in and sometimes he's got this little machine about that big that has got three different levels and he says he can put on different pressures for when he whether he wants to cut out all the background noise and things like that
170. A1: it sounds like its
171. P1: it cost him a few thousand
172. A1: it sounds like it's just a remote control
173. P1: yah
174. A1: yeah so er (pause) so instead of adjusting the hearing aid here from dials on the hearing aid he's just doing it from a remote control
175. P1: he said one cut our all the background noise there were three different levels
176. A1: that's right they usually come with three different programmes one for a quiet listening environment and one for a noisy environment and one for picking up that loop like you said you

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did in that meeting all right but I think we need to address your problem though what we can do we can either do one of three things we could um have a look at these hearing aids that you've got here but then again I'll just need to check whether or not we've got the software because we don't fit that particular type

177. P1: that's all right

178. A1: you you're also er a a veterans affairs aren't you- you can either go back >because you can get hearing aids through the government.. you can either go back via that. -avenue and you can get them through the government but you can get what is called a top up (.) scheme so you c'n they pay for like the basic hearing aid but you can get a more expensive one (.) if that is what you choose o:r (.) you can just go private and get um a private one- we don't fit the government ones here (.) this is a private clinic we only see patients who: (.) who are private who pay. for the hearing aids um up front- (3)

179. P1: I'm a wealthy. (.) ma:n

180. A1: right (.) ok

181. P1: >so I'm still taking your advice.<

182. A1: (laughs) alright but I I'd I'd y'know I I just want to do what is best. for you. (.) so um with the if you: if you if if you want something that's it's um sort of state of the art: we can show you what there is

183. P1: good

184. A1: and that would be if if you want a remote control we can show you one with a remote control um I think the only company that has hearing aids with remote controls is Phonak does that ring a bell is that what your friend had?

185. P1: no he sees he sees a fellow by the name of What in Epping or Eastwood or something like that

186. A1: I'm not sure

187. P1: and er but Xxxx said Xxxx Xxxx he said you look after him he's got a one with a tiny little aerial

188. A1: You definitely need the ones that go behind the ear because of the degree of your hearing loss that is the best type for you

189. P1: I thought it might be

190. A1: Yes so we should stick with that type er um now the situation here I'll just explain before I show you anything er um that

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we give you one month's trial period with the hearing aid you pay for them when we fit them then you get to try them out for a month and if you don't like them you can return them and we refund your money minus two hundred dollars

191. P1: that's pretty good isn't it
192. A1: mm er and during that month we'd see you regularly so we'd see you a two weekly intervals because there's a bit of fine tuning as you're no doubt aware and adjustments to be made er and after that period of time we see you regularly every first at first every er at three months and then we'd leave it six months but we'd keep in contact with you now I think the big problem is um that you need to accept I think that the hearing aids aren't going to solve your hearing problem completely they are never going to restore your hearing
193. P1: oh I didn't expect that
194. A1: to the way it was
195. P1: didn't expect that
196. A1: yes so you have to be a little bit patient and a bit motivated to persevere with them and I think the big factor is that you've got to try and wear them as much as you can and you've got to try and wear two because with two hearing aids you're going to cope much better when there is background noise
197. P1: I always wanted to wear the two hearing aids and when I'm in the street I feel as if I'm going to get run over
198. A1: yep
199. P1: I feel unbalanced or something
200. A1: right well perhaps you don't need to wear them in the street but mm at your meeting or when you have you know
201. P1: mmm
202. A1: or in conversation it is much better to wear the two ok look I'll just show you what um some of the different types
203. A1: umm the other option Mr P is um whether you want something that er where y where you have to change programmes like where you've got to go from you go from a quiet environment to a noisy environment where if you want to change the programme yourself or whether you want to try something that you just put on your ear and you don't have to do anything at all
204. P1: your advice?

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205. A1: (laughs) it's er well you know you've worn you've worn hearing aids for a bit now what in your are you are you comfortable with that sort of thing?
206. P1: I er um I carry it in my pocket and if I'm going to listen to somebody I er I er I try and listen but at the moment as I say I er I go to er I was at a dinner party on Friday night for ten people I can't hear I only hear one third of the conversation
207. A1: mmm
208. P1: it's bloody aggravating
209. A1: yes well it would be very frustrating umm (pause) well this company this company makes quite nice looking hearing aids so it would look something like that now I've got that's what they look like (pause ) we could probably get it even a bit smaller than that one
210. P1: what it looks like doesn't worry
211. A1: doesn't worry you
212. P1: doesn't worry me at all I can wear a trumpet
213. A1: yes well (laughs)
214. P1: the look of it has I'm past trying to look good
215. A1: So you're just concerned about the performance?
216. P1: only performance
217. A1: performance
218. P1: if I've got to wear something about that big I don't care
219. A1: ok what we might do is just (fiddles with papers / on desk) I might just um put your details on the computer and um would you like to come and have a seat over here Mr P (pause)
220. P1: they don't need to last twenty years because I'm not going to last that long
221. A1: oh you never know (laughs) umm did you want something with a remote control?
222. P1: no no I don't care
223. A1: you don't care
224. P1: no no there was one one another man that had another one that raised er er that er (clicks tongue) it could either go up or down and er
225. A1: (punches details into computer) sorry if you'd just bear with me for a moment I won't take too long

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226. P1: I've got nothing to do
227. A1: (laughs) - continues punching in details into computer um Mr P you said that you attend meetings is that just once a month?
228. P1: um yeah I'm chairman of the company
229. A1: right um is are the any other sorts of
230. P1: so I have occasionally business meetings and things like that because I have the meeting they've put this they've bought this equipment in the board room
231. A1: right
232. P1: put in for me I just switch this over and providing I'm sitting above it
233. A1: yeah
234. P1: I can hear everyone in the room works very very well
235. A1: that's good yeah
236. P1: I'm delighted with it (laughing)
237. A1: so you're chairman of the so you attend these meetings are you a member of any other groups? Did you say you played bowls?
238. P1: I play bowls
239. A1: yeah
240. P1: I go to a bowls meeting er and I'm talking with alternatively yesterday after bowls there were six people
241. A1: mmhmm
242. P1: and I could only hear about a third of what's being said even with my hearing aid
243. A1: mmm and you live at home with your wife
244. P1: I live at home with a wonderful wife
245. A1: yeah that's great (laughs) and so you have lots of family coming to visit?
246. P1: no I don't see family but we lead a fairly social life
247. A1: right
248. P1: ah I live at Xxxx and er I'm well off as well you know (laughs) I'm a very happy man
249. A1: that's great (laughs)
250. P1: except for my hearing
251. A1: right well with this company I guess the the top of the range hearing aid would be this one um so see that shaded area
252. P1: yeah
253. A1: that's the area that the hearing aid. um amplifies. so that covers (.) so we this is your hearing loss that bold line so

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- we'd need something that wa:s (.) a little more (.) that gave a a bit more um
254. P1: [mmhmm]
255. A1: [amplify]ica:tion.(.) for your hearing loss- so you'd want something that you that's going to: give. you. (.) really. give. you [a good]
256. P1: [((coughs))]
257. A1: a good. Range. (.) °um ok° so it looks like >that one is about the be:st< for this for your hearing loss that gives you
258. P1: [yeah]
259. A1: [good] good amplification there .hh what we could do is we could or:der it. if if you're happy to try it out, this particular hearing aid is the one that you just put on and you don't have to do. anything you don't have to change programmes. you could try it out like that without a remote control umm so if you got a remote control you'd be overriding that automatic function. (.) .hh so that's one option to try something like that out. (.) .hh um but you do: need to wear two.
260. P1: O^k.
261. A1: yea:h you need to be a bit more sort of diligent. about wearing them all the time you can't sort of carry them around in your pocket ( umm you have to make an effort. to wear them
262. P1: ok?
263. A1: so you could um I mean we could do that for you here if you didn't want to pay the whole lot you could go to a provider a hearing aid provider that also fits hearing aids for the government and some of it would be subsidised by the government
264. P1: how much do they subsidise
265. A1: they probably subsidise to like a basic amount I'd say it would be anywhere between eighteen hundred and two thousand I'm not too sure don't quote me on that
266. P1: I may as well find out and then I can give it to charity can't I
267. A1: that's right (laughing) I'll just get you a price on this so you know I just I forgot to bring the book in (pause) ((leaves room and comes back))
268. A1: so I think um

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269. P1: we can ring veterans affairs and find out how much they will give
270. A1: oh we can just ring Australian Hearing they're the ones that supply the hearing aids
271. P1: ok dear
272. A1: I'll give you a pamphlet before you go
273. P1: I'm quite serious about it I'll give it charity
274. A1: yeah (laughs) (.)um so this is er Pho:nak. Perseo. (.) u:m I think because you lead such an active life?< and you attend meetings. and it is so important for you to hear (.) it is probably worth (.) spe:nding a little bit extra and getting >the best< =
275. P1: [why not]
276. A1: =[you know] because er I mean I don't want to give you something that you don't need?
277. P1: that's all right I don't mind the money
278. A1: right (2) so these are Phonak Perseo's and you'd need two::.. these come with all sorts of little gadgets these come with what is called a watchpilot where you can change make changes using the dials on a watch and it is probably best to stick to something si:mple to begin with huh
279. P1: I can't even work the new video?
280. A1: um (.) >we'd have to< gi:ve you a (.) er this is a pr::i::ce with a watchpilot so it would probably be a bit cheaper than that (.)that's the price for two
281. P1: that's the price for two?
282. A1: yep so you can see it is rea:sonably expensive
283. P1: yeah but there's a gen
284. A1: yeah (.) um and we we'd I'd de::finitely um >try two<
285. P1: >alright<
286. A1: umm there's all sorts the we we deal with lots of other companies they all provide really good products I've just gone for this company because even though they you said you don't care they do provide a fairly. streamlined and nice looking hearing aid and (.) um
287. P1: when you say [it's like that ]=
288. A1: [they're very ]reliable
289. P1: you still have this part that goes on it right?

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290. A1: yes yes you still need the mold (3) ok ummm so that that's one option (.) umm then there's a I'll just look at there's a different company um (15) oh as you can see everything is
291. oh as you can see everything is digitally programmable so every hearing aid that you get that is new will be is programmable via this computer so when it is fitted and you come in we make any fine tuning changes using this computer
292. P1: mmhmm
293. (pause)
294. A1: now with this company their top hearing aid is this one um (enters on pc) don't know if we've got some data on that but it does pretty much the same as that one there where you just put it in your ear and you don't have to do anything so you don't have to um manipulate any dials they all have automatic volume control so with this hearing aid you're wearing at the moment does that do you have to adjust the volume no? ok yeah that's I think it's better if you don't have to
295. P1: as I say I go to dinner and I don't hear half the conversa
296. A1: conversations yeah
297. P1: I hear about a third of it
298. A1: ok um well this is that's this hearing aid here they all look the same but it it supposedly does performs similar to this one here
299. P1: what is the one you recommended?
300. A1: I'd say they're both good all these companies are good that we deal with
301. P1: well lets get one
302. A1: yeah? And you?
303. P1: let's get two actually (laughing)
304. A1: do you want to find out first if you whether em you're going to get any money back from the government
305. P1: well might as well find out if it's a couple of thousand I'd er should do do something about it shouldn't I
306. A1: yes because
307. P1: but if it's five or six hundred dollars
308. A1: because we don't we can't if if you
309. P1: because you're going to look after me and adjust it and service it and everything else

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310. A1: well er no the problem Mr P is that we don't deal with the government we don't fit the hearing aids through the government
311. P1: that
312. A1: so if you were to
313. P1: no but if I come back to you you'd have to you'd retune it and do everything else for me without going to the government
314. A1: ah no if you if you're going to get the money back from the government you have to go to a place
315. P1: I appreciate that but if I don't go to the government
316. A1: yes
317. P1: you'd remind me
318. A1: yes if you buy it privately straight out here then we'll we look after you here (pause) but you can't get the money back you see if you you've got to go through the government agency to get the money back
319. P1: to get the money back from the government
320. A1: so you yeah
321. P1: so if it doesn't work you that that you're if I'm unhappy after two or three months
322. A1: er I yeah after a month
323. P1: well I'm not likely to be unhappy ah actually we might as well just find out how much the government does give if you don't mind
324. A1: sure
325. P1: it is two thousand dollars an ear (sighs)  
(pause)
326. A1: you probably get more back do you being veterans affairs or is it the same for everybody?
327. P1: well I don't know I did my five years (laughs)
328. A1: (laughs) we'll give it a go (dials number) oh good morning look I'm ringing from Macquarie Uni my name is A I'm an audiologist here er I'm just ringing on behalf of a client could you tell me exactly um how much the client gets when they get a hearing services voucher how much um the hearing aid they can get is worth? Mmm right yep right so I'd just have to ring an individual provider? Right ok all right thanks (puts down phone) I think we'd have to ring an individual er the nearest one to you would probably be Xxxx Hearing Centre
329. P1: (unintelligible)

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330. A1: yes um I think I'd have to ring them to find out
331. P1: would you mind?
332. A1: no so I'll just I'll just have a go
333. P1: I could ring Xxxx who I'll go back to and all I've been going to Xxxx for ten years
334. A1: and do you use your veterans affairs card there
335. P1: yeah
336. A1: you do? I suppose we could give them a ring which branch are they?
337. P1: Xxxx they're in the city
338. A1: in the city
339. P1: ah I'll speak to them if you like
340. A1: ok I'll just go and get the number oh maybe we can find it here
341. P1: on the computer?
342. A1: yeah
343. P1: (unintelligible) is very good Xxxx in Xxxx Street XXXXs hearing aids
344. A1: Umm lets see (pause as looks up number) oh my goodness
345. P1: Mine is a lot quicker I go to the internet
346. A1: I think I'll just go
347. P1: just go to internet and go to the white pages
348. A1: I think I'll just go back go and look it up (pause) I won't be a second
349. P1: right o have you got a toilet on this floor
350. A1: yes I'll show you where it is do you want your walking stick?
351. P1: yeah might as well
352. A1: watch that step there..
353. (pt goes to toilet)
354. A1: you're back? We're having a bit of trouble finding the number because Paxton's brand must trade under a different name
355. P1: not to worry then lets go ahead with the machine
356. A1: are you sure you want to go ahead because you could be getting back like a couple of thousand on each one
357. P1: oh
358. A1: what each one
359. P1: well that's a lot of money isn't it
360. A1: it is a lot of money um
361. P1: and they wouldn't tell us how much

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362. A1: when I rang like the head office they said that each contractor has it's own each contractor has it's own base price and it depends on what you need they work out what you need based on your hearing loss so it is a bit more complicated than we thought
363. P1: well surely they'll give us a near enough price
364. A1: they won't tell you I think we'd be better off ringing
365. P1: what if I rang them
366. A1: yeh no but if you if I if we rang Xx rang Xxxx Xxxx but you do you have any idea of the address
367. P1: Xxxx Xxxx that's the name of the company?
368. A1: that's what they're called is it?
369. P1: Xxx Xxxx Mr Xxxx used to look after me but he retired
370. A1: right and what
371. P1: and the people there the last time I wasn't all that happy with
372. A1: what exactly is the address
373. P1: it's in um Xxxx street but em er
374. A1: I'm probably not making myself clear either Mr P er er I think ou've got to understand this that if you decide that if you want to get that couple of thousand back you've got to go to them
375. P1: I know I appreciate that
376. A1: you can't
377. P1: I'm very clear I know
378. A1: but you
379. P1: I know the parameters
380. A1: but you can't come back here we can't we can't follow you up then and help you
381. P1: oh that's all right I appreciate that
382. A1: you've got to go to Paxton Xxxx and get these hearing aids and they look after you there then
383. P1: yeah
384. A1: the only way you can do it here is if you if you just pay up up front and that's it
385. : all right well let me make that phone call to those people and I'll ask them what they'd get back
386. A1: right
387. P1: and see if they answer me

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388. A1: the other option is if you've got private health insurance you can get a little
389. P1: no I've got a war card
390. A1: right that's right
391. P1: so I don't need that but I get a lot of money off the war vets for the physio and just had a spine operation (laughs) they pay for it let me can I make that call? See if it
392. A1: sure umm what if we ring directory assistance?
393. P1: ahh 1233
394. A1: but we don't have the address do we?
395. P1: Xxxx Street, Sydney
396. A1: Sydney?
397. P1: there's only one of them
398. A1: (dials number) I don't think we can get it through here I'll just have a quick look in the front office
399. P1: I don't have mobiles and things otherwise I'd use that
400. ((audiologist leaves room))
401. A1: Yep there we go
402. P1: Yep take it out to use the telephone (referring to hearing aid) oh Xxxx Xxxx could I speak to the manager please? Oh that's all right my name is Xxxx Xxxx and I'm one of your clients er how much do I've got to get a new hearing aid how much do does the government put towards it as a vet? (pause) If I get a new hearing aid how much does the government put towards it as a veteran? No no I'm not on a pension I'm a vet affairs bloke got a gold card would you mind that checking Xxxx Xxxx I've been coming to you for some years (to audiologist) why don't you register for vet affairs?
403. A1: umm
404. P1: why doesn't the university?
405. A1: ah they decided a while ago that we just stick to private patients
406. P1: Hullo? Well I've been looking for a new one and do you stock Phonaks Phonak expensive Phonaks Perseo er they're worth seven thousand dollars or more for two the model Phonaks "purseo" 211 this Xxxx was a lovely man he used to be interested and then it might have become a public company or something (to audiologist) Yes ah how soon er oh both audiologists are away are they ? oh that involves er don't worry about it if they come er I'm at Macquarie University now then I've got to back

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to Xxxx and have to call them and come back to Macquarie so er that would be a problem but sort of em em (pause) the best thing is to forget it right oh thank you(puts down phone) sorry bugger em huh

407. A1: they can't help you?

408. P1: ...(.) let's buy it. and you fix me. and look after me all right? .hhh I'm just >fE::d up<

409. A1: You're sure Mr P?

410. P1: Yeah I told you I'm a wealthy man.

411. A1: [ha ha ha]

412. P1: [ha ha ha]

413. A1: ok well what we'll do then is take impressions of your ears nothing will nothing will happen now until after Christmas

414. P1: ok

415. A1: is that ok Mr P I have to tell you too that you'll probably be dealing with someone else because I'll be on holidays for about six weeks but everybody here is very nice and very professional

416. P1: well I'm not I'm not too (pause) worried about getting these I've been waiting two years (laughs) to get appointments all right ok so you're going to take my impressions

417. A1: mmm you can stay there

418. ((fiddles with impression material))

419. A1: mmm yes I'm just going to have another look in your ears (looks in ears)

420. P1: I own a firm called Xxxx Xxxxx

421. A1: Xxxx Xxxx mmhmm and what do they do?

422. P1: little press things you listen to the xxxx you know you see on the television when Mr Carr or someone is speaking on the television in front of all the xxxxx

423. A1: right

424. P1: we've got one of those yeah

425. A1: Oh and you're still very involved in it are you?

426. P1: oh no I just own it (laughs)

427. A1: but you go in and er

428. P1: I I get involved in the ownership and the management and the meetings I use to own an advertising agency

429. A1: now er um I'm just going to pop this little um foam bit in your ear you've had this before haven't you

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430. Takes impression (some talk around putting in foam etc)
431. P1: Can I eat it?
432. A1: mmm
433. P1: Can I eat it (laughs)
434. A1: I don't think so (laughs)
435. ((has been a long pause of approximately 5 minutes while the impression material has been setting and audiologist has left the room during this time))
436. A1: ok. Um. (2)Mr P >I just went out< then (.) and (.) I was a bit concerned about whether I'm giving you the right hearing aid. to consult about you know which one is better because lots of people have fitted. (.) both types and they ss it was suggested that perhaps this company's top range hearing aid might be better. than the er um people who er
437. P1: [yes]
438. A1: [people who] have bought this one seem to be quite happy with it =
439. P1: ok
440. A1: = .hh it it =
441. P1: [o:k]:
442. A1: =[is very ]similar to the one to the Phonak one it's the same sort of thing you just put it in your ear and don't have to do anything?
443. P1: ok?
444. A1: it's a bit more expensive though (.) I didn't realise (.) I think it's about 9000 for two
- i.(1)
445. P1: [now I -]
446. A1: [but I'll] check on that before I write it before I give it to you. (.) .hh um so you're happy to go ahead with that, I think it might be worth trying (.) the um top of the range ones-
447. P1: >well I've obviously got to get the top of the range<- I'm ei:ghty four years of age.
448. A1: yeah? and seeing as you're keen (.) to try the best we've got and and that you: umm=
449. P1: [yuh]
450. A1: =[it's] important for you to hear at these meetings we might as well try them
451. P1: well it's important for me to hear all the time

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452. A1: it is that's true not just at the meetings it is important to hear all the time.
453. P1: yeah
454. ((continues on with providing a written quote for the agreed upon hearing aid))
455. A1: ok well I'll just write down the terms and conditions just fill this out so you can take it with you (pause as quote is completed) the hearing aids are also under warranty for three years so if anything should happen during that time they are repaired or replaced if they have to be um I'm just going to get an exact price (pause as A leaves again to get price) sorry to keep you waiting Mr P they are nine thousand so I've just written all that out for you now as I said the problem is going to be that I'm going away on holidays
456. P1: that's ok six weeks doesn't worry me
457. A1: if you don't mind there's someone else you could see initially and then I could see you afterwards
458. P1: I don't mind whatever you tell me because I've been putting up with this for a long while or six weeks
459. A1: because the person that I
460. P1: I I'm going 16<sup>th</sup> of January I'm leaving for South America going on a cruise
461. A1: that sounds fantastic (laughs)
462. P1: so er nothing could be done before then could they
463. A1: oh yes we could probably get them fitted before then and you could try them out on your cruise that would probably be a good idea
464. P1: right ok
465. A1: so um actually the lady that I've just consulted she's excellent at dealing with hearing aids so we might just get her to get you started on them
466. P1: all right well I leave on the 16<sup>th</sup> of January
467. A1: all right now um I'll just have to warn you that they are going to sound very different to the ones you're wearing now
468. P1: that's all right
469. A1: because they're a different sort of technology and they're dealing with the sound differently and processing speech differently
470. P1: ok
471. A1: right

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472. P1: do you want some money?
473. A1: no you pay when you pick them up all right so um
474. P1: (unintelligible)
475. A1: what we need to do now is go outside back to the front desk  
and we need to make some appointments for you
476. P1: ok

RECORDING ENDS

Louise Collingridge Appendix Case 1 Not For Reproduction

## Appendix

1. A2: Okay.
2. P2: I thought I had distinctly one ear better than the other. I'm not so sure whether one's all that much better than the other now [laughter]
3. A2: Right. Yeah. Last time when we assessed you which was in July -
4. P2: That would have been right. .
5. A2: Um, your left ear was a little bit worse than the right ear -
6. P2: Yes.
7. A2: Um, particularly in the higher pitches.
8. P2: Yeah.
9. A2: Yeah. So do you feel that's much the same now?
10. P2: Yes.
11. A2: Hm-hm.
12. P2: But I think the right ear's not so good now.
13. A2: Right. You feel the right ear has gone down=
14. P2: I was, I was having dinner last night at a function at a woman on my left was talking to me and I sort of, instinctively was turning right around to her, like that and she says "You're deaf in your left ear" and I said "Is it so obvious?" -
15. A2: Right.
16. P2: And she said yes, it is [laughter]
17. A2: Yes.
18. P2: You know -
19. A2: Okay then.
20. P2: So that's the way it goes.
21. A2: Hm.
22. P2: But I'm still trying to hear better with my right ear than my left ear.
23. A2: Okay.
24. P2: Hm.
25. A2: now you said umm (.) since July umm you feel your hearing has got worse. (.) can you=
26. P2: =I think so(.) yes. (.) [I think] -
27. A2: [um why.] is that do you think. is=
28. P2: I=
29. A2: can you relate it to any incident? [or.]
30. P2: =[no]. (.) I have a neurological problem.=
31. A2: right. yes?

