ANGELS AT OUR TABLES:

NEW ZEALANDERS' EXPERIENCES OF HEARING VOICES

Vanessa Beavan

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ABSTRACT

The aim of this study was to explore the experience of hearing voices in the general New Zealand adult population. This included mapping the topography of voices and the impact of the experience on participants' lives, exploring participants' explanatory models, investigating coping strategies and support structures, and developing a model of the essence of hearing voices. Quantitative and qualitative analyses of questionnaire (n=154) and interview (n=50) data revealed a great diversity of experiences, both within and among participants. Of all topographical variables significantly related to emotional impact (content, form, duration, intrusiveness and control), voice content was the only significant predictor variable, accurately predicting the emotional response of 93.3% of participants. Overall, participants who valued their voice experiences tended to have spiritual beliefs, a more positive emotional reaction and less contact with mental health services. In contrast, participants who experienced mostly unwanted voices tended to have biological and/or psychological understandings of their voice experiences, a more negative emotional reaction to them, and increased contact with mental health services. Participants reported using a vast array of coping strategies, with varying degrees of success. Individualised techniques were reported to be the most effective, followed by setting aside a time to listen to the voices. In terms of help and support, participants called for a model of intervention that accepted their voice experiences as real, took an holistic approach incorporating contextual, cultural and spiritual factors, and worked with voice-hearers, their families and the public to provide information about voice phenomena and normalise the experience. Using a phenomenological approach, a model of the essential structure of hearing voices is proposed, comprising five components: the content of the voices is personally meaningful to the voice-hearer; the voices have a characterised identity; the person has a relationship with their voices; the experience has a significant impact on the voice-hearer's life; and the experience has a compelling sense of reality. The implications of this research include validating voice-hearers' perspectives of the experience, informing clinical work with voice-hearers, and informing the development of local and national-level services, such as a New Zealand Hearing Voices Network.

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CHAPTER I: LITERATURE REVIEW

Introduction: Differing Perspectives

Hearing voices is a phenomenon that tends to be either mysticised or pathologised (Leudar & Thomas, 2000). Some of our very earliest texts describe powerful men being guided to success by the voices of their gods (Jaynes, 1976, p. 72), while recent scientific documents describe hearing voices as a characteristic symptom of severe mental illness (American Psychiatric Association, 2000, p. 310). Although it is doubtful any scientific or spiritual measure will ever be able to prove the existence of voices "in the real world," the experience of hearing voices is clearly a reality for many people. It has been for thousands of years and still is in hundreds of cultures.

An Historical Perspective

"When I was thirteen years old, I had a voice from God to help me govern my conduct… The first time I was very fearful. And came this voice, about the hour of noon, in the summer-time, in my father's garden… This voice was sent to me by God and, after I had thrice heard this voice, I knew that it was the voice of an angel. This voice has always guided me well and I have always understood it clearly."

(Joan of Arc, age 19, in Pernoud, 1994, p. 44).

Altered states of reality, such as those which are conducive to voices and visions, have been induced and explored since the earliest civilisations (Jarvik, 1970). There is also evidence that hearing voices in non-altered states goes back thousands of years. Some of our earliest writings contain references to this phenomenon. In Homer's Iliad, for example, men from the Mycaenean civilisation, dating approximately from 1500 to 1100 BC (Finley, 1970), are often described listening to and talking to their gods. Based on these descriptions, Jaynes (1976, p. 75) argues that people of this era did not have subjectivity as we do. In his opinion, a Mycenaean man had no awareness of his awareness of the world, and therefore volition, planning and initiative were not conscious processes. Instead, one half of the brain would tell the other half what to do, and these commands would be experienced as coming from an external source, perhaps accompanied by the visual aura of a god or familiar friend, perhaps

just as a disembodied voice. Thus, Jaynes argues, hearing voices was a normal way of making decisions until about 1300 BC.

Although it is likely to reflect the ways of being and believing of its time, the Iliad is but a work of fiction. Perhaps stronger evidence of the prevalence of voices in antiquity would come from biographical accounts. Some examples can be found in the Ancient Greeks. Arguably the greatest philosopher of all time, Socrates (470-399 BC) is said to have been guided by his "daemon", which manifested mostly as inspirations and thoughts of external origin, but occasionally as an audible voice (Zilborg, 1941, in Keup, 1970, p. 274). This voice "always forbids (when there is danger) but never commands (when there is no danger) me to do anything I am going to do" (Jaspers, 1963, p.10). Plato followed his philosophy teacher in many ways, including, it would seem, using his voices to guide him (Baker, 1995).

Examples from religious texts also inform us of the importance of hearing voices to the development of human thinking and behaviour. Abraham's communications with God led to the development of Judaism. Moses followed God's instructions to lead his people out of slavery. The Virgin Mary is reported to have known of her divine fate through the message given to her by the Archangel Gabriel. Gabriel also appeared to Mohammed and dictated the Koran whilst he was meditating alone in the cave of Hira (Watkins, 1998). It might be argued that these prophetic voices were the foundations of three major world religions. However, just as there can be a dark and destructive side to religion, as evidenced in The Crusades, The Inquisition, and contemporary religious wars, there was, too, a dark side to the voices. Examples include God telling Abraham to kill his son as a test of his faith and Jesus being tempted by the voice of Satan (Watkins, 1998).

One of history's most famous voice-hearers was Joan of Arc (1412-1431AD), who first heard voices at the age of 13. Guided by voices that told her she would lift the siege of Orleans and see the Dauphin crowned king, she was given access to the Dauphin's army and led them successfully in battle. She was then captured, sold to the English and after being tried for heresy, burned at the stake. Spence (2004) contends that it was "the nature of her relationship to, and avowal of, her voices that led to her death" (p.3). Almost 500 years after her death, Joan of Arc was canonised as a saint of the Roman Catholic Church. It was decided that perhaps, after all, God had spoken to her directly.

Joan of Arc is perhaps the most famous of the voice-hearing Christian saints because of her rather dramatic exploits and sufferings, but she is not alone in her public acknowledgement of her direct communications with God. St Teresa of Avila (1515-1582) and her student, St John of the Cross (1542-1591), wrote extensively about the experience of hearing voices. They described the place of this phenomenon in spiritual life and outlined ways of distinguishing between the genuine voices of God and His saints, and false or unhelpful voices that come from the devil or the imagination (Watkins, 1998).

Although there was acknowledgement by some Christian writers that voices could be self-generated, they were not yet given the label "pathological." Watkins (1998) argues that the predominance of a spiritual world view in the Middle Ages did not lend itself to the concept of visual or auditory "hallucinations" in the modern sense. Instead, the more important question was whether the voices were divine or demonic, and thus whether they should be heeded or exorcised.

Voice-hearing occurs in a social and cultural context (Lakeman, 2000). Thus, while in the Middle Ages the Christian obsession with Good and Evil was reflected in divine and demonic voices, the Romantic Movement a few hundred years later set the stage for Spiritualism and contact with voices from beyond the grave (Jung, 1982. P. 92). In his 1905 lecture, 'On Spiritualistic Phenomena,' Jung (1982, pp. 92-110) describes the origins of Spiritualism in some detail. The sect originated in the outskirts of New York in 1848, when two young Methodist girls claimed to be able to communicate with a man who had been murdered in their house. They discovered that when they asked questions he would reply with a certain number of knocks and by using a knocking alphabet they held conversations with him. The girls gave public performances, inviting the murdered man and other ghosts to communicate with them. Other similar sects were founded soon after, and the movement spread to Europe, sometimes taking on variations, such as table-turning, so that by the early 20th century a fairly large community of practising mediums could be found in every big city. Over time, spiritual mediums did away with such indirect methods as knocking and Ouija boards, and began to claim a direct verbal communication with ghosts and spirits.

Even our contemporary history is coloured by such voice-hearing figures as brilliant mathematician John Nash (Nasar, 1998), genius Albert Einstein (Chadwick, 2004), National leaders Winston Churchill and Adolf Hitler (Baker, 1995), spiritual and political leader

Mahatma Gandhi (Heery, 1989), prominent jurist Daniel Schreber (Modell, 1960), and actor Sir Anthony Hopkins (Baker, 1995). As Carl Jung (1982), a voice-hearer himself (Baker, 1995), suggests, people who experience habitual hallucinations "draw the attention of a crowd to themselves, now as poets or artists, now as saviours, prophets or founders of new sects" (p.19). These people have indeed played important roles in Western history.

A Cultural Perspective

"An Indonesian motorcycle taxi driver who heard voices in his sleep telling him to dig under his house found 10 gold bars. Saepudin, a reformed alcoholic regarded as a soothsayer in his home of Bogor, south of Jakarta, found gold worth around $232,072 under his kitchen. Each bar weighed 1kg and carried a stamped imprint of Indonesia's founding president, Sukarno."

(The New Zealand Herald, May 27, 2004, p.5).

Hallucinations are a universal experience (Al-Issa, 1995). They have been documented not only in the written histories of the Western world, but also in the anthropological accounts of non-Western societies. Most anthropological studies tend to focus on altered states of reality that are induced through the use of drugs, sleep deprivation, or famine, and that serve an important spiritual or social function. These ritualised hallucinations, however, are not the only type found in traditional societies (Bourguignon, 1970). It is common, for example, for the Maori of New Zealand to communicate with their ancestors (Lyndon, 1983), and for the Filipino of Panay to see, hear, touch and smell things associated with numerous spirits, including the man-eating spirit, *aswang*, and ghosts of the recently dead (Jocano, 1971).

The value of the experience of hearing voices is dependent on the context in which it occurs. Most contemporary Western societies shun and fear voice-hearers, a perspective that is reflected in popular media portrayals of voice-hearers as either mad and dangerous, flaky neurotics, or con-artists preying on the vulnerable. This contrasts greatly with some traditional societies that revere voice-hearers and encourage their spiritual development. For example, in the Xhosa culture of South Africa, young boys who demonstrate they have the capacity to hear voices will be cherished and trained to become healers (Sodi, 1995). In Ecuador, the Jivaro Indians consider hallucinations to be socially desirable and report them to be a frequent experience (Jarvik, 1970).

Associated with these types of hallucinations found in traditional societies is the practice of shamanism. The term "shaman" is used rather loosely to refer to persons who practice various and wide-ranging forms of traditional healing (Watkins, 1998). Found throughout the world, the common feature of these "witch doctors" and "medicine men" is their unique ability to communicate with spirits in an immediate and concrete way (Watkins, 1998).

In her paper on hallucination and trance, Bourguignon (1970) made the distinction between Trance, in which the individual, frequently a shaman, encounters the spirit and communicates with it, and Possession Trance, in which the individual is taken over by a spirit and therefore does not experience it directly. In her words, "the possession trancer impersonates, the trancer hallucinates" (p.186). After reviewing studies on 488 societies, Bourguignon found that Trance existed in 62% of his international sample and Possession Trance in 51%. Trance hallucinations may occur spontaneously or may be induced intentionally. They manifest in various forms and serve various functions, but, Bourguignon argues, almost always occur in a religious context.

The religious aspect of the types of hallucinations that have a valued social role in any given community may help us to understand why these experiences are more commonly reported in traditional societies. Religion presupposes a faith in a god or gods whose existence cannot be objectively proven. Therefore the line between "real" and "non-real" is necessarily blurred. In contrast, Western rational scientific cultures make a rigid distinction between reality and fantasy (Al-Issa, 1995). In these environments positive value is assigned to experiences that are real, shared, and can be objectively evaluated. Thus, reacting to "unshared sensory experiences" (Asaad & Shapiro, 1986, p.1090) as if they were real is considered erroneous and undesirable.

Because of the greater fluidity between the concepts of real and non-real in many non-Western cultures, people from these cultures tend to react to experiences of voices and visions not "as if" they are real but "as" real (Al-Issa, 1995). Indeed, in some cultures, inducing altered-states of consciousness through the ingestion of hallucinogenic drugs is believed to open the individual to truths that are hidden behind everyday perceptions. Rational science does not allow for credibility to be given to experiences that cannot be objectively verified, but non-rational cultures do not see the need for such criteria. These societies place much less emphasis on the circumstances in which hallucinations occur, be it in dreams, delirium, or

waking states (Rabkin, 1970), and much more emphasis on the significance of the experience to the trancer and the community.

The value of the beliefs about spiritual phenomena is inextricably linked to the cultural context in which those beliefs are formed and maintained (Mujica-Parodi & Sackeim, 2001), as are their behavioural consequences (Rabkin, 1970).   There is no society in which all hallucinations are considered equally desirable (Rabkin, 1970), but clearly some cultural groups more frequently deliberately seek out states of altered-consciousness, specifically for the hallucinatory phenomena that often accompany them.   However, in these cases, the individual experiencing the subjective sensory perceptions is not alone in his journey. He is carried by a history of trancers into a place that is "strange but not so strange" because he has been prepared for it. "Armed with a map, a guidebook, and being able to read the signs, (he) arrives at (his) destination" (Baker, 1992, p.2). Without these guides he may become lost, confused, and very distressed.

A Mental Illness Perspective

"John J. was yesterday found to have been insane when he stabbed Mr K. as the father of three picnicked at Maraetai in April last year. A jury in the High Court at Auckland found 31-year-old Mr J. not guilty of 41-year-old Mr K.'s murder by reason of insanity. Mr J. heard voices telling him Mr K. was about to kill him. He first complained of hearing voices in 1995. Defence lawyer Roger Laybourn told the jury that Mr J. was a "ticking bomb," a tormented man who had been haunted by the voices in his head. Conventional treatment with powerful drugs had not helped and it was only lately that a new drug had been successful."

(The New Zealand Herald, September 20, 2003, p.3.)

Despite some rich and revealing evidence of the common occurrence of hearing voices throughout history and across cultures, there appears to be, in modern times, a reluctance to seriously acknowledge the possible reality of these experiences.   This reluctance is exemplified in an article described by Alan Baker (1992) which posits that *all* of the religious experiences described by saints are in fact due to hallucinations of biological origin, namely the ingestion of a certain fungi found in the bread they ate. This emphasis on the pathology of hallucinations is surprising, given that they were not considered medical phenomena until the early 19th century (Berrios, 1994). Thus, many of the influential historical figures who heard

voices have since been retrospectively diagnosed with Schizophrenia, in large part due to their voice experiences (Leudar & Thomas, 2000).

Auditory hallucinations are often considered to be the hallmark of Schizophrenia. Indeed, it has been estimated that up to 70% of people with this diagnosis hear voices of some kind (van der Zwaard & Polak, 2001; World Health Organisation, 1973). Although certainly not all voice-hearers meet the DSM-IV-TR (American Psychiatric Association, 2000, pp. 312-313) criteria for Schizophrenia, for many psychiatrists the presence of this "symptom" will strongly influence their diagnosis towards that category, and indeed, reporting this symptom alone may be enough to secure one's admission to a psychiatric institution (Rosenhan, 1973). Bateson (1962) even went as far as to argue "… the hallucinatory voice is characteristically schizophrenic, so that if in a state of clear consciousness a patient hears well-organised voices consisting of more than one sentence he should be diagnosed as suffering from Schizophrenia unless it can be proved otherwise" (p.117).

However, auditory hallucinations are not pathognomic of Schizophrenia (Asaad & Shapiro, 1986), but are common in many disorders, including Dissociative Identity Disorder (Ross et al., 1990), Organic and Alcoholic Hallucinosis (Watkins, 1998), Post-Traumatic Stress Disorder (Siegel, 1984), Mood Disorder with Psychotic Features (American Psychiatric Association, 2000, p. 412), Epilepsy and the Functional Psychoses (Sedman, 1966). Even the notion that certain particular types of voices, such as voices commenting or arguing, are pathognomic of Schizophrenia has been rejected by some authors (Ross et al., 1990; Slade, 1976).

Diagnostic Definitions

Esquirol (1832) was the first to attempt a psychological definition of hallucinations. This is still referred to frequently today:

> "Un Homme qui a la conviction entière d'une sensation actuellement perçue, alors que nul objet extérieur propre a exciter cette sensation n'est à la portée de ses sens, est dans un état d'hallucination"

The literal translation of this definition would be:

> "A man who has the inner conviction of a sensation actually perceived, although no external object appropriate to excite this sensation is at the threshold of his senses, is in a state of hallucination" (Rojcewicz & Rojcewicz, 1997, p.8).

There are several important aspects of this definition. Firstly, Esquirol emphasises the role of belief. That is, a person is hallucinating only if they have the complete conviction that they have actually perceived a stimulus. If, for example, the person rationalises seeing a person in the room as due to moving shadows or their imagination, they are not in a state of hallucination. Secondly, Esquirol is clear in excluding phenomena that might be better understood as illusions. He states that there must be no corresponding external object that could be the cause of the sensation. For example, if a person sees their dead mother in the face of a person on the street, this would not be considered a hallucination by Esquirol's definition.

British clinical psychologists Slade and Bentall (1988, p.23) used Esquirol and others in developing their working definition of hallucination. Their definition is in three parts. The first requires that, although it may be "any percept-like experience," a hallucination must occur "in the absence of an appropriate stimulus." They thus follow Esquirol in excluding illusions. Their definition also requires that the sensation "has the full force and impact of the corresponding actual (real) perception." This second aspect differs from Esquirol because the conviction criterion has proved at times problematic. For example, in some cases of habitual hallucinations, the individual may have come to realise that such experiences are hallucinatory, but despite this, react to them as if they were real. Finally, Slade and Bentall add that the hallucination "is not amenable to direct and voluntary control by the experiencer." This last criterion serves to exclude vivid mental imagery that can be manipulated or inhibited. Greene (1978) agrees that a key feature of auditory hallucinations is the limited amount of personal control the individual exerts over their experience.

Given the diagnostic value assigned to auditory hallucinations by the mental health community, it is helpful to refer also to the definition of hallucination provided by mental health professionals' most widely used diagnostic tool, the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 1994). They define a hallucination as "A sensory perception that has the compelling sense of reality of a true perception but that occurs without external stimulation of the relevant sensory organ" (p.767). Inherent in this and the preceding definitions is the notion that although the hallucinating individual is convinced that what they are experiencing is real, it cannot be, because there is no corresponding external stimulus.

A 42-year-old divorcee, mother of two children who has a private practice as a psychic healer, has heard voices "for as long as she can remember." She hears the voices via her ears. The voices are located both inside and outside her head. One voice began in childhood and is still present, but she also hears other voices. The initial voice talks to her in the second person. She communicates with this voice, consulting it for the benefit of herself or her clients. Her voices also talk among themselves. Although her voices are not actual voices she has heard in daily life, she is not afraid of them and does not feel restricted by them. Rather she feels that they are protective. They give her advice, comfort, and care.

She realised that hearing voices was not a normal phenomenon when, as a 5-year-old pupil at primary school, she was punished for repeating what her voices said aloud in class. She did not discuss her voices with other people until she was 34. She has never been in contact with a psychiatric service, and based on a Composite International Diagnostic Interview with a psychiatrist, she does not fulfil DSM-IV criteria for a mental disorder.

<div align="center">(Case vignette of a non-patient voice-hearer, in Honig et al., 1998).</div>

Just as mental health researchers have attempted to operationally define hallucinations in order to better understand them, voice-hearers, too, have sought to define their own experience. Sarah Bell, a research scientist and long-time voice-hearer who has been diagnosed with Depression, Schizophrenia and Schizoaffective Disorder, relates how difficult it can be to describe the experience of hearing voices to other people (Bell, no date). She does, however, outline a group of experiences that she asserts might all be referred to as hearing voices.

Bell's first example comes close to the definition found in the DSM-IV: "It may be the same as hearing a voice in the normal way through your ears, the only difference being that the 'voice' has no physical cause" (p.2). However, her definition extends also to telepathic thoughts and non-verbal messages. What makes these thoughts and messages 'voices' is that they are experienced as having an external source. They might be likened to an inspired idea, except that they do not come from within.

Graham Cockshutt (2004), a voice-hearer and mental health service consumer, also emphasises the external source of his voices. But for him, and others (e.g. Coleman and Smith, 1997; Romme & Escher, 1993), even more important is their reality. So, while history and anthropology talk about the place of voices in mythology and mysticism, and psychiatry talks about the place of voices in pathological disorders, voice-hearers themselves are placing their voices in the immediate context of their daily lives. Some assert that attempting to conform to the shared reality of those around them and thus pretend the voices are not real is to be delusional (Cockshutt, 2004).

Rabkin (1970) seems to understand this dilemma as originating in the notion that reality is intuitively obvious rather than constructed. In this vein, he defines a hallucination as "an incompetence to stay on the agreed-upon path, combined with an affirmation by others that the path is not agreed upon at all but intuitively and unquestionably right… To wander from such a path – to wander in the mind – was the original meaning of the term hallucination" (p.122).

Voice-hearers like Bell are quick to remind us that we have all most probably wandered from time to time, hearing our name called when there is no one there or hearing footsteps in the hall when we are home alone. The research literature strongly suggests that all people either do hallucinate or, through the use of hallucinogenic drugs, sensory or sleep deprivation, can be made to hallucinate (Asaad & Shapiro, 1986). Indeed, if we extend our definition of hallucinations to include hypnogogic and hypnopompic imagery, dreams and drug-induced states, then hallucination might be considered "one of the most ancient and widely distributed modes of human experience" (Wallace, 1960, p.700).

The Frequency of Voice-Hearers in the General Population

As the above discussion illustrates, hallucinations can and do occur to many individuals, but not everyone experiences auditory hallucinations in a conscious wakeful state, and far fewer people hear voices on a regular basis. There is, however, evidence from a range of studies which suggest that it occurs at a much higher frequency in the general population than its often cited relationship to Schizophrenia would suggest. Table 1 summarises the results from 13 general population surveys investigating this phenomenon across eight countries. The frequency rates are extremely variable, in large part due to how the authors define 'voices' or

'auditory hallucinations.' Therefore a brief summary and discussion of each study will be helpful.

Table 1. Studies of the frequency of hearing voices in the general population

Author(s) and year	Place and sample	N	Phenomena studied	%
Sidgwick et al. 1894	UK Epidemiological Non-random sample	17,000	Voices in conscious state	3.6%
West 1948	UK Epidemiological (Mass Observation sample)	1,519	Voices in conscious state	8%
Jocano 1971	Philippines Epidemiological	2,000	Auditory hallucinations	13.3%
Rees 1971	Wales Widow(er)s	293	Voice of deceased loved one	13.3%
Schwab 1977	US Epidemiological	1,645	Visual and auditory Hallucinations	10.8%
Posey & Losch 1983	US College students	375	Voices in conscious state	71%
Bentall & Slade 1985	US College students	136	Hearing a person's voice when no one is there	15.4%
Tien 1991	US Epidemiological (Catchment Area Program)	18,572	Voices in conscious state	1.5 - 3.2%
Barrett & Etheridge 1992	US College students	586	Regular auditory hallucinations	45%
Grimby 1993	Sweden Widow(er)s	50	Voice of deceased loved one	30%
Johns et al. 1998	UK Epidemiological (National Survey sample)	2,800	Voices saying quite a few words or sentences	1.3%
Millham & Easton 1998	UK Mental health nurses	55	Voices (including sleep–related)	84%
Verdoux et al. 1998	France Primary-care patients with no psychiatric disorder	462	Voices	16%
Caspi et al. 2005	New Zealand Epidemiological	803	Auditory hallucinations	3.4%

The first attempt to map the frequency and topography of hallucinations in the general population was performed over a hundred years ago. The Report on the Census of Hallucinations (Sidgwick, Johnson, Myers, Podmore & Sidgwick, 1894) contains information gathered from 17,000 individuals in the UK, including large groups of people identifying as British, Russian and Brazilian. Although the project had the approval of the International Congress of Experimental Psychology, it was originally set up by the Society for Psychical Research and was therefore prone to certain biases in the type of information gathered and methods of data collection. For example, the interviewers were for the most part associated with the Society for Psychical Research and tended to use as interview participants their own friends and acquaintances. The authors did however acknowledge this, and precautions were taken where possible to ensure a reasonably unbiased sample of respondents.

A major strength of the Census lies in the clear way they defined their subject of enquiry. They were interested in hallucinations of sight, touch, and hearing, and in the case of the latter, particular emphasis was put on sounds suggestive of the human voice. Further, they ruled out any experiences that occurred in sleep-related states or might be due to "delirium or insanity or any other morbid condition obviously conducive to hallucination" (Sidgwick et al., 1894, p.33). They also ruled out experiences that might be better understood as illusions, such as hearing footsteps or seeing lights, as well as excluding responses that were in any other way questionably not true hallucinatory phenomena.

Overall, the Census found that 9.9% of the interview respondents claimed to have experienced hallucinations of sight, touch and/or voices at least once in their lifetime. This included 3.6% of all respondents who had heard human voices when in a conscious waking state, and free of medical or psychiatric problems that might cause them.

Over 50 years after the publication of the Census, West (1948) carried out a replication of this study in order to explore the hypothesis that hallucinations were reported less frequently than in the preceding century. Many of the methodological flaws found in the Census were again repeated in the 1948 investigation. West acknowledges, for example, that although interviewers were instructed that negative replies were as important as positive ones, many interviewers reported only those cases in which respondents answered in the affirmative. Unfortunately, the proportion of cases to which this applies was not reported.

Overall, West found 14.3% of her sample of 1,519 adults reported having one or more hallucinations, and approximately 8% reported having heard voices. Although these statistics can not be said to inform us with accuracy about the frequency of auditory hallucinations in the general population, West asserts that they do indicate that there has not been a diminution in the reporting of hallucinatory experiences among the types of people surveyed half a century ago.

Almost 50 years later again, Tien (1991) published his report of Distributions of Hallucinations in the Population. He, too, was prompted by the findings of the Census study, but his is the first study that can validly be called epidemiological. Over a period of five years, from 1980 to 1984, data was collected for the Epidemiologic Catchment Area Program (ECA) across five American cities. In a random sample of 18,572 adults, 13% reported having experienced hallucinations of sight, touch and/or vocal sounds at least once in their lifetime. The frequency for voices alone varied according to age, from approximately 1.5 % to 3.2%. As is the case for the two previous studies, the ECA study was careful to exclude experiences related to sleep-states, or where the participant believed the cause of the hallucination was related to drugs or alcohol or a medical or physical condition.

On a smaller scale than the ECA project, but again of an epidemiological nature, is Schwab's (1977) study. Her final sample of 1,645 participants can be considered a representative sample of the general population of a county in North Florida because of random sampling techniques and a low refusal rate. Unfortunately she does not distinguish between hallucinations of the visual and auditory modality, but does report that a total of 10.8% of her multicultural sample had had at least one of these experiences.

Johns, Nazroo, Bebbington and Kuipers (1998) published data from the Fourth National Survey of Ethnic Minorities conducted in England and Wales. They found that, depending on ethnicity, between 4% and 14% of their sample of 7,800 adults reported experiencing auditory or visual hallucinations in the previous year. Further, 1.3% of their Caucasian sample of 2800 people responded positively to the question: "Did you at any time hear voices saying quite a few words or sentences?"

In the only published investigation into the prevalence of hallucinations that does not include Caucasian participants, Jocano (1971) reported that approximately 13.3% of the population of a village in Panay, the Phillipines, reported having supernatural experiences that could be defined as auditory hallucinations. This figure may be higher than in the previously outlined studies because of the different cultural climate in which the experiences took place. Hallucinations of the other senses were also frequent. For example, 21% of the people in this village reported visions. Cultural variation will be discussed further below.

In 1998, French psychiatrist Hélène Verdoux and her colleauges (1998) carried out an interesting study with primary-care patients. They were interested in delusional ideation in the general population and so invited all General Practitioner patients in selected practices to complete a self-report questionnaire. They also included three questions about auditory hallucinations. Unfortunately they do not provide their definition of "hearing voices" but do report that 16% of all questionnaire respondents who did not meet criteria for a psychiatric diagnosis according to their GP endorsed this item. Of the 11 patients who met criteria for a psychotic disorder only three (27.3%) endorsed the "hearing voices" item. This difference was not significant.

Finally, one of the most informative research projects may be the Dunedin Multidisciplinary Health and Development Study (Caspi et al, 2005). This study began in 1972-1973 when over a period of a year investigators enrolled 91% of consecutive births in Dunedin, New Zealand. A total birth cohort of 1,037 was established and is reported to represent the full range of socio-economic status in the general population of New Zealand's South Island. Follow-ups were completed every two to three years. At age 26, 96% of the living cohort were assessed. Due to the subject of interest (genetic marker) in the most recent study (Caspi et al, 2005), statistics on hallucinatory phenomena were restricted to a sample of 803 Caucasian adults. Overall, 13% of this sample reported at least one hallucinatory experience (voices, strange smells or tastes, unusual bodily feelings and/or visions when completely awake), and 3.4% reported hearing things or voices that other people cannot hear.

Taken together the above studies indicate that approximately 5 to 15% of the general adult population experience hallucinations of some kind. This rough estimate coincides with figures put forward by other authors (e.g. Johns et al, 1998). It can also be estimated that between 1.3% to 3.6% of the general population have had the experience of hearing voices in a

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wakeful, conscious state. This figure does not take into account West's findings because, as discussed above, they come from a biased sample. Once again, this estimate is similar to those put forward by other authors. Escher (2005), for example, estimated that 2-4% of the general population had auditory verbal hallucinations and Eaton (1991) estimated that 4% of us hear things that others can't hear.

This consistency of findings is interrupted, however, when we look at studies using sub-groups of the normal population. Posey and Losch (1983) reported that 71% of their student sample reported having at least one experience of "brief, auditory hallucinations of the voice type in wakeful situations" (p.99). Barret and Etheridge (1992) replicated the study almost a decade later and reported very similar findings. Further, they found that almost half of their student sample reported having hallucinatory experiences in the auditory modality on a regular basis (from once a day to once a month). Both studies found that hearing voices was not related to psychopathology. In 1998, Millham and Easton used the same questionnaire as the above two studies with a group of 55 Mental Health Nurses and found that 84% of their sample had had auditory hallucinatory experiences. This figure may be higher than in the student samples because it also includes sleep-related hallucinations, such as hearing your own name when falling asleep or hearing a phrase when waking up, and hearing sounds such as the doorbell or the phone.

Even taking non-verbal hallucinations into account, the above three studies report much higher rates of hallucinations than the epidemiological studies. There are several possible reasons for this. Firstly, it may be that certain groups of people, due to their age or profession, for example, do experience auditory hallucinations more frequently than the general population. Secondly, and perhaps more likely, is that the questionnaire used in all three studies was structured in such a way as to encourage participants to answer in the affirmative. Indeed, each questionnaire item is presented as an example of a hallucination followed by, "Has something like this ever happened to you?" It is unclear how "like" the example the person's experience has to be in order for them to respond positively.

Evidence supporting this second explanation is provided by another study with a student sample using a different measure of auditory hallucinations. Bentall and Slade (1985) used the Launay-Slade Hallucination Scale with 150 undergraduate students and found that 15.4% of them had had the experience of hearing a person's voice and then finding that no one was

there. This figure exceeds, but is closer to, the estimate of 1.3-3.6% generated by reviewing the epidemiological studies, perhaps because the scale is more precise in the various types of experiences it is measuring.

Two other studies worth mentioning here indicate that in times of stress people may be more likely to experience hallucinations. Grimby (1993) found that 82% of recently bereaved elderly persons experienced hallucinations and/or illusions such as feeling the presence of their deceased spouse. Thirty percent reported hearing the voice of their loved one within the first month of their death, and 6% were still hearing them 12 months later. Grimby was careful to exclude doubtful answers, dreaming, falling asleep or awakening reactions.

Rees (1971) also found an increased level of reported hallucinations among widows and widowers. Overall, 46.7% of his sample had post-bereavement hallucinations and/or illusions, and 13.3% had heard the voice of their deceased spouse. These figures may be lower than in Grimby's study because Rees included in his sample people who had been widowed up to 40 years prior. His data clearly shows, as did Grimby's, that the rate of reported hallucinations declines with time, so that only 31.8% of those persons widowed between 30 and 40 years ago experienced hallucinations, while 52.6% of those persons widowed less than 10 years before the interview reported having this experience (Rees, 1971).

Finally, a research project by Dutch social psychiatrist, Marius Romme and his colleague Sandra Escher (1989) that is particularly relevant to the present study of New Zealand voice-hearers will be described in some detail. In 1987 Professor Romme appeared on a popular Dutch television program with Patsy Hage, a patient who had challenged his understanding of psychotic symptoms by asking him to accept her voices as real. This patient, who had a diagnosis of Schizophrenia, was struggling with her voices but had been reassured by Jaynes' (1976, p. 75) theory that hearing voices had once been a normal way of making decisions. Romme wondered if other voice-hearers might find this theory helpful, and if it might be beneficial to open up lines of communication with voice-hearers who had learned to cope with their experiences.

About 700 people responded to the television program by phoning an advertised number. Four hundred and fifty callers were themselves voice-hearers. One- third of these respondents reported being able to manage their voices, and two-thirds reported not being able to cope.

Romme and his colleagues sent out a questionnaire to this sample to gather further information, including a question asking for an explanation of the voice experience. A little under half of the questionnaires were completed and returned. Twenty individuals were selected from the sample of 186, based on their ability to cope with the voices and to clearly articulate their experiences. These 20 became the speakers at a congress attended by 300 voice-hearers in October 1987. This was followed by another six annual congresses, numerous research publications, and the development of the Accepting Voices Program, aimed at informing patients and professionals of this novel approach to understanding voices (Escher, 2005).

<u>Differences in Frequencies in Sub-Groups of the General Population</u>

<u>Gender</u>

General population studies consistently find a higher frequency of women reporting hallucinatory experiences than men. As Table 2 shows, women appear to be from one-and-a-half times as likely to twice as likely to report having a hallucination of some kind. The exception to this pattern is found in Rees' (1971) study in which slightly more men than women reported hallucinating their deceased spouse. However, when the study's findings are broken down by modality, almost 50% more women than men reported hearing their spouse's voice.

Table 2. Frequency of men and women in the general population who have reported at least one hallucinatory experience

Study Authors and Year	Men	Women
Sidgwick et al, 1894	7.8%	12%
West, 1948	9.9%	22%
Tien, 1991	10.2%	14.9%
Schwab, 1977	9.8%	11.7%
Grimby, 1993	57%	89%
Rees, 1971	50% (10.6% have heard voices)	45.8% (14.1% have heard voices)

Although Romme's study was of a self-selected sample, it is interesting to note that of the 186 final respondents, 70% were women. It may be that women are more likely to respond to surveys, or to watch the television program on which Professor Romme and Patsy Hage appeared, but it may also be that this finding is indicative of a pattern that does exist in the general population, as suggested by the data presented in Table 2. It may be of significance that there is also a tendency in clinical populations for more women than men to report auditory hallucinations (Goldstein & Lewine, 2000).

Ethnicity

Few studies to date have investigated differences in the frequency of reported hallucinations among different ethnic groups. However, the discussion above on cultural perspectives indicates that people from non-western cultures would be more likely to report these experiences.   Indeed, as can be seen in Table 3, Sidgwick et al. (1894) found that Brazilian respondents were more than twice as likely to report having experienced some form of hallucination in a conscious waking state than English-speaking respondents (23.9% and 9.4% respectively). Russian speaking interview participants fell approximately in-between, with 15.9% responding in the affirmative. This pattern is repeated when the figures are broken down by modality. Only 3.2% of English speakers had heard voices, while 8% of Russian and 17% of Brazilian respondents acknowledged having this experience.

In a total sample of 2,800 Caucasian respondents and 5,000 members of ethnic minorities, Johns et al. (1998) found that while only 4% of the Caucasian sample heard or saw things that others did not, this figure was two-and-a-half times higher in the Caribbean sample. Jocano (1971) found that a similar proportion, 13.3%, in his sample of Filipino peasants from a small village reported auditory hallucinations.

This pattern was repeated in Schwab's (1977) findings from a US sample. European-Americans were less likely than African-Americans to report hearing or seeing things that other people don't think are there (9.2% and 16.5% respectively). Schwab ruled out the possibility that differences in reported frequencies might be due to drug use by showing that hallucinatory drug use was in fact much more elevated in European-Americans (10.7%) than in African-Americans (3.6%). She does, however, point out that because ethnicity may be highly correlated with socio-economic status and religious or spiritual affiliation, no real distinction can be made about the relative contribution of each of these variables.

Table 3. Frequency of Caucasians and non-Caucasians who have reported at least one hallucinatory experience

Study Authors and Year	Caucasians	Non-Caucasians
Sidgwick et al., 1894	9.4%	15.9% (Russian) 23.9% (Brazilian)
Johns et al., 1998	4%	14% (Caribbean)
Jocano, 1971	-	13.3% (Filipino)
Schwab, 1977	9.2%	16.5% (African-American)

The Topography of Voices

Mental health professionals tend to be more concerned to know if someone is hearing voices than to find out who the voices are and what they are saying (Parker, Georgaca, Harper, McLaughlin & Stowell-Smith, 1995, p. 62). These things, however, do appear to be important to voice-hearers and influence their beliefs about and reactions to their voices.

Identity

While not all voice-hearers are able to identify their voices, research suggests that most have an opinion about who is talking to them. Voices seem to come in many guises, and may belong to persons living or dead, gods or spirits, and even animals. People who hear more than one voice may identify the various voices differently (Watkins, 1998), so that one individual may have numerous voices that can be identified as all of the above.

Most people allocate a gender to their voices as well as an approximate age, such as 'youngish' or 'the old man,' but many have at least some voices of indeterminate age and gender (Leudar & Thomas, 2000). The voices very often come as complete entities, but sometimes are more abstract, such as a body part. For example, one person explained that his voices "consisted of nothing else but a large, ugly mouth" (Watkins, 1998)

Few investigators have asked non-patient voice-hearers about the identity of their voices. In the study described above, however, Romme and Escher (1989) found that of a sample of 173

voice-hearers who answered their questionnaire, 44% identified their voices as gods or spirits, 18% as a good guide, 28% as people they know, and 31% as a special gift.

The last figure is particularly interesting given that the researchers excluded all those respondents who described themselves as paranormally gifted and/or their voices as a friend or tutor.

In one study using a psychiatric population, 70% of 30 patients with a diagnosis of Schizophrenia were able to identify their voices (Close & Garety, 1998). There was great variation in the response of these 21 patients. Some identified their voices as people they knew, such as neighbours or family members. Others heard spirits of deceased relatives, or evil spirits.

A similar pattern was found by du Feu and McKenna (1999) in their study of 17 prelingually profoundly deaf patients diagnosed with Schizophrenia. Ten (59%) of the 17 reported hearing voices, and seven (70%) of them could identify at least one of their voices. People from this deaf sample also heard a variety of entities, including ghosts, God, angels, family members, and people at work.

There is some evidence that the identity of voices may be closely linked to the voice-hearer's 'real world' relationships. For example, a victim of sexual violence may hear the voice of the perpetrator or a victim of bullying and intimidation might hear the voice of his abuser (Fowler, 2000). In their study, Leudar and Thomas (2000) found that most of their participants – long-time voice-hearers, some with psychiatric diagnoses, many without – reported that they heard the voices of people that were known and significant to them. Further probing revealed that in many cases the voice was experienced as *like* a particular someone, not actually that someone.

In his intensive in-depth study of 10 patients diagnosed with Schizophrenia, Modell (1960) found that in all cases the voices could be traced to persons who were formerly significant in the person's life, especially parents. The identity was not always directly named, sometimes they were disguised and distorted, but Modell argued that a careful examination of the patient's description coupled with knowledge of the patient's past history made connections apparent to the therapist.

There seems to be some cultural variation in the way people identify their voices. For example, in a study of 85 voice-hearing African women with a psychotic diagnosis, Scott (1967) found that as many as 60% of them attributed their voices to ancestors or deceased people. About half of the sample (52%) believed they were hearing the voice of God, 28% attributed their voices to living people, and 3.5% to animals. Scott also reported on Blignault's (1958) study of Xhosa men diagnosed with psychosis, in which 64% attributed their voices to ancestors, 69% to living persons, 21% to God and 11% to animals. Scott explains the high percentage of people attributing their voices to ancestors as a result of the traditional African practice of worshipping and communing with ancestors.

Interestingly, Scott found that compared to Caucasian patients in other studies, his sample of Bantu women were more often able to identify their voices. Suhail and Cochrane (2002) also found that Pakistanis living in Pakistan were significantly less likely to have unknown voices than both Caucasian and Pakistanis living in Britain (24% compared to 56% and 51% respectively). Unfortunately, the authors of these studies do not attempt to explain this difference. One could, however, speculate that a higher degree of structure might be expected in culturally sanctioned experiences. As Baker (1992) indicates, members of traditional societies are more likely to have a context for their voice-hearing experience, including certain expectations about who might speak to them under certain conditions.

One other interesting cross-cultural finding is that no studies of non-Western societies reported participants identifying their voices as being part of themselves. This may be a variation due to methodology, with authors bringing their own concepts about what voice-hearing is in different cultures, or it may represent a real difference across populations.

Whatever the reason for cultural differences, inner voices do appear to be an important aspect of the voice-hearing spectrum – at least in Western samples – and this does not appear to be a recent phenomenon. Socrates described his daemon both as part of his soul and a messenger from the gods. So at the same time it was both part of him and beyond or external to him (Leudar & Thomas, 2000). Contemporary voice-hearers also report this melange of inner and outer voices. Romme and Escher (2006) found that 11% of their sample with Schizophrenia and 13% of their non-patient sample reported both "voices are me" and "voices are not me."

Some people, however, have only the experience of voices that they consider to be a part of themselves (Heery, 1989). These types of voices are referred to in a variety of ways, including inner voices, higher self and voices of conscience, and tend to be experienced as internally generated, but this is not always so (Leudar & Thomas, 2000). For Heery (1989), the term inner voices refers to a subjective experience: "The actual perception of a voice speaking internally and/or a vaguer felt sense of some inner communication" (p.73). In her study of 30 non-patient voice-hearers, she found that the inner voice experience was very often a positive one, related more to spiritual or personal growth than to destructive processes such as splitting or fragmenting. In contrast, after analysing the experiences of 72 psychiatric in-patients, Sedman (1966) concluded that inner voices were both a form of imagery and an obsessive-compulsive symptom. Clearly the researcher's own views and participant selection can influence data interpretation.

Factors That Influence Beliefs About Identity

As the preceding discussion highlights, although many voice-hearers can identify their voices, many also struggle to understand who is talking to them. Indeed, some individuals, including those diagnosed with temporal lobe epilepsy and psychosis, remain confused about whether they are hearing a voice or simply hearing their own thoughts (Modell, 1960).

For some the task of identifying their voice is easy, because the voice will identify itself directly. This was the case for 15.8% of Birchwood and Chadwick's (1997) sample of 62 voice-hearers with Schizophrenia or Schizo-affective diagnoses. For the majority of voice-hearers the task is somewhat more difficult, and the individual may have to decipher the identity of their voices based on topographical characteristics (Leudar & Thomas, 2000).

Birchwood and Chadwick (1997) found that voice content seemed to be the most helpful characteristic in identifying voices. This strategy was used by 68.4% of their sample. For example, critical or threatening voices may be identified as belonging to evil spirits or unseen enemies while encouraging and guiding voices may be identified as belonging to God or spiritual guides (Watkins, 1998).

Only 15.8% of the Birchwood and Chadwick sample developed beliefs about the identity of their voices that did not appear to be based on content. These individuals may have used

cues, such as the situation in which the voice manifests, resemblance of voice quality to known persons, or accompanying visual images (Watkins, 1998).

<u>Form</u>

Voices can come in many forms, talking to or at the person, using single words or complex grammatical sentences, or making incomprehensible sounds (Watkins, 1998). Some authors have argued that the form of the voices is integral to deciding whether or not a person's hallucinations are pathological. In particular, controversy surrounds the notion of "true hallucinations" versus "pseudohallucinations" (Berrios & Dening, 1996) and the utility of Schneiderian first-rank symptoms in diagnosing Schizophrenia (Ross & Keyes, 2004).

Almost 50 years after a famous 1865 debate over the concept of pseudohallucination at the Société Médico-Psychologique in Paris, Séglas warned that the question had not been resolved, and that the term continued to have a different meaning for different people (Berrios & Dening, 1996). The wide range of definitions includes hearing voices inside the head (du Feu & McKenna, 1999), real perceptions perceived as unreal, isolated hallucinations that do not fit into favoured diagnoses, a side effect of drugs, and withdrawal hallucinations (Berrios & Dening, 1996). There has also been a suggestion by some researchers that in cases where trauma is identified, hallucinations should be redefined as pseudohallucinations and this should lead to a change in diagnosis from Schizophrenia to a non-psychotic disorder, such as Post-Traumatic Stress Disorder or Dissociative Identity Disorder (Bryer, Nelson, Miller & Krol, 1987; Chu & Dill, 1990). This view may be based on the premise that abuse can't cause Schizophrenia (Read, 1997).

According to Sedman (1966), the most widely accepted use of the term, pseudohallucination, is to describe the experience in which an object is perceived through the senses, but recognised by the perceiver as not being a veridical perception. Thus it is the person's disbelief that defines a hallucination as being false or pseudo (Strauss, 1969). It would seem that perhaps this definition is based on Esquirol's definition of true hallucination as an experience requiring the conviction of the experiencer. However, as mentioned above, in some cases of habitual hallucinations, defined as true hallucinations by researchers and diagnosticians, the individual may have come to realise that their experiences are hallucinatory and therefore not a veridical perception (Slade & Bentall, 1988). Clearly, much confusion remains. Further, the use of the

term, pseudohallucination, has been described by some authors as clinically unhelpful (Berrios & Dening, 1996).

Another form-related concept that is open to debate is that of Schneiderian symptoms (Schneider, 1959). Three of Schneider's 11 first-rank symptoms of schizophrenia relate to voices: audible thoughts, voices commenting and voices arguing. Schneider argued that it was the form, rather than the content, of a patient's voices that was of diagnostic interest, and that the presence of any one of his first-rank symptoms meant that a diagnosis of Schizophrenia was probably appropriate.

Recent research, however, suggests that the presence or absence of Schneiderian symptoms is not a reliable indicator of Schizophrenia, or of any psychiatric disorder. For example, the experience of hearing one's thoughts aloud was reported by 4.6% of a general population sample (Ross & Joshi, 1992) and 17.6% of a non-pathological student sample (Bentall & Slade, 1985). In their study of 338 individuals with a Multiple Personality Disorder (MPD) diagnosis, Ross and his colleagues (1990) found between 45.6% and 60.8% of them experienced audible thoughts.

Ross et al. (1990) found that the experience of hearing voices commenting was even more often reported (66% to 81%) than the experience of hearing one's thoughts aloud for MPD patients. However, lower rates are usually found in people diagnosed with Schizophrenia (Nayani & David, 1996). Only 10% of Suhail and Cochrane's (2002) sample of British and Pakistani patients diagnosed with Schizophrenia reported hearing voices commenting on their behaviour, personality and/or actions. This figure was significantly lower for Pakistanis living in Pakistan compared to British citizens of both Pakistani and English descent. A similar study also found that Saudi patients were less likely to report hearing a running commentary than UK patients (Kent & Wahass, 1996). Honig and his colleagues (1998) also found higher rates of this phenomenon in individuals diagnosed with Dissociative Disorder (80%) compared with those diagnosed with Schizophrenia (72%). This difference, however, was not statistically significant, nor were either of the groups significantly different from the non-patient sample (40%). Other studies of the general population suggest that between 1% and 3.2% of individuals hear voices commenting (Caspi et al, 2005; Ross & Joshi, 1992).

Hearing two or more voices arguing also appears to occur in the general population, but again, relatively infrequently. Ross and Joshi (1992) found that 2.8% of their sample experienced this, while only 0.6% of the Dunedin Longitudinal Study sample did (Caspi et al., 2005). Leudar and Thomas (2000) also reported that very few of their informants – some with psychiatric diagnosis, most without – reported hearing two or more voices talking to each other. This low figure is reflected by reports from the psychiatric population. For example, only 7% of patients from Suhail and Cochrane's (2002) study had this experience. However, Ross et al. (1990) reported that about 75% of their MPD sample heard voices arguing.

Overall, these findings are consistent with Ross's assertion that Schneiderian symptoms might be better described as first-rank symptoms of Dissociative Identity Disorder than of Schizophrenia (Ross & Keyes, 2004). Further, given that some individuals who do not meet the criteria for any psychiatric disorder do experience hearing their thoughts aloud and, to a lesser degree, voices commenting or arguing, clinicians should be wary of relying on these symptoms in diagnostic practice.

<div align="center">Content</div>

Voice content can vary greatly, both across and within individuals. Voices can be encouraging and soothing, say such things as "You will manage" and "It's not your fault" (Honig et al, 1998), or they can be mean and nasty, calling the person hurtful names or criticising their behaviour (Watkins, 1998). Sometimes voice content can be pretty mundane and sometimes it may be incomprehensible (Sidgwick et al., 1894). Some voice-hearers even refer to music and noises such as laughing or gun shots as voices (Close & Garety, 1998; du Feu & McKenna, 1999).

Positive Content

Few studies have investigated the prevalence rates of voice-hearers who encounter positive content as part of their voice-hearing experience, and those that have have produced mixed results. In psychiatric populations frequencies range from 8% to 83% (Cheung, Schweitzer, Crowley & Tuckwell, 1997; Honig et al., 1998; Johns, Hemsley & Kuipers, 2002; Suhail & Cochrane, 2002). Suhail and Cochrane's (2002) figure of 8% was based on hospital notes. Honig et al.'s (1998) study, which reported 83%, was based on semi-structured interviews. It is reasonable to assume that participants are more likely to speak about the positive content of

their voices if asked in a curious manner, as compared to spontaneously reporting positive aspects in a hospital setting that may be more interested in negative, disturbing content.

Consistent with this theory are two other studies. Using a semi-structured interview schedule, Johns et al. (2002) found that about half the people in their Schizophrenia group had voices saying positive things, despite the fact that most also had voices with negative content. In his intensive in-depth study of 10 patients diagnosed with Schizophrenia, Modell (1960) found that despite a high incidence of negative voice content, overall, most patients described their voices as positive, advising and instructing them in helpful ways.

Only a few studies have investigated positive voice content in a non-psychiatric sample. Johns et al. (2002) reported that individuals with tinnitus who heard music or songs tended to describe them as pleasant. Honig et al. (1998) found that 93% of their non-patient sample had positive voices, a frequency not significantly different from rates in their Schizophrenia and Dissociative Disorder samples.

Negative Content

 As is often portrayed by popular media, the voices of people diagnosed with Schizophrenia often involve threats, curses and criticisms. These are mostly expressed in short sentences or abrupt words and in some instances are so vile the person is too embarrassed to repeat what they have heard (Watkins, 1998).

Despite Schneider's (1959) emphasis on voices commenting or arguing, research suggests that a predominance of negative voice content (or the absence of positive voice content) may be a better indicator of psychopathology. None of the 30 patients with Schizophrenia in Close and Garety's (1998) study had positive content only. Just over half (53%) had negative content only, 17% had both positive and negative content and 27% had neutral content. In the study described above, Honig et al. (1998) reported that 100% of their Schizophrenia sample and 93% of their Dissociative Disorder sample experienced negative voices. Both of these groups reported significantly more negative content than the non-patient sample (53%). They found that overall, 93% of non-patients reported their voices to be predominantly positive, while 67% of the patient sample experienced predominantly negative voices.

<u>Hearing Your Name Being Called</u>

Research suggests that it may be quite common to hear your name being called when there is no one there. About half of the group of voice-hearers in Sidgwick et al's (1894) general population survey had at least one experience of voices calling their name. Three other general population studies found that 42% to 64% of students and nurses have had at least once experience of hearing their name being called in a shop (Barrett & Etheridge, 1992; Millham & Easton, 1998; Posey & Losch, 1983). Interestingly, this figure is reported to be much lower in psychiatric samples. Suhail and Cochrane (2002), for example, found that only 2.5% of their sample of Schizophrenia patients had had this experience.

<u>Commands</u>

Some voices issue commands. These instructions can range from requiring the person to perform harmless behaviours like using their left hand instead of their right, to telling the person that they should harm themselves or other people (Watkins, 1998). One study of psychotic in-patients found that day-to-day commands were heard by 17% of the sample and commands to kill oneself or others by 13% (Suhail & Cochrane, 2002). Another study found that as many as 42% of African voice-hearers with Psychosis were issued instructions (Scott, 1967).

Commands were reported even more frequently in Leudar and Thomas' (2000) study. More than half of their sample heard voices that attempted to control their activities. The vast majority were able to resist obeying, others consistently followed the instructions, and others varied in their response. This finding contradicts popular media portrayals of Schizophrenic voices as irresistible influences, but is consistent with research demonstrating that most people are able to resist commands to commit acts of aggression (Hellerstein, Frosch & Koenigsberg, 1987).

Leudar and Thomas (2000) found that often the commands would be relevant to the voice-hearer's situation at the time. For example, one woman's voice told her to hit a person who had just insulted her, and one man found that when he was feeling depressed he would hear a voice instructing him to harm his body.

Situational Context and Content

It would seem that not only command voices are influenced by situational factors. An experiment by Schaefer and Martin (1968) illustrates how the content of other types of voices may be influenced by demand characteristics of the situation:

> "Three student assistants assumed the role of listeners during daily 20-minute visits to the patient. One of the male students wore sandals, a beard, open collar, and loose jacket. Another appeared as a clean-cut young man with military bearing who carried a Rockwell anti-Semite and anti-Negro pamphlet quite visible to the patient. The third, a friendly girl, tried to appear nondescript in both dress and demeanour. As predicted, the patient reported to the student who dressed like a freedom fighter that she was in communication with Martin Luther King and other similar notables. To the student whom she apparently identified as a Nazi party member, she said she was not really a Negro, but a Latin, and that she hated Negroes for their filthy ways. She claimed that many of the rallies Rockwell conducted had actually resulted from conversations she had had with him in which he sought her advice. To the girl student, her hallucinatory references were at first about religious figures, then movie stars" (p.145-146).

From his in-depth analysis of the voice characteristics reported by 72 psychiatric in-patients, Sedman (1966) concluded that there tends to be psychological meaning in what the voices say. Watkins (1998) agrees that although specific content can vary greatly, it does seem to reflect a relatively small number of the voice-hearer's hopes, wishes and fears. For example, a woman who had undergone a therapeutic abortion, about which she felt guilty, would hear the voice of God accusing her of sinful deeds (Rainer, Abdullah & Altshuler, 1970).

Skirrow, Jones, Griffiths and Kaney (2002) argue that because hallucinations are, by definition, self-generated, it is reasonable to assume that hallucinatory content will reflect the inner world of the individual, that is, their experiences, memories and beliefs. Supporting this is the finding that derogatory voice content is linked with depression (Soppitt & Birchwood, 1997), although causal direction has not yet been established. There is also an established relationship between past experiences of trauma and voice content (Bowe, Morrison & Morely, in press; Ensink, 1993; Fowler, 2000; Read, Agar, Argyle & Aderhold, 2003; Romme & Escher, 2006). This is explored further in the chapter on explanatory models.