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32. P2: and I that's I saw my ((swallows))neurology guy yesterday. >I see him every year< (.) I've got something called (.) ata:sia of the bi:g ar:teries under the brai:n (.) and I have a bad ba-lance. Problem. walking problem=
33. A2: ri:^?ght (.) I noticed when when you walked in.
34. P2: yes.
35. [right.]
36. P2: =[and ]I I I've got to be very careful.
37. A2: right(.) okay.
38. P2: and um hh and hh it hh um hh it cau:s'es? the signals err to short-circuit >they think<. the pressure of these big arteries under the brain =
39. A2: [right?]
40. P2: =[causes] some of the things to short cir:cuit (.) it's- I've had it for about five years it but it sort of it's it's s ta:ble but decreasing you know ha ha ha ha ha
41. A2: yeah. right.
42. P2: and um that's why I'm under u'er under under observation for it
43. A2: hm.
44. P2: I do have a balance problem.
45. A2: Yes.
46. P2: And, and I have to be careful.
47. A2: Hm.
48. P2: Particularly when, if I change direction -
49. A2: Right
50. P2: I get up from a chair and things like that.
51. A2: Yes. Okay. So when you're in those different positions and -
52. P2: Yes.
53. A2: And you're, yes.
54. P2: Getting out of the car. I can drive alright but getting out of the car I'm all over the place-
55. A2: Okay then.
56. P2: you know until I get- and and tha:t. um is par:t of the (.) he's anxious to sort of watch my hearing becau:se of that.=
57. A2: [hm-hm.]
58. P2: =[I said] my hearing was degenerating he said from °your°- .hh ^I take one medica:tion or two medications actually one is called ser:c.=

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59. A2: hmmhmm.
60. P2: =and that decreases the pressure in the ea:r.=
61. A2: right. okay then.
62. P2: and that's to help with the balance =
63. A2: [hm.]
64. P2: =[so ]I don't know whether that has anything effect=
65. A2: [does that um] -
66. P2: =[in your:. ar]ea or not=
67. A2: does that (.) do you feel that that he:lps you:?
68. P2: yes.
69. A2: uhumm.
70. P2: I take serc and a thing called stu:geron.
71. A2: right.
72. P2: s-t-u-g-[e-r-o-n]
73. A2: [hm-hm. ok]
74. P2: and that's a medication that's, er, not available in Australia (.) I get it imported from England and it's for sea sickness [laughter]
75. A2: oh okay. o:^h that's stra:nge isn't it? yeah [laughter]
76. P2: the combination of the two keep me mobile -
77. A2: oh, right
78. P2: I don't think I'd be so mobile if it wasn't for a combination of those two things.
79. A2: okay. so um as regarding your hearing.
80. P2: hm.
81. A2: what um areas do you find give you most trouble to hear?
82. P2: Oh, oh, definitely the usual thing in restaurants and things like that terribly.
83. A2: Right. So you like to go to restaurants?
84. P2: Well -
85. A2: Like eating out in a group?
86. P2: Yes.
87. A2: Hm-hm.
88. P2: Well you do that.

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89. A2: Yes.
90. P2: Yes.
91. A2: Yep. Hm-hm.
92. P2: I, I, I'm, I do a quite a lot of honorary work for institutes and things -
93. A2: Right.
94. P2: I've had three dinners out this week.
95. A2: Oh, you must be tired!
96. P2: And I haven't heard well in any of them [laughter]
97. A2: Right. Okay. Yeah.
98. P2: Across the table is difficult.
99. A2: Hm-hm. Do you have to -
100. P2: Also around the house. But I'm retired now so it's not critical.
101. A2: No. Yes, but you -
102. P2: It's not as though I was still lecturing or something. It's not as critical.
103. A2: No. That's, that's right. But you still would like to hear in those situations possibly better
104. P2: Yes-
105. A2: -than you are.
106. P2: Oh yes.
107. A2: Okay. And -
108. P2: In fact I sort of think "Oh, it's going to be one of those nights where I'm not going to hear what's, really what's going on -
109. A2: Going on, yes.
110. P2: I'm going to have to ask people -
111. A2: Hm.
112. P2: And say "What was that you said?", you know.
113. A2: Uh-huh. Um, do you have to attend many meetings now?
114. P2: Um, twice a month those sort of -
115. A2: Right.
116. P2: Things. Yes.
117. A2: Hm-hm. So -
118. P2: Probably more than that, probably three or four a month.
119. A2: Okay, so, right.
120. P2: I'm, um, the Honorary Treasurer of the Design Institute and that requires a meeting twice a month.
121. A2: Right.

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122. P2: I'm also a Warden for my local church and we meet -
123. A2: Okay.
124. P2: Two or three times a month for that.
125. A2: Alright, so -
126. P2: That doesn't worry me 'cause those are smaller groups.
127. A2: Church meetings. Okay.
128. P2: Hmm.
129. A2: And how, how do you go, like, one-to-one like in this situation.
130. P2: Fine.
131. A2: Okay.
132. P2: Hm-hm.
133. A2: Um, and what about, um -
134. P2: It's marginal I think, yeah.
135. A2: Last time when we saw you in July you- the telephone was okay. Is that still alright?
136. P2: No problem with the telephone.
137. A2: No. And, and TV -
138. P2: One ear's better than the other.
139. A2: Yes, that's right. Do you
140. P2: TVs still okay -
141. A2: Good.
142. P2: I've got a very good TV with good, good -
143. A2: Okay.
144. P2: And I've got it tuned-up since then -
145. A2: Oh, have you? [laughter]
146. P2: I, I've got into the controls, you know, which is quite complicated, and -
147. A2: Right.
148. P2: I was able to tune up, tune up the higher frequencies.
149. A2: Oh, okay. Yes. And that's right-
150. P2: Yes, yes.
151. A2: That's where your, your loss is greatest.
152. P2: Yes. I'm sort of trying to be proactive [laughter] actually!
153. A2: Yes, I see. So, so have you achieved your goal then?
154. P2: I think so, yes [laughter]
155. A2: Okay. So the telephone and the TV are still okay.
156. P2: Hm-mm.
157. A2: Which ear do you use for the phone?
158. P2: This one -

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159. A2: Right.
160. P2: The right -
161. A2: Okay.
162. P2: What I think is the better ear, hm.
163. A2: Yep. Okay.
164. P2: The other one is a distinctly bad- also -
165. A2: Yes.
166. P2: I, um, I go to the gym and, and I have little earphones -
167. A2: Oh, yes. Hm-hm.
168. P2: And this one is so much clearer than this one.
169. A2: Right. The right is clear than the left.
170. P2: With the radio I have just to, sort of-
171. A2: Okay.
172. P2: I, I've just had a knee replacement during the year and it's very essential that I go to the gym to- on the bicycles and things like that to-
173. A2: Right. Okay.
174. P2: For rehabilitation.
175. A2: Hm-hm.
176. P2: And so, I, because it's so boring [laughter] -
177. A2: Yes, it distracts you doesn't it?
178. P2: I always have a little tiny radio -
179. A2: Yeah, okay.
180. P2: And that's quite distinctly better in the right ear -
181. A2: Hm.
182. P2: Than the left.
183. A2: Okay then. Hm. Um, just have a look=
184. P2: Hence that bought be me to see you the first time.
185. A2: That's right, yes.
186. P2: Hm. Hm.
187. A2: When we did, um, your speech test last time, um, your right ear was marginally better than the left -
188. P2: Hm.
189. A2: When we actually did that -
190. P2: Hm.
191. A2: You know, the short word test.
192. P2: Yes.
193. A2: And, um -
194. P2: I thought it might have been considerably better -
195. A2: Yeah.

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196. P2: But I don't, if it is yes.
197. A2: That's right. It, it was a little bit better.
198. P2: Yes. Only a little better.
199. A2: yes do you find that um like if you were thinking about a hearing aid? umm would would you be thinking of one or two (.) hearing aids?.
200. P2: I would be thinking of one.
201. A2: hmmm do you think [hm]
202. P2: [hhm]
203. A2: which ear do you think do you feel that
204. P2: well the one that like last night at din[ner]
205. A2: [yes].
206. P2: I was turning around=
207. A2: [okay].
208. P2: =[like] that to talk to the lady
209. A2: [yes] so one
210. P2: [and] to to me that's body language tells me that I I I instinctively hearing better in this ear.
211. A2: yes okay. so it's the left ear you feel you need the the boost on?
212. P2: at this stage=
213. A2: hm-hm.
214. P2: =I I'd never consider having two. and that's news. to me.
215. A2: hm-hm. O^h no I look the reason=
216. P2: [I I] I'm just sort of you know I mean this is new ground >we're talking about.< hahaha
217. A2: that's right. well we didn't really talk much about hearing aids last time bec[ause]
218. P2: umm=
219. A2: =it was really your [assessment]
220. P2: [except you:] came up with a new system and I said, "Yes, that's the system for me=
221. A2: =yes=
222. P2: =I'd consider. [yes]
223. A2: [yes.] that's right. well, we can talk a little bit more about that la:ter.
224. P2: [hm.]
225. A2: [um ]you do have a loss in both ears=
226. P2: [right.]
227. A2: =[but] um it is certainly worse in the: left ear

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228. P2: [right.]
229. A2: [and] ah in the right ear it's (.) umm what we would say it's really a mild a mild to moderate [loss ]=
230. P2: [right.]
231. A2: =whereas in the um the other ear the left ear it's grea^ter than that.
232. P2: yeah. [yeah.]
233. A2: [um] but for a lot of the sounds of spee:ch? in the lower mid range you're hearing pretty well. it's in that higher range =
234. P2: [hm].
235. A2: [um ]so -
236. P2: >if I was- if I had your sort of job where I'd be interviewing people all the time<
237. A2: hm-hm.
238. P2: I'd probably want it in both ears -
239. A2: in both ears. yeah. it's it's not unreasonable=
240. P2: I love mu:sic? (.) you know=
241. A2: [right okay.]
242. P2: [I love to] go to concerts and things so I really want to be able to hear [properly?]
243. A2: [yeah yeah.] it's not unreasonable? to start with one. (.) and=
244. P2: right.
245. A2: =then later on if you felt you needed that extra bit you could have one in that [other ear as] well -
246. P2: [okay. alright.]
247. A2: it's not unreasonable you know for that to happen=
248. P2: [okay:]
249. A2: =many people do^ that in fact.
250. P2: we'll um see how we go.
251. A2: that's right.
252. P2: yeah.
253. A2: So what we might do is, is, um, the assessment again, um, particularly that you feel that maybe it, it has changed. Maybe it hasn't -
254. P2: Hmm.
255. A2: But we'll, we'll -
256. P2: I thought it was compromised though-
257. A2: Yeah.

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258. P2: By the fact that you were instructing someone and saying "Let's do this one again" and I could hear those instructions coming through to me -
259. A2: Right.
260. P2: And things like that and I thought [PAUSE]
261. A2: Yes.
262. P2: Yes.
263. A2: Well, when you work with a student, um -
264. P2: No I'm not criticising you -
265. A2: Yeah. Yes.
266. P2: I just thought I'd be happy for it to be done again.
267. A2: Yes. No, that's no problem.
268. P2: It probably won't be any different at all.
269. A2: Yes.
270. P2: Hm.
271. A2: Well, we'll see, okay. We'll see.
272. P2: Hm.
273. A2: So what we'll do now. Let's see. I'll just check your ears. There we go. Now just sit back and relax in your chair. That's fine. That's a very clear channel on that side. And I'll just have a look.
274. P2: I had a mastoid in this ear when I was a child.
275. A2: Yeah. Did you?
276. P2: When I was -
277. A2: In the left ear?
278. P2: When I was very young and it's got rather a twisted canal -
279. A2: Right.
280. P2: -down to it I think.
281. A2: Yeah that looks okay as well.
282. P2: Good. Alright.
283. A2: Okay. So we'll just pop that one there. So just sit back in the chair and, uh, there. Alright. So, what we're going to do, I'm going to pop the headphones on you and you'll hear a range of sounds coming through. We'll start with the right ear and test the right ear first and then I'll go to the left.
284. P2: Okay.
285. A2: And I simply want you when you hear the sound, whether it's loud or soft, to simply press the button. Okay? Even, even if it's very soft and you can just hear it, we'll press the

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- button. Okay? There we go. Did you want to leave your glasses on? I mean, it's fine if you want to.
286. P2: Oh, I might as well take them off.
287. A2: Yeah.
288. P2: I don't have to see anything [laughter]
289. A2: No. There you go. Goodo. Okay. Terrific.
290. [SILENCE for one minute]
291. A2: Okay. Just take this off for a minute. There we go. I'm just going to adjust the headphones and do a couple of more tests on the left side. Okay? You're going well -
292. P2: I've, um -
293. A2: Yeah?
294. P2: I've got tinnitus.
295. A2: Yes. Hm-hm.
296. P2: And, um, it's, on the left ear it's almost a frequency of one of the sounds.
297. A2: What I -
298. P2: It's a very 'eeeeee'-
299. A2: What I'll -
300. P2: You know -
301. A2: Okay. What I'll do is put in a pulsing tone -
302. P2: Okay.
303. A2: And see whether that helps you differentiate between the two.
304. P2: Alright.
305. A2: Okay?
306. P2: What I find is that -
307. A2: Hm.
308. P2: I can hear the sound better when it stops. I'm often not sure
309. A2: Yes.
310. P2: Whether I can hear it and then it stops and yes -
311. A2: Then you do.
312. P2: It was the sound.
313. A2: Yeah. Now that's fine. You're quite consistent so -
314. P2: Right.
315. A2: Yeah. So that's good. We do various checks so that's good -
316. P2: Hm-hm.
317. A2: No, you're going well. Just, er, just a little bit longer.
318. P2: The tinnitus today is like a rolling wave -
319. A2: Oh, is it? Oh, okay.

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320. P2: And it is one of the, it's the exact frequency of [laughter]
321. A2: Alright. Okay. We'll I'll just -
322. P2: Of one of those very high little notes.
323. A2: High ones, yeah. I'll just pop in, like a pulsing tone and see whether that helps you. You've got your button, just take the button there. There we go. Great. Okay. There we go.
324. P2: You want me to click that I heard it?
325. A2: Yes please. Yes, when you hear it. That's good. That's good. Good.
326. P2: Just then.
327. A2: Just that one? Okay.
328. P2: No, I didn't hear that one, if there was one [laughter]
329. A2: Right.
- [SILENCE for thirty seconds]
330. A2: Alright. And we just have one other part to go. This time I'm going to put this apparatus on the left side and you'll hear a rushing sound, like the ocean sound in your right ear through a headphone.
331. P2: Uh-huh.
332. A2: I want you to ignore that as best you can.
333. P2: Hm-hm. Hm-hm.
334. A2: And only press the button when you hear the beep sound like before.
335. P2: This one, hm.
336. A2: Well, it actually doesn't matter where you hear it, but -
337. P2: Rightio.
338. A2: Yeah. Whenever you hear the beep sound above the rushing sound.
339. P2: Will there be a pulse?
340. A2: Yes. I'll leave the pulse on for you. Okay. There we go. You feel alright?
341. P2: Hm. Fine.
342. A2: Okay. That's good. It's this time of year, isn't it, that everybody's so busy with their festivities that -
343. P2: Hm.
344. A2: There aren't enough hours in the night anyway. There we go. So I'm just popping that on that side.
345. P2: There's a lot of functions to go to -
346. A2: There are, there are. One after another. Okay. There we go. That's the rushing sound -

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347. P2: Hm-hm.

348. A2: Don't worry about that. Okay.

349. P2: Keeps the tinnitus company [laughter]

350. A2: [laughter] Okay.

[SILENCE for one minute]

351. A2: that's ve^ry goo^d (.) okay: now we'll just take all that off  
(.) there we go (.) just have a rela:x. °for a minute° (.)  
the:re we are. (.) you can pop your er gla:sses back on and  
relieve you of the (.) button okay. (3) alright. (3)  
there's just one other thing I'd like to do. (1) um ( when  
we finish this part of the test ah and so far it's very  
similar to last time -

352. P2: oh that's interesting isn't it(.) that's good

353. A2: um, so that's good, isn't it

354. A2: That's very good. Okay. So we'll just take all that off.  
There we go. Just have a relax for a minute. There we are.  
You can pop your, er, glasses back on and relieve you of  
button. Okay. Alright. There's just one other thing I'd  
like to do, um, when we finish this part of the test, ah, and  
so far it's very similar to last time -

355. P2: Oh, that's interesting, isn't it. That's good.

356. A2: Um, so that's good, isn't it?

357. P2: Proves the point [laughter]

358. A2: Yeah. So that's good. Yes. There's no significant  
difference.

359. P2: Hm-hm.

360. A2: But I'll just check in the high pitches. Just through the  
insert ....? here. And then we'll move onto talking a bit more  
about the hearing aids. Okay. So this time I'm just going to  
plug you up with these two inserts, um, I'll switch that over  
there. And it's the same thing again, ah, just to press the  
button when you hear the sound, but it's only for a short  
amount of time.

361. P2: Use the pulse, or -

362. A2: Ah, yes. I'll leave the pulse on. Okay. Just turn your head  
to the side. That's fine. I just need to squash, it feels  
slightly different. And I'll just pop that one in for you.  
Okay. I'll just check a couple on the other side as well

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- while we're at it. Okay. That's it. We can take all that out now. There we go. And that side there. Lovely. Alright. Terrific. Give your ears a bit of a, it feels a bit strange, doesn't it?
363. P2: It's alright.
364. A2: With that kind of thing. So, um, I'll just check your middle ear. Ah, so you can just have a seat on this one here and then we'll, ah, move over to this chair here in a minute. But just on this one for a short time. That's the way. Um, this is just to make sure everything looks okay in the middle ear system. Okay. So you'll just feel a little bit of pressure as it goes in. There we go.
365. P2: It's a tone.
366. A2: Yep, that's right.
367. P2: Hm-hm.
368. A2: I'll just. Okay. I'll just try that one again.
369. P2: It's not registering through my shoulder somehow is it?
370. A2: No, no. No, it's just resting there, yeah.
371. P2: I was just wondering how, where you're getting the feedback from.
372. A2: I'll just pop this in. There we go.
373. P2: I think you're closing down the, um.
374. A2: There we go. That's fine. Great.
375. P2: Sometimes the canal closes down -
376. A2: You feel that yourself do you?
377. P2: Hm.
378. A2: Now that's completely normal, um, for the standard measure. I'll just make a note of things. So that's good. It was normal, um, last time we tested. Just good to be sure. We'll just do the other side. There we go. Just might try a slightly larger one. Okay. Alright. There we go. That's fine as well, okay. So both middle ear systems are working very well. Right, Mr XXXX. If you wanted to have a seat on this one here. It's a slightly more comfortable chair as well. There we go. Have a seat on, I'll just turn it around.
379. P2: Right.
380. A2: Yeah, that's fine. Have a seat on that one there. That's great. I'll just write that down. Okay. So let's just show you the results first of all.
381. P2: Join the dots up.