In their study of Intensive Care Patients, Skirrow and colleagues (2002) found that hallucinations may also be influenced by more immediate environmental stimuli, such as current media events, and more powerfully so for those whose individual history makes the media content personally relevant. This is consistent with Slade and Bentall's (1998) suggestion that hallucinatory content is likely to reflect an interaction of individual and environmental variables.

Cultural Context and Content

Hallucinatory content also appears to be influenced by cultural variables (Bourguignon, 1970). In their study comparing patients with Schizophrenia, Kent and Wahass (1996) found that UK patients were significantly more likely to experience instructions, while Saudi patients were significantly more likely to report religious and superstitious themes. Scott (1967) also found that spiritual themes were more common among African patients than non-African patients.

Although Suhail and Cochrane (2002) found no significant differences between British and Pakistani patients for hearing insulting and/or threatening voices, Scott (1967) reported that negative voices were far less common in his sample of African patients than Caucasian patients. Less than 10% of his sample reported accusatory voices and only one of the 85 women had persecutory content.

Two New Zealand studies involving Maori voice-hearers may be of particular significance here. The first is a comparison study of presenting symptoms between 14 Maori and 16 Pakeha (New Zealand European) patients diagnosed with Schizophrenia (Cherrington, 1994). Cherrington found not only that Maori participants reported significantly higher frequencies of hallucinations, but that, more specifically, higher levels of Maori knowledge were associated with higher frequencies of "sub-cultural delusions and hallucinations." Examples of sub-cultural hallucinations included the ability to see or hear *tupuna* (ancestors) and Maori spirits. Cherrington concluded that although cultural knowledge may not affect the frequency with which delusions and hallucinations are experienced by people diagnosed with Schizophrenia, there is evidence of a relationship between levels of Maori knowledge and the tendency for the content of hallucinations and delusions to reflect Maori cultural beliefs.

The second New Zealand study investigated Maori interpretations of psychotic symptoms through qualitative interviews with Maori mental health service users, family members,

clinicians and community elders (Taitimu, 2005). In terms of hearing voices, participants in this study highlighted the importance of making sense of the experience. This search for meaning was assisted by paying attention to the identity of the voices and what they would say, as well as exploring circumstances related to the onset of the experience. Participants talked about factors that went beyond Western explanatory scopes to include spiritual events such as breaches of *tapu* (sacred or restricted person, place or thing), *makutu* (curse) or *hara* (shame) within the family.

Content and Beliefs

Interestingly, Chadwick and Birchwood (1994) found that voice content alone did not always determine a person's belief about the intent and purpose of their voices. Some of their 62 participants diagnosed with Schizophrenia believed strongly in the benevolence of their voices, despite the nasty and critical messages they received. Conversely, some voices that said nice things were perceived as malevolent. A similar study four years later, however, did not replicate these findings (Close & Garety, 1998). Close and Garety (1998) found that voices with negative content were judged malevolent and voices with positive content were judged benevolent. The reason for this difference in findings is uncertain, although it may reflect a sample bias. Both studies had relatively small samples and, as Leudar and Thomas (2000) point out, neither voice content nor beliefs about voices are static.

Location

Some voices are experienced as coming from inside the head, and others from outside. Voices may be localised within the body or in objects such as radio or television. Voices can come from just beside the person, to the left or the right, or behind them (Nayani & David, 1996). They are very rarely reported to come from in front of the person (Jaynes, 1976, p.117). Voices may also seem to come from other people in the vicinity, in which case the person may deny hearing voices but believe that others are talking about them (Watkins, 1998).

Many clinicians today continue to be guided by a rule of thumb that suggests that voices heard outside the head are indicative of Schizophrenia and voices heard inside the head are associated with Dissociative Identity Disorder (DID) (Watkins, 1998). However, recent research provides strong evidence that localisation of voices is not reliably linked to diagnosis.

Ross and his colleagues (1990) found that for the vast majority (94.4%) of DID voice-hearers, the voices were experienced as inside their head. However, they did not report how many of the sample also heard voices outside their head. Honig et al. (1998) found that although the majority (73%) of their Dissociative Disorder sub-sample heard voices inside their head, almost as many (67%) heard voices outside their head. These figures indicate that 40% of this group heard voices both inside and outside. This pattern re-emerged for the non-patient sub-sample, with 60% hearing voices inside their head, and 57% hearing voices outside their head. There was also great overlap for the Schizophrenia sub-sample, although more of this group heard voices outside (78%) than inside (50%). Honig et al. do not comment on whether these differences are significant or not, but do suggest that "in all three groups, voices were experienced about as often inside the head as outside the head" (p.650). Nayani and David (1996) reported that 49% of their psychotic sample heard voices through their ears, 38% in inner space and 12% both inside and outside their heads. These findings are supported by other studies, including, interestingly, a study of prelingually profoundly deaf Schizophrenic patients (du Feu & McKenna, 1999).

Impact of Voice Experiences

Although research often focuses on the negative impact of voices, some recent studies suggest that voices contribute positively to many people's lives (Grimby, 1993; Miller, O'Connor & DiPasquale, 1993; Romme & Escher, 1989; Sanjuan, Gonzalez, Aguilar, Leal & van Os, 2004). This is an important finding because, as Sanjuan et al. (2004) suggest, it is the emotional response to psychotic symptoms rather than the symptoms themselves that appears to differentiate patients and non-patients.

Positive aspects of hallucinations include being relaxing and soothing, providing companionship, giving helpful information or advice, and defending or protecting the person. Negative aspects include causing emotional distress, interfering with work and relationships, and threatening self or others (Miller et al., 1993).

In psychiatric samples, the response to hearing voices tends to be negative. Close and Garety (1998) found that 93% of their Schizophrenia sample reacted with depression, anger, fear and/or anxiety. None of their 30 participants had a positive affective response alone, and only one person reported neutral feelings towards their voices. Miller et al. (1993) reported that almost their entire sample of psychiatric in-patients reported some negative aspects to their

hallucinations. However, just over half also reported some positive effects of hallucinations. Moreover, 12% wanted to continue having the experience, and a further 20% said they would like to continue if they could control their hallucinations.

Using a semi-structured interview format with 38 hallucinating patients diagnosed with Schizophrenia, Cheung et al. (1997) identified a vast range of emotional responses to voices. These included terror, irritation, sadness and confusion. The most often reported responses were anger and anxiety. However, the third most often reported emotion was happiness, which was reported by 29% of their participants. A range of other more positive emotions were also reported, such as feeling comforted, reassured, excited and inspired.

In general population samples, fewer people report their voice experience as having a negative impact on their lives. Romme and Escher (1989) found that only 61% of respondents reported their voices disturbed their contact with other people, and 43% reported that the voices would take over their thoughts. These figures were disproportionately higher for those participants who reported not being able to cope with their voices, compared to those who could cope. In his study of bereavement hallucinations, Grimby (1993) found that all of the widowers and the vast majority of the widows described their hallucinatory experiences in a positive way.

The differences found between psychiatric and non-psychiatric populations might be explained in a number of ways. Birchwood, Mason, MacMillan and Healy (1993), for example, have suggested that the stigma associated with mental illness may cause increased distress. Psychiatric samples are characterised by a strong tendency towards negative affect, despite some participants reporting positive voice content and beliefs in the benevolence of their voices. Therefore, they argue, it may be experience of hearing voices in conjunction with a psychotic diagnosis that provokes a negative reaction.

Alternatively, the impact of voices on a person may depend on how much control the voice-hearer believes they have over their voices. For example, in Close and Garety's (1998) sample, 29 of the 30 participants perceived their voices as uncontrollable, and the same number experienced negative feelings towards their voices. Honig et al (1998) found that, compared to non-patients, respondents diagnosed with Schizophrenia or Dissociative Disorder were more likely to be afraid of their voices and feel controlled by them.   Miller et al. (1993) found that psychiatric in-patients who could predict the occurrence of hallucinations by

internal antecedents, such as particular moods or thoughts, were more likely to value the experience. Sanjuan et al. (2004) found that patients diagnosed with a psychotic disorder who experienced pleasurable voices reported less anxiety and more control over their voices.

Perceiving the voice as uncontrollable might trigger feelings of helplessness and worthlessness in the person, thus leading to a depressive affective reaction (Close & Garety, 1998). Conversely, in line with Birchwood et al.'s (1993) theory, receiving a diagnosis of severe mental illness may leave a person feeling vulnerable and out of control in their life generally. When this diagnosis is associated with concepts such as "genetic deficiency" and "chronic prognosis," the person may be even more likely to feel defenceless against their psychotic symptoms. If, however, they are given a more positive context in which to understand their experience, their perceived control may be increased.

Nayani and David (1996) found that high levels of reported distress were associated with feelings of little control and poor management of voices. Romme and Escher (1989) describe a process that incorporates these three variables. This process unfolds in three phases and seems to fit the experiences of a vast range of voice-hearers. The first part of the process is the startling phase, in which the person is confronted by a usually sudden and frightening onset of voices. Second is the phase of organisation, which involves moving from confusion to some level of understanding, including trying out various coping strategies. Finally is the phase of stabilisation. This last phase is achieved by those who learn to cope with their voices and is characterised by a kind of balance, where the voices are integrated into the person's life and sense of self, and no longer overpower the individual.

This process was seen also in Johns et al.'s (2002) study comparing auditory hallucinations in a non-psychiatric and psychiatric group. Four of the 16 tinnitus patients initially reacted to their voices with fear, but after time most reported feeling irritation and anger, and 88% had found ways of coping. The Schizophrenia group, however, was characterised by ongoing fear and anxiety, suggesting that the majority of them had not yet achieved the final phase in the process, that of balance and integration.

Barrett and Caylor (1998) found no significant differences between individuals diagnosed with Schizophrenia and college students in terms of how much control they felt they had over their first voice experience. However, over time the groups become distinguishable, so that 95% of

the Schizophrenia sample felt they had no control over their most recent hallucinatory experience, while this was the case for only 58% of the student sample. Close and Garety (1998) also found that reactions to voices changed over time for many of their participants.

<u>Conclusion to Topography</u>

Overall, the research into topographical characteristics suggests that voices manifest in various and multiple ways, both within and between individuals. Voices which tend to be viewed as pathological appear to be associated with such factors as negative content, increased distress, and feelings of uncontrollability. Despite their continued use in diagnosis and research, characteristics such as form and location do not appear to be useful indicators of either psychopathology or specific diagnoses. Finally, it is important to note that many voice-hearers, including people diagnosed with severe psychiatric disorders, experience at least some positive voices. Thus, the impact of voices on people's lives can fluctuate over time and across situations. Impact is also likely to be influenced by the explanatory models voice-hearers use to understand their experience.

Explanatory Models

As we have already seen, explanations for voices have been very much influenced by their historical and cultural context. Two thousand years apart, Plutarch and Esquirol proffered answers to the question of why some people can hear voices that others cannot. Plutarch explained this phenomenon as privileged access to the divine and Esquirol as pathological brain activity (Leudar & Thomas, 2000).

Today, explanations for voices tend to be limited to the objective one of medical psychiatry and the irrational one of the insane (Leudar & Thomas, 2000). There continue to be, however, some spiritualist believers, who, like Plutarch, argue that their voices are a gift, and represent their special ability to communicate with divine realms.

Certainly, there is no way to empirically test whether or not some of the voices that some people hear exist in physical or metaphysical reality. As Jung suggests, "the question of whether spirits exist in themselves is far from having been settled. Psychology is not concerned with things as they are in themselves, but only with what people think about them"

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(Jung, 1982, p.116). Very little psychological research has investigated abnormal perceptions other than what are considered pathological hallucinations. For this reason, the following section on biological, psychological and social explanatory models discusses hallucinations as defined by Esquirol and later authors, that of a perception without a corresponding external stimulus.

<center>Biological Models</center>

Hallucinations and Dreams

Aristotle may be the first to have proposed some sort of explanation for pathological hallucinations (Feinberg, 1970). He compared the experience of voices and visions to dream states and hypothesised that hallucinations of madness result from aberrant functioning of those mechanisms which normally produce hallucinations during sleep.

Thousands of years later, many authors continue to draw this comparison. Jarvik (1970), for example, hypothesised that hallucinations, imagination and dreams all depend on activation of memory traces. Itil (1970) suggested that the same mechanisms may be behind both REM sleep and hallucinatory states.

Hartmann (1975) hypothesised that, in normal waking states, hallucinations and dreams are prevented from entering into conscious awareness by an inhibitory mechanism that is psychologically related to reality testing and physiologically related to ascending cortical noradrenergic systems. When these systems are interrupted, perhaps by the ingestion of toxins, sleep deprivation, or stress, the individual may experience hallucinatory and dream-like states while awake.

Brain Abnormalities

Although there are many studies investigating genetic explanations for certain psychiatric disorders which involve hearing voices, very few studies have explored inheritance factors for this particular symptom, and the validity of their findings are questionable (Slade & Bentall, 1988). In contrast, there is a wealth of research probing for possible structural and functional differences in hallucinators' brains.

To date, no studies have defined a model that adequately explains the brain mechanisms involved in hallucinations (Woodruff, 2004). However, the relatively high frequency of

auditory verbal hallucinations observed in non-psychiatric patients suffering certain medical conditions, sleep or sensory deprivation, or after the ingestion of certain drugs, strongly suggests that some hallucinations, at least, are linked to biochemical changes in the brain (Asaad & Shapiro, 1986). Further, the fluctuating nature of hallucinations over time and across contexts suggests that they are associated with the dynamics of interactions between brain regions, rather than structural damage or deficiency (Frith, 1996).

Speech Perception and Production Areas of the Brain

Numerous studies have shown that the experience of hearing voices is associated with the activation of speech perception and production areas of the cerebral cortex. One study, for example, used positron emission tomography to demonstrate an increased glucose uptake by the auditory areas and the temporal lobe during auditory hallucinations in patients diagnosed with Schizophrenia (Buchsbaum, et al., 1982).

White noise can increase the severity of hallucinations and listening to music or talking out loud can have the inverse effect (Johns et al., 2002; Margo, Hemsley & Slade, 1981). These findings again suggest that those brain areas involved in speech perception and speech production are also involved in the generation and perception of hallucinated voices (Grossberg, 2000).

Hoffman and his collegues (1999) found that submitting speech areas to low frequency transcranial magnetic stimulation, which is known to reduce cortical activation, resulted in hallucination severity reduction for three patients with Schizophrenia. This finding was replicated by Woodruff and his colleagues a few years later (Woodruff et al., 2002).

Penfeild and Perot (1963) reported that hallucinations of simple sounds and words could be induced by direct stimulation of the brain, particularly in the right temporal lobe, around the speech areas. Woodruff (2004) argues that this finding suggests that spontaneous cortical activity, like that seen in epileptic seizures, might be responsible for some hallucinations.

Inner speech activates Broca's area (left inferior frontal gyrus) and imagining the sound of someone else speaking activates some additional areas, including the left superior temporal gyrus (McGuire et al., 1996). Several studies have found that both of these areas become active during hallucinations (Cleghorn et al., 1992; McGuire, Shah & Murray, 1993),

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suggesting that the voices people hear may be comparable to inner speech and verbal imagery. Indeed, Frith (1996) observed that when people diagnosed with Schizophrenia hear voices they tend to behave in the same way as non-hallucinators responding to self-generated auditory sensations.

Hubl et al. (2004) found differences in white matter fibre tracts connecting frontal and parietotemporal speech-related areas in hallucinating compared to non-hallucinating individuals. They concluded that the white matter changes might lead to abnormal activation of regions involved in the acoustical processing of external stimuli, thus diminishing the voice-hearer's ability to distinguish internally generated speech from externally generated speech.

Brain Mechanisms Involved in Reality Testing

Many authors agree with Hubl et al. (2004) that the experience of hearing voices occurs because of a difficulty some people have in distinguishing internally generated sensations and external stimuli. There are however, several different theories about how this difficulty might arise. Frith (1996), for example, emphasises a breakdown in the interactions between the prefrontal structures involved in executive functions and the auditory association areas.

Grossberg (2000) also implicates the prefrontal areas of the brain, although he particularly emphasises the role of volition. Grossberg (2000) argues that it is normal and evolutionarily adaptive for us all to generate mental representations and inner speech and that these internal productions can usually be controlled and manipulated. However, during states of mental unbalance a person can lose their volitional control over this process, so that the resulting output is experienced as a hallucination.

Woodruff (2004) proposes that decision-making about whether stimuli are internal or external has more to do with lower level brain systems. The primary sensory cortex has been shown to be unnecessary for the conscious experience of imagery. However, this area of the brain has often been shown to be active during auditory hallucinations. Woodruff (2004) argues that it may be activation of the primary sensory cortex that causes the hallucinator to perceive their internally-generated voices as real.

A preliminary study has implicated a dysfunction in the left posterior temporal cortex, which has been found to be involved in the spatial location of speech (Hunter, 2004). This may be significant because the perceived spatial location of voices has been described as an important indicator to the hallucinator about the reality of their experience (Woodruff, 2004).

Cognitive Models

The brain research outlined above provides convincing evidence that auditory hallucinations involve the speech perception and production areas of the brain. It also identifies a number of possible mechanisms that, when defective, may be associated with the misattribution of internal speech to an external source. However, according to David (2004), there are several indications that suggest the cause of voices is psychological, and that biological changes or differences may be more consequential. Firstly, auditory verbal hallucinations are seldom seen following brain damage, although visual hallucinations are often reported. Secondly, hallucinations are not random, they are personally and culturally meaningful. Thirdly, voices, particularly those that that are not accompanied by a diagnosis of Schizophrenia, often respond poorly to antipsychotic drugs. Finally, there seems to be an association between the occurrence of hallucinations, affect, and also possibly memory.

Observations like these have led some researchers to investigate possible psychological mechanisms that might help to explain or elaborate on the brain research findings. Most recent theories of hallucinations incorporate three important ideas. Firstly, mental contents such as thoughts, memories and plans, are translated into auditory verbal form. Secondly, this auditory representation becomes more or less detached from subjective ownership. Finally, the experience is often accompanied by an elaborate system of beliefs and attributions about the origin of the auditory representation (Behrendt, 1998; David, 2004). These three notions will be explored in the following discussion.

Inner Speech

Over a century ago, Maudsley (1886) hypothesised that the origin of auditory hallucinations can be found in the hallucinator's own thinking. Since that time many authors have continued to explore and find evidence supporting this hypothesis (Bentall, 2003, pp. 360-364; Gould, 1950; Green & Preston, 1981). Indeed, verbal auditory hallucinations parallel inner speech in a number of ways: "They consist of: (i) words or sentences; which are (ii) heard as spoken; (iii)

to the voice hearer; and (iv) which cannot be experienced directly by other people (Leudar, Thomas, McNally & Glinsky, 1997, pp 885-886).

Although inner speech may not be observable, it is accompanied by movement of the speech muscles, which can be recorded. This subvocalisation occurs as part of a normal developmental process. A child first begins by talking to itself out loud, and learns over time to suppress overt speech when no one else is listening (Bentall, 2003, p.360).

Gould (1948, 1949, 1950) found that the same process of subvocalisation seen in inner speech also occurs during auditory hallucinations. In one case study, he reported that the recorded content of his patient's subvocalisations corresponded to her description of her hallucinations (1949). Green and Preston (1981) also found a reasonable concordance between reports of hallucinations and recorded electrical activity from the lips of voice-hearers.

Research demonstrating the association between subvocalisation and both inner speech and auditory hallucinations does not indicate, however, that subvocalisation causes hallucinations (Bentall, 1990). Nor does it imply that voices arise from inner speech. Subvocalisation may be a general phenomenon of language perception, or subvocal activation could reflect verbal thoughts that arise in response to hallucinations (Behrendt, 1998).

There are several other problems with the inner speech theory of hallucinations. For example, voices typically speak to or about the voice-hearer in the second or third person, but inner thoughts about oneself are usually experienced in the first person (Fu & McGuire, 2003). Further, voice-hearers often report that their voices have the acoustic qualities of external speech, such as tone, volume and even a resemblance to the voices of persons known to them (Behrendt, 1998).

Source Monitoring

A second area of cognitive research focuses on the concept of source monitoring. This term refers to the ability to differentiate internal from external stimuli and, more specifically, to identify one's own speech in contrast to another's speech (Seal, Aleman & McGuire, 2004). David (2004) suggests that recent theories about source monitoring have been stimulated by Chris Frith's (1992) hypothesis that defective self-monitoring is the fundamental cognitive abnormality underlying psychosis.

Frith (1992; Blakemore and Frith, 2003) regards Schizophrenic symptoms such as auditory hallucinations and delusions of control to be a result of a confusion between the self and other. Such confusions are suggested to arise through a lack of awareness of intended actions. Thus, self-generated thoughts become isolated from the sense of will normally associated with them and are therefore experienced as alien.

Evidence for deficits in source monitoring in hallucinators comes from several studies. In particular, voice-hearers diagnosed with Schizophrenia are much more likely to misattribute internal events to an external source than non-hallucinating patients and non-hallucinating controls (Baker & Morrison, 1998; Morrison & Haddock, 1997). Bentall, Baker and Havers (1991), for example, found that this group was more likely than controls to attribute to the experimenter items that they themselves generated a week earlier. Johns and her colleagues (Johns et al., 2001) found that they were more likely than non-hallucinating patients and controls to make errors about the source of their speech when it was played back to them in a distorted way. Young and colleagues found that people who hallucinate regularly and people who are prone to hallucinations (as judged by the Launay-Slade Hallucination Scale) were more likely than others to judge an imaginary event as real when told that the event was about to occur (Young, Bentall, Slade & Dewey, 1987).

Despite the research evidence in support of the source monitoring theory, it has been critiqued from various perspectives. Firstly, it does not appear to involve an all-or-nothing mechanism. Instead, source monitoring deficits may occur to varying degrees, as seen in thought insertion or pseudohallucinations (Bentall, 2003, p. 350). Secondly, many voice-hearers can and do make clear distinctions between voices and their own thoughts (Leudar & Thomas, 2000). Thirdly, Gallagher (2004) argues that a deficit in the system that communicates the intention of thoughts and actions to a person should result in a generalised failure to discriminate between internal and external events. However, it is only sometimes that abnormal attributions are evident.

In response to these criticisms, several authors have proposed a model of source monitoring that incorporates contextual factors, thus helping to explain why people with source monitoring deficits are not in a constant state of hallucination. In particular, they have focused on factors such as emotional arousal, background stimulation, past experience, beliefs and expectations (Bentall, 2003, p. 358; Fowler, 2000; Segal, 1970; Slade & Bentall, 1988).

The association between the occurrence of hallucinations and beliefs about voices has been the subject of a number of studies. Baker and Morrison (1998), for example, found that individuals who believed that voices were uncontrollable and dangerous were more likely to hallucinate. In a later study, Morrison, Wells and Nothard (2000) found that these beliefs were also more prevalent among people highly predisposed to hallucinations.

Several studies have also demonstrated an association between emotional arousal and the propensity to hallucinate. One study found that hallucinators were more likely than non-hallucinating controls to attribute emotional verbal material to an external source (Morrison & Haddock, 1997). Another study found that the likelihood of making this attribution error was even greater when the verbal material contained derogatory adjectives (Johns et al., 2001). Given these findings, David (2004) argues that emotional and arousing thought content might disrupt underlying cognitive processes more than neutral content, thus increasing the propensity to hallucinate.

Morrison (1998) suggests that source monitoring theory can also help to explain the maintenance of voice experiences. Comparing the process to Clark's (1986) cognitive model of panic, Morrison outlines a sequence of events wherein an internal or external trigger results in a normal hallucination. This is then misinterpreted as a threatening event, which in turn causes an increase in physiological arousal and negative affect, resulting in more hallucinations, and so on, developing into a vicious cycle. At the same time, the threatening nature of the hallucinatory experiences will elicit safety-seeking behaviours such as hyper-vigilance, which in turn increase the likelihood of more voices and prevent the disconfirmation of the misinterpretation.

Morrison's model does not explain the development of auditory hallucinations. Instead it assumes that they are normal phenomena that only become pathological when accompanied by faulty source monitoring. Segal (1970) agrees that we all perceive, imagine and hallucinate, and that we are all prone to cognitive biases. He suggests that it is past experience, the particular expectancies and biases these experiences bring, and the contextual circumstances in which hallucinations occur that will influence the direction and strength of source monitoring biases.

There is some research supporting the association between cognitive and emotional biases and beliefs about the origin and intentions of voices. For example, one study found that people diagnosed with psychosis tend to have negative views about themselves and others (Chadwick & Birchwood, 1994), and a later study showed that these negative views are related to processing biases (Fowler, 2000). Further, hallucinatory experiences have been shown to become more problematic when accompanied by delusional ideation (Krabbendam et al., 2004). For example, there is an important difference between believing the devil is out to get you and so is harassing you with nasty voices and believing that lack of sleep or being stressed means you are imagining things (Kingdon & Turkington, 1991).

Intrusive Thoughts

Close and Garety (1998) provide a concise summary of the source monitoring model: "Following a voice experience, the voice will be interpreted according to the beliefs about the voice and the appraisal of the voice in relation to the self, and consequent actions and emotions will be related to these beliefs and appraisals, rather than the experience, *per se*" (p.175). This cognitive explanation, however, does not explain why people have the voice experience in the first place.

One possible explanation relates to the role of intrusive thoughts. These have been defined as "any thought that implies non-volitional entry into awareness, requires suppressive effort or is hard to dispel, occurs perseveratively, or is experienced as something to be avoided" (Horowitz, 1975, p.1457). Emphasising their negative quality, they have also been referred to as "pollution of the mind" (Rachman, 1994).

Morrison & Baker (2000) found that patients who had auditory hallucinations had more intrusive thoughts than non-hallucinating patients and non-patients. Hallucinators also reported that their intrusive thoughts were more distressing, uncontrollable and unacceptable than the control groups.

Intrusive thoughts, like non-intrusive thoughts, can be related to present, past or future events. For example, Behrendt (1998) suggests that commenting voices might occur in the context of heightened attention to environmental factors that relate to current social fears and wishes. Other researchers have tended to focus on memories of past events intruding on present

awareness. Hoffman & McGlashan (1993), for example, suggest that auditory hallucinations are the result of a disruption in language production caused by parasitic memories.

Researchers in Australia (Badcock, Waters, Maybery & Michie, 2005) have found evidence supporting the hypothesis that voice experiences are associated with a failure to suppress memories that are not relevant to ongoing reality. They propose that a combination of deficits in inhibition and episodic memory is responsible for this failure. The ability to inhibit recently activated memory traces was not diminished in their non-hallucinating Schizophrenia sample, suggesting that the failure to suppress memories is not a general feature of Schizophrenia, but specifically related to hallucinating.

Intrusive and repetitive thoughts appear to be a response that occurs in most people after even mild to moderately stressful events (Horowitz, 1975). It has therefore been suggested that pathological intrusions are extreme forms of this general stress-response tendency. These stress responses have been found to occur after termination of the stressful event. Thus, according to this model, intrusive thoughts, and perhaps the experience of hallucination that accompanies them, can be understood as a reaction to memories of stressful events (Horowitz, 1975). Indeed, several studies have found that the onset of voices is very often preceded by either a traumatic event or an event that activated the memory of an earlier trauma (Honig et al., 1998; Romme & Escher, 1989).

<div align="center">Psychodynamic Explanations</div>

Psychodynamic models view hallucinations as manifestations of preconscious and unconscious material that has broken through into consciousness in response to certain psychological drives such as wish fulfilment, enhancement of self-esteem, or gratification of repressed and rejected impulses (Asaad & Shapiro, 1986; Rainer et al., 1970). Some psychodynamic models emphasise the role of the id or the superego, others focus on projection, and others still are concerned with the splitting seen in dissociation. All agree that hallucinations are very much associated with the loosening of ego boundaries and resultant difficulties in reality testing.

The Id, the Ego and the Super-ego

Freud (1900) related hallucinations to dreams, hypothesising that both represented psychotic states in which there is a lack of time sense. Indeed, abnormalities in time sense have been

observed in psychosis (Wahl & Sieg, 1980; Zoila, 1976), and Janet (1947, p.240) found that voices did not obey the same temporal rules as other perceptions.

Psychotic states in general are associated with a loosening of ego boundaries and the failure to make the distinction between ourselves and our thoughts and what is happening around us in the outer world (Jenner, A, 1993). However, there is some evidence to suggest that these features are even more prominent among hallucinating patients. For example, in a sample of people diagnosed with Schizophrenia, those who had a history of hearing voices were found to have greater ego disorganisation and lower ego strength, as measured by the Minnesota Multiphasic Personality Inventory, than those who did not (Lewinsohn, 1970).

It has been argued that when the ego is fragile, the person can have difficulty effectively managing the competing drives of the id and the super-ego. One hypothesis is that voices come from the id when certain primitive drives are not acceptable to the super-ego (van Laarhoven, 1993). These voices might, for example, be experienced as advice from the devil. This same model views accusatory voices as the result of a stern super-ego criticising the primitive drives of the id. When this criticism is too harsh for the ego to integrate, it may be experienced instead as a voice coming from God (van Laarhoven, 1993).

The idea that pathological hallucinations may stem from an internal battle dates back to Freud. Indeed, Freud is said to have developed the concept of the super-ego based on his clinical observations of persecutory voices (Modell, 1960). Like the super-ego, voices frequently regulate the activity of voice-hearers. This is true of both patient and non-patient samples (Leudar et al, 1997). Nayani and David (1996) found that in their sample of 100 psychotic patients, the most frequent function of voices was negative evaluation. This is comparable to the role of the super-ego, which commands, admonishes, and guides according to social and personal morals.

Object Relations and Projective Identification
Object relations theory suggests that hallucinations are the result of projective identification. Bion (1967), for example, hypothesised that voices are experienced when objects related to primitive elements of internalised bad objects are projected to the external world.

Another object relations theory views hallucinations as the result of an attempt to regain objects that have been lost. This theory is based on the observation that the onset of voices is very often associated with the loss of an actual object relationship (Modell, 1960; Romme & Escher, 1993). Modell (1960) found that voices are frequently experienced as formerly loved persons and that the hallucinatory experience recreates certain aspects of the wished-for and actual childish relationships to parental objects. The voices provide companionship, advice and judgement, just as friends, parents and marital partners do.

Projection as a Defence Against Depression

A third type of psychodynamic explanation posits that negative voices may represent the perception of negative thoughts and images that have been externalised so as to defend the voice-hearer against depression (Gilbert et al., 2001). Just as some people become depressed when they internalise early childhood experiences of being shamed, criticised and rejected, some people may manifest psychotic symptoms as an externalisation of these experiences.

Psychotic symptoms are very often accompanied by paranoia. Bentall (2003, p.343) has argued that this paranoia may be an extreme form of "self-serving bias" aimed at preserving vulnerable self-esteem. This bias involves a person making external as opposed to internal attributions for negative events. In an earlier study, Bentall (1990) observed that many hallucinators become very anxious when asked to consider the possibility that their voices may be internally generated, suggesting a difficulty in acknowledging their own negative emotions.

Ensink (1993) reported similar findings. She found that in a sample of women who had been abused as children, the greatest predictor of later development of hallucinations seemed to be the repression of emotions. Thus, she argued, not recognising feelings as belonging to the self increases the likelihood that emotions and associated thoughts and images will be attributed to ego-dystonic sources.

The association between repressed emotions and hallucinations has also been found in children. Portell (1970) reported that drawings and stories by child inpatients diagnosed with Schizophrenia had some similarity with their hallucinatory material. In particular, Portell noted themes of the child fighting between anxiety and withdrawal.

Dissociation

Finally, a fourth psychodynamic model of understanding sees hallucinations as a consequence of dissociation. According to this model, when a person is subjected to severe trauma they defend themselves from the intolerable but inescapable event by splitting off parts of the self (Honig, 1993). The split off part may be the part of the person that escapes the frightening incident, and it may re-attach itself once the traumatic event is over. In some cases, however, the split off part remains unattached and may communicate with the rest of the self by means of a voice. This voice may be particularly likely to pop up during times of stress in later life or in situations that evoke the original traumatic event. This theory may help to explain the high incidence of reported auditory hallucinations in people diagnosed with Dissociative Identity Disorder (Ross et al., 1990).

Trauma

Biological researchers tend to view the content and personal meaning of voices as irrelevant to understanding the experience. Some cognitive researchers have argued that explanations for the frequently abusive and distressing nature of Schizophrenic voices have yet to be established (Seal et al., 2004). Psychodynamic theories tend to focus on the intrapsychic world of voice-hearers, disregarding external events as too often unverifiable. Trauma researchers, however, have for some time been producing quite convincing evidence that makes clear connections between adverse real life experiences and distressing voices.

One set of research evidence comes from studies demonstrating that trauma history is disproportionately high in psychotic populations (Bebbington et al., 2004; Goff, Brotman, Kindlon, Waites & Amico, 1991; Kilcommons & Morrison, 2005). Sexual abuse in particular seems to be strongly related to the later development of psychosis (Bebbington et al., 2004).

Another set of research demonstrates the association between childhood trauma and adult presentation of psychotic symptoms in the general population (Bak et al., 2005; Janssen et al., 2004; Startup, 1999). For example, one study using a general population sample found that people with a reported history of childhood abuse were 11.5 times more likely to develop positive psychotic symptoms than those without a history (Janssen et al., 2004). After adjustment for demographic variables, reported risk factors and presence of any lifetime psychiatric diagnosis at baseline, the relationship between reported abuse and psychotic symptoms, including hallucinations, was still significant.

A later study by the same authors (Bak et al., 2005) found a high prevalence of exposure to early trauma in those people who experienced distressing psychotic symptoms, compared to lower rates of trauma in people who had experienced psychotic symptoms but had not found them distressing. This association remained when severity of symptoms was controlled. The authors concluded that early exposure to trauma affects a person's sense of internal control thus predisposing that person to reacting with emotional distress to anomalous experiences. An alternative or additional explanation might argue that these differences are related to the form, identity and/or content of the hallucinations. Bak et al. (2005) investigated the role of severity, but not of the topographical characteristics of hallucinations and delusions experienced by their sample.

There is also a great deal of research evidence demonstrating the association between trauma history and hallucinations specifically, in both clinical and non-clinical samples (Escher, 2005; Honig et al., 1998; Morrison & Petersen, 2003; Ross et al., 1990; Whitfield, Dube, Felitti & Anda, 2005). This association seems to be stronger when trauma is multiple or more severe (Ensink, 1993; Read et al., 2003; Whitfield et al., 2005).

A recent literature review found a remarkably consistent relationship between child physical and sexual abuse and later development of hallucinations (Read, van Os, Morrison & Ross, 2005). Sexual abuse, in particular, appears to be associated with hearing voices (Ensink, 1993; Hammersley et al., 2003; Kilcommons & Morrison, 2005; Offen, Waller & Thomas, 2003). Ensink (1993), for example, found that 28% of her sample of women who had been sexually abused in childhood heard voices. The trauma experienced in early life by women with auditory hallucinations was greater and more severe than the abuse suffered by those without.

Ensink (1993) also found that for many of her participants, the content of the voices was related to the abuse. Several other studies have also reported an association between the content of psychotic symptoms, including voices, and abuse history (Bowe et al., in press; Famularo, Kinscherff & Fenton, 1992; Fowler, 2000; Read & Argle, 1999; Read et al., 2003; Romme & Escher, 2006). Sometimes the association can be obvious. For example, Fowler (2000) describes a case study in which a man heard the voice of his drill sergeant who had severely bullied him while he was in the army, and another in which a woman heard the voices of a group of men who had raped her when she was young. Read and Argyle (1999) describe a woman who heard the voice of her abusive parent commanding her to kill herself.

Sometimes, however, the association can be less obvious. In these cases the person may hear the voice of God, spirits or strangers communicating to them in ways that parallel their experience of the abusive situation. Consistent with the psychodynamic theory of projection as a defence against depression, transforming and externalising traumatic memories may serve as a defence against reliving the actual trauma (Read et al., 2005). Indeed, people with a history of trauma who identify this as a trigger for their voices have been shown to be more likely to have negative experiences and to feel powerless (Jones Guy & Ormond, 2003). Despite some voice-hearers' best efforts to conceal the link between past trauma and present hallucinations from themselves and others, this link is often evident to those who look for it. For example, Fowler (2000) reported that therapists were able to make sense of problematic voices in terms of patients' relationships to key figures associated with trauma about 50% of the time. Unfortunately, only a minority of mental health consumers are asked about abuse history on assessment (Read et al., 2005). One study found that although 69% of service users who reported a history of abuse believed there was a connection between having been abused and the development of their mental health problems, only 17% thought their clinician made such a connection (Lothian & Read, 2002).

Although the research presents a strong argument for the role of early trauma in later development of psychosis, trauma in adulthood, such as war and sexual assault, has also been identified both as a possible cause of psychosis and as a potential mediating factor in the relationship between child abuse and psychosis (Read et al., 2005). Further, in their general population survey, Romme and Escher (1989) found that about 70% of people heard voices for the first time soon after stressful events, including death of a family member, divorce, losing a job, and sexual abuse. One possibility is that adverse childhood experiences predispose a person to later onset of hallucinations and that stress may act as a trigger. Support for this theory comes from recently discovered neurodevelopmental effects of early trauma on the brain. In particular early trauma may cause damage to the stress regulation mechanisms in the hypothalamic-pituitary-adrenal axis (Read, Perry, Moskowitz & Connolly, 2001).

Early trauma can also result in cognitive changes. In particular, adverse childhood experiences have been associated with later development of negative beliefs about the self, the world and others (Beck, 1995) and these negative cognitive schemas can lead to a tendency to interpret later events in a biased way (Morrison, Frame & Larkin, 2003). For example, early

trauma such as physical or sexual abuse may lead to the development of beliefs about the world being unsafe and that others cannot be trusted. Therefore, ambiguous events may be more easily attributed to the malicious intentions of others.

Early trauma also helps to explain some of the changes in intra-psychic functioning that have been associated with the experience of hearing voices. For example, victims of child abuse have been known to dissociate as a way of escaping emotionally from traumatic events from which they cannot escape physically. While helpful at the time, the development of the ability to dissociate can have the negative consequence of weakening the person's grounding in reality (Allen, Coyne & Console, 1997), loosening their ego boundaries and leaving them vulnerable to confusing inner and outer events (Morrison et al., 2003).

Read and colleagues (2005) agree that some psychotic hallucinations may be trauma-based and involve confusion between inner and outer experience. For some individuals, flashbacks of childhood abuse are experienced as internally generated memories. In these cases the person has integrated their experience and understands it within the context of past life events. For other individuals, flashbacks may be more dissociated and therefore experienced as external events in the present. It is likely that more extreme forms of abuse will lead to dissociation because the child's need to escape the situation will be greater. This hypothesis is consistent with the finding that severe and/or multiple abuse, and in particular sexual abuse, is strongly related to the later development of auditory hallucinations (Ensink, 1993; Read et al., 2003; Whitfield et al., 2005).

Despite the abundance of research demonstrating a strong association between early childhood trauma and the experience of hearing voices, many people who experience negative life events do not go on to develop auditory hallucinations, and many people with hallucinations have no history of early trauma. Thus, it is likely that there are multiple pathways to hearing voices (Morrison, Read & Turkington, 2005). One source of alternative views that has often been neglected is voice-hearers themselves.

<u>Voice-Hearers' Explanatory Models</u>

For a long time voice-hearers' own accounts of their experiences were considered deluded and evidence of a lack of insight. Many clinicians continue to be limited in their work with voice-hearers by the notion that talking about psychotic symptoms makes them worse (Romme,

Honig, Noorthoorn & Escher, 1992). Recently, however, some researchers have begun to suggest that voice-hearers' own accounts, descriptions and explanations of their experiences should be given increased attention (Thomas & Leudar, 1996).

Voice-hearers do seek explanations to account for their experiences (Baker, 1995; Cockshutt, 2004), and some people spend a considerable amount of time trying to make sense of their voices (Coffey, Higgon & Kinnear, 2004).   The views of those people who experience psychotic symptoms are not necessarily superior to or more accurate than the views held by researchers and professionals. They are, however, legitimate views, and as such should be incorporated into research into models of understanding (Geekie, 2004).

As part of their questionnaire survey and subsequent voice-hearers' congress, Romme and Escher (1989) invited voice-hearers from the Dutch general population to share their understandings of voice phenomena. Romme and Escher remarked on the great range of frames of reference used by their participants, including psychodynamic, parapsychological, mystical and medical perspectives. They then grouped the explanations into two main categories: 1) viewing the voices as a psychological phenomenon arising from within the individual (e.g., coming from mystical, psychodynamic or parapsychological origins) and 2) viewing the voices as a phenomenon the causes of which lie primarily outside the psychological characteristics of the person. Included in this last category were biological influences and explanations which referred to voices as spirits of wandering deceased.

In the only published study that focuses specifically on an in-depth exploration of views held by users and non-users of mental health services, Jones et al. (2003) found that beliefs about voices tend to cluster into six factors. Seven (35%) of the 20 participants in this study loaded onto the first factor, Positive Spiritual Perspective.   These participants tended to view their voices in the context of spiritual phenomena and regarded them as a gift or blessing. Four (20%) of the participants loaded onto the second factor, Personal Relevance, and described their experiences within a psychological framework, relating them to personal life events. Three people (15%) had a Resigned Pessimist Perspective. These respondents were troubled by their voices and did not believe that therapy would help, although they did acknowledge that their experiences might be related to difficult life events.

Two participants (10%) in Jones et al.'s study took a Pragmatic Perspective of their voices, believing themselves to be in communication with spirits. They, too, acknowledged the possible role of trauma. Interestingly, although these people did not endorse psychiatric explanations for voices, they did believe that psychiatric treatment could be helpful in managing the experience. The fifth factor was the Passivity to Forces Perspective. The three respondents (15%) who loaded onto this factor believed themselves to be passive to the influence of forces that caused their voice-hearing experiences. These forces included spiritual possession and neurochemical imbalances. Two respondents (10%) loaded onto the final factor, Generic Mental Illness Perspective. These people believe that hearing voices is a symptom of mental illness and that voices need to be controlled by psychiatric treatment. However, they also endorsed items related to psychological perspectives, including the roles of stress and major life events.

Overall, Jones et al.'s findings suggest that voice-hearers understand their experiences in diverse and multiple ways. There was, however, a stronger tendency to use psychological explanations compared to biological ones. For example, on none of the six factors did participants adhere to all of the biomedical concepts, but participants on all six factors endorsed some items relating to psychological influences. This tendency has been demonstrated in several other studies of psychiatric populations.

Angermeyer and Klusmann (1988), for example, found that patients' explanatory models for their functional psychoses tend to be multi-factorial. The participants in their study also clearly favoured psychosocial models over biological ones. Of the total 198 patients interviewed, 94% identified problems arising from their recent life situation that were not connected with their family of origin as a possible cause, and 88% thought this was a likely or very likely cause. The next most commonly identified cause was personality factors, such as "I'm basically unstable," followed by family factors such as feeling rejected from an early age. Only 16% spontaneously mentioned biological factors as the cause of their illness. In terms of least reported causal influences, biological factors were second only to esoteric factors such as "spiritual radiation" or "unfavourable horoscope."

Family members of people with psychosis also favoured psychosocial models over biological ones and ranked causal influences in the same order as patients (Angermeyer, Klusmann & Walpuski, 1988). Further, the general public has been shown to think along much the same

lines. One study conducted surveys in Germany, Russia and Mongolia and found that respondents from all three countries tended to assign more importance to psychosocial factors than biogenetic ones as the cause of psychosis (Dietrich et al., 2004). Similar findings emerge from studies in numerous other countries, including America, the United Kingdom, New Zealand, Australia, Turkey and India (Read & Haslam, 2004).

Lefley (1985) interviewed a group of people working in psychiatry who also had a family member diagnosed with psychosis. More than 70% of this sample ranked genetic, constitutional or biochemical factors as having the most or the second most important causal influence of chronic psychosis. However, the large majority (85%) said their views had been changed by having psychiatric illness in their family. Angermeyer and Matschinger (1996) also found a tendency for relatives who belonged to organisations for the families of people diagnosed with Schizophrenia to hold biological explanations. Based on these findings, they suggest that beliefs about biological causes may serve a defensive, non-blaming function for affected family members.

Certainly, many voice-hearers themselves find medical explanations alone of little value because they ignore the reality of voices and invalidate the experience (Cockshutt, 2004). Instead, voice-hearers emphasise the importance of a truly multi-dimensional perspective of psychotic experiences that incorporates biological, psychological, social, political and spiritual factors (Chadwick, 2001).

Within the mental health system it is true that spiritual factors are often overlooked. However, research suggests that spiritual views of voices are common among both clinical and non-clinical samples (Romme & Escher, 1989). Some people understand their voices as part of being paranormally gifted (Romme et al., 1992). Other people remain unsure of the origin of their voices but find that thinking about their life history and spiritual beliefs can help to increase their understanding of the experience (Thomas, Bracken & Leudar, 2004).

Conclusion to Explanatory Models

The above discussion of explanatory models provides an overview of different perspectives of the origins of voices. As Modell predicted in 1960, advances in neurophysiology are unlikely to replace our psychological understandings of voices. Instead, these approaches are mutually

complimentary. Taken together, they can help in the development of a more comprehensive model of verbal auditory hallucinations.

An important next step in this field might be attempts to integrate the various theories described above. One possible model might be articulated as follows: Trauma causes intrusive thoughts and a tendency to dissociate. When intrusive thoughts such as memory flashbacks or depressive self-talk are experienced in verbal form they activate the language areas of the brain and mimic inner speech. The development of the ability to dissociate is often accompanied by a progressive loosening of ego *boundaries and difficulties in reality testing. Thus, the person has an increased difficulty in determining whether their perceptions have an internal or external origin. This uncertainty is accompanied by a bias towards attributing ambiguous events to external sources, either as a defence against self-esteem or as a consequence of negative core beliefs about the self and others, which are also a consequence of the trauma. Therefore, the person is more likely to experience their internally-generated perceptions as coming from an external, and often threatening, source.

This model of hallucinations, which is only relevant to distressing voices, is proposed as one possibility among other possible explanations. In particular, it could be criticised as being reductionist and disrespectful to individuals' experience. Leudar and Thomas (2000) argue that attempting to find a universal explanation for what and why voices are impoverishes the phenomenon. Further, the available evidence does not support a theory of a single underlying cause for auditory hallucinations. Different psychological and biological perspectives have indicated numerous possible pathways that may be involved in the generation and maintenance of voice experiences. Further research into voice-hearers' own perspectives may be needed to develop a more comprehensive understanding.

Coping With Voices

Voice-hearers engage in a wide range of purposeful behaviour in response to their experience (Johns et al., 2002; Lakeman, 2000). As we have already seen, some people hear voices that affect their thoughts and actions in positive ways and do not feel the need to manage them. However, most people who hear distressing voices develop techniques to either reduce voice frequency or negative impact. Their choice of coping techniques will be influenced by

numerous factors, including their personality style, the voice characteristics, and their environmental circumstances (Watkins, 1998). Beliefs about the voices will also play a role in determining whether, and which, coping strategies are used (Chadwick & Birchwood, 1994).

A consistent finding in research into coping strategies is that voice-hearers are more likely to engage with benevolent voices and resist malevolent voices (Close & Garety, 1998; Lakeman, 2000; Sayer, Ritter & Gournay, 2000). People who are more distressed by their voices are also more likely to resist rather than engage with them (Soppit & Birchwood, 1997). Unsurprisingly, there is some evidence to suggest that people whose voices say positive things and are non-threatening have less difficulty managing them (Honig et al., 1998).

A long-time voice-hearer himself, Cockshutt (2004) argues that regardless of the voice type, acceptance rather than denial is the first step in effective management of the hearing voices experience. Contrary to common psychiatric approaches of suppression through medication, Cockshutt affirms that it is important for the person to acknowledge that they hear voices, and that they will not suddenly disappear. Once this first step has been taken, a personalised system of coping strategies can be developed, often through trial and error.

Coping Strategies

A number of research studies have explored the use and effectiveness of various coping techniques. Carter, MacKinnon and Copolov (1996) interviewed a sample of 100 voice-hearers diagnosed with a variety of psychotic disorders. The majority (66%) of their sample reported using strategies to manage their voices and 69% of strategy-users described at least some success with their techniques. Interestingly, the average efficacy rating of a technique was not related to how many people used it.

In Carter et al.'s (1996) study, personalised techniques (idiosyncratic techniques that had been developed by the voice-hearer) had the highest complete success rate. This was followed by playing an instrument (42%), using earplugs (40%), and singing (34%). Strategies that were found to be partly or completely successful by a large proportion of those who had tried them included listening to songs (96%), playing a game (95%), focussing on something else (95%), and playing an instrument (91%). The least successful strategy, which had been tried by 59% of those who had tried something, was yelling or talking back to the voices. This was rated as unsuccessful by 38% of those who had used it. This was followed by reading (37%) and non-

prescription drugs (35%). No method was found to be completely successful by more than half of those who had tried it.

In their study of Saudi Arabian and UK patients, Wahass and Kent (1997) found that the vast majority of all patients in their sample reported using at least one coping strategy but that most were only slightly or not at all confident about managing their voices. Wahass and Kent found that cultural beliefs influenced the choice of coping styles implemented by their sample. Saudi Arabian patients drew on religion and religious practices to help them cope, while UK patients were more likely to use distraction techniques or make physiological changes through sport, medication or alcohol.

In an exploratory study with 10 mental health service users, Lakeman (2000) found that the most used coping strategy was acceptance of the voices, followed by positive reinterpretation. This is despite the fact that most participants had at least some distressing voices, and that six of the 10 participants rated their coping ability as fairly poor to extremely poor. The least used strategy was seeking social support to help with emotional response. Lakeman found a tendency for coping styles to change over time. People who had been hearing voices for only a few years were more likely to use alcohol and behavioural disengagement, and in general rate their coping as poorer, and long-time voice-hearers were more likely to use religion to cope (Lakeman, 2000).

Physiological, Cognitive and Behavioural Techniques

The authors in the above and other studies tend to classify coping strategies according to one of two sets of categories. The first system of classification was developed by Falloon and Talbot (1981), based on their interviews with 40 out-patients diagnosed with chronic Schizophrenia and persistent auditory hallucinations. They categorised strategies into three groups: physiological changes, cognitive processes and behavioural changes.

Following Falloon and Talbot's system, Frederick and Cotanch (1995) found that 90% of their sample of 33 out-patients with a diagnosis of Schizophrenia identified using techniques that induced physiological changes. These included relaxation, sleep, alcohol, medication and walking. Significantly fewer participants (66%) used cognitive strategies. These included engaging with the voices by talking back to them or doing what they say, and paying less attention to the voices by ignoring them, singing or praying. Finally, just over half of the

participants (57%) reported changing their behaviour as a response to the voices. Examples included beginning a leisure or work activity, seeking interaction or isolating themselves.

Distraction and Focussing Techniques and Anxiety Reduction

The second and more common system of classification categorises techniques according to whether they involve focussing on the voices or distraction from them. Distraction techniques can take various forms, including physical distraction such as taking a shower or jogging, and more abstract distraction, such as drawing a cloak around yourself (Romme et al., 1992).

Distraction

Distraction strategies identified by people with Schizophrenia as partially or completely effective include focussing or concentrating on something, talking to someone, humming, watching television, repeating numbers subvocally and listening to music (Johns et al., 2002). Music has been identified by several other authors as a helpful strategy. For example, using a personal stereo with headphones was found to be effective in reducing frequency, severity, and distress caused by voices for a long-time voice-hearer (Johnston, Gallagher, McMahon & King, 2002). Cockshutt (2004) also found that using a walkman in the early stages helps to focus on something other than the voices.

Several studies have reported humming to be a very effective coping strategy, despite it being a relatively rarely used strategy (Carter et al., 1996; Green & Kinsbourne, 1989; Johns et al., 2002). Margo et al. (1981) found that listening to interesting speech was more beneficial than listening to boring speech, foreign speech and vocal music. One possible explanation for the effectiveness of these strategies is that they involve using the speech muscles and/or language centres of the brain. Given psychological theories about voices being misattributed inner dialogue, it makes sense that they would have difficulty competing with similar functions.

Despite the reported benefits of using distraction techniques in the short-term, some authors warn that they may also be counterproductive because they can disempower the person by denying them the opportunity to take on the voices and stand up for themselves (Baker, 1995). Long-term use of distraction techniques was associated with a significant decrease in self-esteem in a sample of people diagnosed with medication-resistant Schizophrenia. This was in contrast to a significant increase in self-esteem for those people encouraged to use engagement techniques (Haddock, Slade, Bentall, Reid & Faragher, 1998).

<u>Focusing</u>

An alternative or complement to distraction techniques is the use of strategies which involve focussing on or engaging with the voices. Examples of engaging techniques include talking back to the voices or doing what they say.   Examples of focussing techniques include setting limits on when and how the voices can talk to the voice-hearer and keeping a record of voice encounters. It has been suggested that focussing on hallucinations may reduce the likelihood that the person will misattribute their inner dialogue to an external source because it encourages the person to analyse the source more carefully.   Also, focussing allows the analysis of other beliefs about the voices, such as their power and omnipotence (Haddock et al., 1998).

Engaging aggressively with voices, either by angrily telling them to go away or debating with them, is generally reported to be unhelpful in reducing distress (Falloon & Talbot, 1981; Johns et al., 2002). However, some people do find this to be an effective coping strategy (Frederick & Cotanch, 1995), even though it may be socially inappropriate and even alarming to onlookers when applied in public places. One way of managing the public's fear of people talking to thin air is to arm voice-hearers with mobile phones so that they can pretend to be on a call when they need to talk out loud to their voices (Coleman, 2004).

Keeping a diary of voice experiences appears to be an effective coping strategy for some (Escher, 1993). It is a non-threatening way for people to record their thoughts and beliefs about their voices and the impact they have on their lives. The use of voice diaries in conjunction with distraction techniques and rational responding to critical voices can lead to a reduction in psychotic symptoms and depression (Morrison et al., 2005).

One study investigating the use of focussing versus distraction techniques found that participant improvement in both groups was very variable (Haddock et al., 1998). This suggests that some styles of coping may be more suited to some people, while others will find different styles more helpful. Further, different voices may respond to different techniques. Indeed, his study of 75 people diagnosed with Schizophrenia living in the community, Tarrier (1987) found that those who used multiple strategies reported their strategies to be significantly more effective.

Patricia Deegan (1995) from the National Empowerment Center, designed a pamphlet for voice-hearers containing information about various coping techniques they can use to manage distressing voices. These techniques were adapted from Watkins (1993) and are consistent with the findings presented above. Deegan (1995) outlines 12 strategies that have been found by voice-hearers to be effective to some degree. These are presented in Table 4. The list includes both distraction and focussing techniques, as well as some strategies that seem to encourage general well-being through anxiety reduction.

Table 4. Strategies suggested for voice-hearers (adapted from Deegan, 1995).