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382. A2: That's right, yeah. Okay, so this is today and that's, um, last time.
383. P2: Alright.
384. A2: So you can see -
385. P2: ....? are they?
386. A2: Yeah, they're very similar so it's quite-
387. P2: Which is the left ear though?
388. A2: The, the crosses are the left ear so-
389. P2: Right.
390. A2: Um, and the further down the page you go the louder the sound has to be before you hear it.
391. P2: Gotcha.
392. A2: So that's intensity down there -
393. P2: Hm-mm. Hm-mm.
394. A2: Pitch is across there. So that's the area of interest for us -
395. P2: Hm-mm.
396. A2: In terms of amplification -
397. P2: [hm-mm].
398. A2: [in the ]the hi:gher pitches.=
399. P2: [hm hmm]
400. A2: =[ah and] u:m so the right ear i:s a >little bit down there< but its its not too ba:d=
401. P2: [mm hmm]
402. A2: =[and that's] what you feel yourself.=
403. P2: [mmmmmm]
404. A2: [=]perceptively.] that the [right ear] is okay.
405. P2: mmm mmm
406. A2: um: but it's the left that we need to raise up the level a [little bit].
407. P2: [mmm].
408. A2: These sounds here are, um, produced softly in English. There words, um, beginning and end words like, um, sh, f, th, t -
409. P2: Hm. Hm.
410. A2: Very softly produced consonant sounds.
411. P2: Hm. Hm.

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412. A2: Um, so, ah, in conversation particularly if there's a bit of noise around you, you might have, um, difficulty discerning between fat and that for example -
413. P2: Hm. Hm.
414. A2: Or fin and thin.
415. P2: Hm. Hm.
416. A2: Yeah. So, but, a lot of the sounds of speech, the low and the mid pitches up in this region, your hearing is well within the normal range.
417. P2: Hm.
418. A2: So the problem for us, um -
419. P2: So it's background noise in restaurants and things that -
420. A2: That bothers you?
421. P2: Hm.
422. A2: Yes.
423. P2: Is that .....?
424. A2: Yes.
425. P2: I don't know.
426. A2: Well, you can get in the low frequencies certainly background sounds -
427. P2: Hm. Hm.
428. A2: And a lot of traffic sounds are very low frequency and you can get other sounds in restaurants too that are in, in that range, in that region. So -
429. P2: I'm just wondering why, why that is the particular thing that I have trouble with.
430. A2: Well, it's because it's so loud as well.
431. P2: Hm.
432. A2: It's so intense.
433. P2: Hm-hm.
434. A2: And these sounds here are produced so softly. Ah, and -
435. P2: Okay. Yeah.
436. A2: And you've got this masking of the -
437. P2: Doesn't separate them up, hm.
438. A2: Yeah.
439. P2: Hm. Hm.
440. A2: ah so I think that um as as you feel yourself the one hearing aid in the left ear would be a good a good way to go.
441. P2: would it? right.

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442. A2: ye^s.- now um we we don't want to (.) um give you amplification in this region here because=
443. P2: [hm.hmm.hm.]
444. A2: [your hearing's] you know pre^tty goo:d um so I'll just show you um a a couple of different um designs sk that [we have?]
445. P2: [hm-hm.]
446. A2: we'll go through it systematically=
447. P2: hm-hm hm-hm.
448. A2: =I know that we did talk a little bit about that particular=
449. P2: [hm. hm. hm.]
450. A2: [ah new one] called the Resound Air -
451. P2: [hm. hm.]
452. A2: [and we'll] just (.) present it all to you
453. P2: [hm-hm.]
454. A2: [ah and] but before I do that (.) umm?
455. P2: I have a trial period do I? when I?
456. A2: yes. yes. I'll just explain all of that to you (3) umm so if you like I can talk about that first of all if you if you would like about the trial? period.
457. P2: Oh just very briefly. [I er]
458. A2: [yeah. yes.] yes. of course. oh yes. well what happens with any any hearing aid that we have here um say we we fit the hearing aid today
459. P2: [hm-hm.]
460. A2: [um you] would pay the full amount today
461. P2: hm.
462. A2: ah now for the Resound Air -
463. P2: hm-hm.
464. A2: that is three thousand dollars? for one hea:ring aid.
465. P2: hm-hm.
466. A2: um it's slightly cheaper for (.) for two but but for for the one it is um it is three thousand dollars. .hhum and you have a one? month trial in which you um do exactly that try it in a=
467. P2: [hm-hm.]
468. A2: =[variety] of situations um particularly those areas where you where you want extra help=
469. P2: hm-hm.

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470. A2: =ah and during that one month period we invite you back on two other occasions just to see how it you know how thing are going

471. P2: du:ring. the month.

472. A2: during the month. (.) that's right.

473. P2: right. right. hm-hm.

474. A2: so toda:y (.) um if we were to go ahead with the fitting we would make two other appointments

475. P2: hm-hm.

476. A2: It's a little bit more difficult over Christmas -

477. P2: I was going to say it's -

478. A2: So, so it, the trial is like -

479. P2: Push it over probably three weeks probably at that rate  
[laughter]

480. A2: Well, that's possibly to your advantage.

481. P2: Hm. Right, okay.

482. A2: Yeah, so, you know, we try as best we can -

483. P2: Okay, right.

484. A2: Um, to meet that requirement ah, and, ah, and so after that time, after the one month should you decide not to go ahead with it -

485. P2: Hm-hm.

486. A2: Then you, ah, you can hand back the hearing aid -

487. P2: Hm-hm.

488. A2: Ah, and you lose, ah, \$200 only -

489. P2: Right.

490. A2: So you get, you know, the bulk of the refund, um. The \$200 is to cover your initial costs -

491. P2: Hm-hm.

492. A2: And so, um, I'll go through all the different kinds of hearing aids we have in a minute but what we do is today we give you the quote as well -

493. P2: Hm-mm.

494. A2: Ah, and, and that really just gives you, um -

495. P2: I knew it was going to be around that much.

496. A2: Sorry?

497. P2: I knew it would be about that much -

498. A2: About that much, yes. That's right. I mean, hearing aids today really start from, even the mid-priced, start from about \$2 000.

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499. P2: Hm. Hm.
500. A2: So, and then they can go up to, you know \$6,000 or \$7,000 -
501. P2: Hm. Hm.
502. A2: It's, it's quite a range -
503. P2: Hm.
504. A2: And, ah, but for your kind of hearing, ah, it's, it's fortunate that you've come along to see us this year because, ah, we, we didn't really have this particular hearing aid available before then -
505. P2: Hm. Hm. Hm.
506. A2: And I'll just show you, um -
507. P2: This allows me to hear normal sounds through it and -
508. A2: That's right.
509. P2: A small part with the high levels, is that it?
510. A2: Yes that's right. Yes. We don't want to amplify in the area where=
511. P2: =otherwise you block the ear up don't you?

512. A2: that's right. yeah. and you'd get um (.) >with a more conventional hearing aids um (.) should you decide to go ahead with one of those -
513. P2: mmhm.
514. A2: you'd get really um a much more blocked feeling.
515. P2: yes.
516. A2: ah a bit like you've got a head in a barrel -
517. P2: [hm. hm.]
518. A2: that's the way **people described- describe it.** °um (2) I'll just show you° er- quite often what we used to do with say the left ear with the crosses like thi:s >just bear in mind we're trying to amplify in that high pitched region there< what we **u^sed to have to fit or (.) what was quite popular with people** was a small in the ear hearing aid=

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519. A2: that's right. yeah. and you'd get um with a more conventional hearing aids um should you decide to go ahead with one of those -

520. P2: hm.

521. A2: you'd get really um a much more blocked feeling.

522. P2: yes.

523. A2: ah a bit like you've got a head in a barrel -

524. P2: nmhm.

525. A2: that's the way people described- describe it. um I'll just show you er- quite often what we used to do with say the left ear with the crosses like this just bear in mind we're trying to amplify in that high pitched region there what we used to have to fit or what was quite popular with people was a small in the ear hearing aid -

526. P2: hm.

527. A2: but but even those um it's called a completed in the canal hearing aid (..) even those people still felt quite quite blocked up

528. P2: So that-

529. A2: =and um -

530. P2: so that one does allow some other sounds -

531. A2: Yes.

532. P2: To come through.

533. A2: Yes, that's right. And, and we even put, um -

534. P2: Be, be they, be they fairly, be it a fairly small aperture though, isn't it?

535. A2: That's right.

536. P2: Yes.

537. A2: Um, quite often we ask, ah, to make it as large as possible.

538. P2: Hm.

539. A2: But sometimes that's not possible because we're sort of restricted by the size of the person's ear canal as well -

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540. P2: Hm.
541. A2: Even in the, the, CIC, the Completely in the Canal, we do ask for venting as well
542. P2: Hm.
543. A2: But sometimes, again, it's not possible.
544. P2: Hm.
545. A2: Um, so they're the sort, they're more the, the standard -
546. P2: You want venting because pressure changes -
547. A2: That's right, yes.
548. P2: Hm.
549. A2: That's it. Um, and so, um, what's your background, in?
550. P2: I was an XXXX at XXX.
551. A2: Yes.
552. P2: I was the Director of XXXX -
553. A2: Oh, right.
554. P2: In XXXXX and XXXXXX. Hmm. Hmm.
555. A2: Oh, okay then. That would have been a very interesting job.
556. P2: Fascinating.
557. A2: Yeah. Were you there many years?
558. P2: Oh, I suppose 30 years, 20 years, yes.
559. A2: Right.
560. P2: And, uh, I've been retired five now.
561. A2: Yes. Oh, okay. Yeah. It's, it's interesting, one of my sons went there, um, it's a different kind of campus isn't it? Right in the XXX -
562. P2: Yes. Well, it's a very XXXX-
563. A2: Oh, he, he liked it.
564. P2: It doesn't have any of the, um -
565. A2: Yeah.
566. P2: Things that XXXXX has which is -
567. A2: Yes, that's right.
568. P2: Which is the XXXX and things like that.
569. A2: Yeah, but, ah, no, he, he really enjoyed it actually, he, um -
570. P2: Hm.
571. A2: It is certainly an XXXX=
572. P2: I, I was in the, the XXXXX one the highest standards in the world. It's -
573. A2: Oh, right.
574. P2: It's enormously complex.
575. A2: Right. Yeah.

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576. P2: Fine range of courses in, in, for XXXXXXXX.
577. A2: Yeah. Oh, okay.
578. P2: And then I, I, I actually started the um, XXXXXXXX and that was an entirely different type of class.
579. A2: Hm.
580. P2: Loved that.
581. A2: Yeah. Yes. Oh that's great.
582. P2: Great people.
583. A2: It's nice to, um, feel, you know, comfortable where you are, isn't it?
584. P2: Hm. Hm.
585. A2: And, you know, interested in what you do. Yeah. So, this is the behind the ear hearing aid now.
586. P2: Hm-hm.
587. A2: That's, that's the one compared to what was before -
588. P2: It's getting smaller.
589. A2: It is, yes. So just to show you, you were talking about wearing your cell phone to the gym, you know, not the cell phone -
590. P2: Yeah.
591. A2: The headphone, beg your pardon.
592. P2: Yeah.
593. A2: ah that's the kind of (1) picture it looks like >you know< behind someone's ear: yeah so you're not really
594. P2: it's fairly [small].
595. A2: [yeah] it is ve^ry sma^ll ahh=
596. P2: I'll talk to my barber about leaving bit more hair around my ears [ha ha ha]
597. A2: ha ha ha} oh yeah right fair enough. fair enough yeah. and you can actually see now both these people. have the device. on=
598. P2: hm.
599. A2: =and you just can't tell.
600. P2: yeah.
601. A2: and we'll look at the mould in a minute ((coughing)) you can use it on the pho^ne?
602. P2: you ga:ve me that I think la:st. time
603. A2: [yes that's right].
604. P2: [I was quite impre:ssed with that type of technology.
605. A2: so you can have a look there as well

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606. P2: hm.
607. A2: you see it's virtually (.) invisible yes=
608. P2: hm.
609. A2: and I'll show you, I'll just measure you up in a minute?
610. P2: Hm.
611. A2: Ah, and, and basically what it, is, is quite, ah, an interesting piece of plastic, it's a plastic, um, tube -
612. P2: Hm.
613. A2: And it's got a little dome on the end -
614. P2: Hm-hm.
615. A2: Where the sound is directed through.
616. P2: Hm-hm.
617. A2: so (.) what I'll do is just measure you- (.) that you're happy to to go with the -
618. P2: abso:lutely yeah. Good.
619. A2: o^kay then? >so we'll just pop that the:re<
620. P2: it's the thought of being blocked up and having um=
621. A2: [yes].
622. P2: =[all] those problems.
623. A2: other extra thi^ngs one doesn't like.
624. P2: yeah.
625. A2: Okay. So you can sit over there, that's fine. Okay. So I just need to measure your ear size, so. You're fine there, that's alright. Okay. Right. So that's the tubing, the tubing section there and what happens, that goes on the top part there like so.
626. P2: Hm.
627. A2: Okay. That clips on -
628. P2: ...? works right.
629. A2: Yep, and we just have to do one more measurement. This is the dome. I'll try a medium on you and just see how that one goes.
630. P2: It's, it's a fairly irregular canal there.
631. A2: Yes, that's right. That's where you've had the surgery.
632. P2: Hm.
633. A2: So that's basically all that it is -
634. P2: Can I look closely?
635. A2: Yeah, sure. Hm.
636. P2: Get it into focus.

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637. A2: That's it. So, I'm not sure whether that's exactly your size yet but we'll just, um, pop it in to see. Get my eye scope again.
638. P2: Yes, that canal's not straight. It blocks up with wax quite easily if I'm not careful.
639. A2: With wax, does it?
640. P2: Hm.
641. A2: Oh, okay.
642. P2: And I've found with the earphones some of the ones that go into the ear it tended to close the canal.
643. A2: Oh, right.
644. P2: Yeah.
645. A2: Oh, okay. So I'll just see how this one is for fit, I'll just pop this over the top. And just have a little sports lock that just clips in there. Okay. Does that feel alright in your ear?
646. P2: Hm.
647. A2: I'll just, just might try a number two. There's just a little bit of trial and error with getting the -
648. P2: Hm.
649. A2: Exact length right.
650. P2: It's not a straight canal -
651. A2: No, it's not.
652. P2: And it's a bit narrow too.
653. A2: That's it. So I'll just try ..? Let's try a number two and see how we go. They're, they're very tiny batteries, um. They last about 75 hours for one battery.
654. P2: 75 hours.
655. A2: Yes.
656. P2: You them in for initially, I suppose six hours a day or something?
657. A2: Um, well probably to start with, um, you might, um, you might actually wear it two or three hours a day -
658. P2: Right, okay.
659. A2: Just to build up on the tolerance for background sounds -
660. P2: Hm-hm.
661. A2: And then may, maybe, you know, you'll increase that, you know, fairly quickly. Just, it's quite individual. Hm. You have got a fairly narrow canal here, haven't you?
662. P2: Hm.

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663. A2: I just might try -
664. P2: I'm not surprised that you're having a problem -
665. A2: Yeah. I'll just try a smaller dome I think. They come in various sizes so that's a smaller one again. And it just goes on, straight on there. Just pushed it on there. Just flush -
666. P2: Does that have some breathing space around it?
667. A2: Yeah, have a look.
668. P2: Yes, it's much smaller than the first one -
669. A2: Yes, that's right. So we might be able to -
670. P2: Hm.
671. A2: Pop that in a little bit easier. Okay. I'll just pop that in there. It's got a small sports lock just to, there we go. I haven't, um, set, set it up yet. Does that feel okay in your ear?
672. P2: Hm.
673. A2: That's gone in much better.
674. P2: Hm-hm.
675. A2: Okay. So we might start with, with that size. I'll connect it up with the computer-
676. P2: Hm-hm.
677. A2: And, um, we'll do a couple of measurements.
678. P2: Hm-hm.
679. A2: Alright?
680. P2: Hm-hm.
681. A2: Okay. Okay.
682. P2: As long as that's going to let some natural sounds through.
683. A2: Yes
684. P2: Hm
685. A2: Oh, yes.
686. P2: That's important that -
687. A2: That's right, yeah. Yep. I'll just see how that, I'll just, I'll just try the larger size one more time, see if it. As far as the dome -
688. P2: Otherwise it defeats its own purpose, doesn't it?
689. A2: Oh, yes. Yes. That's right, but -
690. P2: If it blocks the canal -
691. A2: Oh, it won't block the canal, but I'm just thinking that it might, your, your canal is quite narrow, narrow to start with -
692. P2: Hm.

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693. A2: And then it does eventually open up -
694. P2: ....?
695. A2: Are you right? Oh, your going to, are you okay?
696. P2: Hm, I thought I was going to sneeze.
697. A2: Oh, okay. I'll just pop this over the top. Hm.
698. P2: Not too happy about going in.
699. A2: No, it's just needs, I think that's okay now. Does that feel better that one?
700. P2: I'll see if I can hear.
701. A2: Yeah. Oh, I haven't turned it on yet, so you can't -
702. P2: No, no, but once, I hear without it -
703. A2: Yes. So how are you going today?
704. P2: That's not too bad.
705. A2: Yep. Okay. I'll just, I'll just see how that one is there. Alright, we might try the medium to, to begin with and, um, we can always go to the smaller one. So what I'm going to do now is to connect it up to the computer.
706. P2: Hm-hm.
707. A2: And run a couple of measurements.
708. P2: Do I have choice of colours of these or not?
709. A2: Ah, well we had a look at that before.
710. P2: Right.
711. A2: Yes you do.
712. P2: As invisible as possible.
713. A2: That's right. It, it's actually quite a, a good match with your hair and also your skin colour.
714. A2: Yeah, I think it is.
715. P2: Hm.
716. A2: Oh, I'll get the mirror so you can have a look as well, but -
717. P2: What other choices are there?
718. A2: Yes, I can show you that.
719. P2: Being a designer, you see, I mean, it's, it's all this-
720. A2: Fair enough!
721. P2: All this detail [laughter]
722. A2: Yeah. That's right. No, fair enough. No. There we go.
723. P2: And we're looking at this one, are we?
724. A2: Ah, so this one, um, is actually, this one here, the medium blonde which is actually a little bit lighter than there, ah, and you have the -
725. P2: I would have thought either of those two would be -

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726. A2: These two? Yes, that's right.
727. P2: And, is that one -
728. A2: That's, um, a little bit too light, I'd say.
729. P2: Is it?
730. A2: Yeah.
731. P2: Well, I'd be inclined to go to the lighter one.
732. A2: Yeah. Okay. Which is this one -
733. P2: Is it.
734. A2: This one here.
735. P2: Hm.
736. A2: The marble grey I, I think, 'cause you've got, you've got sort of salt and pepper colour with, with your hair -
737. P2: No darling, it's getting very white [laughter]
738. A2: Well, it's, it's salt and pepper at the moment.
739. P2: What there is of it. What there is of it!
740. A2: [laughter] So, um, I think, well, we could start with that one anyway, um.
741. P2: Is that that one? No -
742. A2: No, that, that is this one here.
743. P2: I prefer the lighter one yeah.
744. A2: Yeah.
745. P2: I think so, yes.
746. A2: Okay. Alright.
747. P2: If there is a choice available.
748. A2: Hm-hm. Yep.
749. P2: Whether there is or not.
750. A2: Okay. Um, I'll just go and see whether we've got, so you prefer more a marbly, a marble grey colour.
751. P2: If it's available.
752. A2: Yep, okay.
753. P2: Otherwise the other one's okay.
754. A2: Okay. Um, we, we have got some, um, called, you know, dummy models for you to have a look at as well, so -
755. P2: No, no
756. A2: That would actually, oh, no, just for colour, because you, I mean, we can always get the marble grey in if that's what you'd prefer, even if we don't have it today and you can take this one. It's fair enough for colour if, um, I'll just pop outside and have a look -
757. P2: Just whatever looks -

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758. A2: The best, yep. Okay.
759. P2: Whichever looks the best.
760. A2: Yeah, well, I can do that.
761. P2: Or, or, or doesn't intrude, intrude.
762. A2: Yeah. Okay. Fair enough. I'll be back.
- [SILENCE for thirty seconds]
763. A2: Okay, so I've bought a mirror along so you can -
764. P2: [laughter]
765. A2: Have a look as well.
766. P2: Wowie.
767. A2: You're the one who's wearing it, so, I'll just leave that there for a minute. Ah, let's see. Okay. So this is the, the marble grey. Okay. Alright. Here we go.
768. P2: These are not much too different.
769. A2: Yeah, no, there isn't much difference however, um, so that's the -
770. P2: Right.
771. A2: The two. What, what we can do is just pop them both on and you decide, you know, I can let you know what I think as well -
772. P2: Yes, let's do that.
773. A2: Um, and -
774. P2: I would have thought that was, that was less contrast with the skin.
775. A2: Yeah, okay. Well how about we try the, the two.
776. P2: If it's available.
777. A2: Yeah. Oh, no, it's available, you can take it today.
778. P2: Uh-hu.
779. P2: Is that fitted in now?
780. A2: Yep. I'll just, there we go.
781. P2: That's the tube there, is it?
782. A2: Yep, that's the tube there.
783. P2: Is that correct, is that -
784. A2: Yes. Yep.
785. A2: ah so I'll just pop this one on again >the the< grea:t thing about it is that whatever you choo:se is it's not really very noticeable you know anyway -
789. P2: hm.
790. A2: so but I think [this is ]-

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791	P2:	[it really] is a sign of (.) being a geria^tric. when you've got to get a hearing aid I think ha ha ha
792	A2:	oh we:ll not neces[sarily?]
793	P2:	[I've co:me] to ha terms with it ha ha=
794	A2:	not necessarily but-
795	P2:	=I've come to terms with it I think (.) I THINK. ha ha ha
796	A2:	ye-:s (.) okay well I'll just get the mi^rror excuse me

797. That's a good fitting

798. A2: Yes, yeah, that's pretty good. We might just push it in, I haven't got it in. There we are.

799. P2: The glasses -

800. A2: Yeah, that's, how do you feel it yourself?

801. P2: They're all compatible with each other?

802. A2: Yep, that look okay.

803. P2: No, I just (42:13)

804. A2: You mean the, the colour, or -

805. P2: No, no the, just one lining on top of the other.

806. A2: Yeah. No, that's, that's fine.

807. P2: Okay.

808. A2: You really can't actually -

809. P2: Okay.

810. A2: So, so, that, I haven't popped the other one on yet. So that's the the one we started with okay.

811. P2: Right.

812. A2: So that's the medium blonde.

813. P2: Well, I can't see that.

814. A2: No, that's right, you can't see -

815. P2: I'll be advised. What do you think?

816. A2: Okay. Well, I'll just change it over to the other one.

817. P2: Hm-mm.

818. A2: And then I think we'll, the only way to know for sure really if you're a bit undecided is to actually try it. Alright. So that's that. And I'll pop on this one. Okay.