Distraction techniques	Listen to music or a radio show that you really like (not necessarily loud). The idea is not to drown out the voices but to shift the focus of your attention elsewhere.
	Aversion therapy. Snap a rubber band around your wrist or visualise something unpleasant every time you hear a voice.
	Use your own voice. Talk to someone, hum or sing quietly, talk under your breath, read out loud.
	Find an activity that demands your full attention, like housework, gardening or reading.
	Tune out the voices. Practice talking to a friend with the television up really loud.
Focusing techniques	Challenge what the voices say or reason with them about when might be an appropriate time to come and talk.
	Tell your voices firmly and clearly to go away. A coach may help in this. A private place is preferable to out in public!
	Think about the voices as your own thoughts. Instead of saying, "my voices say I am worthless," try saying, "Today I am thinking that I am worthless," or "Today I am telling myself that I am worthless."
	Keep a record of when you hear voices, when and where they started and stopped and what they said.
General well-being	Be with a friend or a person you trust. Talk to them about the voices or about anything at all.
	Keep physically well, avoid chemicals that might increase your voices, and use relaxation techniques.
Other	Using earplugs. You may only need to plug one ear.

Anxiety Reduction

Anxiety reduction was first identified as an additional category to focussing and distraction by Slade and Bentall (1988). Numerous studies have since reported that many voice-hearers spontaneously undertake activities aimed at reducing anxiety or improving general well-being (Falloon & Talbot, 1981; Romme et al., 1992). Falloon and Talbot (1981) reported that relaxation was the preferred strategy for individuals with both good/fair and poor adaptive functioning. Cockshutt (2004) also emphasises the benefits of relaxation techniques, coping with stress and forward planning.

While most of Deegan's (1995) suggestions outlined in Table 4 can be classified into either distraction, focussing or anxiety reduction, using an ear plug does not seem to fit well into any

of these categories. While it is true that a number of single case studies have found this strategy to lead to a reduction in voice frequency or intrusiveness, few voice-hearers report using it spontaneously. Further, the mechanism behind this rather odd but effective strategy remains uncertain (Slade & Bentall, 1988).

<u>Medication</u>

Two other types of coping strategies are commonly employed by voice-hearers: taking prescribed medication and talking to others about their experience. Some voice-hearers who view their hallucinations as part of a psychiatric disorder find that medication helps. However, medication alone has only a limited effect on many people who suffer from psychotic symptoms (Chakos, Lieberman, Hoffman, Bradford, & Sheitman, 2001; Sayer et al., 2000), and a significant proportion of patients' voices fail to respond to medication at all (Leudar & Thomas, 2000). Further, anti-psychotic drugs can have adverse effects, including tachycardia, weight gain, delirium, tremor, sexual dysfunction, tardive dyskinesia and sudden cardiac death, leading many people to discard their medication (Ross & Read, 2004).

Despite these outcomes, medication is usually the preferred type of intervention offered by mental health services for hallucinators diagnosed with a psychiatric disorder. Although the extent of the benefits of neuroleptic medication for voices specifically is not well-documented in the literature, it does appear to have some positive effects for some people (Hargreaves & Gibson, 2005). For example, 13 out of the 22 service users interviewed by Coffey et al. (2004) reported that medication helped them cope with their voices. Participants reported finding that although the drugs did not remove the voices, they made them more bearable. Honig (1993) agrees that in some cases, the only effect of antipsychotic medication is increased distancing from psychotic symptoms, so that voices fade but remain present in the background (Honig, 1993).

Overall, the participants in Coffey et al.'s (2004) sample tended to say that medication alone was not enough. They emphasised the importance of a therapeutic approach that combined medication with talk therapy and coping strategies. This may also involve having a sense of control over both the voice experience and voice management. Cockshutt (2004), for example, emphasises the importance of being in control of your body and what you put in it. People who feel powerless in relation to their voices or experience hostile voices are more likely to

endorse passive coping strategies such as medication and alcohol (Escher, Romme, Buiks, Delespaul & van Os, 2002; Frederick & Cotanch, 1995; Jones et al., 2003).

<div align="center">Talking About the Voices</div>

The psychiatric approach which emphasises medication may also tend to discourage people from talking about their voices (Escher, 2005). The voices, too, sometimes tell the patient not to tell their psychiatrist that they are hearing voices (Jaynes, 1976, p. 411). However, on the whole, voice-hearers say it is important to discuss voices, as this can help them to recognise their voices' games and tricks, as well as their more pleasant aspects (Baker, 1995).

Most of Leudar and Thomas' (2000) sample reported not mentioning their voices to anyone, except occasionally parents, psychiatrists or therapists. Rees (1971) and Grimby (1993) both found that recently bereaved elderly folk were unlikely to tell even their close friends and relatives that they had experienced hallucinations of their spouse. This may be because they do not want to be perceived as mentally ill (Romme et al., 1992), even when the voices appear in understandable contexts such as post-bereavement grief (Grimby, 1993). For some people, talking about their experience can also make their voices become temporarily more acute (Baker, 1995).

<div align="center">Copers and Non-Copers</div>

Comparisons in the strategies utilised by people who cope well with their voices and those who do not have proffered some helpful, albeit unsurprising, findings. Using a general population sample, Romme et al. (1992) found that non-copers felt significantly less in control of their voices and experienced their voices more negatively. They also found that distraction techniques were used significantly more often by non-copers and selective listening and setting limits was used significantly more by copers.

Falloon and Talbot (1981), on the other hand, found that copers and non-copers tended to use the same strategies. In their sample of people diagnosed with chronic Schizophrenia, individuals who appeared to be least handicapped by their voices tended to use fewer techniques, but applied their strategies with more consistency and more confidence in their efficacy. They had also established some control over their voice experiences, such as avoiding trigger situations. Differences in coping ability did not appear to be due to variations in voice frequency or severity.

<center>Conclusion to Coping</center>

Clearly, people with distressing voices do implement a wide range of coping strategies, with varying degrees of success. Overall, it would seem that successful coping is associated with the systematic application of common coping strategies (Falloon & Talbot, 1981). Unfortunately, naturally occurring coping strategies are often inconsistently applied and poorly practised (Tarrier et al., 1990). Further, coping with distressing voices, particularly in the context of other debilitating psychotic symptoms, can be an extremely taxing and difficult process (Falloon & Talbot, 1981). Therefore, external support and interventions may be a crucial component of developing effective management skills for distressing voices.

<center>**Help and Support**</center>

<center>Spiritual Approaches</center>

It has been argued, quite reasonably, that voice-hearers should be free to pursue the types of help and support they would like (van Laarhoven, 1993). For example, people who understand their voices from a spiritual or religious perspective have the right to seek advice and guidance from an appropriate spiritual counsellor. Indeed, it has been found that people who adopt a theoretical frame of reference which incorporates more spiritual or metaphysical aspects, such as parapsychology, reincarnation, or the collective unconscious, tend to have a more positive relationship with their voices and manage without interventions from mental health services (Romme & Escher, 1993).

Some people who have a spiritual explanatory model for their voices do have difficulty coping, however. Unfortunately, it is rare to find psychiatric or psychological literature that allows space for discussion of spiritual ways of managing voices. These could be of benefit to mental health professionals, if not to suggest them as possible coping techniques, then at least to be aware of some of the alternative strategies their clients might by using.

In a rare published example, one woman describes deliberately closing off her aura, a technique she had been taught on a course for paranormally gifted women (Koolbergen, 1993). The aura is an energy field around every person that can, with concentration, be open and closed at will. She suggests that visualisation can be helpful in this process, and that with practice it tends to become easier.

In some cases mental health professionals may encourage their clients to seek help from sources outside the standard psychiatric service. Spiritual or cultural counselling may serve to connect rather than isolate some voice-hearers and give them a language to share their experiences (Romme & Escher, 1993). Therapists do, however, have a continuing responsibility to their client to ensure that they do not neglect their health, daily tasks or interpersonal relationships (van Laarhoven, 1993).

<div align="center">The Psychiatric Approach</div>

Voice-hearers who come into contact with mental health services are likely to be put onto some kind of drug therapy (Honig, 1993). If the hallucinations are conceptualised as a symptom of Schizophrenia the person is extremely likely to be given a course of antipsychotic medication. If they are considered to be a symptom of depression, the person is likely to be given anti-depressants or, more rarely, electroconvulsive therapy (Read, 2004; Ross & Read, 2004; Slade & Bentall, 1988).

Although voices are often resistant to neuroleptic treatments (Wykes, 2004), this is frequently the only therapeutic response offered by psychiatrists (O'Sullivan, 1994) and mental health nurses (Coffey et al., 2004). Thus, despite mental health services referencing the bio-psycho-social model as the standard approach, in reality interventions into psychotic phenomena tend to emphasise biological and medical factors, focussing attention on the illness and, some argue, potentially missing the uniqueness and the complexity of the person affected by it (Boevink, 2006; Romme, 1994).

Voice-hearers and researchers have noted a number of other disadvantages to the psychiatric approach. Firstly, voice-hearers themselves seldom find biological models of hallucinations fit with their personal experience (Romme, 1994). Not only can this create a chasm between the service and the service-user, it also invalidates the person's own perspectives. Jim Geekie, a New Zealand researcher investigating the explanatory models employed by people who experience psychosis, has argued that all people should be extended the right to author their experience, even when that experience is bizarre, or does not fit with their therapist's world view (Geekie, 2004).

Secondly, reducing individual experiences to no more than symptoms of a psychiatric disorder can make the person feel powerless and this in turn is linked with depressive symptoms

(Birchwood et al., 1993). Boevink (2006) describes how accepting her psychotic experiences as a disorder felt like surrendering, in large part because of the disturbing side effects of neuroleptic medication. She instead wanted to talk about her experiences and learn more about their meaning. She found it effective to relate her psychosis to her life history, so that she could contextualise and understand her distressing experiences.

Thirdly, a psychiatric approach that views voices within a disease model is unlikely to encourage people in the development and implementation of their own coping strategies (Escher, 2005). These complaints have led mental health users and a small but growing number of providers to develop interventions based on enhancing coping abilities, exploring and developing understandings of individual and contextual aspects of the voice experience, and facilitating supportive networks (Coffey et al., 2004).

<u>Psychological Therapy</u>

Although psychological therapies have become an increasingly more common adjunct to pharmacological treatment for distressing hallucinations (Lee, Hannan, Bosch, Williams & Mouratoglou, 2002), until recently there has been little in the way of research into non-medical interventions. Westacott (1995) proposes two possible reasons for this. Firstly, many practitioners continue to question the applicability and appropriateness of psychotherapeutic interventions for psychotic symptoms. Secondly, there is still a widely held belief that psychotic disorders are essentially biological in origin and therefore are unlikely to respond to non-biological interventions (Bentall, 2003, p. 178).

However, recent research has demonstrated that some people who experience distressing voices respond well to psychological therapies. In particular, there has been a shift from attempting to eradicate voices to helping the person cope with the experience (Lakeman, 2000). Early behavioural approaches, for example, incorporated distraction and aversion techniques, such as snapping an elastic band around one's wrist whenever a voice was heard. These were soon abandoned, however, as they posed some ethical issues and there was limited evidence of their effectiveness (Wykes, 2004).

More recent approaches focus on increasing perceived control over voices and developing strategies to reduce distress when they cannot be controlled (Jenner & van de Willige, 2001). Some authors also suggest exploration of possible causes of the voices. Morrison and

colleagues (2005), for example, suggest that helping service-users to make connections between past trauma and current psychotic symptoms may help to normalise their experiences, reduce their distress and increase their perceived control.

Van Laarhoven (1993) argues that it is helpful to work collaboratively with clients to explore the significance and function of the voices in their lives. However, therapists should be aware that sometimes the voices may serve as a protective function against the anxiety of past events and therefore therapists should not always directly confront clients if they are not ready to discover and integrate the meaning behind the voices (van Laarhoven, 1993). Guided discovery about voice topography and beliefs may be a good way for the therapist to gauge the person's readiness to explore their voices further.

Therapist Processes

Voices are often an intimate experience and therefore therapists should not assume that voice-hearers will share openly with them before a safe and trusting therapeutic alliance has been established (Pearson, 2004). Thus, building rapport with clients is usually the first step to effective work for psychotic symptoms (Alford & Correia, 1994). Part of this process should include the therapist negotiating with their client about how therapy will proceed. For example, any attempt to persuade an individual to work on eradicating voices perceived as helpful or positive may lead to a breakdown in the therapeutic relationship (Jenner, J, 1993).

Mental health workers are often told that there is no value in talking to people about their voices (Baker, 1995), or worse, that accepting the patient's reality might confuse them further and escalate their internal chaos (Romme et al., 1992). However, in their study of existential needs of people with psychosis, Wagner and King (2005) found that participants identified professionals' respect for and preparedness to listen to their experiences as most important.

Romme and Escher (1993) agree with this approach and highlight four key components to successful therapy for voices. Firstly, mental health professionals should accept the client's experience of their voices. Secondly, therapists should make some attempt to understand the language used by clients to describe their experience, as well as the language used by their voices. Thirdly, therapists should consider helping the individual communicate more effectively with their voices. Finally, they suggest encouraging clients to meet with other voice-hearers.

Many health professionals and voice-hearers agree that it is not helpful to think of voices only as symptoms of psychosis. Instead, a person's experiences of hearing voices should be regarded as meaningful, real events. They can give insight into the person's emotional life and also their external behaviours (Baker, 1995). Some therapists find it helpful to attend Hearing Voices Workshops, in which they are subjected to the experience by listening to headphones with constant voices while participating in various activities. This can help therapists to better understand why voice-hearers sometimes look odd or find it difficult to concentrate, as well as give a flavour of the negative emotional impact of the experience (Pearson, 2004).

Cognitive-Behavioural Therapy

      CBT for psychosis

Given that, as outlined above, patients' interpretations of their voices appear to mediate their distress and disability (Chadwick & Birchwood, 1994), these interpretations would be sensible targets for therapeutic intervention (Morrison, Wells & Nothard, 2002). One psychological intervention that shows particular promise is Cognitive Behavioural Therapy (CBT), as it has been shown to help weaken beliefs associated with distress (Chadwick, Sambrooke, Rasch & Davies, 2000).

CBT, a psychotherapy originally developed for the treatment of depression and anxiety (Beck, 1976, p.3), has been more recently modified for the specific application to psychotic populations. CBT for psychosis incorporates several key components (Dickerson & Lehman, 2006). Firstly, importance is placed on building an empathic and non-threatening relationship. Secondly, the client is encouraged to share their experiences with the clinician, describing symptoms in detail and identifying those that are most problematic. Specific symptoms are then addressed using various strategies, including belief modification (Chadwick, Birchwood & Trower, 1996), refocussing/reattribution (Bentall, Haddock & Slade, 1994) and normalising psychotic experiences (Kingdon & Turkington, 1991).

Recent reviews have evaluated CBT to be more effective than standard interventions in improving overall symptoms of psychosis, both at the end of treatment and at 9-12 month follow-up (Dickerson & Lehman, 2006; Garety, Fowler & Kuipers, 2000; Rathod & Turkington, 2005). This trend has been found for both chronic out-patient populations and acute inpatient populations (Zimmerman, Favrod, Trieu & Pomini, 2005). CBT also appears to

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be effective in preventing the development of psychosis in high-risk populations, with or without anti-psychotic medications (Morrison et al., 2004).

CBT targeting distressing voices

A few clinician-researchers have developed CBT interventions specifically for voices (Haddock & Bentall, 1993; Jenner & van de Willige, 2001; Morrison, 1994). Haddock and Bentall (1993), for example, developed a focussing treatment in which the patient is helped to explore the content, development and meaning of their voices within the context of a therapeutic relationship. The ultimate aim of this approach is not to eradicate voices, but to enable the voice-hearer to cope better with the experience, identify the origin of the voices, and gain some personal control over them.

Another model of intervention, Hallucination Focussed Integrative Treatment (HIT), was developed in the Netherlands (Jenner & van de Willige, 2001). In addition to medication, crisis intervention, support and rehabilitation, HIT incorporates CBT, and coping training. The general principles of this approach include accepting the voices as real and enhancing patient responsibility and expertise. Through trial and error patients learn to develop coping strategies that are effective for them.

The two key components of these approaches are challenging beliefs and enhancing coping skills. Because there is some evidence that distress may be associated with a lack of control over voices, the beginning phase of therapy might focus on working behaviourally to increase control over voices (Close & Garety, 1998). Once the person has sufficiently decreased their sense of helplessness, they may be ready to start a more in-depth analysis of their voices.

One common strategy is to encourage voice-hearers to understand their voices as internally generated phenomena (Bentall et al., 1994; Greene, 1978). This does not entail convincing them that the voices are not real, but only that their source is internal. Strategies for encouraging this belief include getting clients to notice parallels between what they are thinking or feeling and what the voices say, and noticing that it is difficult to talk out loud at the same time as the voices. Greene (1978) suggests that the therapist can then propose that the voices be re-framed into talking to yourself, which may also help increase feelings of personal control.

Reality testing can also be a useful strategy, but only once trust has been established. Coffey et al. (2004) reported that many of the service-users in their study found it helpful when mental health workers challenged what the voices said. This did not mean dismissing or ignoring the experience, but helping to explore the reality of the voices with the person and offering alternative perspectives. For example one respondent explained: "…the voices are telling you you're going to go to hell and one nurse in [local hospital] said to me no you're not going to go to hell and I still remember that… like it really was encouraging" (p.440).

The effectiveness of CBT for distressing voices

Research into the effectiveness of CBT with distressing voices is somewhat equivocal. In her review, Wykes (2004) argues that individual therapies that focus on enhancing coping strategies or changing beliefs show few if any improvements on hallucinations. Wykes does not, however, indicate how she measures improvement. One study, for example, found that CBT was effective for some voice-hearers in reducing distress and increasing control, but did not appear to reduce voice frequency (Bouchard, Vallieres, Roy & Maziade, 1996).

In their study of a relatively small sample of people diagnosed with Schizophrenia whose voices were not sufficiently improved by neuroleptic medication, Haddock and colleagues (1998) found that CBT treatments did reduce frequency as well as negative impact of voices. This change was not, however, maintained at two-year follow-up. The authors argue that booster sessions to reinforce the techniques may help to maintain positive changes. The authors also point out that all their participants were long-time voice-hearers. They argue that greater improvements might have been seen if the participants had been offered CBT earlier on, before their beliefs about and reactions to the voices had become fixed.

Using the HIT approach with 40 patients with a psychotic diagnosis and refractory hallucinations, Wiersma and colleagues (Wiersma, Jenner, van de Willige, Sparkman & Nienhuis, 2001) reported an improvement in the overall burden of voices and daily functioning. These positive changes included improvements in voice content, levels of anxiety and perceived control. They also reported a significant reduction in voice frequency. At follow-up (1-4 years after the beginning of treatment) 18% of their participants continued to hear no voices at all. As hypothesised by Haddock et al. (1998), when the HIT approach was used as an early intervention treatment with adolescents, the outcomes were even more

successful, with 64% of the sample experiencing no voices at the end of treatment (Jenner & van de Willige, 2001).

Group CBT for distressing voices

Group therapy for voices is not a new concept, but tends to be found mostly in the context of consumer organisations, such as the Hearing Voices Network, rather than in mental health services (Wykes, 2004). Potential benefits of group CBT in comparison to individual CBT include social support, reducing stigma and the sharing and normalisation of voice experiences (Newton et al., 2005).

In most published studies of group CBT, the majority of patients demonstrated either decreased distress, decreased frequency or more adaptive beliefs about their voices (Chadwick, Lees & Birchwood, 2000; Lee et al., 2002; Newton et al., 2005; Pearlman & Hubbard, 2000; Trygstad et al., 2002). However, one recent study which used a more controlled research approach found no main effects of group CBT on a measure of voice topography and distress associated with voices (Wykes et al., 2005). They did, however, report an overall improvement in self-esteem and coping strategies. Wykes et al. (2005) wonder whether the ineffectiveness of the CBT intervention on hallucinatory phenomena might be related to having less expert therapists and inconsistent therapist input, as compared to previous, more successful studies.

Qualitative studies which ask CBT group participants what they found most helpful about the intervention reported factors such as friendliness and tolerance, learning new coping strategies, meeting with peers who experience similar difficulties, listening to others' stories and the opportunity to provide advice to others (Lee et al., 2002; Newton et al., 2005). One study reported that participants emphasised the importance of creating an atmosphere where people felt safe to talk about their subjective experiences and not be ridiculed (Lee et al., 2002).

Support Groups

Lee et al.'s (2002) findings are consistent with other research into group-based support for voices. Lakeman (2000), for example, emphasises the importance of creating a climate in which voice-hearers are free to discuss their experiences without fear of being labelled 'ill' or 'deteriorating'. De Bruijn (1993) stresses that support groups need to be truly open: "we in

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the foundation are fully open to the widest discussion of experiences touching upon the transcendent, the so-called psychic, and the spiritual. In the process of sharing information about our experiences, the atmosphere of openness may produce surprising discoverings" (p.48).

Martin (2000) describes the establishment of a Hearing Voices group in the UK, which was designed to act as a forum for voice-hearers to share and discuss their experiences. The group met for 45 minutes each week, was facilitated by a mental health professional and was voluntary. Group members discussed the impact hearing voices had on their lives and provided support to each other. Objectives and guidelines were established by the group members at the beginning and a session once every three months was devoted to reviewing and evaluating group outcomes. Reports from these evaluative sessions indicate that it had many beneficial aspects. These included increasing members' confidence and self-esteem, the positive effects of sharing subjective experiences without the threat of judgement, and support from other group members.

The work of support groups for voices, can, however, reach further than voice-hearers. In 1988, the Netherlands saw the establishment of Resonance, a nation-wide organisation that was set up to promote the acceptance and emancipation of people who hear voices (Malecki & Pennings, 1993). This organisation offers telephone support, co-ordinates self-help groups, and publishes a magazine filled with relevant research and information. It also has contacts with mental health services and reaches out to the general public through the media. Groups such as this work to bring about social change so that voices can be a more acceptable and talked about phenomenon (Lakeman, 2000).

<div align="center">Conclusion to Help and Support Section</div>

It is clear from the above discussion that any successful intervention for distressing voices will need to accept the reality of voices to the voice-hearer, respect the voice-hearer's right to develop their own explanatory models, and work with the voice-hearer to enhance coping strategies. In terms of future research, it will be important to consult with and draw on the experiences of service-users in the development and implementation of effective treatments (Coffey et al., 2004).

Conclusions and Introduction of the Present Study

Overall, research in the area of voices is relatively new and limited. Researchers have tended to focus on pathological hallucinations and restricted their investigations to such characteristics as form, location and frequency of distressing voices. However, the small amount of research that has taken a broader view provides convincing evidence that hallucinations are not uncommon in non-psychiatric populations and can be experienced as positive as well as negative occurrences. So far there has been only limited exploration of topographical characteristics in the general population and few attempts to analyse how these relate to and interact with each other.

As the discussion of explanatory models demonstrated, there has been a considerable amount of researching and theorising into causal explanations for voices. However, biological and psychological explanatory models have failed to take into account voice-hearers' own perspectives, which tend to be more multi-factorial and, in particular, are more open to metaphysical and psychosocial explanations. The same criticism can be made of research into help and support for managing voices, although some initiatives led by voice-hearers have been applauded by mental health professionals and researchers and enjoy continuing success.

In response to these limitations, the present study was developed with five main objectives:

1. To map the range of hearing voices experiences in the general population. This includes investigating topographical characteristics such as content, form and identity of voices.
2. To explore voice-hearers' own explanatory models and analyse how these relate to the ways in which their voices are experienced.
3. To investigate the impact the experience of hearing voices has on people's lives
4. To increase knowledge about effective ways of managing voices. This includes identifying coping strategies that voice-hearers use and evaluating their effectiveness, as well as exploring voice-hearers' experiences with mental health agencies and other support services.
5. To seek out and describe the essential structure of the phenomenon of hearing voices, in an attempt to provide a definition of this phenomenon that will fit across the range of different voice-hearing experiences.

CHAPTER II: METHODOLOGY AND DESIGN

Introduction

In order to respond to the five main questions of the present study, a mixed design of quantitative and qualitative research was used. Such an approach has been quite popular in voices research (e.g. Coffey et al., 2004; Lee et al., 2002), possibly because of psychology's affiliation with the logical empiricists' philosophy of science (Dintino, 2003) coupled with the difficulties involved in objective measurement of subjective experiences (Husserl, 1931, p. 133).

Quantitative research in psychology tends towards the objective measurement of amounts as evidence of and/or representation of subjective experiences such as thoughts, emotions, and perceptions (Kvale, 1994). This can be useful when the researcher seeks to objectively study the phenomenon of interest in order to make generalisations that will hold across time and across contexts.

However, the operationalisation and standardisation of variables and constructs used in quantitative research can make study findings too abstract and decontextualised from the person's lived experience. Further, quantitative approaches do not attempt to capture the *meaning* of subjective experiences, and therefore run the risk of de-humanising research participants (Dintino, 2003).

Qualitative research on the other hand aims to provide a depth and richness of data, through the exploration, elaboration and systemisation of the significance of the identified phenomenon to those individuals experiencing it (Banister, Burman, Parker, Taylor & Tindall, 1994). It makes no claims to be objective, but instead acknowledges the gap between the object of study and the way it is represented, by both the experiencer and the researcher. Findings are expected to be influenced by the research context and the researcher's assumptions and are therefore not necessarily considered to be stable over time or across settings. For example, the participant may be using the researcher as a witness to his or her story and the telling of the story may change the participant's understanding of it.

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Given the apparent strengths and limitations of quantitative and qualitative research, some authors have argued for an integration of these two methodologies for a more naturalistic and pragmatic approach to the study of psychological phenomena (Chadwick, 1997; Firestone, 1987; Sperry, 1988). Banister et al. (1994) argue that qualitative research may be the voice that carries through the sense of the phenomenon under investigation, while the quantitative research component circumscribes the scope and the extent of the topic.

The present study used a self-report questionnaire with a large number of participants and a semi-structured interview with a smaller sub-sample of participants. The development and implementation of both approaches were guided by a post-positivist epistemology and grounded in the guiding principles of phenomenology, as detailed below.

Epistemological Position

The quantitative and qualitative research paradigms tend to be based on different assumptions about ontology, epistemology and methodology. Quantitative research is commonly underpinned by the positivist paradigm, which recognises only one *true* reality, emphasises the independent and objective view of the researcher and has a hypothetico-deductive logic of enquiry. Qualitative research generally recognises multiple social realities, places an emphasis on the subjective, insider view and has an inductive logic of enquiry (Avis, 2003). There are, however, varying degrees from which a qualitative researcher can move away from the traditional positivist approach. Possible paradigms include post-positivism, critical theory and constructivism (Guba & Lincoln, 1994).

Although the present study integrates both quantitative and qualitative approaches, the researcher's position tends towards a post-positivist stance. In terms of ontology, the post-positivist paradigm takes a critical realist approach to the nature of the world. It assumes that reality exists but is only imperfectly apprehendable. In terms of epistemology, this paradigm largely abandons the concept of an independent, objective researcher, but instead emphasises objectivity in other ways, such as consistency of findings with previous knowledge and critical peer review. In terms of methodology, the post-positivist paradigm lays emphasis on context, discovery, and subjective accounts of experiences (Guba & Lincoln, 1994).

Phenomenology

Originally developed by Husserl almost a hundred years ago (Creswell, 1998, p. 52), phenomenology has proven to be a useful tool across many disciplines, both as a philosophy and as a method (Davidson, 1994). More recently, phenomenology has gained its place as a viable approach to conducting research in psychology (Hein & Austin, 2001).

Phenomenology provides a method for investigating the human inner world as legitimate subject matter for psychology (Osborne, 1994), and as such has been used in the study of consciousness (Husserl, 1931), Schizophrenia (Minkowski, 1948), and hallucinations (Jaspers, 1963; Naudin & Azorin, 1997; Rojcewicz & Rojcewicz, 1997; Strauss, 1969; Thomas et al., 2004).

Phenomenological psychology differs from mainstream psychology in its philosophical assumptions, aims and methods. In terms of assumptions, it emphasises meaningful experiences as providing the basis for all knowledge and human behaviour (Polkinghorne, 1989). It aims to determine what an experience means for the persons who have had the experience (Moustakas, 1994, p.11) and thus provide a "deeper and fuller understanding of human existence, ourselves, and others" (Valle, King & Halling, 1989, p.16). This understanding is achieved by eliciting detailed descriptions of the psychological phenomenon of interest through written or verbal accounts. These descriptions are assumed to reveal the structure of the phenomenon as it is experienced, including its constituent parts or elements and their inter-relationships. General or universal meanings are derived from the multiple individual descriptions and these are thought to reflect the essence of the experience (Moustakas, 1994, p.13).

There is no single prescribed way to conduct phenomenological research. Rather, the method of choice should depend on the specific aims and purpose of the research, the skills of the researcher, and the data collected (Hein & Austin, 2001). There are, however, two core principles which should be incorporated into any phenomenological inquiry: *bracketing* and *essence*.

Bracketing

Phenomenological research requires the researcher to reflect on, elicit and then attempt to suspend any beliefs they have about the subject of interest. This process is referred to as *bracketing* or *epoche*, and includes becoming aware of and bracketing the *natural attitude*. The natural attitude includes those notions or ideas that we take for granted, our unquestioned assumptions about the world, including the assumption that we all share the same reality (Hein & Austin, 2001). Through bracketing, the researcher strives to move from the natural attitude to what is referred to as the transcendental attitude (Husserl, 1931, p.133). Thus, the phenomenological researcher aims to suspend his or her belief in the objective reality of the phenomenon to attend to it as it is experienced by the participant. The process of bracketing continues throughout the research process and involves making presuppositions, biases, and other assumptions explicit so that they are as clear as possible.

Bracketing may be of particular importance in the study of hearing voices. As Naudin and Azorin (1997) suggest, "once our own adherence to the thesis of reality has been bracketed momentarily, we can more liberally consider the thesis of the reality of the voices as presented by the hallucinator" (p.179). Further, bracketing can help to prevent the problem of exampling – choosing samples which selectively reinforce a priori prejudices about the object of study (Osborne, 1994).

However, as Hein and Austin (2001) warn, a presuppositionless stance is impossible. We necessarily view the world with intelligent and meaning-seeking eyes. Thus, interpretation is inherent in all inquiry and, more generally, in all understanding. The process of bracketing is nevertheless important because it helps to increase the researcher's awareness of their own assumptions and biases, and how these may influence the research process (Polkinghorne, 1989).

Essence

Phenomenological research seeks to find the essence or essences of a phenomenon. Given that a single object or event may be lived in multiple ways, across people or across time for example, an understanding of that phenomenon needs to incorporate these multiple perspectives. Thus, the phenomenological researcher analyses descriptions in search of common themes or characteristics that point to the essences of the phenomenon of interest.

Giorgi (1997) defines an essence as "the most invariant meaning for a context. It is the articulation, based on intuition (awareness), of a fundamental meaning without which a phenomenon could not present itself as it is" (Giorgi, 1997, p.246). Thus, phenomenological research requires the researcher to go beyond the step of simple description and to account for the descriptive findings in some way. This does not necessarily refer to a causal explanation, although in some cases it might (Davidson, 1994).

Participant Recruitment

Participants were recruited through the media, including national television, radio, newspapers and magazines. This process began by the investigator approaching the health reporter of a national newspaper, who then wrote an article about the study and the need for participants. At the same time a press release (see appendix A) was sent to many media contacts inviting them to write or show stories about the study. A snowball effect ensued, in which more and more media organisations became interested, either responding to the press release or to mention of the study by other media sources.

Items were featured in the following programmes and publications: The Holmes Show (TV1), Breakfast (TV3), Flipside (TV2), National Radio with Linda Clark, The Holmes Radio Show, BFM Radio, Health Matters (National Radio), The Varsity Hour (Auckland University of Technology Radio), The Herald, The Dominion Post, Sunday News, The Aucklander, Waiheke Market Place, Postgrad News, The University of Auckland News, Caclin, Capital Times, Chaff, Challenge Weekly, and the NZ Freemason's Newsletter. Flyers (see appendix B) were also put up around several university campuses. Through these media, information was given to the public about the study and a request was made for "anyone over the age of 18 who has heard voices that no one else can hear" to contact the researcher at the university if they were interested in participating.

The definition of hearing voices was left relatively vague, because one aim of the study was to explore this phenomenon from the perspectives of the experiencers. Wittgenstein (1958) argued that usage determines meaning of a term. Therefore it seemed appropriate to let voice-hearers define this term themselves. Thus, anyone who considered that they heard voices was invited to participate in the project. For example, in one case, a man contacted the researcher

by phone explaining that he heard musical hallucinations and wondered if he would be an appropriate participant. Through discussion it was revealed that he did not consider these hallucinations to be voices, and therefore it was decided that he would not be an appropriate participant. All other potential participants who contacted the researcher with a similar query did consider themselves to be voice-hearers, and their descriptions of voices did appear to match verbal auditory hallucinations.

Two hundred and thirty-four people responded to the media request. All of those people who identified themselves as potential participants were sent a questionnaire (see appendix C and explication below). One hundred and fifty-four completed questionnaires were returned. The final question asked whether the person would be interested in participating in a face-to-face interview. Of the 120 (78%) respondents who replied in the affirmative, 50 were selected for the interview. Demographic characteristics of the questionnaire and interview samples can be found in the Results chapter.

The Quantitative Phase

The Hearing Voices Questionnaire

A 32-item Hearing Voices Questionnaire (appendix C) was developed to meet the requirements of the five overall aims of the present study. This was done in consultation with three Maori mental health workers, three Pakeha mental health workers, two consumer advocates and two voice-hearers, as well as drawing on relevant scales, measures and findings in the literature. Relevant scales and measures included the Mental Health Research Institute Unusual Perceptions Scale (Carter, Mackinnon, Howard, Zeegers & Copolov, 1995), Beliefs About Voices Questionnaire (Chadwick & Birchwood, 1995; Chadwick, Lees, et al., 2000). Launay-Slade Hallucination Scale (Launay & Slade, 1981), Rating Scale for Phenomenology of Hallucinations (Miller et al., 1993) and Interpretations of Voices Inventory (Morrison et al., 2002).

Some items in the Hearing Voices Questionnaire were taken directly from previously published scales, For example, items 6, 14 and 15 about voice identity and intrusiveness were adapted from the questionnaire that Romme and Escher (1989) used in their general population study. Most items, however, were constructed loosely around references in the

literature to important topographical characteristics, such as number, frequency, duration and location, as well as references to beliefs about the origin of voices and types of coping strategies. For example, item 20, which lists 16 possible explanations for hearing voices, was adapted from the outcomes of Jones et al.'s (2003) study of voice-hearers' understandings of their experiences, in conjunction with some of the items from the Interpretations of Voices Inventory (Morrison et al., 2002).

The questionnaire was divided into 10 sections: demographics of participants, topographical characteristics of voices, emotional impact of voice experiences, beliefs about voices, first experience of hearing voices, coping strategies, recreational drug use, experiences with the mental health system, help and support, and willingness to participate in follow-up interview.

The Hearing Voices Questionnaire was piloted on two voice-hearers. As a result of their feedback, item 18 was modified to include "amused" as a possible emotional response to hearing voices. The questionnaire was sent out to potential participants to complete, accompanied by an information sheet (appendix D) outlining the aims of the study, participant rights, and contact details for further help or information.

<u>Analysis of Quantitative Data</u>

Most items on the Hearing Voices Questionnaire required respondents to tick a box. The format of the questions meant that sometimes responses produced categorical variables. This was the case, for example, for questions about form, identity, and location. Other times, the responses produced ordinal variables. This was the case, for example, for frequency, duration and control. Ten of the questionnaire items, such as strength of belief about voice identity and effectiveness of coping strategies, required respondents to circle a number on a scale from1 to 7. These items also produced ordinal variables. Finally, some items required respondents to give a written answer. These items produced qualitative information that was not subjected to statistical analysis.

The software package SPSS, version 12.0.1 for Windows, was used to analyse the statistical data. Chi-Square tests were run for comparisons across categorical variables and Mann-Whitney U tests (non-parametric alternative of the *t* test) were run for analyses of categorical variables in relation to ordinal variables (Brace, 2003). Two items – age at time of completing questionnaire and age at onset of voices – produced continuous variables. Data

from these two items were therefore subjected to an independent samples t-test. To analyse the patterns of responses for explanatory models, a hierarchical cluster analysis was performed (Finch, 2005).   Finally, two logistic regression analyses were run for the categorical independent variables of emotional impact and contact with mental health services (Brace, 2003).

The Qualitative Phase

The Phenomenological Method in Qualitative Research

The method chosen for this study followed the structure provided by Giorgi and Giorgi (2003) and consists of six steps, which guide the phenomenological researcher from preparation for data collection to revealing the essence of the phenomenon.   However, it needs to be emphasised that this is only a basic structural outline of a phenomenological research method. In particular, steps four and five lack specific instruction regarding data analysis.   This problem does not appear to be limited to Giorgi and Giorgi's work. Indeed, Devenish found that "no universality has been achieved in locating a procedural method by which phenomenological studies have analysed their data and arrived at their final explications of the phenomena" (2002, p.2).

To remedy this lack of specific instruction, the researcher drew on thematic analysis. Thematic analysis is a qualitative method which involves sorting qualitative data into recurrent ideas or topics (Hayes, 2000, p. 173). As a method it is not bound to any pre-existing theoretical framework or epistemological position, and therefore can be used within different research approaches (Braun & Clarke, 2006).   Thematic analysis also has the advantage of being amenable to both inductive and deductive approaches. In the present study an inductive approach was used, meaning that the themes identified were strongly linked to the data themselves (Patton, 1990, p.7). Consistent with the phenomenological approach, the data was coded without trying to fit it into a pre-existing coding frame or within the researcher's own pre-existing assumptions.   More detail of this process is given in steps four and five below.

1. Bracketing of the Researcher's Assumptions

As suggested by the phenomenological approach, presuppositions derived from formal psychological theories and research findings related to the subject of hearing voices were

acknowledged and put aside. These are in evidence for the reader in the literature review. Through reflection, several personal presuppositions were also identified and put aside. These included the belief that voices are internally-generated phenomena and are not attached to real beings in the physical or metaphysical world and the belief that paranormal phenomena in general can be accounted for by scientific explanation. In addition, all presuppositions were put aside whenever they intruded into reflections during the stages of data collection, explication and description. For example, during the interview process, the interviewer acted as a naïve inquirer, guided by certain research aims but open to exploring themes around spirit guides, despite her own beliefs that no such entities exist. Further, the researcher described and discussed these themes at face value and did not attempt to psychologise or pathologise them.

2. Collecting the Verbal Data

A total of 120 people indicated in the questionnaire that they would be interested in participating in an interview about their voice experiences. From this sample, 60 potential participants were selected. All participants were not interviewed as it was deemed unnecessary to the aim of having a representative cross-section of the questionnaire sample to capture the full range of experiences. Due to the potential for the proportionally small number of Maori and other non-Pakeha questionnaire respondents to limit the cultural depth and diversity of data, all "Maori" and "Other" respondents were automatically invited to participate in the interview. The remaining potential participants were then selected based on their responses to the following 5 factors: identity, content, number of voices, emotional impact and gender of participant.

The 60 potential participants were contacted and sent an information sheet (appendix E) outlining the second phase of the study. Some people decided to decline the offer to participate in the interview, and others did not respond to the request. In all, 50 of the selected sample agreed to be interviewed. In accordance with ethical guidelines (see below), each participant was given the option of bringing a friend or family member with them. One person chose to have a support person present during the interview. Participants who identified as Maori were given the option of having a Maori interviewer. No participant took up this offer. Thus, the principal researcher was the interviewer in all 50 cases.

The interviews took place at the University of Auckland for those participants residing in Auckland and in the homes of participants residing elsewhere in the North Island. Those participants who travelled to the interview were offered up to $20 to cover their transport costs. No further incentives to participate were provided.

Before the commencement of each interview, the aims of the study and the interview process were outlined for the participant, and they were encouraged to ask any questions. The person then signed a consent form (appendix F), giving their consent to participate and to have the interview tape-recorded. Interview duration ranged from one to two hours, with most interviews lasting about an hour and a half.

All participants were given the option of stopping or pausing at any time throughout the interview. This offer was taken up by several participants, usually in the case of fatigue. Some concern had been raised at the planning stages of the study that voice-hearers might become particularly upset or uncomfortable talking in-depth about their experiences. However, several studies using this method with vulnerable populations found that participants did not experience any increase in distress as a result of the interview process (Frederick & Cotanch, 1995; Jones et al., 2003). Further, Geekie (2004) found that many of his participants were welcoming of the opportunity to discuss their experiences of psychosis, including hearing voices, in some depth. This finding was indirectly supported in the present study by the high number of questionnaire respondents volunteering to be interviewed. Further, although some participants became tearful during the interview, subjective reports and objective observation indicated that no participant left the interview situation in distress.

The interview was semi-structured in the sense that the interviewer had certain areas she wanted to explore (see appendix G) but was flexible in the order of the questions and their wording. In general, the interviewer asked open-ended questions encouraging spontaneous descriptions of voice experiences. If specific items of interest to the researcher were not addressed spontaneously, the interviewer asked about them directly, avoiding leading questions.

The areas and probing questions were developed by the principal researcher and piloted on two voice-hearers with very different experiences. Two changes were made as a result of the pilot interviews. Firstly, a question was added about whether the voices intruded on the

person's privacy. This theme is not found in the literature. However, it was of great importance to several participants, including one of the pilot participants. Secondly, one of the pilot participants, a long-time voice-hearer, user of mental health services and consumer advocate, commented that in her opinion it was inappropriate to ask participants about trauma without first warning them that this could be included as a theme for exploration in the interview. Because the goal of the present study was to explore voice-hearers' own understandings of their experience, rather than test hypotheses about causation, it was decided that the subject of trauma would be explored if the interviewee brought it up, but would not be introduced by the researcher.

3. Reading of the Raw Data

In line with the holistic approach of phenomenology, all interviews were completed and transcribed before the commencement of data analysis. Transcripts were read the first time through with the aim of achieving a global sense of the data. Again in accordance with phenomenological research protocol, the researcher worked to be mindful of and bracket her natural attitude, in order to move towards a transcendental attitude.

4. Dividing the Data into Parts

Once an overall sense of the descriptions had been achieved, the verbal data in the transcripts was divided into units of psychological meaning. This process followed the thematic analysis protocol provided by Braun and Clarke (2006). Firstly, initial codes were produced from the interview data. Each code identified a feature of the data that appeared to be related to the overall research aims. Using the software package N6 (NUD*IST, version 6.0), the researcher worked systematically through each transcript, coding for as many potential themes as possible. Data extracts could be uncoded, coded once, or coded many times, as relevant. Each coded data extract was inclusive – that is, with surrounding data if necessary to provide context.

5. Organisation and Expression of Raw Data into Themes

Once a long list of initial codes had been established, the researcher searched the codes to identify overarching themes, as well as sub-themes within them. Some themes appeared to be more obvious than others. For example, participants' descriptions of topographical characteristics of voices could easily be categorised together under the overarching theme of "topography" and sub-themes such as "content," "location," and "identity." Arriving at other

theme headings took more care and reflection. In these cases it was often helpful to use a thematic map – a diagrammatic representation of the possible thematic patterns.

Once a clear outline of candidate themes and sub-themes had been developed, these were reviewed and refined. This process occurred on two levels. Firstly, all coded extracts for each theme were re-read to test whether they formed a coherent pattern. In some cases, the candidate themes themselves were problematic and needed to be reworked. In other cases some of the data extracts simply did not fit within the theme and so were re-coded under another existing or new theme or discarded from analysis. Once the candidate themes appeared to adequately capture the coded data, they were reviewed and refined at a secondary level, that of the entire data set. All transcripts were re-read to verify that the candidate themes were an accurate representation of the data as a whole, and also to code any additional data within themes that had been missed in earlier coding stages. Finally, each theme was allocated a name which represented the data contained within it.

6. Expressing the Structure of the Phenomenon

The process of thematic analysis was adequate to meet the qualitative aspects of the first four aims of the present study, as they simply required organised descriptions of the meaning of the hearing voices experience. Many themes were identified that were representative of a large proportion of interview participants' narratives. However, not all themes could be accurately understood as "the most invariant meaning for a context" (Giorgi, 1997, p.246).

Thus, the fifth aim of the study required the researcher to go beyond organising and presenting the qualitative data into themes. It was also necessary to seek out and describe the essential structure of the 'hearing voices' phenomenon. Structure refers not only to the key constituents of a phenomenon but also the relationships among them. The process of thematic analysis allowed the researcher to become steeped in the data without becoming overwhelmed by the enormity and complexity of it. She was therefore able to see *intuitively* the fundamental meaning of the experience, "without which the phenomenon could not present itself as it is" (Giorgi, 1997, 246). The intuitively-derived model of the essence of hearing voices was developed by listing all those characteristics that seemed to be essential to the phenomenon. This list of seven characteristics was then tested out by going back to the raw data from the transcripts. Five characteristics appeared to represent the majority of participants' experiences and two did not so were discarded. A small number of participants' experiences did not fit

with the model. These experiences appeared to be qualitatively different from the others and are discussed in the results chapter.

<u>Reliability in Qualitative Analysis</u>

In quantitative approaches, the term reliability tends to refer to replicability. Yet for many qualitative researchers, the replication of results may be neither useful nor possible (Winter, 2000). This is particularly so when the research subject is as transient and complex as lived experience, or when researching human behaviour, which is never static. In these conditions, the same results might not be expected. Thus, it has been proposed that in qualitative research it is more appropriate to talk about 'dependability' or 'consistency' (Merriam, 2002, p.27).

Two strategies were used to improve the dependability of the present study. The first was triangulation, which involved the use of multiple data collection methods. A number of previous studies on the subject of auditory hallucinations have used this method successfully (Coffey et al., 2004; Lee et al., 2002). In the present study, questionnaires with a large sample provided a standardised approach to exploring multiple pre-defined constructs and comparisons across factors. In-depth interviews were then used to test the relevance of those constructs to lived experiences and to elicit any new constructs, or relationships between constructs that had not been incorporated into the questionnaire.

The second strategy used to improve dependability was peer review. This process involved colleagues scanning some of the raw data to assess whether the findings were plausible based on the data. The important aspect of this process is that the transformation of the raw data into units of psychological meaning makes sense to an independent auditor. Thus, certain aspects of the raw data were independently coded, and an inter-rater reliability score was generated. The principal researcher and the independent auditor then discussed any differences and changes were made accordingly, until both parties were in 100% agreement. Inter-rater reliability scores and examples of changes made are presented in the results section.

Cultural Consultation

In accordance with the principles of the Treaty of Waitangi, care was taken to ensure that Maori interests were appropriately represented in this study. Consultation with a Maori

consumer advocate and a Maori researcher was used in the planning stages and also towards the end, in the discussion and summarising stages.

Ethical Considerations

The present study was granted Ethics Approval by the University of Auckland Human Subjects Ethics Committee on the 17/11/2003 for a period of three years, from 01/11/03 to 31/10/06. Participants' names and other identifying information have been modified in order to ensure anonymity.

CHAPTER III: RESULTS

Introduction

This chapter outlines the findings from both the questionnaire and the interview data analyses. Firstly, the demographic data from the questionnaire and interview samples are presented. Secondly, in response to the first main objective of the study, the data relating to topographical characteristics of voices is presented. Most of this data comes from the questionnaires, although information from the interview transcripts is used to support and enrich the statistical data relating to voice identity and voice content. All subsequent sections follow this pattern of presenting quantitative findings followed by qualitative findings that add depth, breadth and sometimes novelty to the statistical information.

The third section focuses on participants' first voice-hearing experiences. This is followed by a section presenting data on participants' explanatory models, corresponding to the second main objective of the study. Section five presents results relating to the emotional impact of voices, in response to the third main objective.

In response to the fourth main objective, sections six and seven contain the results of analyses relating to coping strategies used by participants, and help and support they have received for voice experiences. Finally, in accordance with the fifth main objective, a detailed description of the essential structure of 'hearing voices' is outlined, supported by five example case studies from the interview transcripts.

Demographics

A total of 154 participants completed the Hearing Voices Questionnaire and 50 of these 154 also participated in the semi-structured interview. Demographic data for each of these samples are presented in Table 5. Some people chose not to respond to some of the questions, hence totals do not always reach 100 percent.

Table 5. Demographic frequencies and percentages for questionnaire and interview participants

Variable	Questionnaire Data			Interview Data		
Gender	Male 51 (33%)	Female 102 (66%)		Male 20 (40%)	Female 30 (60%)	
Age	Range 19-84	Mean 48		Range 19-84	Mean 49	
Ethnicity	Pakeha 130 (84.4%)	Maori 19 (12.3%)	Other 4 (2.6%)	Pakeha 40 (80%)	Maori 8 (16%)	Other 2 (4%)
Education Secondary school Tertiary entrance Tertiary completion	48 (31.2%) 32 (20.8%) 69 (44.8%)			16 (32%) 10 (20%) 22 (44%)		
Mental health service contact	Yes 84 (54.5%)	No 69 (44.8%)		Yes 28 (56%)	No 21 (42%)	
Psychiatric diagnosis None Not sure Schizophrenia spectrum Other psychotic disorder Dissociative disorder Depression Anxiety disorder Epilepsy Other	90 (58.4%) 9 (5.8%) 17 (11%) 11 (7.1%) 3 (1.9%) 12 (7.8%) 4 (2.6%) 4 (2.6%) 4 (2.6%)			24 (48%) 5 (10%) 6 (12%) 3 (6%) 1 (2%) 3 (6%) 3 (6%) 3 (6%) 2 (4%)		

As can be seen in Table 5, twice as many females as males completed the questionnaire. Respondents ranged in age from 19 to 84 years of age, with a mean age of 48. Most (84.4%) participants were of Pakeha or European descent, some (12.3%) were of Maori descent and a few (2.6%) did not fall into either category. These four people defined their ethnicity as Native American, Polynesian, and Asian. Few significant differences were found across gender and ethnicity for other variables in the study. These will be addressed within the context of each affected variable.

The overall level of education of the sample is relatively high. All respondents had some level of secondary education, and 44.8% of the entire sample held a tertiary qualification of some kind.

In terms of contact with mental health services, a little over half the questionnaire sample had experienced a therapeutic assessment and/or intervention. However, only 22% reported that their contact with mental health services was "somewhat related" to "very related" to their experience of hearing voices. At least a third of all participants had been given a psychiatric

diagnosis. The most common fell in the scope of the Schizophrenia spectrum disorders, followed by depressive disorders and other psychotic disorders.

Although 14% of the questionnaire sample reported that their voices were in some way related to the use of recreational drugs and 8% believed that they had experienced drug-induced auditory hallucinations, no participants reported only hearing voices when under the influence of drugs.

Finally, a comparison between the percentages given for questionnaire and interview data indicates that the interview sample was representative of the overall pool of questionnaire participants in terms of demographic information.

Topography

Descriptive statistics for some of the topographical characteristics reported by the 154 questionnaire respondents are presented in Table 6. Quantitative data from the questionnaires for each topographical characteristic (number, location, frequency, duration, form, control, intrusiveness, identity and content) were compared across gender and across ethnicity. Only significant differences are reported here.

The first topographical question asked the participant how many voices they heard. About a fifth (21.4%) of the sample heard only one voice, and about a tenth (11.7%) heard two voices. Almost two-thirds (64.3%) heard more than two voices, including 27.9% who experienced too many voices to count. Those participants who reported hearing more than one voice were advised to answer the remaining questionnaire items for their experience of hearing voices in general.

In terms of the location of the voices, just under half (44.8%) of the sample heard voices inside their head only. Almost as many (39.6%) heard voices both inside and outside their head, and only a small proportion (13%) heard voices outside their head only.

Table 6. Descriptive statistics for topographical characteristics of voices, as reported by questionnaire respondents.

Number	
One voice	33 (21.4%)
Two voices	18 (11.7%)
More than two voices	56 (36.4%)
Too many voices to count (large group or crowd)	43 (27.9 %)
Location	
Inside my head	69 (44.8%)
Outside my head	20 (13.0%)
Both inside and outside my head	61 (39.6%)
Frequency	
All the time	20 (13.0%)
Every day	48 (31.2%)
More than five times per week	9 (5.8%)
Between one and five times per week	18 (11.7%)
Less than once per week	49 (31.8%)
Duration	
The voices talk all the time, without pause	13 (8.4%)
The voices talk for hours on end	11 (7.1%)
The voices talk for half an hour to two hours at a time	11 (7.1%)
The voices talk for a few minutes to half an hour at a time	33 (21.4%)
The voices talk for less than a few minutes at a time	26 (16.9%)
The voices say only a word or sentence each time	50 (32.5%)
Form	
Acting as a helpful guide	94 (61.0%)
Commenting on my thoughts or actions	88 (57.1%)
Commenting on me as a person	66 (42.9%)
Commenting on other people	58 (37.7%)
Telling me what to do	80 (51.9%)
Talking or arguing with each other	42 (27.3%)
Other	52 (33.8%)
Control	
The voices only come when I want them to	9 (5.8%)
The voices stop when I want them to	26 (16.9%)
Sometimes I can control the voices, sometimes I can't	30 (19.5%)
I have little control over the voices	29 (18.8%)
I have absolutely no control over the voices	56 (36.4%)

About a third (31.2%) of participants reported hearing voices daily and about the same number (31.8%) reported having the experience less than once a week. Only a small number reported hearing voices all the time (13%) or more than once a week but less than every day (17.5%). Maori participants reported hearing voices significantly more often. They reported a mean score of 2.6 on the likert scale, compared to Pakeha participants who scored a mean of 1.7 ($Z = 2.574, p < .01$).

In general, the respondents indicated that their voices did not tend to talk for very long periods. Just under a third (32.5%) reported that their voices said only a word or a sentence at a time, and another third (38.3%) reported that each experience lasted less than half an hour. Only 22.6% of the sample reported hearing voices for more than half an hour at a time. Thirteen people (8.4%) indicated that their voices never stopped talking.

Participants were asked to identify the ways in which their voices talked to them by ticking all the possible responses that applied to them, as well as writing any other forms they may have experienced. Some participants reported only experiencing their voices in one form, but most experienced multiple forms of voices. The most frequently reported form was the voice acting as a helpful guide (61%), but almost as many people (57.1%) reported that their voices commented on their thoughts and/or actions. Voices were also experienced reasonably frequently as instructions (51.9%), comments about the person (42.9%) and comments about other people (37.7%). Just over a quarter of the sample (27.3%) heard voices talking or arguing with each other and about a third (33.8%) reported that their voices came in some other form. Examples of other forms described by participants include "giving me messages," "threatening me," "singing," "instinct" and "mumbling."

There were several significant differences in terms of the form of voices across ethnicity. Maori were significantly more likely than Pakeha to hear voices commenting on them (χ^2 (1, N=154) = 6.097, $p < .05$), acting as a helpful guide (χ^2 (1, N=154) = 4.653, $p < .05$), and talking or arguing with each other (χ^2 (1, N=154) = 10.076, $p < .005$).

In terms of perceived control, over a third (36.4%) of respondents reported having absolutely no control over their voices. About a fifth (19.5%) of the sample found that they could control their voices sometimes, slightly fewer (18.8%) reported having little control, and slightly fewer still (16.9%) found that they could stop the voices when they wanted to. Only 5.8% of the 154 participants reported that their voices only came when they wanted them to.