819. P2: I have a wonderful hairdresser who -

820. A2: Oh, do you?

821. P2: I've been going to for, I go all the way out Balmain -

822. A2: Oh, do you, yes.

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823. P2: I've followed her around and, anyway, I'll tell her -
824. A2: And -
825. P2: To disguise it [laughter]
826. A2: Yes. Well, that's the other one now. But honestly you can't really see either because your hair is over your ear -
827. P2: That's the idea, yeah.
828. A2: So, I'll just, have a look yourself but you really -
829. P2: I can't see -
830. A2: No.
831. P2: Okay. I would have thought the marbly one was -
832. A2: If you, yeah, okay.
833. P2: Was probably more like -
834. A2: No, that's fine.
835. P2: Grey hair, yes, yes.
836. A2: Grey, yeah. Okay. If you're happy with that we'll go with that one. Okay. There's no problem.
837. P2: If that's not a problem.
838. A2: No, not at all. Not at all. Okay. So we'll go with that one. Great. And that's your case there. And we'll just move that back. There's another lot of batteries. So you get the case, um, everything in that nice case to take away -
839. P2: All the goodies, hey
840. A2: So that makes it very compact. Um, alright. So what we'll do now is settle up, are you happy to take it today?
841. P2: Hm. Hm.
842. A2: Yep. Okay. So, you can, um, it's either with, ah -
843. P2: You don't have to put a mould in the ear or anything like that -
844. A2: No, no, see, that's the lovely convenience of it.
845. P2: Yes.
846. A2: It's, um, it's just straight -
847. P2: And where does this one go -
848. A2: Well, that -
849. P2: That's what I take it out with is it?
850. A2: That, um, what you can take it out with is just pulling it on that tube there -
851. P2: Right.
852. A2: Um, but we'll connect it up first.
853. P2: Right.
854. A2: And we'll talk a bit more about -

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855. P2: And the other one helps you control the position a bit, does it?
856. A2: That's right. The sports lock. It's sort of like a retention lock.
857. P2: Okay.
858. A2: So -
859. P2: Does that got under the ear, does it?
860. A2: Ah, it goes in, in the part called the concha area which is just in that part there.
861. P2: Oh, oh, it fits into there does it?
862. A2: Yeah. Yeah. Ah, quite a good fit.
863. P2: Okay. Right.
864. A2: Um, so what we'll do now -
865. P2: So that's all working okay for me?
866. A2: Yes. Yes it is.
867. P2: Hm-hm.
868. A2: Okay. So I'll just show you the battery while we're at it.
869. P2: No, I think I want to take the battery out it doesn't have a switch, is that it?
870. A2: Um, to actually turn it on and off?
871. P2: Yes. Yes.
872. A2: Yeah, we'll, we'll go through that at the end I think.
873. P2: Right. Okay.
874. A2: I'll just set it up first of all. So you peel off the, the little tab when you're about to use it. Um, and the battery is in the back there.
875. P2: Right.
876. A2: So, and you clip it all the way down.
877. P2: Right.
878. A2: So I'll just need to reach across just to pop this on.
879. P2: You set the decibels you want it to come in -
880. A2: That's right. Yeah.
881. P2: Isn't that clever.
882. A2: Yes. Yes. It is quite good.
883. P2: You must have to, um, sort of re-train yourself with each new device -
884. A2: Yes. Yes. Each, each time we have some, something new come in -
885. P2: They come out -
886. A2: Yeah, that's right -

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887. P2: And give you the computer and things -
888. A2: That's exactly right.
889. P2: What was this, I was going to do a, a, um, a guinea pig test today, um, a sign that I was prepared to answer questions, that's not happening now is it?
890. A2: Um, oh right. In terms of, oh okay, with the questionnaire -
891. P2: Yes.
892. A2: Oh, okay. Yes, we can look at that as well. Okay.
893. P2: No, no it's just that she wanted me to be part of this, this -
894. A2: Right. Oh, okay.
895. P2: That wasn't going to happen at this interview was it? Patient Professional Interaction Clinical-
896. A2: Um, I think what we'll do is just-
897. P2: I said I was willing. I said I was willing anyway [laughter]
898. A2: Okay. Well, we can look at that next time.
899. P2: No problem.
900. A2: I think if we just, um-
901. P2: Get the thing done today-
902. A2: Yes, get, get it going at the moment. I'll just. There we go. Okay, so we're just going to connect it up here.
903. P2: It's all so tiny isn't it?
904. A2: It is. Just got to there's just a little spot to put this in, you can see there. It's very, very tiny just to pop it in.
905. P2: Make a connection.
906. A2: Yeah, make the connection with this flex connect. Okay, so we'll see how we go there. Alright, and I just need to reach across, excuse me.
907. P2: Am I in your way?
908. A2: No, no. No, you're fine. That's fine. Okay.
909. P2: This is the computer test for this job is it?
910. A2: That's right. Yeah, well, actually for all the fittings, um, we, we go through this particular program -
911. P2: Yeah.
912. A2: It's called, called Noah. Yeah.
913. P2: And that will tune up most of your fittings, will it?
914. A2: That's right, yeah.
915. P2: Hm.
916. A2: Right. There we go.
917. P2: Do you need to get in front?

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918. A2: No, that's alright because I want to come around in a minute. It just takes a minute to actually retrieve the data.
919. P2: And does, does it have data in it now does it?
920. A2: Yes, I put your audiogram in -
921. P2: Did you?
922. A2: Yeah, yeah.
923. P2: I'm terribly impressed.
924. A2: Yeah, so, okay. Now, okay. So what we're going to do now -
925. P2: And when did you do that?
926. A2: Oh, earlier on, yes.
927. P2: Did you?
928. A2: Yes. Yes. And I'll just, okay. Okay, now what we've got to do now is actually put the device in your ear -
929. P2: Hm-hm.
930. A2: And then, um, you'll hear some loud sounds, ah, just for, for a minute or so. It shouldn't be too loud for you -
931. P2: Hm-hm. Hm-hm.
932. A2: Because we need to actually calibrate the stabiliser.
933. P2: Right. Right.
934. A2: So I'll just move across there. There we go. Great. Now just sit back in the chair and relax and I'll just hook you up there. I'll just put that behind your ear. You'll get very good at popping in your ear -
935. P2: And, and, and this other little device -
936. A2: Yeah.
937. P2: That twists around each ear, does it?
938. A2: That's right. Yeah. That's right, yeah.
939. P2: I'd better have a mirror at home to do that.
940. A2: Yes. No, that's no problem. To start with you might need a mirror but after a while you'll, I'll just move that for your, you'll actually get very good at putting it in. Okay so we're all set up here. Now you're going to hear the loud sound -
941. P2: Hm-hm.
942. A2: Ah, and just sit and relax and, and nice and quiet. I'll bring my chair around, that might be easier. Okay.
943. [SILENCE for one minute]
944. A2: Alright. Okay. So we've actually run the stabiliser which is, um, this interesting diagram up here -
945. P2: Oh, is it? What does that show?

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946. A2: So, so, yeah, what that shows is really how much scope we've got to make the sound stronger or amplify the sound before we run into any problem, problems with it whistling in your ear -
947. P2: Gotcha.
948. A2: The problems called feedback -
949. P2: Hm-hm.
950. A2: So we've really got quite, um, a range there which, which is very good. Um, how's my voice sounding to you now with the hearing aid in? Are you hearing me okay?
951. P2: Yes.
952. A2: Yes? Uh-huh.
953. P2: I wasn't aware it was on.
954. A2: Yeah. Well, I'm, I'm very close now -
955. P2: I sound a little bit different to myself suddenly.
956. A2: Okay. Yes. Alright. I'll go over there in a minute and have a little bit of a talk to you -
957. P2: Hm-hm.
958. A2: And we'll play some different sounds and, and -
959. P2: Right.
960. A2: Just see what, um, it seems to you. Um, we can adjust the levels just going on what you've, you know, described today but obviously you need to go out in the real world -
961. P2: Hm. Hm.
962. A2: And just see how it is. Um -
963. P2: Yes, I've got a birthday party on Sunday.
964. A2: Oh, have you? Oh, well that will be great to actually try it-
965. P2: So that will be a good try straight away, won't it?
966. A2: It will. It will. I'll just. Okay, alright.
967. P2: How would a concert go and things like that?
968. A2: It should really go fine in concerts. It should be terrific. So I'll just stand over here and have a bit of a talk to you.
969. P2: Hm.
970. A2: Um, you can just face, face like that. Um, how am I sounding to you, I'm speaking at a fairly normal volume.
971. P2: You sound clear.
972. A2: Yeah. Good. Ah, and, ah, you'll try, um, this device on the weekend at your party -
973. P2: Hm.
974. A2: Ah, will there be a number of people there?
975. P2: Yes. I think there'll be about thirty or forty people there.

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976. A2: Oh, right. So you'll give it a good go there.
977. P2: I would think that that would be, er, the best sort of test it could do.
978. A2: Hm.
979. P2: If I, if I'd had it last week I could have tested it at three parties this week -
980. A2: Oh, right. Okay. I mean, you really are testing the device obviously when you're introducing it to -
981. P2: I wouldn't know I had it in. I really wouldn't know I had it in.
982. A2: Oh, that's good. It feels, and how does your own voice seem to you?
983. P2: It sounds more natural now.
984. A2: Yes.
985. P2: There's a tiny little, seems to be a little reverberation in the throat -
986. A2: Right.
987. P2: But, but yes, I wouldn't know I had it in.
988. A2: Yes.
989. P2: I wouldn't know if it was doing me any good -
990. A2: Yes. Okay.
991. P2: Except I can hear you clearly, but -
992. A2: Hm-hm.
993. P2: I, I could hear you well before -
994. A2: Before. Okay. What we'll do is, is just run a couple of different um, situations with background sounds -
995. P2: Okay.
996. A2: And we'll play with a bit of music.
997. P2: Hm.
998. A2: This is just an, an initial test, so, the big test is when you go home and, and try it in your own, you know, in every day life is really where the big test is. Okay.
999. P2: I'll probably hear all the squeaks in the car won't I?
1000. A2: You probably will.
1001. P2: [laughter]
1002. A2: [laughter] However, um, I, I think if, if you actually introduce the sounds gradually, start off when it's fairly quiet and then build up on that, ah, and you've got your party on the weekend, um, so perhaps by then, um -
1003. P2: I don't, I don't, I don't detect any discomfort or -

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1004. A2: Yeah.
1005. P2: Or anything -
1006. A2: At the moment, yeah.
1007. P2: I wonder if it's turned on, so -
1008. A2: Oh, right. Okay.
1009. P2: So there you are.
1010. A2: Okay. Well, no, it's definitely turned on. Okay, we'll just, um, let's see. We'll just go into the -
1011. P2: The thunder box.
1012. A2: Yeah [laughter]
1013. P2: It's got thunder written on it.
1014. A2: Yeah, that's right. Yeah. Okay. So we'll just play, um, alright. Okay.
1015. [HEARING TEST in progress]
1016. A2: Okay. So what we'll do, I'll just have a look here. Okay, um, I'll just run the, ah, the demonstration of what it sounds like when the battery goes low, alright.
1017. P2: Okay.
1018. A2: Did you hear that? It's like a beep beep beep.
1019. P2: Hm.
1020. A2: Yep. Okay. We'll just try it again.
1021. P2: Hm-hm.
1022. A2: Okay.
1023. P2: Does that go only once or does it go -
1024. A2: It goes, a
1025. P2: Every ten minutes or something.
1026. A2: A2: for a few, you know, you'll hear a beep beep beep and then it'll, it'll stop for a while and then a beep beep beep again, okay -
1027. P2: Oh, okay, that's good. That's a good indication.
1028. A2: Yes. And you can hear that okay?
1029. P2: Yes.
1030. A2: Yeah? Alright then. Good. Um, now I'll just. Yep. So all that looks fine, um, I just might re, re, rerun the stabiliser one more time.
1031. P2: Go for it.
1032. A2: Okay. So nice and quiet.
- [SILENCE for one minute]
1033. A2: Okay, now that's fine. It hasn't changed it, um. Right, okay.

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1034. P2: That gives the -
1035. A2: Yeah.
1036. P2: The range -
1037. A2: That's right, yeah.
1038. P2: It's not going to whistle is it?
1039. A2: No. No.
1040. P2: What would make it whistle?
1041. A2: Well, er, sometimes if a bit's not fitting in your ear correctly it will whistle.
1042. P2: Will it?
1043. A2: Um, well, it will if you don't pop it in right.
1044. P2: Right.
1045. A2: It can.
1046. P2: Right, okay.
1047. A2: But it's, it's, there's no whistling there now.
1048. P2: Right.
1049. A2: If you pop your hand, because you're hitting there on the microphone so there's, there's no whistling there so that's, that's great. Um,
1050. P2: No -
1051. A2: That's terrific. Alright then. So it all looks okay. Now, we're set it, um, perhaps fairly conservatively. We can, we can actually adjust it up or down, you know, given what you tell me next time you come in.
1052. P2: Right.
1053. A2: So that's why we have the one month trial -
1054. P2: Hm.
1055. A2: In your case it might be a little bit longer because of the, the Christmas period.
1056. P2: That's to my advantage, isn't it.
1057. A2: It, yeah. Well it can be to your advantage. So what I'll do -
1058. P2: 'Cause we're not going away or anything over Christmas.
1059. A2: No. Okay. I'll just show you the, the quote. Okay. It's actually a good time you've come in then because you can try it in all these different, you know, festive occasions where you really want to be, you know, hearing -
1060. P2: Christmas dinners and things.
1061. A2: ye:s yes (.) do you have Christmas at your. place (.) this year

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1062. P2: we're having two? Christmas dinners=  
1063. A2: [o::h]  
1064. P2: =[we're] having one with our in-laws  
1065. A2: [right]  
1066. P2: [my] my daughters-in-laws and one one=  
1067. A2: [okay].  
1068. P2: = [she's] she's um she's at XXXXX and she's she's just coming  
out  
1069. A2: your daughter-in-law?  
1070. P2: my daugh:ter is no.  
1071. A2: [yeah]  
1072. P2: [she's]  
1073. A2: oh lovely yeah.  
1074. P2: she's a XXXXX.  
1075. A2: oh, is she? ri:ght.  
1076. P2: she's got a wonderful position there=  
1077. A2: [yeah]  
1078. P2: [she's] just been made an assistant professor=  
1079. A2: [does she like] her work?  
1080. P2: =[at XXXX]  
1081. A2: her work?  
1082. P2: oh yes (.) well XXXX of course is is the pla^ce you know.=  
1083. A2: [right] (.) yeah  
1084. P2: =[if] you're in XXXX (.) anyhow they=  
1085. A2: [yeah].  
1086. P2: [XXX]XX holidays don't fit in with anybody's so of course they  
are a law of their own aren't they  
1087. A2: yeah >yes >have you been over to see her?<  
1088. P2: [yes]  
1089. A2: [ye-]  
1090. P2: I've lived at XXXX myself =  
1091. A2: =right.  
1092. P2: but we were over there in in in in er in September.  
1093. A2: I'll just pop that over there (.) it's nice to catch up with  
family even though I know it's a long way a long way away-  
1094. P2: Oh yes. (.) she's coming out=  
1095. A2: [hmm].  
1096. P2: [for] >she arrives on Christmas day< so we're .hh =  
1097. A2: [yes].

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1098. P2: we're having the Christmas dinner with her i:n-laws on Christmas day and then we're having our our own family=

1099. A2: right.

1100. P2: on Boxing day >so that will be a good test for it<

1101. A2: that'll be lovely. Yes. So just initially what you need to do thought is is to probably start out a little bit conservatively yourself (.) because you you've got something -

1102. P2: in what way?

1103. A2: Well, I probably wouldn't wear it eight hours a day to start with.

1104. P2: Okay. Right.

1105. A2: I, I'd probably work, you know, wear it maybe two or three hours -

1106. P2: Because I can't tell whether it's on or not you see -

1107. A2: That, that's right -

1108. P2: I mean 'cause it's not -

1109. A2: We'll take it, yes -

1110. P2: It's not, I think my voice to myself sounds a tiny bit different -

1111. A2: Different. Yes.

1112. P2: But it's not, um, it's not, um, altering me in any way.

1113. A2: Yeah. Okay.

1114. P2: Hm.

1115. A2: Well, that's, that's good, you know -

1116. P2: I'd hardly know it was on, you know what I mean?

1117. A2: Yeah. Okay. You're not feeling anything in your ear?

1118. P2: No. No.

1119. A2: Oh that's, that's great. Okay. Perhaps you'd just like to have a look at the quote. Um, that's our, our standard quote for hearing aid fitting.

1120. P2: It's a resound, it's a Resound Air, is it?

1121. A2: That's right. A2: Resound Air. And that's the information in the, the booklet there.

1122. P2: And there's no negotiation over the price, it's a set price range, is it.

1123. A2: It's a set price, that's right. Yes.

1124. P2: No, no. That's fine.

1125. A2: And, um -

1126. P2: (61:45)

1127. A2: Yes. You'd perhaps -

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1128. P2: (61:46) to pay the full price, yes. Trial one month. Payment of hearing aid is by cash, cheque or credit card. Hearing aid is applied on a cash return as \$200, that's fair enough. Should your hearing device need to be sent to the manufacturer for repair it could take five to ten working days. They have an agency in Sydney do they?
1129. A2: That's right. Yes. They have one there at Regents Park.
1130. P2: I bring it here?
1131. A2: That's right, yes. And, and we will look after it for you. Sometimes, um, if it's only a minor thing we can actually adjust it ourselves -
1132. P2: Hm. Hm.
1133. A2: You know, it might be something with the mould
1134. P2: Hm. Hm.
1135. A2: Um, so what I think I'll do now is just program that and then we'll talk a little bit more about how to use the hearing aid.
1136. P2: Okay. Right.
1137. A2: It's quite simple to use.
1138. P2: Hm.
1139. A2: Okay. Okay, you can have a look at the operating instructions while I print it off if you like. Okay.
1140. [silence for thirty seconds]
1141. A2: I'm just printing. How does that sound when it's being printed? Does that sound okay, natural enough?
1142. P2: Yes, I can hear the paper -
1143. A2: Yeah.
1144. P2: It's, it's a bit sharper.
1145. A2: Yeah. Oh, okay.
1146. P2: Hm. Hm.
1147. A2: Yeah, that's good. Okay. So I'll just pop out.
1148. P2: You don't know you're getting deaf. It happens so -
1149. A2: Well -
1150. P2: So, so -
1151. A2: That, that is a very good point -
1152. P2: Hm. Hm.
1153. A2: It's, it's quite insidious, hearing, isn't it?
1154. P2: Hm.
1155. A2: You don't, the way it just -
1156. P2: I often feel -
1157. A2: Hm.

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1158. P2: "Gee my car's quiet today"
1159. A2: Hm. Yes. Yes.
1160. P2: I think "Maybe, maybe it's not any quieter -
1161. A2: That quiet [laughter]
1162. P2: [laughter] It's not that quiet, yes.
1163. A2: Okay. There we go. Right. Okay. There we go. Right.
1164. P2: So it can squeal when I'm putting it in perhaps, it could squeal.
1165. A2: Yes, it could.
1166. P2: Yes.
1167. A2: Yes, that's right.
1168. P2: And what, and what does that, is that when the microphone gets close to the machinery itself?
1169. A2: Ah, well. There's the microphone there.
1170. P2: Right.
1171. A2: And it's got a directional microphone in it as well -
1172. P2: Right. Right.
1173. A2: Ah, and, um, so sometimes if you happen to hit that it might whistle a little bit -
1174. P2: Right.
1175. A2: You know, while you're popping it in.
1176. P2: Right. Okay. Right.
1177. A2: So you've just got what we call -
1178. P2: So why did it do it then?
1179. A2: Ah, and not before? Ah, that's a good question. That's because
1180. P2: Why did it -
1181. A2: Well, yes, because I popped by hand over the microphone and I didn't do it initially because it's got what they call, um -
1182. P2: A2: delay. I'm just reading about the delay.
1183. A2: That's exactly right. The smart start.
1184. P2: Hm. Hm.
1185. A2: Okay, so it gives you, you can turn it on, so that's -
1186. P2: Right.
1187. A2: The battery's there -
1188. P2: Right.
1189. A2: And, ah, did you want to have a turn of popping the battery in? It's, it's a very tiny battery and it's actually good to do it over a table -
1190. P2: Yeah. I can see that [laughter]

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1191. A2: Yeah. Did you want to try it now? Because you can only pop it in one way -
1192. P2: Righto. I can handle that.
1193. A2: Oh, okay.
1194. P2: If that's alright -
1195. A2: You pop it straight in there like that.
1196. P2: Right.
1197. A2: And then all the way around and then clip it down -
1198. P2: Now when I want -
1199. A2: Hm.
1200. P2: It turned off -
1201. A2: Yes.
1202. P2: Do I have to take the battery out or can I just -
1203. A2: You can just clip it like that.
1204. P2: I can just open the flap a bit.
1205. A2: Yes. That's it. And then that's off
1206. P2: Yes.
1207. A2: Yes. If you were going to have it off for a period of time I would probably open it all the way up.
1208. P2: Yes. So that's okay.
1209. A2: Yeah, okay.
1210. P2: I can do -
1211. A2: Okay. Yep. Just like that, that's off -
1212. P2: My dressing room table.
1213. A2: Yes, that's it.
1214. P2: Okay.
1215. A2: You've got a, a little container that you can actually pop the device in that's, you know, very handy. It pops in like that, apparatus around there.
1216. P2: Hm-hm.
1217. A2: And you can just close it down like so.
1218. P2: Hm-hm. Okay.
1219. A2: Yeah. So it keeps all the dust off it. Alright. So when we're talking about, so you first turn the, the hearing aid the battery lid goes down -
1220. P2: Yes, the process.
1221. A2: And you're reading about the smart start.
1222. P2: Hm-hm. Hm-hm.
1223. A2: So it takes, it's about ten seconds I think.
1224. P2: That's okay.

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1225. A2: Yeah. And that allows you time to pop it in -
1226. P2: Put it in, in without -
1227. A2: Before it's whistling, yeah. I mean if it takes you longer than that initially that's fine because you're getting used to it -
1228. P2: Hm.
1229. A2: And, you know, you're trying to, you know, find your way. You can't see -
1230. P2: It's only needing to, getting the hang of how to put -
1231. A2: That's right, yes. That's right. Now that should be right now. Just about right. There we go. See -
1232. P2: Hm. Hm. Hm.
1233. A2: You can hear it whistling. I'll just wipe it over for you and then we'll have a turn of popping it in your ear. Okay. So, there we go. So when you're popping it in, um, you can pop the, the longish part in first and the pop this over the top, or some people actually prefer with this device to actually pop this part over the top first. It's whatever you feel comfortable with -
1234. P2: Hm. Hm.
1235. A2: Doesn't really matter what order in which you do things. That longish part has to go into the canal, that's where the sound is being projected and that goes behind the ear. Okay. There you go.
1236. P2: I think I'd be inclined to put it on first.
1237. A2: Yeah, that's fine. That's fine. You might want to get the hair behind your ear a little bit just to start and not have that in your way. Yes, so we need to, that's good. You might, you'll need to actually, I'll just move that around -
1238. P2: I'll take my glasses off.
1239. A2: Yeah. So that part -
1240. P2: You've got to let me do it.
1241. A2: That's right. But the hearing aid part just goes on the top part of the ear first, so higher up.
1242. P2: I'll have to eventually do it be feeling anyway.
1243. A2: Yeah, that's right. Yes.
1244. P2: Right, okay. That goes there -
1245. A2: And you need to bring that part down.
1246. P2: And this bit goes down -
1247. A2: Into the ear, yeah. That's right.

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1248. P2: And push it in.
1249. A2: Yep.
1250. P2: With its own thingo.
1251. A2: That's very good, yeah. That's good. And then you've got your little retention lock too.
1252. P2: And that goes in -
1253. A2: Hm.
1254. P2: I just push it as far as it goes -
1255. A2: Yes.
1256. P2: In there.
1257. A2: You just wriggle it around your, your canal's fairly narrow, isn't it, so -
1258. P2: Yes, and then that just pops into -
1259. A2: That's right. Very good.
1260. P2: I feel that pop into there.
1261. A2: Yeah, that's great. Okay. How does that sound to you?
1262. P2: I can, I can hear my fingers -
1263. A2: Yes, that's right. Yes. Okay. Well you've done that pretty well for the first time.
1264. P2: Was that okay?
1265. A2: Yeah, that's good. I'll just show you -
1266. P2: And it doesn't need to be in any farther than that?
1267. A2: No, that's pretty good.
1268. P2: I can, I can feel now -
1269. A2: Yeah.
1270. P2: A slight resonance in my voice -
1271. A2: Yeah, okay. Yeah.
1272. P2: So that shows that it's on.
1273. A2: Yeah. That's right.
1274. P2: Yes.
1275. A2: You can just feel, ah, you can perhaps pop that in a fraction further, just -
1276. P2: How do I feel that?
1277. A2: Yeah, just feel -
1278. P2: How do I push it in?
1279. A2: Just -
1280. P2: Do I push it in with the tube itself.
1281. A2: Yes, you can just pop, that's fine. Yes, that's a little bit better. Yep.
1282. P2: As far as it will go.

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1283. A2: I'll just get the, um, your canal, un, canal is a little bit narrow at the entrance -
1284. P2: Isn't it?
1285. A2: Yeah.
1286. P2: Yes.
1287. A2: So we'll just see how you go with that. If it's not, if you feel it's, that's, actually that's really good now. You've got in right in. Have a look.
1288. P2: So I just, I just want to know, I'll do it largely by feel -
1289. A2: Yes. Oh, that's really the only way you'll do it because it's very hard to see -
1290. P2: Yes. Yes.
1291. A2: I just wanted to show you (.) have a look there you see it's really and you can actually pop your hair over there if you want to grow it a fraction longer =
1292. P2: I'll get XX:XX to work out how to cut my hair. ha [ha ha]
1293. A2: [oh ri:ght] ha ha [laughter]
1294. P2: come on XXXX you've got a challenge now! =
1295. A2: yeah [she has]
1296. P2: [I'm a] >poor deaf old man<.
1297. A2: yeah oh well no (.) not at all
1298. P2: [ha ha ] ha
1299. A2: [we^ll you] really ca:n't apart there's a I mean you can't a^ctually even see the pla^stic because I mean your hair? is covering it so I mean (1) you can't actually see anything
1300. P2: >and you didn't you don't< see this bit at all?
1301. A2: no not at all (.) not at all [yeah.]
1302. P2: [well] the mastoi:d gap of course =
1303. A2: [mm.]
1304. P2: =[it's] fitted into that qui:te well ha [ha ha]
1305. A2: [ha ha ]yeah yes well that's it it's all it's a kind of now uh you really wouldn't know you actually had a hearing aid
1306. P2: that's good? news.
1307. A2: Ah, it's, it's, it's not obvious at all. Not at all. Well you can have a look yourself if you just turn your head a fraction to the side.
1308. P2: I can't see it.

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1309. A2: You can't see it at all. No. No.
1310. P2: Yes. Well that's very satisfactory.
1311. A2: Yeah. That's great. So, I think that, um, as I say you need to try it in the different situations and, and just to remind you when we first started talking today, you thought that you wanted to be trying it, um, in, in group situations, you know, at the restaurants and places like that -
1312. P2: Well, that's, that's where it's going to be immediate help to me.
1313. A2: That's right. Yes. Ah, it's got a directional microphone on, on the hearing aid so that helps you pick up the sounds like, you know, you and I talking -
1314. P2: The microphones in there back there, isn't it?
1315. A2: Yes, but it has, it has a directional microphone that actually is looking at where, where the speech is coming from so it's discerning the difference. And it's got a very good noise reduction program in the hearing aid, so it's -
1316. P2: So what does -
1317. A2: Well, it's looking for the speech sounds over, over the noise so -
1318. P2: Okay.
1319. A2: Hopefully that will help you in the restaurants -
1320. P2: Right.
1321. A2: Ah, and it's got other fancy things as well that, um, try and suppress those unwanted sounds.
1322. P2: Oh, yes.
1323. A2: Yes. That's it. So we'll see how you go. Ah, now that's one area you were looking at the restaurants. Um, and then, um, you possibly don't have any meetings over the next month, but, ah, maybe at the church you could try -
1324. P2: I've got two meetings -
1325. A2: Oh, have you?
1326. P2: I've got two meetings, yeah.
1327. A2: Hm-hm. Okay. And then also with your family at Christmas, you know -
1328. P2: Yes.
1329. A2: See how you go -
1330. P2: Yes. Yes.
1331. A2: Because that will be very challenging -
1332. P2: At the dining room table, hm.

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1333. A2: Yeah, because people like to, they all talk at once.
1334. P2: Don't they [laughter]
1335. A2: My family all talk at once. It's because they, um, if you don't see each other all that often, particularly if people are coming from a distance -
1336. P2: Hm. Hm.
1337. A2: You know, they, all they're wanting to do is let you know how they're going -
1338. P2: Hm. Hm.
1339. A2: You know, how they're going and, and not particularly listening to you. So it will be a very, a good, um
1340. P2: Talking to you now -
1341. A2: Yeah.
1342. P2: You just seem to be talking more clearly to me.
1343. A2: Oh, that's good. Okay. Yeah. That's good.
1344. P2: And I had a nice little (71:30). That's good. I can hear that -
1345. A2: [laughter]
1346. P2: High note which I don't -
1347. A2: Yes, you probably wouldn't, ah -
1348. P2: No. No.
1349. A2: Hear before.
1350. P2: Yeah.
1351. A2: Yeah. That's it. Well, it will be interesting for you to see how you go with all the different pitches of voices, you know -
1352. P2: Hm.
1353. A2: So, ah -
1354. P2: So if I don't think it's loud enough you can jack it up -
1355. A2: Oh, yes. We can adjust it and that's in -
1356. P2: So, what, do you set about a midrange now, have you?
1357. A2: Yeah, it's fairly, I'd say it's fairly conservative -
1358. P2: Hm-hm.
1359. A2: The way we've set it and it wouldn't surprise me when you came back for you to ask me to turn it up a bit, you know -
1360. P2: Hm.
1361. A2: And we do it because we don't want to give you too much, you know, too soon -
1362. P2: Hm.
1363. A2: It's got, um, an automatic -

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1364. P2: I can hear notes in your voice I could not hear before.
1365. A2: Oh, well that's really good news, isn't it?
1366. P2: Oh you know -
1367. A2: Yeah, yeah. Yeah, that's right, yeah. That's just, ah, well female voices too you'll notice the, the difference, I think, in um, probably more the male voice you didn't have so, so many problems with -
1368. P2: Hm. Hm. Hm.
1369. A2: So, er, it will be good for you to be hearing all those extra things that you perhaps aren't aware that you've been missing.
1370. P2: Hm. Hm. Hm.
1371. A2: You know, and, and it's important to, to hear environmental sounds too. You know, just to, to be aware of
1372. P2: Hm. Hm.
1373. A2: You know, how your engine is going and
1374. P2: The noise! [laughter]
1375. A2: Yeah [laughter]. Yeah, that's good
1376. P2: Okay.
1377. A2: Okay then. So, any questions?
1378. P2: No.
1379. A2: In general.
1380. P2: No.
1381. A2: Yeah.
1382. P2: Can I give you, you're not here every day are you?
1383. A2: No, um, but, ah, I'll give you my card -
1384. P2: Yes.
1385. A2: And, um, ah, if, if there is any problem what you could do is, is leave a message -
1386. P2: Hm.
1387. A2: Ah, and then I'll contact you back -
1388. P2: Or can someone else answer -
1389. A2: Oh yes. Yes. We have a number of people here. Over the Christmas and New Year, er, the clinic is closed -
1390. P2: It's not, um, it's not a usual time, is it?
1391. A2: Yeah. That's right. Yes. But, however, in the next couple of weeks, so, it's the 10<sup>th</sup> today, I might be able to see you before Christmas, um, I think there was one spot just before on the, um, on the 23<sup>rd</sup>. Would that suit you to come in?
1392. P2: Well that would be appropriate I think, yes.
1393. A2: Yeah. Okay.

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1394. P2: Yes. Yes.
1395. A2: It would be good to see you once before Christmas if we could.
1396. P2: Yeah.
1397. A2: Ah, so, now, these are the batteries here. Um -
1398. P2: Right. Do I pay extra for those now, or -
1399. A2: No, no. Oh no, it's all included, the batteries.
1400. P2: So, so how many batteries?
1401. A2: Well, you've got a couple of packets there. Okay -
1402. P2: And where do I buy those?
1403. A2: Ah, you can buy them from us at the clinic
1404. P2: Right.
1405. A2: Or you can get them at the pharmacy, ah, they're the size 10. That's what you're looking for, the number 10
1406. P2: Right. And that's the size of the battery
1407. A2: Ah, for your hearing aid, yes. Yes. So it's the size more than anything -
1408. P2: At any pharmacy?
1409. A2: Yes, the pharmacies are fine. Yeah.
1410. P2: Right. Hm-hm.
1411. A2: And, and they're your instruction, your operating instructions.
1412. P2: Right.
1413. A2: I, I wouldn't actually concentrate on much more than, than popping it in, having it turned on, popping it in your ear, getting used to being able to manipulate it -
1414. P2: Hm-hm.
1415. A2: Ah, and ah -
1416. P2: Just a matter to make sure I poke it in far enough.
1417. A2: Yeah. That's right. Yeah. But you actually have that in quite well. That, that's good. Ah, and -
1418. P2: As long as -
1419. A2: Hm.
1420. P2: And so that's fitting fairly close to the -
1421. A2: Yep, see, that's, we want, that's exactly right. We want it fairly, and you've actually done that really well, really well. And -
1422. P2: I wonder how I can hear without it.
1423. A2: Oh, oh yes. So how are you going today? Are you feeling very good about your hearing aid? Um, is it, does it seem quite

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- good for you. Um, you'll go home now and you'll try it with your family and, um, so how's that sounding to you?
1424. P2: I'm just wondering whether it's entirely blocking up inside or whether there is a space around the thing to hear the, the lower notes. Know what I mean? Hm.
1425. A2: The lower notes? Um -
1426. P2: I'm just wondering -
1427. A2: Hm-hm.
1428. P2: How, how much space there is inside the ear -
1429. A2: Hm-hm.
1430. P2: So the outside sounds are coming past the tube -
1431. A2: Oh. I think, I think it will be fine. Um, however if you feel that the, the dome shape could be a little bit smaller we can do that -
1432. P2: Hm.
1433. A2: We can go a size smaller -
1434. P2: Hm. Hm. Hm.
1435. A2: Ah, that's no problem. That's why we have come back -
1436. P2: But you say it's narrower, sort of, on the way down there -
1437. A2: Hm. But it does open up. It does open up.
1438. P2: Hm. Oh, that's good.
1439. A2: So, so you've pushed it in far enough -
1440. P2: Hm. H m.
1441. A2: Ah, it's not like it's a narrow aperture all the way in, it's, um -
1442. P2: Hm. Hm. Hm.
1443. A2: Yeah. It's actually, and it is quite small, the dome is quite small. Yeah. Does it feel comfortable for you?
1444. P2: It's fine.
1445. A2: Yeah.
1446. P2: And to pull it out I -
1447. A2: Yes, you can take -
1448. P2: I, I -
1449. A2: You can take it from that tube there.
1450. P2: Right.
1451. A2: Yep. Just -
1452. P2: That's, pull it out from there.
1453. A2: That's right. Yeah. And take it out.
1454. P2: Hm. Hm. Hm.

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1455. A2: So, I, as I said I think you should start, I suggest you start maybe two or three hours a day. If you want to wear it more you can -
1456. P2: Hm-hm.
1457. A2: But start in the quieter environments first -
1458. P2: Hm-hm.
1459. A2: And then build up. I wouldn't, maybe not necessarily wear it home. I mean, you can wear it home if you want to -
1460. P2: I don't know, yes -
1461. A2: Alright then -
1462. P2: I only live just -
1463. A2: Okay, not far.
1464. P2: A2: quarter of an hour away.
1465. A2: Yes. It might be just, just a bit of a surprise to you, you know, to hear your car engine a bit differently.
1466. P2: Really?
1467. A2: It, it may. So -
1468. P2: That would be good news, though.
1469. A2: So -
1470. P2: That means it's working
1471. A2: Yeah [laughter]
1472. P2: [laughter]
1473. A2: So just, um, you know, if you feel it's too loud initially just turn it off until you get home -
1474. P2: Yes, okay.
1475. A2: So you be the judge. Alright. So that's it. We'll talk about cleaning next time. If we see you in two weeks -
1476. P2: Hm
1477. A2: Oh, I think we could leave it until next time -
1478. P2: Okay. Righto. See if it's blocked up or -
1479. A2: That's it. Yeah. Yes, it does have the, um, well I can just who you with another one -
1480. P2: How -
1481. A2: Yes.
1482. P2: How often would I clean it?
1483. A2: Well, you can have, you can inspect it everyday. You know, have a look at it everyday and we have a little device here, ah, ah, here it is. It's like a little pipe, and I'll just demonstrate on another one -
1484. P2: Does it come with, does it come with it?

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1485. A2: Yes, I'm going to pop that in there for you. What you do -
1486. P2: It's like a pipe cleaner.
1487. A2: It is. Yeah. And you can just pop that through there.
1488. P2: Yeah.
1489. A2: 'Cause what can happen is that you can get a little bit of wax  
-
1490. P2: Yes. I can understand that.
1491. A2: And you can just pop that all the way through. There we go,  
and that just cleans it out right through the dome as well -
1492. P2: And what would you do about that, once a week or something -
1493. A2: Um, well, yeah.
1494. P2: Or less than that.
1495. A2: It depends how much wax builds up in your ear.
1496. P2: Hm.
1497. A2: See everyone's a bit different. I'd probably look at it every  
other day to start with.
1498. P2: Okay
1499. A2: Ah, and then you be the judge.
1500. P2: And see if there's any wax on the -
1501. A2: Yeah, on the, and on the dome as well. Particularly on the  
dome because if the sound can't get through the dome, ah, then  
you're in a bit of a bit of problem. So I'll just pop that  
in there for you. It should slide in like that. Okay.
1502. P2: Very nifty.
1503. A2: It is [laughter]. Not bad, is it? So then you zhuck it out  
and zhuck it back in. Okay.
1504. P2: Ah-ha.
1505. A2: So so that's it, and that's your little box and I'd, always  
make sure that you pop it in there, you know, when you're not  
using it -
1506. P2: You've got to know where you've left it in the house, haven't  
you.
1507. A2: That's it. The other thing
1508. P2: Like glasses [laughter]
1509. A2: Yeah, that's exactly right. The other thing that you need to  
do is, two things, to see whether, if you've got any health  
care cover that can, perhaps, pay for some of the hearing aid  
-
1510. P2: I'm with MBF top table.

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1511. A2: Well maybe they may, you know, for assistive devices. So I'd look into that, and the other -
1512. P2: How, how, how, would that have to countersigned by someone here.
1513. A2: Um, ah, I'm not, oh no, you actually get a, um, an invoice so you could use that.
1514. P2: Right.
1515. A2: So when you pay for your hearing aid today -
1516. P2: Yes.
1517. A2: Um, ah, Cathy will give you an invoice to say that you've purchased the hearing-
1518. P2: Okay. Right. Okay. Right.
1519. A2: So that, that would be enough for you.
1520. P2: Hm. Hm. Hm.
1521. A2: The other thing that, um, you need to, to do is check out whether your, um, can insure the device. It's expensive -
1522. P2: I was wondering about, yes.
1523. A2: Many people -
1524. P2: If it's a piece of jewellery for \$3,000 -
1525. A2: That's right.
1526. P2: You'd probably make sure that you -
1527. A2: You certainly would.
1528. P2: Hm. Hm.
1529. A2: And so, because if you lose the hearing aid -
1530. P2: Hm.
1531. A2: Um, then you start again.
1532. P2: Hm.
1533. A2: You're not covered.
1534. P2: Hm. Hm.
1535. A2: And also if, if you happen to drop the hearing aid and stand on it and it goes into a thousand pieces -
1536. P2: Hm.
1537. A2: You know, you're up for that as well. Certainly wear and tear, normal wear and tear you're covered. You know, for three years -
1538. P2: Really.
1539. A2: So yeah. Three year warrantee. But, so you need to -
1540. P2: And what about the little plastic devices.
1541. A2: Ah, yes. What happens with those is we give you three -
1542. P2: That's the vulnerable -

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1543. A2: That's right. They're disposable.
1544. P2: Right.
1545. A2: So we give you, ah, a year's supply -
1546. P2: Right.
1547. A2: Um, and it's usually five. It's usually about every three months you may want to change because -
1548. P2: Right.
1549. A2: The, the tube gets a little bit brittle.
1550. P2: Yes.
1551. A2: Yeah, so, but that really is no problem. It's very simple.
1552. P2: And we'll do all that in the second appointment?
1553. A2: We will. Yeah. We will.
1554. P2: Right.
1555. A2: I think enough to take on board today and we've done an assessment as well, so you've, you've been, you know -
1556. P2: Thank you very much.
1557. A2: That's my pleasure.
1558. P2: Alright.
1559. A2: That's my pleasure. Okay, so that's there and we'll find your box here. Pop that there. And you've got your instructions. Um, out the front I'll give you my card -
1560. P2: Hm.
1561. A2: And, um, should there be any problem, ah, between now and say two weeks you can give me a call-
1562. P2: Or give the office a call.
1563. A2: That's right.
1564. P2: And see if anyone can help me out.
1565. A2: That's it. Yeah. I don't anticipate that you're going to have -
1566. P2: I wouldn't see there'd be many problems.
1567. A2: Yeah.
1568. P2: If, if there is a problem then I'll just wait until I can see you -
1569. A2: Yeah, that's fine.
1570. P2: Because I don't need it.
1571. A2: Hm. No. You don't need it all the time.
1572. P2: Yes. Yes.
1573. A2: But I think you'll, you'll be pleasantly surprised at how often you'll be picking up things now that perhaps you weren't getting before.