The questionnaire contained two questions regarding the intrusiveness of the voices. Participants were asked to rate, from not at all to completely, how much their voices disturbed their contact with others and how much the voices took over their thoughts. Figure 1 shows that over half of the respondents found that their voices did not disturb their contact with

others at all and only a small minority reported significant interference. Figure 2, depicting the degree to which people's voices took over their thoughts, shows a similar pattern.
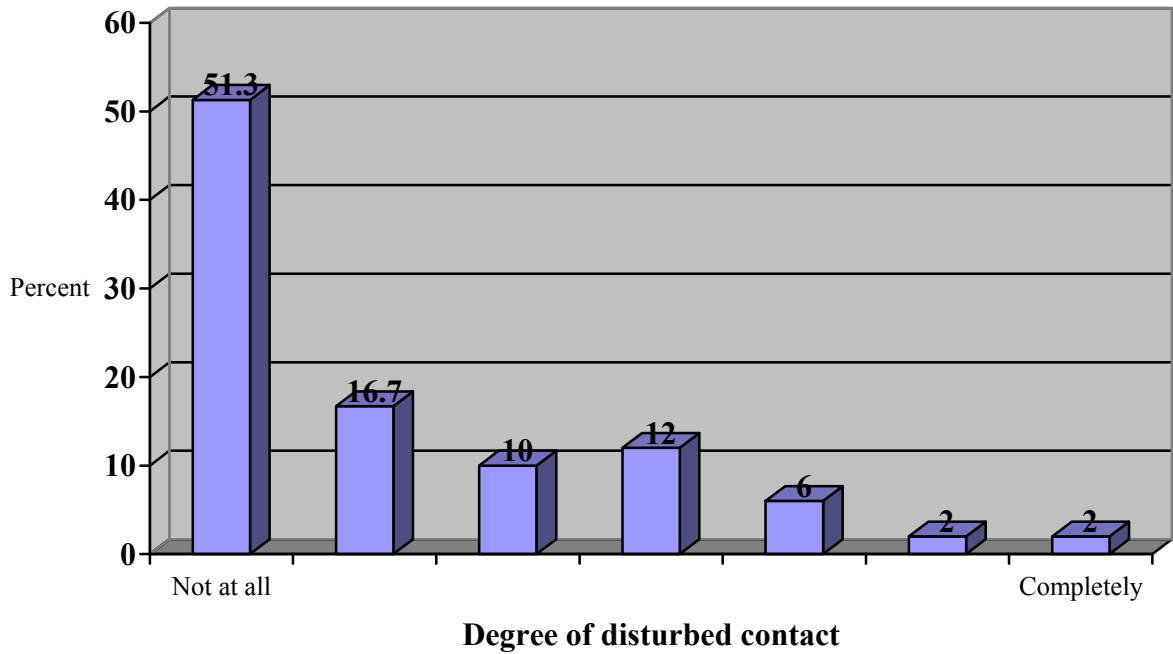
Figure 1. Degree to which voices disturb contact with others
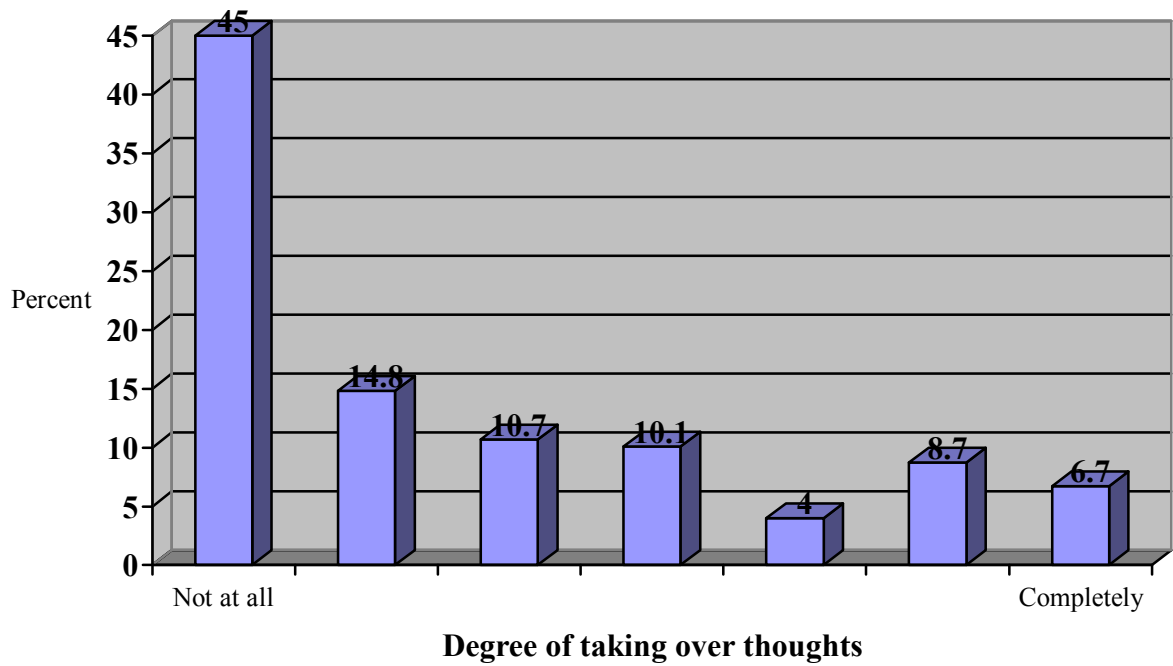
Figure 2. Degree to which voices take over thoughts

Identity

The vast majority (79.2%) of questionnaire respondents reported that they could identify who or what their voices were. Table 7 shows that just over half of the sample believed their voices belonged to people they knew or reminded them of people they knew and just over a third heard voices that belonged to people they didn't know. A little less than half of all questionnaire respondents reported hearing the voice or voices of some other type of being, such as a god, spirit or guide. About a quarter of the sample identified their voice(s) as some other type of entity not listed in the questionnaire, most commonly an inner voice or another aspect of their self. Other examples included "aliens," "animals" and "inanimate objects."

Table 7. Identity of the voices as reported by questionnaire respondents

I can identify the voices	122 (79.2%)
The voices belong to people I know or remind me of people I know	78 (50.6%)
The voices belong to people I don't know	53 (34.4%)
The voices belong to other types of beings, eg God(s), spirits, guides	70 (45.5%)
Other	39 (25.3%)

Although men and women tended to report hearing the same types of voices, some significant differences were found for ethnicity. Maori participants were more likely to identify their voices as people they don't know (χ^2 (1, N=154) = 5.274, $p < .05$) and as beings such as God(s), spirits or guides (χ^2 (1, N=154) = 3.954, $p < .05$).

Qualitative Data for Voice Identity

The semi-structured interviews allowed for a more in-depth investigation of the identities assigned by participants to their voices. Although 9 (18%) of the questionnaire respondents selected for the interview had reported not being able to identify their voices, further exploration during the interview revealed that all 50 interview participants had some ideas as to the identity of at least some of their voices. Thematic analysis of the interview transcripts revealed six categories of voice identity (see Figure 3). These ranged from significant people in the person's life, either living or deceased, to spirits and spiritual guides, parts of the

person's self and, less commonly, aliens and animals. Descriptions and examples from each category are detailed below.

Following qualitative research protocol, a reliability audit was carried out on the six categories of voice identity.   An independent rater coded 60% of the text data into these categories, and reached 95% agreement.   After discussion between the two raters, the coding of 2 text units was modified, so that 100% inter-rater agreement was reached. Further explanation of this process can be found in appendix H.

Living people

Almost half (22) of the 50 interview participants reported that at least one of their voices belonged to a living person.   In some cases (26% of all interview participants), these living persons were family members:

Alison: It's always one person, it's my mother… I really believed that she somehow had some kind of supernatural power.
Ian: Some of them would be family members. Some of them would be people who are friends even though they're not present. They're still living, but it feels like they can't talk to you face to face, but then you get their voice talking to you.
Ryan: A lot of the time it seems as though it might be like my sisters.

Several participants (8%) also reported hearing the voice of a friend:

Lisa: And last night a friend of mine, she's away at the moment, but I was up doing some work really late, at about two in the morning and she spoke to me out of the blue, 'Well what are you doing up this late at night?' and that sort of thing
Ben: The other one was an apparition of the living. That was Mrs Anderson. I was running down the back stairs of the house and she was standing in the garden below me. She said, 'Something's happened to my husband' and disappeared.

For other individuals, the voices belonged to strangers (16%) or to people they had met but did not know well (20%):

Makarere: It was not voices I didn't know, it was voices of those who were alive that had abused me that continued to abuse me so it was their voices.
Oscar: Oh just a Maori guy that I'd met on the street and we'd had a few drinks together in some seedy hotel with a lot of down and outs drinking together.

Parts of the self

Eighteen of the interview participants identified at least one of their voices as a part of themselves.   Further analysis broke this concept down into three categories.   The most common way for people to talk about voices identified as belonging to them was by referring to an inner voice or inner dialogue:

Chris: It's always been the same, it's what I call internal type dialogue.