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1574. P2: Hm.
1575. A2: Not all the time, you know.
1576. P2: That's happening right now actually.
1577. A2: Yeah. It's just, um, people are surprised by the things that they thought they were hearing but really weren't getting the full story -
1578. P2: Hm. Hm.
1579. A2: You know, and, and that does impact upon -
1580. P2: The shape of the word.
1581. A2: Yeah, the shape of the word. That's right.
1582. P2: Hm.
1583. A2: Alright then. So that's it Mr XXXX.
1584. P2: Most satisfactory [laughs]
1585. A2: Yeah. Great. That's terrific. So there we go, and your instructions. That's for you and we'll pop out the front -
1586. P2: I'll come out and pay-
1587. A2: Yes out the front. We'll see XXXX. And we'll take the file. And that's it for today. Yep. You can hop up now. Are you right?
1588. P2: I think I heard this rattling [laughter]
1589. A2: Well that's good. See you didn't hear that before so that's handy, isn't it, to hear it rattle. I'll take my pen. So you're happy with the marble grey colour, so. Just watch the step here as you come out. There you go.
1590. [END OF RECORDING]

## Appendix

1. A3: just watch your step now as you come over he:re. (.) now P3  
I might get you to have a seat here for me
2. P3: sure
3. A3: just there
4. S: (inaudible)
5. A3: that's fine there ((laughs)) (1) sk °ok alright° .hhh (.)  
now um (.) >P3 my name's A3 so I'll be doing the test for  
you today.< and this is S. she's a student so she's going  
to be helping us out? all right? umm I thought perhaps if  
you star:^t\_v just by telling me a little about your  
hearing?
6. P3: ok er I was (.) um >diagnosed I suppose< when I wa:s (.)  
i:n >primary school<
7. A3: [mmhmm]
8. P3: [umm I] (.) I'm (.) my understanding is that umm that (.)  
my ears they (.) my ears >haven't developed properly< and  
(.). I have a similar problem with my ey:es. (.) but that  
doesn't affect my sight >at all< um (.) and I haven't got  
((voice high pitched)) all the the hai:rs that cover a:ll  
>the frequencies< in >sort of< layman's terms=
9. A3: ok
10. P3: =um it's all the figure that's always been thrown around  
was forty percent deaf (.) deafness (.) I wore >hearing  
aids< up until (.) I wa:s ((high pitched voice)) >about  
thirteen<= .hhan
11. A3: ok
12. P3: =and I haven't worn them since- umm tsk yeah and basically  
I think ei- either old age is catching up with me o:r (.)  
um yeah but I've badly need em
13. A3: ok
14. P3: and (.) >it's long overdue<that I start wearing them again  
(4)
15. A3: so um (.) where did you get your old hearing aids from?
16. P3: er ((clears throat)) I'm from Adelaide so it would have  
been (.) the National Acoustics Laboratory
17. A3: [yeah]
18. P3: [in Adel]aide
19. A3: yeah
20. P3: I haven't go them with me today but I have them at home.
21. A3: that's ok. (5) and so did. you say that you haven't worn  
any. hearing aids at all since you were thirteen is that  
right?

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22. P3: yeah probably (.) thirteen to fifteen >sometime around that<
23. A3: ° ok alright °  
(3)
24. P3: for no other reason but probably myself
25. A3: [yeah.]
26. P3: [there] wasn't any external influence >it was all.< stuff >in my head<
27. A3: o^k a:^ll ri^ght tha^t's fine. um can I just check just a few questions about your hearing itself =
28. P3: [yeah]
29. A3: =[ummm] is the hearing better in one ear or are both ears about the same?
30. P3: my left ear's a >lot better< my right ear i:s (.) basically useless too: f'r communication and for to hear people speak
31. A3: ok k
32. P3: when you see the plots of the frequency response (.) there doesn't seem to be much variation but fro:m my perspective there's a hu:ge difference.
33. A3: ok. all right (5) when was the last time you had er: (.) your hearing tested?
34. P3: u^mmm yeah (.) I I've got an audiogram here (.) I went to a clinic in um Xxxxx probably (.) er at least a few er a number of months ago (.) probably three months um and I: (.) just. it sort of [turned me off ]
35. S: [it was over] a year ago
36. P3: sorry?
37. S: o:ver [ ] a [.] year ago
38. P3: ohh was it?
39. A3: yeah that's right January 2003. yeah yeah
40. P3: .hh I thought it had been six months [laughing]
41. A3: [laughing]
42. P3: anyway yeah so I had the test done there and I just wasn't impressed. with (.) umm considering I was going to spend >a lot of money.< I just wasn't impressed wi:th. (.) their (.) >technical expertise< or nnd .hhh I don't know it sound it was to me it was like (.) ca:^r salesman's talk [rather than]=
43. A3: [ok]
44. P3: =professional talk
45. A3: right.
46. P3: and yeah I just deferred it?=  
47. A3: ok.

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48. P3: = buy- yeah purchasing  
(4)
49. A3: .hh and so um do you think probably (.) since early 2003 you've been wanting to do something about your hearing is that ri^ght?
50. P3: aah yes. yeah but we were (.) just recently >living in the United States< which sort of made it a bit difficult but for probably two years yeah (.) I've been working in the same pla:ce (.) in Sydney for two years. (.) and I've had a huge amount of difficulty yeah the office environment talks very quietly =
51. A3: ok .hh ehemm
52. P3: =when I was in the US it wasn't because Americans talk very loud
53. A3: ok hhahh ahall ri:ght
54. P3: long live loud talking [haha]
55. A3: [haha] all. ri^ght. (.) um so what sort of work do you do?  
um
56. P3: er electrical engineer=  
57. A3: ok.  
(2)
58. P3: =work with the XXXX at the moment we've got algorithm developments with software systems design.  
(5)
59. A3: and do you think that is where you have the mo:st problem with your hearing when you're at wo:rk (.) and talking in that office kind of situation - anywhere else?
60. P3: I would say yeah- at work is the pinnacle of the problem but that's only because yeah (.) outside of that I don't I'm not that invo:lved with that many people all at once and (.) an open plan office ah people just ta:lk at a lower a level=  
61. A3: yeah  
62. P =that I've never sort of (.) encountered behhaafore=  
63. A3: ok
64. P3: um but even at ho:me (.) I mean the TV (.) yeah I have I basically watch TV without really (.) listening to it
65. A3: ok all right  
(2)
66. P3: but in terms of per:sonal life usually I can control the situation enough. (.) then it's ok?=  
67. A3: ok.

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68. P3: =but only at work I don't have that °luxury° (2)  
particularly as you go up. the ladder. at work there are  
meetings
69. A3: right
70. P3: and um (.) yeah that's the issue
71. A3: ok (6) um you mentioned the TV just a second ago um do you  
find if you turn the volume up does that help at all or=
72. P3: I turn it up to the point I get told off (laughs)
73. A3: ok all right um and have you ever used a tv with captions  
on the bottom the the subtitles?
74. P3: umm in the US I did. (.) but here we haven't got the  
teletext
75. A3: ok all right
76. P3: I would have it (.) in seconds if we had it here but it's  
ingenious
77. A3: right.  
(3)
78. P3: I do a lot more work. if (.) because I can't certainly  
watch TV
79. A3: right ok hahaha (.) um how do you go with er your talking  
on the pho:ne?
80. P3: with what sorry?
81. A3: ON THE PHO:NE
82. P3: umm (.) generally not too bad umm yeah it's very dependent  
on the quality of the phone I've noticed (.) but that yeah  
generally it's not (.) too bad (.) I'm not as good >you  
know< as a person with >normal hearing< but I can usually  
get by
83. A3: ok (.) ehem and just talking to one or two people in a  
quiet room you have any problems picking up the wo:rd?>
84. P3: usually that's fine (.) I've got to lipread (.) anybody  
with a beard
85. A3: ok
86. P3: things like that and also (.) the frequency that they talk  
at (.) like I've noticed a >couple of the guys at work.<  
have got a very monotone
87. A3: ok yep
88. P3: and straight with the bandwidth where where I I^ am and I  
just ca:nnot(.) =
89. A3: ok
90. P3: =hear them (.) different languages - people with accents
91. A3: yep

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92. P3: and that's usually (.) if I (.) if I'm with them after a while. you get used to the way they talk and you can you can also the way their lips move as well I suppose
93. A3: [yeah ok ]
94. P3: [that's def]initely an issue- >particularly as I'm sort of< managing a team at the moment and there's one individual there who yeah they're from overseas (.) and they don't. (.) their mou:th does not when they talk they talk and never change their mouth and I'm yeah=
95. A3: ok right
96. P3: =I have a >great deal of trouble<
97. A3: right makes it hard then doesn't it?
98. P3: umm I feel sorry for the (.) guy it's my problem not his (.) but he. suffers .hhahh
- (7)
99. A3: ummm all right do you think your hearings s cha:nged at all since the last. test. or do you think it's >pretty much< the same?
100. P3: em ahaha a year ago (.) umm I think it's been yeah I haven't noticed a reduction I've I would say in the la:st. 5 years (.) yeah there has been a deterioration=
101. A3: ok.
102. P3: =but I don't know whether that's just because the environment has changed and the nature of my (.) how I work at work has changed but
103. A3: yeah
104. P3: I still think that overall still
105. A3: pretty much the same?
106. P3: pretty much the same but? (.) I'm having more trouble now than what I did
107. A3: ok
- (6)
108. A3: right. do you ever get any ti^nitus. ri^nging noises. buzzing noises. in your ears?
109. P3: mmhmm
110. A3: have you ever had any infections in your ears at all?- any operations on your ears?
111. P3: mmhmm
- (4)
112. A3: all right (.) well that's probably all I need to ask for now, if I think of something later on I'm sure I'll ask you but um we'll get started with the test ok I'll just have a quick look in your ears and then I'll explain everything ok

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113. P: Do you want to...

114. S: laughing -

115. P: G works with..

116. S: (laughing) I just started working at the XXXXXX

117. A: oh ok

118. S: but I'm not an audiologist I'm an engineer

119. A: Right

120. S: so I thought I'd come with

121. A: oh ok all right...I'll just type your details in here...so  
have you seen any testing at all?

122. S: um I haven't really watched any of the testing at all

123. A: ok it's pretty little boring really to watch (laughing) ,  
not very interesting at all ok so P I'm just going to have  
a look in your ears

124. P: sure

CARRIES OUT HEARING TEST

125. A: ok I was just having a quick look at the test that you had  
from last time and it doesn't look like there is too: much  
of a difference from last time to now.

126. P: oh ok

127. A: um yeah basically P you have what is called a moderate  
hearing loss in both ears (.) ok ok do you know why: you've  
lost your hearing? has anyone ever told you why your  
hearing's ba^d?

128. P: cause um yeah I was born like that-

129. A: [ok]

130. P: [my] my ears hadn't for:med properly.

131. A: [oh that's]

132. P: [and my eyes] also

133. A: right that's right yeah you di^d tell me that (.) yep yep  
ok and is it that they didn't pick that up until you were  
a tee^hager? is that right?

134. P: no no until er primary school

135. A: primary school.

136. P: yeah during sch- normal school hearing tests I was found  
(.) and I was to:ld it was surprising. that I could spea:k  
properly.

137. A: oh ok. all right.

138. P: I don't know that I had a lot of testing done when I was  
little

139. A: umhmmm ok

(6)

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140. P: my parents always thought I was (.)a quiet kid who liked to play in the corner but that's because I didn't hear anybody  
141. A: ok right ok. umm

(inaudible - overalapping with audiologist))

142. A: ok all right er (pause)

143. P: whereas these days they can test babies so

144. A: yeah they can test pretty young kids obviously the older you get the more information you can get about their hearing but yeah even when they are say six months or twelve months old you can get a little bit of information about their hearing yeah em (pause) ok all right now basically I think you mainly were here to talk about getting hearing aids is that right?

145. P: yes

146. A: yep um now you've had some some experience with wearing hearing aids in the past and you said you didn't keep up with them for very long is that right? You wore them for a little bit

147. P: ah for about since I was probably in about year 3 no year 2 to high school

148. A: yep yep and then after that you? You didn't want to wear them anymore?

149. P: no off and on no for all purposes no

150. A3: um tsk so (.) you (.) have used. (.) the behind the ear ones in the past >i^f we talk about< getting you some new ones again are you happy to go with behind the ear ones again?

151. P3: I'll go whatever's (.) the best. [hhha]

152. A3: [ok alright] hha

153. A3: umm (.) tk with with the sort of hearing that you've go:t (.) just having a look here >on the computer< um (36) yeah. I think that um (.) tk with the sort of hearing that you've got it's probably better if you do get something which which goes behind the ear um you- with that way they are a bit more po:werful. and in that sense you've got a bit more room to move if you do want to turn them up a bit more orrr=

154. P3: [ok.]

155. A3: =[um] if for some reason your hearing changes in the future you can you can (.) we can adjust them on the computer so they can go a bit louder=

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156. P3: [ok]
157. A3: =[with] the smaller ones they tend not to have as much room to move so if anything does happen or do want to turn them up you you kind of h hit the cei:ling very quickly?
158. P3: [yep]
159. A3: [yeah.] so yeah (.) if you're happy to get those behind the ear ones again then that's o.k.=
160. P3: yip yip
161. A3: =umm now ss the situations you've told me whe:re. (.)you feel like you are? having problems with you hearing there's quite a quite a few different places so y'say sometimes when it's quiet n people speak softly um you know in that noisy office environment those kind of things .hh um (.) so what I: would suggest is that if you wanted to go for something which is very very basic sort of bottom of the line kind of hearing aid it pro:bably wouldn't do the trick for you.
162. P3: yeah no I'm m I a:m. expecting it will cost me quite a bit of money.
163. A3: ok. u^m did you have an idea of a budget you might be able to spend on the hearing aids. how much money?
164. P3: well we. what were we looking at last time? ((towards girlfriend))
165. S: ((inaudible on recording))
166. P3: we were looking at what four thousand dollars ea^ch
167. A3: ok yeah yeah. the ones the ones we've got he:re if you went for umm tk (.) say the ve:ry top top top of the range one .hh um >as you say< four thousand dollars each or um if you buy the two then you get a bit of a discount so seven thousand five hundred dollars? (.) for the pair ((sniffs)) um (.) there's also a very good top of the range hearing aid here er which is six thousand six hundred for the pair?
168. P3: ok
169. A3: umm again I'm not sure how much you are willing to spend-so if that's all? right? then we can do that? one but if you you'd rather go just for something which is kind of middle of the ra:nge (.) um there's a very good hearing aid here called a Canta 4. (.) umm which at the moment is is a very good price as well and for that hearing aid (.) umm you are looking at three thousand four hundred dollars. (.) o^k?

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170. P3: for one?  
171. A3: for the pair.  
172. P3: for the pair. and so what do you get for your money basically?  
173. A3: [.HHHH]  
174. P3: [to go up] I'm mean what's the top?  
175. A3: it's it it's a ha:rd question to answer.

177. P: yep

178. A: A lot of the benefit is in terms of setting it up on the computer and it's a little bit more flexible for me um we can um it helps to to get the settings right for you in a in a shorter time period so we can set it up and you can go away see how you like it and most of the time that's pretty much how we leave it ok with some of the more basic ones it might take a bit more fiddling around to get it exactly right for you um the hearing aids I don't know if the ones you had when you were young had this probably not but the hearing aids now have a number of different programmes in them so you can have one setting say for sitting at home listening to the TV and have a second setting for when you're at work in a noisy environment you can have a third setting for when you're listening on the phone so the hearing aid will adjust how it amplifies the sound depending on where you are in those different situations so the top of the range ones have um can have up to four different settings in them whereas the cheaper ones the ones that I mentioned three thousand four hundred dollars that's go three settings in it

179. P: ok

180. A: ok um the top of the range ones tend to split the sound up into smaller sections so you can adjust each of the sections individually the the lower down the price you go they kind of break it down into bigger sections so it's not quite as flexible in terms of the adjustments we can make for you on the computer

181. P: and in terms of the frequency response that I would need to compensate for is it going to run out

182. A: well with with whichever hearing aid you decide to get part of my job is to set it up for you as close as I can for how your hearing is ok so um regardless of whatever hearing aid

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you get I will always try to match it as closely as I can to what you need

183. P: ok ok

184. A: yeah

185. P: um is there any information I can read so I can make a decision

186. A: yeah I've got er some um different pamphlets and brochures and things on the different kinds of hearing aids if you wanted to um take them away and think about it or

187. P: yeah yeah I'm definitely going to get them that's a done decision it's just a matter of trying to seal myself to spend more money that's the issue

188. A: yeah

189. P: is there any?

190. S: trial on them or?

191. A: yeah no that's right with whichever hearing aids you decide to get there's always a thirty day trial period you do have to pay for the at the start ok so you come in and set them up and from that day you have a one month trial so see how you go if you find that they're not right or you're not happy with them and you want to try something different then we're quite happy for you to do that er so long as it's in that thirty day period and you lose two hundred dollars for administration and and that sort of thing but otherwise we refund the rest of the money for you

192. P3: ok mm do you have? is there any sort of >I don't know< independent magazi:nes or something like that (.) of (.) I don't know e (.) how does (.) the purchaser?

193. A3: I (.) I think y' >I think< I know what you're saying (.) um it its very hard. (.) it i:s very har:d to get um (.) obje:ctive. information abou:t about the different hearing aids- the brochures that I'm going to give you are p put out by the hearing aid company

194. P3: [>yeah yeah yeah<]

195. A3: [so umm] every hearing aid company says that their hearing aid is the best.=

196. P3: [yeah]

197. A3: =[so] I think that (.) in terms of the benefit you ge:t whether you go for one bra:nd or another bra:nd you you're

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- probably >all the same< [ok]
198. P3: [ok]
199. A3: and whether you go fo:r umm err say the more expe:nsive one or the less expensive one um HHHH (.) again it's a bit hard for me to say what kind of difference. you'd notice >I'm not sure about that.<
200. P3: alright ooh yeah I just yeah I find that (.) find that hard.
201. A3: [.HHH]
202. p3: [especially] as an engineer=
203. A3: yeah!-.
204. P3: =to sort of who you know you go into a sho^p and you buy something? and you research hha it and you hha=
205. A3: [yeah yeah]
206. P3: =[here] I am going to spe:nd (.) close to something >to the order of< ei^ght gra:nd.
207. A3: [yeah yeah]
208. P3: =and I can't find out anything? about? it?=(( rising intonation))
209. A3: [yeah yeah]
210. P3: =[and just] told it's my decision
211. A3: yeah yeah it's very frustrating I know. and it's fru:strating for us as well because we have to try to explain to people which one's the best one and there's a:ll these different kinds of hearing aids- I think what can happen um and I notice this particularly. with with ol:der people is that if you give them too much information
212. P3: eh
213. A3: then it just gets too confusing all right so I'm trying not to kind of o:verload you with information because then you are you dEFinately. wO:n't be able to make a decision.
214. P3: en
215. A3: and and pa:rt of my job again really is to only talk about (.) >the ones that are going to be good for you<=
216. P3: [yeah]=
217. A3: =[so] I I won't fit you with something that is not going to be suitable [allright?]
218. P3: [yip yip]

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219. A3: ok so um rea:lly I am only tossing up between these two three different kinds of hearing aids out of a list of (.) you know

220. P3: yes yes >I understand <

221. A3: yeah

222. P3: well could I have a look at the at the at them?

223. A: sure

224. S: Is there one company that you prefer?

225. A: um we at the university we deal with five main hearing aid companies um I have I have done a lot of hearing aids by a company called GN Resound but that's only because over time I've become familiar with their software and the fitting um but that's not because they're better

226. P: yea

227. A: There's another audiologist here who fits Widex and there's somebody else here who fits Oticon hearing aids so it's only because the more you do the more familiar you get with the particular workings of that particular hearing aid. Does that make sense?

228. P: yeah yeah

229. A: and it's not to say that I can't do any of the others even if you decided on something other than

230. (pause)

231. P: Is there any research body here or in the US that does analysis scientific analysis of this sort of stuff

232. A: um again a lot of the hearing aid companies um do their own research NAL does a lot of research on different kinds of hearing aids there's been a couple of studies there's one study I know of which looked at five top of the range hearing aids from the different companies five or six can't remember now um looked at the top of the range hearing aids from each company and again if I remember correctly um they were generally all the same and person who was being tested um might have preferred one hearing aid for listening to piano music but whereas if they were listening to a voice then they might have preferred a different kind of hearing aid and in terms of the sound that they were getting now that says to me that roughly they're all the same

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233. P: yeah the sound
234. A: yeah the sound that you get ok all right now lets have a look this is the the top of the range one that I was talking about this is called Perseo and it's made by a hearing aid company called Phonak all right this one is supposed to be um very automatic ok so if you go from a quiet situation to noisy situation is is supposed to to be able to adjust for you and tell ok now I need to turn down some of that background noise
235. P: ok
236. A: that's that's one of the reasons why it's in the more expensive bracket is because it does all of that for you ok with these ones here if you want to change from the different settings you need to push a button
237. P: ok right
238. A: whereas that one's supposed to do it for you this is the Canta 7 which is the still in that top of the range bracket but just a different hearing aid company this is GN Resound all right so er this one you would have to push a button if you wanted to change the programmes over and then this one here is made by the same company GN Resound but this is Canta 4 so this is the three thousand four hundred dollar one that I was talking about
239. P: ok can you just write that on the the the costs and all that
240. A: yeah
241. P: I take it they have a website I can look at
242. A: They should do yeah
243. S: Can we have a look at like the next one down as well from Phonak?
244. P: this one
245. S: yeah like the one down like the Canta 4
246. A: yeah we can do that I can give you a bracket a brochure for that as well (short pause) Perseo is what did I say seven thousand five hundred (talking very softly as if to himself) and there's not too much of a difference between the next one down from Phonak um and the Canta 7 ok in terms of the price
247. P: and can you tell what what so how many modes does it have?

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248. A: um that one there the Perseo er (pause) three three different modes
249. P: so that would change based on
250. A: it listens around to see what other kind of noise there is ok and if it if it picks up what it thinks is background noise then it's going to go and try turn that down ok
251. P: oh ok
252. A: yeah whereas if you're in a quiet situation it's going to listen and it's going to say ok no background noise so I'm just going to turn everything up ok right this is the this is the next one down in the Phonak which is called Claro six eight fifty (said quietly to self) ok all the Phonak hearing aids end with "o" Perseo, Claro ok so that's the Claro one (clears throat)
253. P3: ok all right so how does it work from now what do people
254. A3: alright once you^ decide? once you^ decide? what you want to do alright tk um: it's up to you what you whether you want me to do this today. if you want I can take an impression of your ears for the molds today and just keep them here until you decide either that o:r (.) you go away and you think about it decide what you want to do and then come back and I'll take the molds next time ok (.) after I've taken the molds then I can and you've made your decision then I can send them away it takes about two weeks to get the hearing aids ready for you (.)all right then you come back in fit them up for you that's when your thirty day trial starts
255. P3: start
256. A: so start your thirty days there but you come back after you've had them for about two weeks just to see how you go all right if we need to make any adjustments or anything like that then you come back another two weeks after that thats the end of the thirty day trial period and we check to see that everything's all right ok and then as you need to if you need to have any more appointments after that then we can make them
257. P: ok and do you tune them before is there any tuning done while when you get them or is it pre pre tuned
258. A: that that first appointment um after we send the molds away we have to get you in plug you in the computer make sure

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they're set set up properly for your hearing turning up the sounds as you need them ask you how they sound whether you're happy with the sound and then we'll get you to go away and try them.

259. P: ok ok and is there any tuning done in terms of yeah in respect to people's voices and talking and that or is it done more just in terms of beeps and that sort of stuff I don't know
260. A: er here in the clinic do you mean?
261. P: yeah
262. A: there's there
263. P: is that why you need to come back after a few weeks
264. A: that's right because in here it's a very artificial kind of environment and you really do need to go away give them a try in the sort of situations where you are where you live where you socialise where you work try those sort of things and then come back and tell me how they were because I can't follow you around wherever you go all right um and um and that's the best way for you to work out if they are helping you or not too
265. P: ok all right well I think um
266. S: Is there a difference between those ones in the maintenance?
267. A: em they they batteries we sell batteries here ok um I think seven dollars for a packet of six batteries all right pharmacies and that sort of thing some pharmacies sell hearing aid batteries as well so you can just shop around and see what you get in terms of price for those in terms of the warranty generally it's two or three years on the hearing aid so if it breaks down or you need us to have a look at it that's all covered the Perseo has a three year warranty
268. S: Can you er can you er just put there
269. A: yeah three years on that one Claro two years and for both of these it's three
270. P: ok so there's a big price difference between those two what do you get for going to that level I understand sort of top of the range, sort of get that now but
271. A: Basically um there's not too much of a difference as I said the number of programmes that you get so you have the

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option of four settings or three settings ok but at the moment that is a really good you know deal they used to be more expensive and they just recently lowered their costs so it it's come down quite a way so at the moment that's pretty good for what you pay and you're getting a really good hearing aid

272. P: and why if that's four is the top of the range three but automatic?

273. A: sorry say that again

274. P: if this is three and that's four modes

275. A: yep

276. P: and then when you went up to the

277. A: different bra - different hearing aid company

278. P3: right I think I'll think >I'll take it home<I'll definitely gonna get them=

279. A3: yeah

280. P3: =it's a done thing but=

281. A3: yeah

282. P3: =I've just got to sit there and work out how much I'm going to end up paying

283. A3: yeah that's fine. and look P3 it's (1) it's my job first of all to >help you out with your hearing< right ok and whichever hearing aid you get it doesn't worry me. ok whether you spend this amount or this amount >I don't. care.< ok um first your hearing ok and then then all that other stuff later on ok

284. P: just another question is how long how long do people keep them for

285. A: How long does it last? (rising intonation)

286. P: Mmmm

287. A: How long does a hearing aid last? (rising intonation and volume change)

288. P: well not so much how long does it last but how long how fast the technology changes you know after four years do

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- you still get
289. A: ok
290. P: well to say turn around and say what's worth me spending another seven grand
291. A: (signs) well that's up to you
292. P: yeah I suppose that's true
293. A: um some I know of some people who have a hearing aid and so long as it's working and it's helping them with their hearing then they just keep going with that one so if you're lucky you might get up to ten years out of it in terms of the hearing aid it's up to you as to whether you want to upgrade as new things come out and new things are coming out all the time
294. P: Yeah
295. A: yeah ok so you you know I would expect out of a BTE you know a behind the ear that you'd get five to ten years out of it
296. P: yeah ok that while still ok
297. S: so you definitely recommend a BTE °
298. A: Well I think first of all because that's what you've had before and second of all because of just in just in case if anything happens if your hearing does change or anything like that then you've got that room to move you can come in and say, look I think my hearing's changed and I can just bump it up on the computer. If you get the smaller kinds of hearing aids, beca- just, purely because they're smaller they don't have as much power in them and so if your hearing does go down and I try to turn it up then you might find that I get to the point where I say well i can't turn it up anymore. And then IF, if that did happen and I don't know whether that's going to
299. P: yep yeah
300. A: happen or not. But IF that did happen, and I, and you say my hearing's gone down, and I say I can't turn it up any more then you have to get a new one because you'll find that it's just not loud enough
301. P: But if I'm going to be looking at keeping it for 5 years the risk assessment of me, of it going down within 5 years was probably fairly low

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302. A: Um, it's like, it's like, honestly, it's like looking in a crystal ball
303. S: I'm just saying is it worth looking at the brochures for those or is it the same thing?
304. A: The same technology, i- regardless of the size you get the same technology in the hearing aid
305. S: And it's the same price?
306. A: Yep yep
307. P: Oh
308. P: Yeah, I was always, before I don't know how, many many years ago, I was told that my ear was very small and I would have trouble getting a in-the-ear one. Is that- (pause), my ear canal was very small
309. A: I could have a look again for you but they from my memory I can't re- remember that that it'd be too small for us to fit something inside though. I don't think so
- (silence)
310. P: Umm, yeah cause professionally I would prefer not to have behind the ear ones
311. A: Yep
312. P: Um, but, yeah I sort of want what's best I s'pose
313. A: Um, (long pause) this uh I think that's something that a lot of people have trouble with is is you know, how it looks
314. P: yeah yeah
315. A: Um and and you're right, you need to think about whether you're concerned about how it looks or whether you want it to help
316. P: yep
317. A: you're hearing. Um (pause) I think in your case you- you might have heard of the one's that are very small and they go right down inside, um, I- DEFINITIELY wouldn't recommend those for you
318. P: yep yep
319. A: Ok, um (pause) if with with the sort of hearing that you've got you are going to have something that people are going to be able to see ok, it's either going to be sitting in your ear there and people are going to be able to see it,

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- or it's going to be sitting up there and people are going to be able to see it
320. P: Have you just got a picture o- of of the one that would be suitable
321. A: I'll just show you
322. S: Real ones
323. A: Real ones
324. P: Yeah
325. A: Alright, now these have been made for me so they fit in my ear, ok, this is the little one I was talking about, ok, and this is called a completely in the canal type of hearing aid alright, and it's generally only for people who've got kind of a mild-
326. P: yep
327. A: sort of losses. And I don't like them that much anyway, I don't think they're that good. So, um
328. P: So that's out
329. A: Yeah, I- I wouldn't do that alright?
330. A: This one I'd say again at that stretch of if your hearing changes, um, will be the very smallest one that I'd
331. P: yeah
332. A: fit for you, ok alright. And the smaller ones you can't fit as many with with the larger ones you can fit 2 microphones in them whereas these ones you can't really fit 2 microphones in so you lose out on some of the background noise reduction with some of the larger hearing aids you can get, yeah?
333. P: So they're not as directional is that
334. A: That's right, that's right, yeah ok. You'd be looking at, at the very smallest, something kind of in between these 2, ok, if I pop this one in. This is called an in the ear. That's where it goes.
335. P: Yep, alright
336. A: So maybe from the front you can't see it as much
337. P: Yeah you don't get much o- yeah
338. A: than from the side, ok
339. P: But you think, it's not much, yeah
340. A: An then if

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341. S: It's the behind the ear one that's clear
342. A: Yeah
343. S: and you can't see it as much from the front your ones at home are a bit bigger
344. A: They they probably were because they were older and the newer ones are just smaller
345. P: yeah yeah the ones I've got at home are a bit chunky
346. A: Yeah
347. P: Ok so have you have any other questions (to girlfriend) I just need to go home and read all the stuff
348. A: laughs
349. P: and make a decision on the bank account
350. S: um out of the top ones of both which ones of those would you recommend? And out the the second ones?
351. A: OK umm it's really hard to say I would say I'm just thinking I'm not sure if I even want to say this I would I think that these two are probably about the same ok
352. S: (inaudible) ok
353. A: ok this one the advantage is that you get the automatic so you don't have to push any buttons at your ear ok and then this one is still an excellent hearing aid it just doesn't have those four programmes you only get the three programmes ok um
354. P: so you say say I'll be working say at my computer and then I'll walk into a meeting say with people talking and I will go chung chung one two three
355. A: yeah yeah that's it that's it yeah
356. P: All right then anything else? (towards girlfriend)
357. S: so that if you say say those two are the same and that one the Claro's a lot cheaper has it
358. A: umm Claro 6 8 50 and this is six six
359. P: Which is ..have you heard of these brands ? (to G)
360. S: er yeah we did a GN Resound study ...
361. A: Yes, I think that's right
362. P: All right well we'll think about those
363. A: OK all right, any other questions? Before you go?
364. P: no
365. A: ok all right I'll give you a card with the phone number on it so you can ring us up once you decide what you want to

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do all right and even if you ring up and say right don't worry about it whatever that's fine

366. P: ok

367. A: umm I also have to send a report back to the doctor I'll do that that will take I think a little bit more than two weeks ok

368. P: uhmm

369. A: but that is just so he's kept in the loop so he knows what's going on as well

370. P: ok right yeah I will by next week I'll look some stuff up and will definitely be getting back to you within a week after that

371. A: ok right..(sighs) I'll give you these ok umm I think I also need to get you to sign Medicare for today's testing did they get your card at the start? Oh yes it's over here

372. S: Does Medicare cover the other visits?

373. A: Umm Medicare doesn't cover hearing aids ok so your next visit's kind of covered in the cost of the hearing aids and also in the warranty period just sign across the bottom for me there...that's your copy of that ok and there's the phone number down the bottom there all right

374. P3: that's very good (.) what was the sum up of my: (.) of the >nature of my deafness?<

375. A3: oh ok? I should have shown you that (.) sorry? umm thi^s is the test you had la^st time. ok. and this is the test you had today?-so the circles are your right ear the crosses are your left? ear? low frequency sounds over this side going across to the high pitches (.) soft sounds up the top going down to the loud sounds at the bottom (.) ri^ght. what we say is nor:mal. hearing. is anything here at 20 or above. ok so we are trying to find the softest sounds you can hea^r. for you:. (.) before your press the button we have to turn them up (.) this degree ok. so in this region here this is a mo:derate. hearing. lo:ss. Ook0 and this region is kind of mi:ld. a mild hearing loss in the very high pitched sounds ok. alright. the speech test you did it just shows us that when we turn the sounds up (.) you do better?

376. P3: ok.

377. A3: yeah um and the pressure test on your eardrums just checking to see if everything's working all right there and everything seems to be ok yeah all right

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378. P: (to G) does that mean anything to you? Is there anything you want to ?
379. S: can we get a copy
380. A: umm I can I can send you a copy of the results and the report and everything after I've done that would that be all right?
381. P: yeah
382. A: yeah yeah ok
383. P: (inaudible)
384. A3: -and your surname is XXXX is that right?=  
385. P3: =yes::(.) >strange name<  
386. A3: ok (.) right.

Louise Collingridge Appendix Case 3 Not For Reproduction

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MACQUARIE UNIVERSITY  
DIVISION OF LINGUISTICS AND PSYCHOLOGY  
DEPARTMENT OF LINGUISTICS

*AUDIOLOGY CLINIC*

*REPORT ON AUDIOLOGY CLINIC ACTIVITIES – 2004*

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## Appendix

### Background to the Audiology Clinic:

The Audiology Clinic is located on the 5<sup>th</sup> floor, C5A, in a purpose built clinic with five clinic rooms equipped for diagnostic and rehabilitative audiology for adults and children. In addition, there is a reception area and some office space. The clinic operates five days per week, from 9 am to 5 pm, throughout the year. During the academic year (March to November) students enrolled in the Master of Clinical Audiology course participate in most clinic activities. Members of the public are provided with services, which, in the case of diagnostic services are bulk billed to Medicare provided a medical practitioner has referred the patient. Without a medical referral, or where rehabilitative services are accessed, patients are billed privately.

### Clinical services offered by the Audiology Clinic:

The audiology clinic offers diagnostic and rehabilitative audiology services. The proportion of each type of service, and the number of appointments seen is dependent on the staffing in the clinic in terms of the amount of time spent seeing patients, and the type of clinical service offered.

The clinic was staffed as follows in 2004:

<i>Title</i>	<i>Days per week of contact time with patients in the clinic</i>	<i>No of patients seen in 2005</i>	<i>Days per week involved in student teaching</i>	<i>Range of clinical activities undertaken</i>
University Audiology Clinic Manager	1	470	1.5	Diagnostic (basic) and Rehabilitative
Clinical Audiologist	4.5	1185	3	Diagnostic (basic) and Rehabilitative
Casual Clinical Audiologist	2.2	503	2.2	Diagnostic (basic and advanced) and Rehabilitative
Casual Clinical Audiologist	2.2	603	2.2	Diagnostic (basic) and Rehabilitative
Part time Clinical Audiologist (employed through Access MQ)	1.8	391	1.8	Diagnostic (basic and advanced) and Rehabilitative

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Each audiologist undertook a range of clinical services, and the breakdown of appointment types for each audiologist is as follows:

<i>Staff Member</i>	<i>Children</i>	<i>Adults</i>	<i>Hearing Aid appointments (fittings, reviews, counselling)</i>	<i>ABR Assessments</i>	<i>Total</i>
A	16	142	194	0	352
B	141	402	320	0	863
C	487	330	271	0	1088
D	319	345	121	41	826
E	96	67	29	8	200
F	316	233	82	24	655
G	112	138	139	0	389
<b>TOTAL</b>	<b>1487</b>	<b>1657</b>	<b>1156</b>	<b>73</b>	<b>4373</b>

The work of the clinic can be differentiated between diagnostic assessments, which are billed to Medicare in nearly all instances, and the remainder of the clinic activities, which are billed privately.

40 % of all appointments were diagnostic assessments for children

32 % of all appointments were diagnostic appointments for adults

28 % of all appointments were hearing aid fittings or follow ups

The amount of time allocated to children's appointments is half that of adult appointments, and some adult assessments lead on to hearing aid work. 70 % of patients seen were seen for diagnostic purposes. The number of paediatric assessments is higher than for adults or hearing aid patients, although there is a fairly good balance between these three types of appointments.

In 2004, time was allocated for each of these types of appointments to ensure that the private patients who had purchased hearing aids were able to easily attend follow up appointments with their audiologists to avoid unnecessary lengthy delays between appointments.

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The non attendance rate dropped to below 10 %, which is slightly lower than the 12 % in 2003. Appointments are confirmed the day before, which is an activity the clinic receptionists started during 2004, after a period in the middle of the year when there was a very high (60 %) nonattendance rate. The waiting times are partly responsible for nonattendance, as the longer the time interval between appointments being made and the date of the appointment, the greater the possibility of nonattendance. The clinic is in demand, and the only way to attempt to reduce waiting times is to increase the number of clinical audiologists working in the clinic. This issue is being addressed, with staffing changes planned for 2005.

### Clinic Income:

Funds of approximately \$700 000 were administered through the clinic this year, with major expenses being for the cost of hearing aids that are purchased from manufacturers and then fitted and sold to patients and staffing costs. The amount of income as a result of diagnostic services totaled \$109 412.00 in 2004. For hearing aid services, income (less the cost of devices), was \$362 109.00. Thus an amount of approximately \$ 450 000 was available for the running of the clinic.

<b>Income to the clinic</b>	<b>2003</b>	<b>2004</b>
Diagnostic Assessments (Medicare)	\$106 555.00	\$109 412.00
Rehabilitative Audiology (Private Hearing Aid Sales less the cost of devices)*	\$246 468.00	\$362 109.00

*\* These figures are approximations as the financial reporting system does not clearly differentiate between accounts paid for hearing aids and refunds for returned aids*

The Medicare billing system allows for bulk billing, but only a small amount of income (insufficient to cover expenses) is derived from that source. During 2004 the possibility of charging a gap fee for Medicare patients was investigated, but was not pursued on the advice of the Clinical Director, Professor Gibson, who is responsible for the contact with Medicare. The current arrangement with Professor Gibson does pose some difficulties for the clinic which will need to be addressed in future years. During 2004 Audiologists were recognised by the Health Insurance Commission (HIC) in that we can access Medicare funds directly in certain (very limited) circumstances. All audiologists working in the clinic have registered with HIC, although we have not seen any patients to date whose situation allows for us to directly access Medicare funds. The Audiological Society of Australia continues to call for audiologists to be recognised as providers, but it is very unclear as to when, or if, this would be approved. Accessing Medicare funds for audiology thus currently needs to be done via a medical practitioner. Professor Gibson acts as the director for a number of facilities (including

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Macquarie University). We are not able to take further action on this against his advice. Risks to the clinic include any sudden change in personal circumstances, in which case the clinic would need an alternative solution to this. Consideration of this situation is ongoing.

The income from Medicare has remained relatively stable, as it has in previous years. The hearing aid income has increased by almost 30 % in the past year. The combination of allocated time for appointments, staff commitment and availability, availability of suitable technology, and the support offered to staff in this area, are all considered contributing factors to the growth and relative success of the hearing aid service offered by the clinic.

Increasing reliance on income from the private rehabilitative audiology service is both professionally satisfying (allowing for independent decision making and reporting apart from a medical director) as well as financially rewarding.

### Summary of hearing aid activities in the clinic:

Hearing aid discussion appointments (90 minute appointments) are key appointments in the clinic, as they lead to further opportunities for fitting hearing aids to patients, which offer useful teaching opportunities and a source of revenue for the clinic. Whereas previously only a small portion of the staff were involved in rehabilitative audiology and undertook these appointments, all staff, with the exception of Nerida McClean, are now actively involved in the hearing aid service in the clinic. The distribution of combination diagnostic audiology / rehabilitation planning appointments that were conducted during 2004 were distributed across the staff as follows:

<b>Staff Member</b>	<b>No of hearing aid discussions</b>
A	20
B	36
C	51
D	6
E	19
F	20
G	29
<b>TOTAL</b>	<b>181</b>

## Appendix

Of the total 181 hearing aid discussions, it is unknown at this stage how many patients proceeded with hearing aid fittings in the clinic, although this information is available and is currently being extracted from our records. New hearing aid orders are related to this figure, but also include returning hearing aid patients (not included in the 181 necessarily) who wished to upgrade their hearing aids.

A total of 254 hearing aids were ordered through the clinic in 2004, and of these, just 27 were returned for credit after being found not suitable by the patient or audiologist. This very low return rate is considered excellent by industry standards. This low return rate of hearing aids can be considered an indication that careful consideration is going into the choice of hearing aids, and that appropriate support is being offered to patients in the selection, fitting and follow up process.

A new development in hearing aid fittings has been open fittings, that can be completed at the first appointment. A number of hearing aids have been fitted in this way in the clinic. The first open fittings were incorporated into a clinical trial. This was coordinated by \*\*, who represented the Audiology clinic in China, where the clinical trial was presented by the manufacturer, GN Resound.

A summary table illustrating the trends in the hearing aid service offered across all staff members is attached. The hearing aid work is spread over the staff, with the full time clinician still responsible for large numbers. It is a goal of the clinic to spread the hearing aid work across at least three staff members. This spread of patients across audiologists was appropriate given the staff who worked in the clinic in 2004. Further distribution across full time continuing staff is anticipated in 2005 (see below).

The clinic does not have any affiliation to any manufacturer, but familiarity with a number of manufacturers is encouraged so that individual needs of patients can be matched to available products. A spread of hearing aids was ordered, across manufacturers, with GN Resound being the most commonly used manufacturer. This reflects that company's product and price range, which have been favourably matched to our patient population.

Hearing aid maintenance for patients supplied with hearing aids via the clinic is an ongoing clinical responsibility. A record was kept by Andrew Myles this year, of all cases where hearing aids had to be returned to the manufacturer for repair. An important aspect of advising patients regarding the selection of a manufacturer and style of hearing aid, relates to reliability, and hence the information collected has clinical implications regarding the advice offered to patients. The table below illustrates the number of hearing aids that were processed for repair. Firstly, it is worth noting that almost the same number of hearing aids were processed for repairs, as were ordered as new hearing aids for patients. The actual number of repairs undertaken is also, in fact, larger than this, as repairs carried out on site, either as part of booked appointments, or for patients who walk in to the clinic requesting assistance, are not recorded in these figures.

## Appendix

A high number of Widex completely in the canal (CIC) hearing aids were sent for repair. This possibly reflects the trend to fit this brand and style of hearing aid a few years ago. However, the number of CIC repairs required reflects clinical impressions that they require regular maintenance and often need to be sent for back to the manufacturer for repairs.

The following table contains the information collected regarding numbers of repairs sent for each manufacturer and style of hearing aid:

<b>Style of aid</b>	<b>Hearing Aid Manufacturer</b>					<b>Totals</b>
	<b>Widex</b>	<b>Phonak</b>	<b>Oticon</b>	<b>GNResound</b>	<b>Bernaфон</b>	
BTE repairs	11	31	7	7	1	57
CIC repairs	68			5	5	78
ITC repairs	4	13	7	19	18	61
ITE repairs	12	13	22	2	6	55
<b>TOTALS</b>	<b>95</b>	<b>57</b>	<b>36</b>	<b>33</b>	<b>30</b>	<b>251</b>

Styles of hearing aids:

BTE= Behind the ear

ITC = In the canal

CIC = Completely in the canal

ITE = In the ear

### Costs associated with running the clinic:

Some staffing costs, equipment (small equipment purchases and maintenance), hearing aids and general running costs are paid from income accounts associated with Medicare and Hearing Aid Clinic income.

A general breakdown of how the income is spent is as follows:

Staffing costs:	50 %
University levy:	10 %
Departmental levy:	5 %
General expenses:	25 %
Other (eg conference attendance):	10 %

### Educational role of the clinic:

The clinic exists primarily to train students enrolled in the Master of Clinical Audiology programme. Students are required to gain a minimum of 200 hours in which they are actively engaged with patients during their training. The clinic aims to provide a large amount of this training, with the remainder of clinical training taking place in a number of clinics associated with the university.

## Appendix

The general staff employed to work in the clinic undertake a significant clinical teaching load. Most general staff are involved with student teaching at all times that they are in the clinic during the academic year, including the mid semester breaks. This teaching is typically one to one clinical teaching, although in some cases two students are allocated to a single audiologist and group work is undertaken. Some “student free” time is allocated to less experienced audiologists. Over the past few years a number of new graduates have been employed and have built up their skills and gained clinical experience, and the recognised certificate of clinical practice from the Audiological Society of Australia, before taking on a teaching load. The number of clinical teaching hours for an experienced (ie more than 2 years of full time clinical experience) audiologist per year is approximately 900. These hours include supervision of clinical work by students, teaching of clinical skills, and student evaluation. Clinical general staff are also involved in the examination of clinical skills of students.

In addition, general staff employed to work in the clinic assist academic staff with the teaching of the practical programme that supplements lectures. A number of general staff members also provide guest lectures and tutorials to undergraduate and postgraduate students.

### The Audiology Clinic as a research site:

The clinic has been used, in the past, primarily as a clinical teaching facility, with some research being undertaken by postgraduate students and staff using the clinic facilities, but with clinic staff devoting most of their time to clinical teaching. In 2004 however, the clinic was used as a research site for a number of research projects (some ongoing) that are being carried out by clinic staff. Clinic staff are also involved in research projects that are being undertaken at our satellite sites at Westmead and Liverpool Hospitals, and some research projects are undertaken by staff at those sites independently of the university clinic. The range of research projects that are currently being undertaken in this clinic include a study of infant middle ear transmission, middle ear transmission in Otosclerosis patients, patient professional interaction, and the quality of life of audiology patients. All of these projects involve clinic staff, some of whom are participants and some of whom are researchers. One staff member has been invited, in 2005, to assist in the data analysis for a study being undertaken in the area of Auslan interpreting, which is being done by Dr Jemina Napier in Translation and Interpreting. The clinical research projects being undertaken involve the use clinical equipment and patients referred to the clinic, and as such, have not required additional research grants to undertake them. The staff have committed their time to these projects, and have been encouraged to undertake such projects in order to expand their own skills and experience, and to increase the research involvement of audiology staff.

## Appendix

### Directions for 2005:

Late in 2004, a number of staff changes occurred, whereby a number of clinical audiologists who had opted to work part time in the clinic, decided to pursue alternative avenues. This created space in the clinic for two full time clinical audiologists. The positions were approved by the department and were advertised early in 2005.

The clinic will be staffed by three full time clinical audiologists (one created in 2002, and the other two as mentioned above) in addition to the clinic manager and the two full time administration assistants / receptionists. In addition, a staff member at Westmead Hospital will continue to spend part of the week in the clinic, as will the academic staff employed to work in Audiology.

The clinic has the facilities to have five audiologists seeing patients at any one time. Once the two positions have been filled, there will be little need for casual audiologists as the teaching and clinical needs will be met by the full time clinic staff, with some additional support from part time and academic staff. Academic staff will provide support for diagnostic services, which rely less on continuity than does rehabilitative work.

With full time clinical staff, there are opportunities for involving academic and clinical staff in joint tutorials and practical classes. While this has always been within the job description for audiologists, it has not been easy to arrange with part time, casual staff. In 2005, the full time clinical staff will be allocated time to attend regular tutorials arranged for students enrolled in the M. Clin Aud degree. This will give all staff an opportunity for ongoing case discussions with staff and students, and will contribute to staff development.

Full time clinical staff will also each be encouraged to become involved in at least one research project in an area of interest, or where the clinic is already undertaking research (as discussed above).

The goal of the clinic is to provide staff with clinical, teaching and research opportunities to allow for their own professional development, which in turn benefits the clinic and the Audiology students at Macquarie University. In 2004 extensive support was offered in the form of staff tutorials, in preparation for student practical teaching. In 2005, additional staff development opportunities will be offered, with regular meetings to discuss clinical and academic issues. With recent staff changes, staff development and support will be a primary responsibility of the clinic manager in 2005. It is expected that an investment in this area will have benefits for Audiology (both academic and clinical), and will ensure that the clinical training offered in this and future years maintains the high standards set previously.

LOUISE REYNOLDS  
AUDIOLOGY CLINIC MANAGER  
7 FEBRUARY 2005

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MACQUARIE UNIVERSITY  
DIVISION OF LINGUISTICS AND PSYCHOLOGY  
DEPARTMENT OF LINGUISTICS

*AUDIOLOGY CLINIC*

*REPORT ON AUDIOLOGY CLINIC ACTIVITIES – 2005*

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## Appendix

### Background to the Audiology Clinic:

The Audiology Clinic is located on the 5<sup>th</sup> floor, C5A, in a purpose built clinic with five clinic rooms equipped for diagnostic and rehabilitative audiology for adults and children. In addition, there is a reception area and office space. The clinic operates five days per week, from 9 am to 5 pm, throughout the year. During the academic year (March to November) students enrolled in the Master of Clinical Audiology course participate in most clinic activities. Members of the public are provided with services, which, in the case of diagnostic services are bulk billed to Medicare provided a medical practitioner has referred the patient. Without a medical referral, or where rehabilitative services are accessed, patients are billed privately.

The audiology clinic offers diagnostic and rehabilitative audiology services.

### Audiology clinic staffing and service provision: 2005

During 2005, there were a large number of staff changes, with only the clinic manager, one receptionist and one full time and one part time audiologist having work continuity from the previous year. Three new full time clinical audiologists and one new full time clinic receptionist started working in the clinic at staggered times during the year. Staff training and development were thus significant factors in limiting the number of patients seen, and the range of services offered.

All clinical staff were given additional administration time in 2005 (two half days as opposed to one half day that is typically scheduled) in order to assist this transition.

In spite of the staff changes, there was a very similar number of patients seen in 2005, when compared to 2004. Overall appointment figures were 4008 in 2004, and 4373 in 2005. The distribution of appointment types across diagnostic and rehabilitative services was also very similar to the distribution in 2004, with the number of appointments being distributed in approximately equal amounts between children, diagnostic adult appointments, and rehabilitative appointments.

## Appendix

The members of the clinical staff are listed in the table below, along with the range of clinical activities each is involved in, and the amount of time patients were seen, as well as the amount of that time where students were allocated during term time.

<i>Title</i>	<i>Days per week of contact time with patients in the clinic</i>	<i>Days per week involved in student teaching in the clinic</i>	<i>Range of clinical activities undertaken</i>
University Audiology Clinic Manager	1	1	Diagnostic (basic) and Advanced Rehabilitative including tinnitus and communication training
Clinical Audiologist	3	3	Diagnostic (basic and advanced) and Rehabilitative
Clinical Audiologist	3.750	0	Diagnostic (basic) and Advanced Rehabilitative – including tinnitus
Clinical Audiologist	4	3.5	Diagnostic (basic) and Rehabilitative
Casual Clinical Audiologist	4	0	Diagnostic (basic and advanced) and Rehabilitative
Part time Clinical Audiologist (employed through Access MQ)	1.8	1.8	Diagnostic (basic and advanced) and Rehabilitative
Other (short term / academic staff)			

## Appendix

The break down of appointment types for each audiologist is further provided in the table below, showing total number of appointments for each category.

<i>Name</i>	<i>Children</i>	<i>Adults</i>	<i>Hearing Aid appointments (fittings, reviews, counselling)</i>	<i>ABR Assessments</i>	<i>Total</i>
A	16	142	194	0	352
B	141	402	320	0	863
C	487	330	271	0	1088
D	319	345	121	41	826
E	96	67	29	8	200
F	316	233	82	24	655
G	112	138	139	0	389
<b>TOTAL</b>	<b>1487</b>	<b>1657</b>	<b>1156</b>	<b>73</b>	<b>4373</b>

The work of the clinic can be differentiated between diagnostic assessments, which are billed to Medicare in nearly all instances, and the remainder of the clinic activities, which are billed privately.

34 % of all appointments were diagnostic assessments for children  
 39 % of all appointments were diagnostic appointments for adults  
 27 % of all appointments were hearing aid fittings or follow ups

## Appendix

The hearing aid aspect of the clinic work, although it forms only a third of the appointments seen, is significant in terms of the income generated. Rehabilitative audiology allows for professional independence and autonomy, which is important in the teaching context. Similar numbers of new hearing aids were fitted in 2005 (240), as in 2004 (250). A break down on the hearing aid fitting information for 2005 is provided in the following tables:

<b>Audiologist</b>	<b>No of clients for whom hearing aids were ordered</b>	<b>Total number of rehabilitative appointments in 2005</b>	<b>New hearing aid discussions held in 2005</b>	<b>% of hearing aid discussions from which new hearing aids were ordered</b>	<b>No of new hearing aids ordered</b>	<b>% of aids ordered by each audio that are returned</b>
<b>A</b>	45	320	74	61%	70	7%
<b>B</b>	22	121	39	56%	32	
<b>C</b>	25	139	30	83%	32	13%
<b>D</b>	36	271	43	83%	61	10%
<b>E</b>	1	29			2	0%
<b>F</b>	22	194	22	100%	36	11%
<b>G</b>	15	82	21	71%	25	12%
<b>Total</b>	166	1156	229		240	

<b>Audiologist</b>	<b>Widex</b>	<b>Phonak</b>	<b>Oticon</b>	<b>GN Resound</b>	<b>Bernafon</b>	<b>Unitron</b>	<b>Other</b>
<b>A</b>		6	32	24	7		1
<b>B</b>			12	20			
<b>C</b>		4	6	22			
<b>D</b>		6	13	42			
<b>E</b>				2			
<b>F</b>		2	21	12	1		
<b>G</b>	1	1	14	9			
<b>Total</b>	1	19	89	131	8	0	1
<b>% of all orders</b>	0%	8%	37%	52%	3%	0%	0%

## Appendix

Further expansion of the rehabilitation service to include tinnitus treatment, and also communication training, was initiated in 2005. Two audiologists were trained in a specialist tinnitus treatment (Neuromonics), and an attempt was made to establish a joint tinnitus programme with the Rod Power Psychology Clinic. One audiologist completed her training as a Better Hearing Australia specialist trainer in communication skills. All audiologists have started to develop further skills in rehabilitative audiology (counselling and skills training) through professional development programme offered within the clinic.

The non attendance rate dropped to 6 %, which is an improvement over the previous years, and ensures that minimal time is lost for teaching students and scheduled appointments.

### Clinic Income:

A total income of \$787 000 was recorded for 2005.

The costs of hearing aids is a major expense (\$244 560 in 2005) which has been deducted from this amount to provide the available funds for the running of the clinic.

<b>Income to the clinic</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
Diagnostic Assessments (Medicare)	\$106 555.00	\$109 412.00	\$108 230.45
Rehabilitative Audiology (Private Hearing Aid Sales less the cost of devices)*	\$246 468.00	\$362 109.00	\$380 950.00

The income from Medicare and the hearing aid fitting has remained relatively stable since 2004, and this is in line with the number of appointments and distribution of appointment types. The income from hearing aid fittings has increased significantly since 2003, although there was little difference between the income generated in 2004 and 2005, as shown above.

## Appendix

### Clinic Expenses:

In 2005, expenses for the clinic exceeded the income by a significant amount. The clinic supported the postgraduate training programme in a number of ways in 2005, which resulted in significantly less clinic time for a number of staff members, which is reflected in the balance between income and expenses. Examples were the clinic manager being nominally responsible for two academic units (CAUD 809 in Semester 1 and CAUD 818 in Semester 2), and having clinical staff support academic teaching without any transfer of funds from the postgraduate account to the clinic account. This included clinical staff auditing courses (CAUD 810), supporting tutorials (all clinical staff at various times during the year) and as a support lecturer (CAUD 818). Overseas travel for the clinic manager was to be in exchange for teaching done, but was paid from the clinic account. The postgraduate account did cover the costs of the overtime paid to clinical staff running practicals for Masters students in their first year.

In addition, as mentioned, the change in staff and focus on staff development and orientation for new staff also contributed to fewer patients being seen proportionately to the amount of hours that staff were employed. During the changeover of staff, audiology staff members were needed to assist in reception, and the clinic manager was involved in training new staff which meant less time to see patients, which again influenced the balance between income and expenses.

Some staffing costs, equipment (small equipment purchases and maintenance), hearing aids and general running costs are paid from income accounts associated with Medicare and Hearing Aid Clinic income.

A general breakdown of how the income was spent in 2005 is as follows:

	<b>Actual amount spent</b>	<b>% of expenses</b>
<b>Staffing</b>	\$318 589	37 %
<b>Levies</b>	\$107 728	12 %
<b>General costs (including hearing aid purchases)</b>	\$454 560	51 %

## Appendix

### Equipment issues in 2005:

Over the past few years, in line with aiming to increase the proportion of hearing aid work carried out in the clinic, the clinic has been reorganized so that whereas in 2002 there was only one room in which hearing aids could be fitted, there are now three fully equipped rooms that allow for both diagnostic and rehabilitative services to be carried out in them. The remaining two clinic rooms are currently established as diagnostic rooms (one for electrophysiological measures and the other as a paediatric testing room). In 2005 the equipment required to convert the fourth room to a fully functional diagnostic and rehabilitation room (an Aurical) was purchased through the large equipment rolling plan. The Aurical is presently being used at the Westmead Hospital clinic, however, this is a temporary measure, and the long term plan is for the Aurical to be moved to the clinic so that four fully equipped rooms will be operational in the clinic.

The use of Auricals, a computer driven integrated system for testing hearing and fitting of hearing aids, requires computers to be operating in clinic rooms. Noise levels of computers need to be kept to a minimum. In 2005, clinic computers were replaced with computers that are quieter than conventional computers, while still allowing for the capacity for the computers to operate through the university network and within the small clinic network that has been set up to allow for sharing of patient files in the clinic.

In addition, two middle ear analysers (Otoflex) were obtained through the large equipment rolling plan, which are also part of the integrated computer system.

A long term goal of the clinic is to develop software capabilities to combine test results to generate clinical reports that adopt conventions that are recognizable to the Australian medical community who rely on our reports and interpretation. This was initiated in 2005, but further development is needed before this is fully functional.

### The Audiology Clinic as a research site:

The audiology clinic continued to serve as the research site for two PhD students (XXXX and Louise Reynolds – also the clinic's manager). XXXX assisted Dr Jemina Napier with the data analysis for a research paper that was presented at the AILA conference in Madison, Wisconsin. XXXX assisted Louise Reynolds, Paul Cheung and Libby Bassett with the preparation for a research paper on professional communication, also presented at the same conference in 2005.

One Masters in Clinical Audiology student worked with the data collected by Louise for the purposes of her Masters dissertation, investigating stigma and cosmetic concerns associate with hearing aid selection.

## Appendix

### Professional Development in 2005:

Two new graduates were employed in the clinic and required supervision in order to gain their Certificate of Clinical Practice through Audiology Australia. Staff joined the clinic at various times during the year and orientation and support has therefore been ongoing. In order to support staff in 2005, time and resources were allocated as follows:

Professional Development: One hour per week was allocated for all staff to attend professional development meetings where issues such as clinical procedures, patient management, and new developments in the field could be discussed.

Tutorials: Two hours per week were allocated to enable clinic staff to participate in tutorials arranged for the M. Clin Aud students, in an attempt to integrate the clinical and academic aspects of the section.

Additional administration time: Each clinical audiologist was allocated 12 hours of administration time per week. This was to include time for research participation and course auditing in the case of the more experienced audiologists, and to assist those new to the profession with additional time for report writing.

### Directions for 2006:

#### Staffing:

One part time audiologist who was employed through Access MQ and who spent two days per week at the university clinic resigned in December 2005. Her position will not be filled, leaving four clinical audiologists, the clinic manager and two receptionists as the full complement of clinic staff.

#### Staff Development:

Staff development remains a priority for the clinic, as motivated and stimulated staff is essential if a good teaching environment is to be created. Staff development is focused on both clinical and administrative staff. Clinical staff will have regular meetings and as all will be involved increasingly in student supervision, some of it in community settings (see below), professional development will extend beyond procedural and content issues to include teaching and supervision matters. Given the early stage of the careers of the clinical audiologists, a primary goal of staff development is consolidation of skills gained in the previous year and broadening of professional responsibility for patients. Further confidence in making management decisions with patients to trial hearing aids, and extend patient's knowledge and communication abilities will be the primary focus of professional skills development for clinical staff.

## Appendix

Staff development for the clinic manager will focus on opportunities to write up her PhD research, primarily through ensuring a workload that can be managed within work hours to allow for after hours focus on the research project.

Staff development for administrative staff will include regular meetings to discuss and develop procedures, as well as arranging training at university and other programmes to ensure that administrative skills of staff are developed sufficiently to cope with the demands in the clinic.

### Community Projects:

In addition to the clinic activities based at the university, clinic staff members are involved in a number of community outreach activities which also provide teaching opportunities for M. Clin Aud students. The activities engaged with staff outside the clinic are as follows:

*Westmead Hospital:* XXXX spends three Fridays per month based at Westmead Hospital to assist with the caseload there. She is gaining experience in advanced diagnostic assessments of hearing and balance through her involvement at that clinic. As a result of this, her salary is partly paid through the postgraduate audiology account.

*Better Hearing Australia:* XXXX has qualified as a teacher for Better Hearing Australia, a community based organization that provides communication training and support classes to those with hearing loss. XXXX will be spending one morning per week with two M. Clin Aud students at BHA providing support to that organization, and providing learning opportunities for students in the area of communication skills training and group management. If possible, a teaching grant will be applied for to cover the costs of staffing and providing resources for this project in the long term. There is a direct link between this project and CAUD 814, a compulsory unit offered in the second year of the M. Clin Aud degree.

*Nursing Home Hearing Aid Project:* XXXX will spend one morning per week working with two M. Clin Aud students at a group of private nursing homes in Sydney. The project will involve organizing the hearing aids used within each nursing home, providing information on maintenance and support for hearing aids that have been obtained by residents, and providing ongoing education and support to nursing home staff. In the long term, this project may generate income for the clinic in that referrals and use of the clinic services, as well as on site hearing assessments and hearing aid fittings may be generated as a result, thus providing income to the clinic via this source.

## Appendix

### Clinic Development

The goal of the clinic is to increase further the proportion of rehabilitative audiology services relative to diagnostic services. Increasing the number of hearing aids fitted, and the number of patients seen for tinnitus treatment (Neuromonics treatment as well as other forms of treatment) will be attempted through raising awareness of the services offered amongst medical professionals who refer, and through the general public who may access our services directly. A shift away from a reliance on medical referral to self referral and direct service delivery to the public will provide the opportunity for further expansion of rehabilitative audiology services. Rehabilitative audiology services are desirable for the clinic because they are fully inclusive of diagnostic audiology, but extend this to include device selection and fitting, counselling and skills training – all of which are valuable services for the community and important learning opportunities for students. Maximum use will be made of public relations opportunities, new brochures for the clinic will be developed that carry up to date information, and the clinic website will be updated to reflect new developments.

A further goal of the clinic is to revise the booking, reporting and record keeping system. An attempt will be made in 2006 to introduce a computerized diary system. Refining the storing of clinical information via computer generated records will continue. When this has been achieved, an attempt to link patient information, clinical records and administrative records through a database will be attempted. The long term goal will be an audiological office management system that caters to the needs of this particular clinic. Although practice management systems exist currently, none have all the requirements of our clinic, and further development of this area will be of value from the point of view of data storage, electronic transfer of reports and information, and efficient time use by audiologists, as well as to provide an example of an effective and up to date clinic for students.

LOUISE REYNOLDS  
AUDIOLOGY CLINIC MANAGER  
17 JANUARY 2006