Figure 3. Categories of voice identity for the 50 interviewees[1]

```
                                    IDENTITY
        ┌──────────────┬──────────────┼──────────────┬──────────────┐
  Parts of the self  Spirit guides  Deceased persons  Gods and      Living people        Other
     (36%)             (28%)        and spirits (54%)  prophets       (44%)              (60%)
                                                        (22%)
   ┌────┴────┐              ┌──────────┴──────────┐           ┌────────┬────────┬────────┐     ┌──────┬──────┬──────┐
 Inner    Higher self   Friends or          Unknown      Family  Friends  Acquaintances  Strangers  Aliens  Animals  Unspecified
 voice    (12%)         family(46%)         spirits      (26%)   (8%)     (20%)          (16%)      (6%)    (10%)    entities (54%)
 (14%)    Different          ┌──────┬──────┴──┬────────┐                                 (28%)
          parts          Christian  Higher   Pagan   Saints and
          of me (10%)    God (18%)  power    Gods    prophets (8%)
                                    (4%)     (2%)
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[1] As each interviewee could identify numerous voices, the percents do not total 1oo%.

93

Amanda: Now, the voices. Is it called an inner voice or a spiritual voice? It's not like you're talking to me where I can audibly hear you. It's a knowing, like when you're thinking to yourself, now which way do I go? Oh turn right. And it's like very natural, within your head.

Given that inner dialogue or talking to oneself is a common experience, and generally not referred to as hearing voices, the interviewer probed participants about how they differentiated between the voices and their own internal dialogue. Although each participant had difficulty explaining the distinction, they were all certain that there was a difference:

Rosa: I don't know if I can explain it really, but if it's me I'm really conscious that it's me, it's the same heaviness, I can't sort of explain it really. Same sort of energy or heaviness, that balances the conversation. When the voice says something it's a different balance. It feels very different to my own conversation. And it's quite loud. It's louder than my own self-talk. It's louder and more persistent. It's weighted differently than my own conversations. Because I still have my own chit-chat that I do.

Many participants referred to the voices as having a different tone from their own self-talk:

Oliver: It's a different tone.
Olivia: I guess it's the tone. Like, when I talk to myself it's like my normal voice, yeah, the way it sounds in my head. With them it's more like, even if it's my kind of voice it's not really the tone that I use, like the scales of the voice maybe.

One participant made the distinction based on the location of the voices, as well as the tone:

Cameron: The voices have a definite area. I mean, when I'm thinking, to me, all the action is in a sphere, somewhere in this area here at the front… The voices all tend to seem to come from the rear. It's as if it's always, like somebody standing just behind me or to my shoulder or a little off to one side… I know my thoughts. What I'm thinking has a particular pattern and a particular timbre and a particular approach, but the voices, and the music, all seem to have a sort of like, it's a different feel, it's a different sound. There's a different tonal quality to it.

Six participants identified their voices as belonging to their higher self or higher consciousness:

Zelda: I always took it to be something from within me, from the mediation, from the higher self. And I was quite familiar with that. You know, getting little messages from yourself, from your bigger self.
Ruth: I look at it as my Higher Self.

Despite the fact that only one of the interview participants had a diagnosis of Dissociative Identity Disorder, five people identified their voices as belonging to different parts of themselves. Cameron, for example, explained:

Cameron: They're part of me, but a slightly different part of me… So, the Guardian Angel is there, is the loving, caring, nurturing side of me.

Bella also experienced a number of different voices that she believed to be:

Bella: …facets of my personality, which is not quite integrated as it should be…It's like I've got someone sitting in my head. She's got ginger pigtails and she's in her teens. And she wears a check shirt and I can hear her talking. But at the same time, it's me.

<u>Deceased persons and spirits</u>

A total of 27 interview participants reported that at least one of their voices belonged to the spirit world. Twenty-three people recognised their voices as belonging to deceased friends and/or family members. In some cases the person had been recently bereaved:

Zara: And then the next day my uncle rang me and told me that my grandmother had died… I went and sat down there and I saw her… I sat there and I said goodbye and I heard her voice speaking to me and so that was really nice you know.

In other cases the participant heard the voice of a significant other many years after that person had passed away. Ziggy, who was in his early forties at the time of the interview, continued to hear the voice of:

Ziggy: Peter, who was a mate of mine, actually, but he's dead. He died of cancer when he was 17. We were in a band together.

Fourteen interview participants described their voices as belonging to spirit entities that were unknown to them:

Chloe: A lot of them were what I call spiritual voices, people that aren't particularly deceased or on the other side. The voices didn't always come from past spirits such as grandparents or aunties, uncles, people who have passed to other side that I've met on a physical level first.

Zelda had the experience of hearing a voice she did not recognise:

Zelda: We lived in a very old house, and the first night that we slept in that house, all of a sudden there was a very dark man sitting at the end of our bed wanting us to go. And I was scared. And he started screaming and shouting, 'Go away, you don't belong here' like that.

Zelda discovered afterwards that a man had died in that house many years before, and so she believed that it was his spirit that had come to her that night.

Half of the interview participants who heard unknown spirit voices specifically identified them as bad or evil. People tended to relate these voices to religious constructs such as the devil or demons:

Ilana: I've decided the only way I can describe them is to say they're animalistic. They follow the devil. Some of them are combined human and the devil in its hell.

Otis highlights the influence of contextual circumstances on people's beliefs about the identity of their voices:

Otis: Then I guess I interpreted the voice as the voice of like a devil or a demon, because I'd studied religion. So that's probably when I first classified what the voice was. The voice was a devil or anti-God.

A few participants who identified some of their voices as belonging to evil spirits also reported hearing the voices of good spirits:

Pamela: I'd started to think that demons were trying to possess me. I started to get interventions, demonic screams that were coming in from other sources and the nice voices that were helping me were having a

battle. This happened after several days of hearing the nice voices. Other demonic voices tried to intervene and I felt then it was a battle for good and evil going on inside me.

Spirit guides

Fourteen of the 50 interview participants identified at least one of their voices as belonging to a spirit guide. Although descriptions of spirit guides could be conceptualised as a sub-category of "Deceased persons and spirits," they have been allocated their own category because participants indicated spirit guides to be different in quality to other spiritual beings. For example, most participants who spoke of spirit guides agreed that each person on earth has their own unique spirit guide and that this guide serves the purpose of protecting, informing and advising the individual.

Often these participants had had contact with spiritual mediums or the spiritualist church, and it was through these sources that they had the identity of their voices revealed or confirmed to them. Henry, for example, explained how he had been hearing voices since childhood and had been searching for answers:

Henry: See, when I moved to London and I booked a lot of private sittings, and every single one of them basically told me about this American Indian who was my doorkeeper. This is the main spirit guide, guardian angel, but really that spirit that has very purposefully, very cautiously chosen to return to this world to work with one person only, that's me.

While most people identified having only one spirit guide, several participants reported hearing the voices of several guides. Chloe, for instance reported hearing the voices of:

Chloe: …people who are on what I call the other side, which is the other dimension of being. I have come across a number of other, spirit guides I call them, that come from various times in our history as well, that I don't feel any fear of them and that's why I allow them to come into communication with me.

Five people had seen as well as heard their spirit guides. Descriptions varied, but all visions were of guides that were older and male:

Belinda: My guide has wavy hair to the shoulders with a moustache and he's white, no shoes.
Ilana: He's older, he's got white hair so he's older and he's got very dark brown eyes, quite a prominent nose. He's got short hair and very tight curly hair, tight crinkly hair and very flat ears, quite small ears. Quite dark eyebrows and eyelashes.

Descriptions of spirit guides that were heard but not seen were sometimes vague. Those that were described in some detail varied in age and gender, but most were older and male

Gods and prophets

Eleven participants reported hearing the voice of God:

Henry: You feel like, well, I thought it was God, to be honest. Yeah, it was so overpowering as an experience, that it can only be God talking to me.

Janine: And I remember vividly, and I know maybe three was the earliest, but it feels younger, that I used to sit under there and God and I used to talk.

Most people referred specifically to the Christian God, although some expressed their image of the voice identity in a more general way:

Chloe: I don't know whether I have a solid perception of God as such, but a lot of people would relate my experiences to god-like experiences. I see it as being the universal voice, the creator, the divine force of energy that's all within our universe, the voice of the oneness, the voice from the heart, from the soul space as well.

Some participants also reported hearing the voice of prophets and saints such as Jesus and the Virgin Mary. One participant, who was of Maori descent, identified her voices as belonging to:

Makerere: *Atua* or Gods or God or, they are our *Tupuna* or our immortals.

No others referred to non-Christian Gods or religious figures.

Unspecified entities

Over half (27) of the interview participants heard at least one voice that they could recognise but not specifically identify. When probed by the interviewer, participants who reported these voices were unable to state whether they belonged to persons living or deceased, to spirits, to aspects of themselves or to some other realm:

Robert: So after that I heard another voice and this was really quite strong. It didn't belong to anybody that I can identify.

Rosa: It doesn't really feel like it's somebody that I know, the voice. It feels like it's somebody that I don't know but it feels like somebody who's around me all the time.

Participants tended to refer to these voices by their gender and/or what they would say:

Celine: When I was about 12, I started to hear other voices, and I started to get a very critical female voice and a very ridiculing male voice, who would sometimes do like tag-team stuff.

Zara: And so, but then I got this one voice come back and it was before I'd ever identified a voice and it was one voice and it was a male voice and it was a horrible voice.

Some participants also referred to these unspecified entities as strangers or unknown voices. In a few cases the voices were made up of crowds of unidentified people:

Patrick: Yeah it would be a thousand people all just talking to me and I ended up arguing with them so it was a full-on 24-hour argument almost you know.

Five of the interview participants identified at least one of their voices as belonging to an animal. In one case the person believed one of their voices belonged to an animal spirit called Mr Otter. In the other four cases, the person believed they were hearing a living animal:

Ryan: As I left the forest one of the birds said to me extremely clearly, 'It would be better if you were an atheist.'

Lisa: I heard my cat talk to me a couple of times. She said, 'Hello Lisa.' It happened as a child too, the cat did talk to me.

The other two types of animals identified were a possum and rats.

Aliens

Three of the interview participants identified their voices as belonging to aliens:

Zelda: I got to know that they, the speakers, were from another planet. And they were here to help me. And they were in contact with people from all around the world.

Strength of Belief About the Identity of the Voices

Although the qualitative data show that most participants had some ideas about who or what their voices are, data from the questionnaire indicates that people vary in their conviction that the voices are actually the voices of the persons or entities they had identified. Figure 4 shows that only 58.8% of those questionnaire respondents who reported being able to identify their voices were completely convinced of the accuracy of their judgement. A further 23.7% were at least somewhat confident in their belief, while 7.9% were not at all convinced that their voices actually belonged to the entities they had assigned to them.

The following are examples from the qualitative interviews that highlight the uncertainty experienced by many participants about the identity of their voices:

Oliver: It was actually like a, I called it at the time a higher voice but I don't know, it might have been you know like… It was just a different voice.

Ida: I don't know where that idea came from whenever it happens, it's that thought that I have, even though I've rationalised it that that cannot possibly be, but... I sort of thought that there was aliens outside that were trying to get into my head.
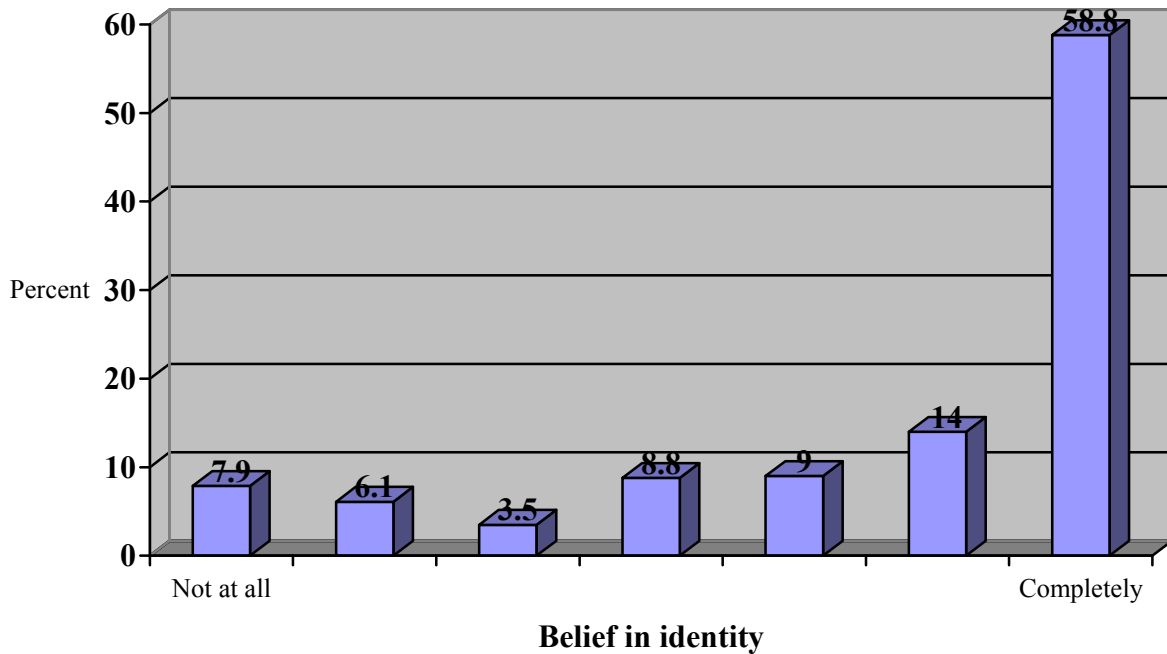
Figure 4. Strength of belief in the identity of the voices

<div align="center">Voice Content</div>

Questionnaire respondents were asked about the types of things their voices said. Because of the vast array of possible voice content, the question focussed on whether people heard mostly positive, negative or neutral things. Although participants were requested to tick the one category that best applied to their experience of hearing voices in general, 21 people ticked two categories. Therefore three additional categories were created, as can be seen in Figure 5.

Almost half (46.1%) of all the questionnaire participants reported that their voices said mostly friendly and/or helpful things. An additional three people reported hearing both friendly/helpful and neutral things equally often. About a quarter (24%) of all participants reported that their voices said mostly negative and/or unhelpful things. One person experienced negative/unhelpful and neutral voices equally often. Seventeen people (11%) appeared to be unable to choose between mostly friendly/helpful things and mostly negative/unhelpful things and so ticked both boxes. Therefore a new category, "varies greatly" was introduced. Finally, 13.6% of the questionnaire participants reported that their voices said mostly neutral things.
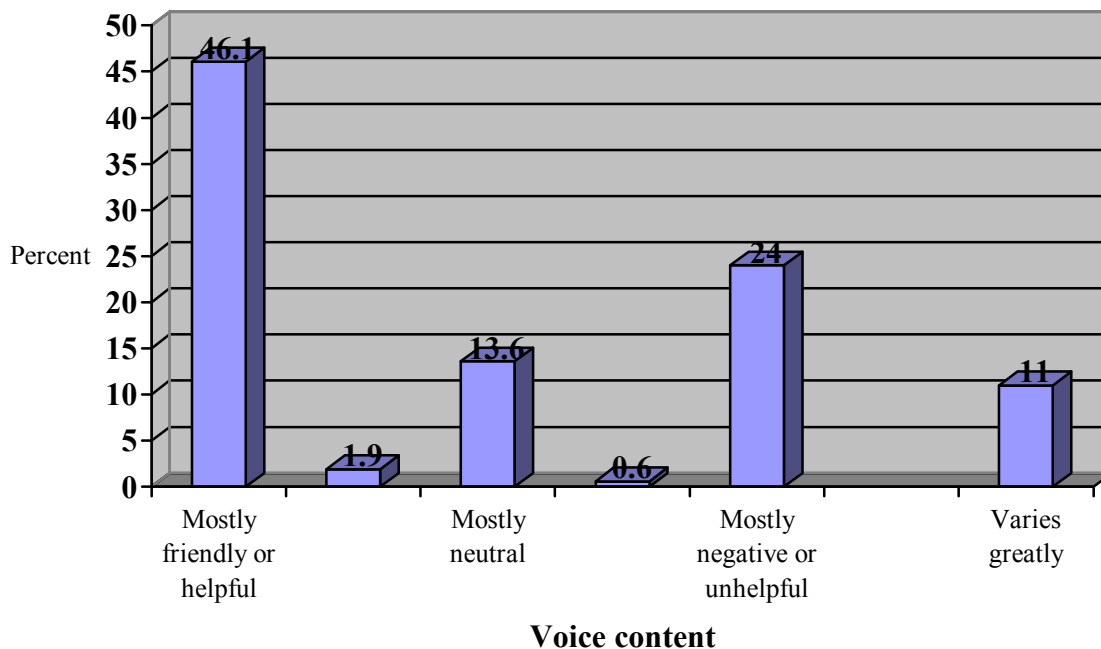
Figure 5. Types of voice content reported by questionnaire respondents

Qualitative Data for Voice Content

The interviews allowed for further exploration of the content of the voices experienced by the participants. An extensive range of voice content was identified, both within and across participants. Thematic analysis grouped the various responses into three major categories and 22 sub-categories (see Figure 6). Following qualitative research protocol, a reliability audit was carried out on the three major categories, "Positive," "Negative" and "Neutral and/or Ambiguous" content. An independent rater coded 25% of the text data into these three categories, and reached 90% agreement. After discussion between the two raters, the coding of four text units was modified, so that 100% inter-rater agreement was reached. Further explanation of this process can be found in appendix H.

It was apparent from the interview data that most people reported voices that fell into all three of the major categories, and very few interview participants reported only positive, negative or neutral voices alone. As Table 8 illustrates, this was indeed the case. No interview participants reported hearing positive voice content only, three interview participants reported negative content only and six heard neutral content only. One person heard voices that said both positive and negative things, six people heard both positive and neutral things and 12 people heard both negative and neutral content. Almost half of all the interview participants reported hearing positive, negative and neutral voices.

Figure 6. Categories of voice content for the 50 interviewees
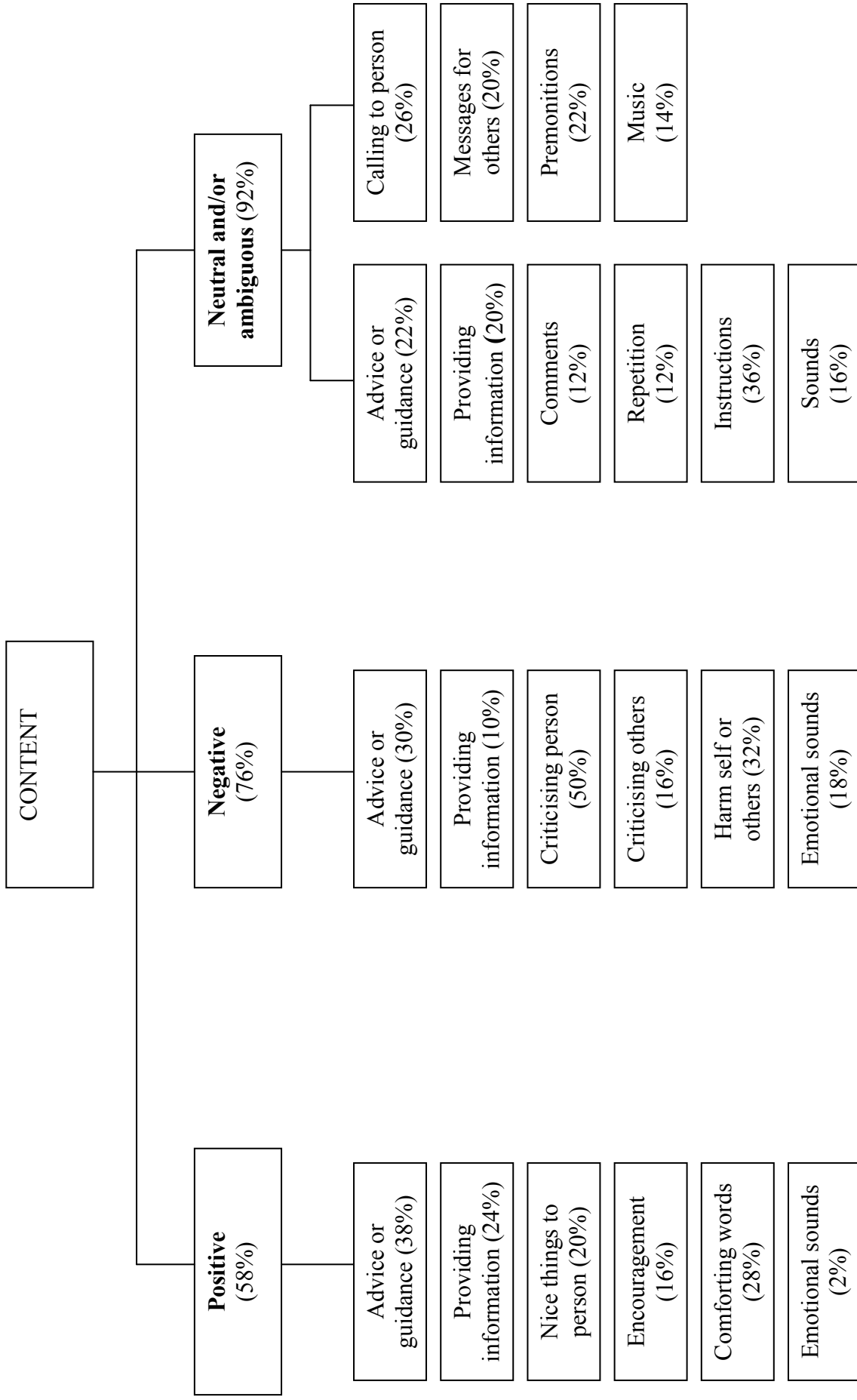
Table 8. Distribution of positive, negative and neutral voice content across the 50 interview participants.

Positive content only	0
Negative content only	3
Neutral content only	6
Positive and negative content	1
Positive and neutral content	6
Negative and neutral content	12
Positive, negative and neutral content	22

<u>Positive voice content</u>

Twenty-nine (58%) of the interview participants reported that their voices would say at least some positive things. For some people (38%) positive voice content would come in the form of supportive advice or guidance:

Rosa: I heard an outside advisory sort of voice that said 'Trust your instincts. If you don't feel that she's right coming here don't let her in. Trust you instincts on this one.'

About a quarter (24%) of the interview sample reported having had the experience of a voice providing them with positive or helpful information. In some cases the information was intended to lead to personal gain for the voice-hearer. This was the case for Ruth, who heard her deceased cousin telling her the name of a horse that was to win a race on which she was betting, and also for Diana:

Diana: Like, if I'm actually going into a store and I want something, one thing in particular and I've got to look through hundreds of things to get it… Say there is a top or pair of pants or something I want, I don't even know it exists, but I'll be told to go into the shop and it will be on a certain rack, in a certain place in the store.

Several participants were informed by their voices that someone they cared about had passed away but was in peace.   For example, Ben described the experience of seeing and hearing his godmother the night she had passed away:

Ben: She stood there, radiant, she was radiant and younger looking and she stood at the foot of my bed and she said, 'Benny, I have passed on, I have met my husband and all my friends and I'm very, very happy.'

One fifth of the interview participants had had the experience of a voice saying nice things to or about them:

Otis: I would often hear a male voice saying, 'You can do anything. You're unbelievable.'

Zara: I do have one that's quite a nice one that follows me round, and sometimes I'll hear it periodically all day going, 'I love you, I love you, I love you' and it's quite a nice one, you know.

Eight (16%) interview participants had had at least one experience of a voice giving them encouragement. Examples of this type of voice content include:

Kate: Come on, you can get yourself up after this.
Cameron: OK, that's great!
Ziggy: You're doing really well.
Robert: It was definitely my mother's voice, and I knew. I heard her say, 'You're going to win the competition' and again, like 100%, almost like 110% knowing that I was going to win.

Words of comfort were heard by 28% of the interview participants. Celine, for example would hear her fantasised adoptive mother:

Celine: She would say things like, 'Everything is going to be alright, you don't have to worry, try and go to sleep, rest your mind.' Just soothing sorts of things.

Yvonne, who suffers from epilepsy, would hear a comforting voice just before the onset of some of her seizures:

Yvonne: It was like somebody was talking to me like an angel or something like that was talking to me and telling me, 'You'll be alright.'

The last category of positive voice content is emotional sounds. Only one person reported a voice that fell into this category. She explained that she would hear a little boy's voice:

Bella: …giggling away in the background.

Negative voice content

Most (76%) of the 50 interview participants had experienced a voice saying negative things at least once. Only three people, however, heard negative voice content only. All the others had experienced at least one positive episode also.

About a third (30%) of the interview participants had received negative advice or guidance from their voices that were either unpleasant to hear or turned out to be counter-productive or unhelpful for the person.

Ilana: They sometimes try to encourage me to lie, shoplifting, none of which I've ever done because I understand that it's bad spirits telling me things.
Ruth: Half way through the night I woke up and I was given a message, 'Watch your back,' which is telling me I have to be aware, that something is going to happen and I have to watch my back.

A much smaller proportion (10%) of the interview participants had heard voices providing them with information of an unpleasant nature.   Anne would hear a male voice telling her when her family or close friends were in danger:

Anne: I remember one experience where my daughter had had an abortion. She would have only been about 15, and this voice told me. And I've had an experience just recently with my grandson, a voice telling me that he was in a car with a whole lot of (class A drugs).

Half (50%) of the sample had heard a voice criticising them. Alison reported hearing her mother's voice regularly putting her down:

Alison: When I make a little mistake over something, like I've misread the bus timetable and I find I've missed the bus or something, something quite trivial, and I will hear this voice saying, 'You're rubbish, you're no good, you're incompetent, you've got no common sense, I always knew you couldn't manage without me.'

Other participants reported abusive voices name-calling and using foul language such as 'slut,' 'bitch,' 'stupid,' and so on. Otis explained how his voices harassed him throughout his adolescence:

Otis: Constantly talking about defeat, failure, not measuring up, not living up, concepts of unworthiness, all sorts of things like that there. Huge amounts of stuff like that, 'No one loves you, no one likes you, you've got no friends.'

A much smaller number of people (16%) had heard voices criticising other people. Andrew has memories from his childhood:

Andrew: I heard voices that would say, 'He's a poofter, he's a poofter, he's camp, he's camp' and they used to say that about my father, too.

Quentin remembers the first voice he heard when he was a young boy:

Quentin: It was criticising Henry as being fat and a whole lot of personal criticisms of my friend's father…

Astrid also experienced voices that would criticise other people, although in her case, the voices seemed to want to protect her from harm:

Astrid: Well, if I'm talking to someone that she (the voice) doesn't like, she'll be telling me, 'Don't talk to him, he's no good' or, 'Stay away' or something like that.

About a third (32%) of the interview participants had experienced at least one voice telling them to harm themselves or others. Pamela, for example, had been harassed by nasty voices:

Pamela: They were really vicious and they were saying, 'Kill yourself Pamela, kill yourself' Really vicious.

Ian, who had experienced a very abusive childhood, starting hearing negative voices early on:

Ian: And any time I would get physically hit or abused, sexually or emotionally or let down, I would start to hear these voices immediately saying, 'Go and kill that person, he's evil, what he's doing to you, you should kill him.' It was like revenge.

Finally, 18% of the interview participants reported hearing negative or unpleasant emotional sounds. These included crying, laughing, screaming and hissing. For example, Alison, in reference to hearing her mother criticise and ridicule her, said:

Alison: What got me was constantly hearing her chortling with glee over what she'd done.
Celine: He was always laughing, not laughing in a good way.
Pamela: I started to get interventions, demonic screams that were coming in from other sources and the nice voices that were helping me were having a battle.

Neutral or ambiguous voice content

The large majority (92%) of the interview participants reported that at least one of their voices had said things that were neither obviously positive nor negative. This type of neutral or ambiguous voice content was categorised into one of 10 groups: advice and guidance, information, commenting, repetition, instructions, sounds, calling to the person, messages for others, premonitions and music.

Eleven interview participants heard advice or guidance that was neutral or ambiguous in nature. These differed from instructions in that they were more suggestive than directive:

Henry: At the time there were two girls, and one of them was my fiancée. I remember one instance when I was trying to sort out about that and the voice came and said, 'There is only her. Don't dream that there would be an alternative. There really is only one person.'
Makarere: I was in hospital after a serious accident and um I could remember the nurse beside me bawling her eyes out and I can remember my *Tupuna* say, 'This is your choice now, you can die if you choose.'

In some instances the suggestion was more light-hearted, as was the case for Bella who would hear a young girl's voice say things like:

Bella: Chocolate cake would be really good right now.

Ten of the interview participants reported at least one experience of a voice providing them with information that could not be defined as either positive or negative:

Zara: Like I used to work in a shop and I'd hear the voice and someone coming in and I'd hear the voice just say, 'birthday' and I'd say, 'Oh it's your birthday today,' and they'd say, 'Oh it is too!' Silly little things like that.

Although many voices were reported to comment in a positive or negative way on the person's thoughts or behaviour, 12% of the interview participants also reported hearing comments that were of a neutral or ambiguous nature:

Henry: I heard a lot of, I would say, trivial things. Commenting on the environment. Commenting on the equipment I was using, or trivial things.

Six (12%) participants experienced voices that would repeat certain words or phrases that, although they may have triggered a pleasant or adverse reaction, were not in themselves either positive or negative. Ida remembered that the first time she heard a voice:

Ida: It said, 'Batman and Robin' over and over again (Laughs). What does that mean?

Celine described her frustration with one of her voices:

Celine: He used to say useless things like, 'Do it!' But I didn't know what to do. It would just be like, 'Do it! Do it! Do it! Do it!' And then if I did something, 'Doesn't mean that, doesn't mean that.'

Instructions, directions and orders that were neutral in terms of their content were experienced by 36% of the interview sample. Examples include:

Rita: You'd be washing the dishes and they'd say 'Don't put the plate there, put it there.'
Oscar: She was commanding me to do things, particularly to masturbate four times a day and night and I was physically quite exhausted.
Olivia: Maybe when I'm studying for an exam, and they'd tell me to go study because I can be pretty slack about it… Like, 'It's about time you did that.' It wasn't really pleasant or anything but like you know it wasn't really bad either. 'Get out of bed,' 'Clean your room,' 'Go cook,' when I need to cook dinner.

 Just over a quarter (26%) of all the interview participants had had at least one experience of hearing their name being called, or someone trying to get their attention, when there was nobody physically present. Lee explained an experience that took place a number of years after his parents had passed away:

Lee: I was sitting having my breakfast and I just, some sort of presence or something, and I wondered what was going to happen, and then I heard this female voice, just my name, 'Lee.' And next, a man's voice and instantly I recognised my father's voice. And it was my mother's voice and they both said it twice. And I've never heard it since.

For two people in the study, the only voices they had ever heard was someone calling their name.

Ten interview participants reported receiving messages for others from their voices:

Ben: I was thinking of Ed, who was a chap at work and I was sending him healing because he wasn't too well and the voice says, 'I'm Linda, his wife. Tell him that Holly will be back, Holly will be back.' So I got to work and I said, 'Hey I had a funny experience, what's your wife's name?' And he confirmed it was Linda, and that she died.   I said, 'Who's Holly?' He said, 'Holly's my daughter, she's in Hamilton, Napier or something.' I gave him the message.

Ilana, who worked professionally as a psychic medium, explained that her voices could answer many questions for her clients:

Ilana: 'Will I ever have the opportunity to travel overseas?' is often a question people ask. 'Will I be successful getting this job?' Or 'I have the choice of three houses, which would suit me best?' All sorts of questions.

Eleven interview participants reported receiving premonitions or warnings from their voices. Ryan, for example, reported:

Ryan: I got up one morning and I sort of went out on to my balcony and I can't remember what triggered it off, but the voice said to me, 'That will be the Council worker,' and an hour or two later a Council worker showed up to do a job on the flat. The thing is, he was about two weeks late.

Diana heard a voice for the first time when she was a young girl:

Diana: On that particular occasion I was told basically all the major events that were going to happen in my life up until the age of around 35, everything.

In her late twenties at the time of the interview, Diana confirmed that almost all of the foreseen events, which included a serious illness and a connection with the Middle East, had come to pass.

Many of the interview participants described the content of one or more of their voices as sounds and/or music. These were in all cases, however, additional to verbal content. Eight people identified sounds, such as rustling, banging and ringing:

Ziggy: I had these sort of scuffling or shuffling, and I think about it as rustling sounds. I call them rats.
Zara: Then I heard like a loud engine noise and I'm like whoa. It was like outside of my head like it was like outside like there was a big wind whooshing everywhere and I'm like, well, you can imagine what I was like.
Lisa: When I was in hospital… I would hear a group of voices outside the window and there'd be no one there and they'd be knocking on my door and stuff like this.

Seven of the interview participants reported hearing music. In most cases the person heard songs that they recognised, with both the instrumental and vocal components:

Cameron: I'm actually hearing a tune. It's the BeeGees, 'You Win Again.' I don't know why.
Lee: It was always singing. Sometimes I couldn't understand what it was singing. And what they were singing, it sounded sort of like John Brown's Body and Silent Night.
Clara: One is, and it's much more commonplace, and it surprises me, is that I hear in the form of choral music in several parts, hymns… Sometimes with organ accompaniment, sometimes with orchestral accompaniment, but you know, it's usually quite lovely and I can listen and I can admire the harmonies.

First Voice-Hearing Experience

Age at First Experience

Data from the 154 questionnaires show that the age of onset for hearing voices can vary greatly across individuals (see Figure 7). Some participants reported that they had heard voices ever since they could remember, a great number had their first experience in early childhood, and one participant reported that her first experience took place at the age of 79 years. The mean age at first experience was 21 and the mode age was 5. The majority (66%) of questionnaire respondents started hearing voices before the age of 26.
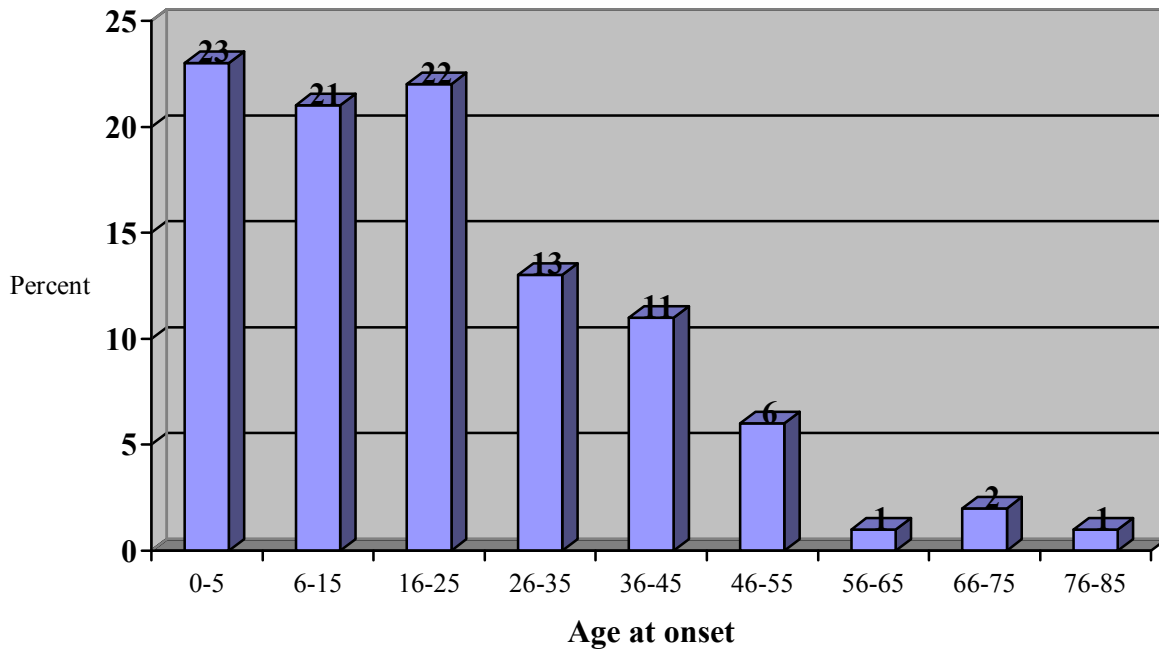
Figure 7. Age of participants at first experience of hearing voices

<u>Content of the Voices at First Experience</u>

Because some of the questionnaire participants had started hearing voices from a very young age, not all were able to describe their first experience. From the responses of those that were able to remember, it was evident that the content of the voices varied greatly. As Figure 8 shows, of the 142 people that could remember their first time, about half (50.7%) reported that the first words were more positive than neutral or negative. A large proportion (39.4%) of participants reported that their voices said "mostly friendly or helpful" things the first time. Almost a third (30.1%), however, reported that the voice content was moderately to extremely "nasty or aggressive." Only 18.3% of participants reported that their first voice said mostly neutral things.
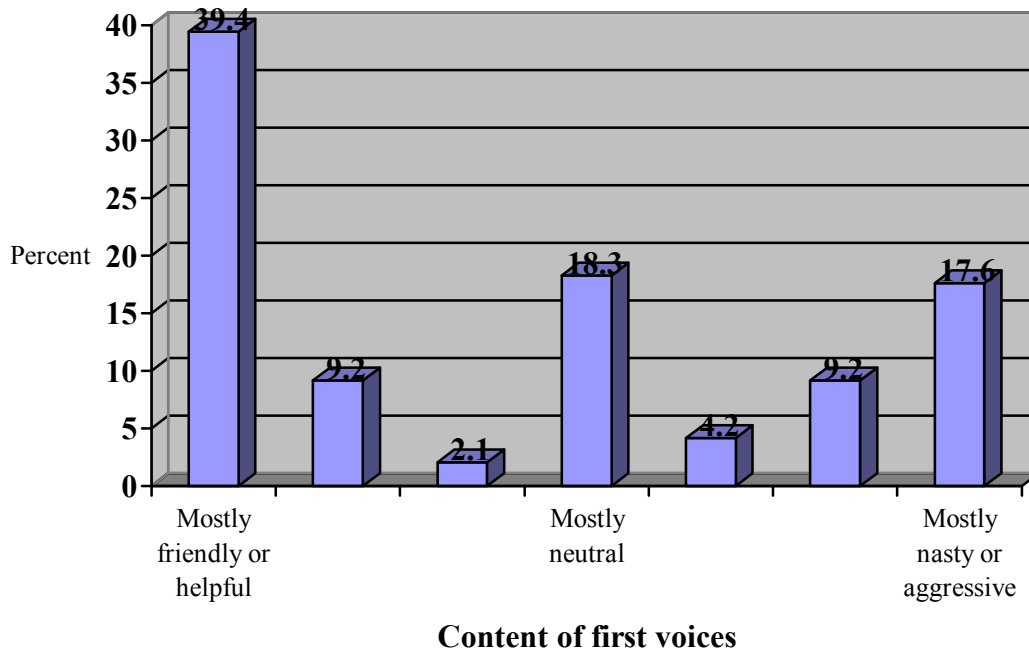
Figure 8. Content of voices for first voice-hearing experience

<u>Emotional Reaction to the Voices at First Experience</u>

One hundred and forty-three (93%) of the 154 questionnaire respondents could recall their emotional reaction to their first voices. Again, reactions varied greatly, but, as Figure 9 shows, do not tend to follow the same pattern as the reports of voice content. Although about half of the sample heard positive things, only about a third (31.5%) had a positive reaction to the experience. Over a quarter of the sample (26.6%) had an extremely negative reaction, despite the fact that only 17.6% of the participants reported extremely nasty or aggressive content. Almost another quarter of the sample (23.1%) reacted in a neutral manner, reporting the experience to be neither particularly upsetting nor positive.

Emotional reaction to first voices
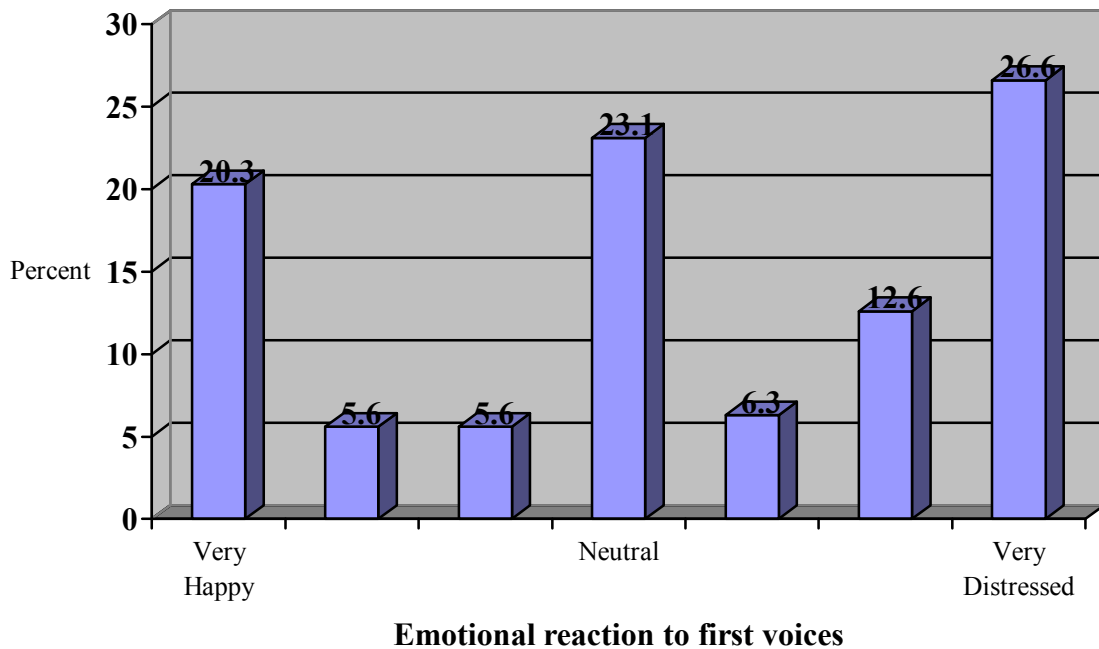
Figure 9. Emotional reaction to first voice-hearing experience

The following are some examples of first voice experiences reported by interview participants:

Ilana: I was sitting in the sun one day and I have never had such an experience before, but I heard this voice say to me, 'Good afternoon dear. My name is Theo, my master is Lord Jesus Christ and I am your true guide.'

Ryan: Anyway, I went out to the country on my own in my van, smoked a joint. The air filled with bat-wing patterns, and I thought, 'Wow, marijuana does that?'… It's more of an LSD-type experience. In fact, that's what I thought. And then a moment later a voice said, 'Now we've got you,' and they haven't stopped talking since.

Otis: I can remember maybe being about three or four and hearing a voice. It was a negative voice and it was telling me negative information. Very, very negative. And I remember crying and being distressed.

Ruth: I was travelling home, London to Bombay on a bus trip. And it was in Jerusalem and we went into the Madonna on the Rock, which is an Islam Cathedral, but it's built on the site of the Temple of Jerusalem that was pulled down by the Romans… And so I was standing there and I had put my hand on the rock and this voice said, 'Keep your life clean.'

Significant Events Preceding the First Voice-Hearing Experience

Over half (57.8%) of the participants who completed the questionnaire recalled a significant event taking place shortly before their first voice-hearing experience. A third (33.8%) of participants reported no such event occurring and seven people (4.5%) could not remember either way.

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Of the 89 participants who did recall a significant event, only 6.7% reported that event to be positive and 10.1% reported the event to be neutral (see Figure 10). For the vast majority (81%) of those who had experienced a significant event shortly before the first time they heard voices, that event was negative.
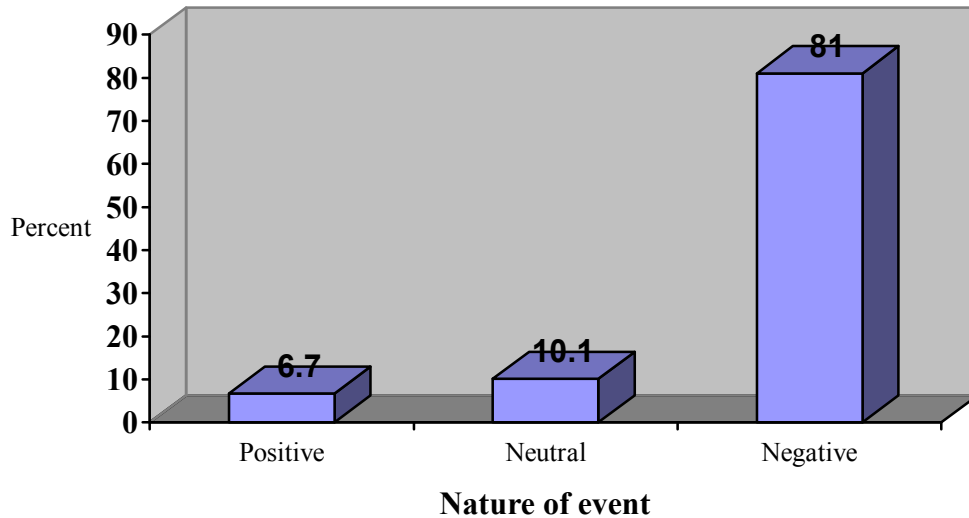
Figure 10. Nature of the event preceding first voice-hearing experience

The following examples illustrate the types of events reported by interview participants:

Ian: There was a person in that home that sexually abused me. I started hearing voices, like I'm going to be killed by this person, this person's going to do all sorts of things to me… I started hearing voices the second night that this person - I knew this person was gonna come in and do what they were gonna do and that's when I started hearing the voices.

Ziggy: Well, what I heard initially was sort of scratching, rustling sounds and I'd look around and there'd be nothing there, and I'd wonder what this is… I decided that these sounds, these were rats scratching away, maybe in the walls or something. I was trying to work out what it was. And that was linked to a time, at that time when in my work, sort of manual work, at a factory. I came across a bunch of rats nesting with babies and I knocked them on the head with a hammer. I was pretty upset about doing that because I was sort of a pacifist at the time. So I think that was part of the trigger. It was in a context of, almost the last straw I suppose, of a whole range of things that were going on.

Makarere: I was very close to my adoptive Grandmother… There was no illness, nothing, she died in her sleep… but that night I remember her coming to me and waking me up and she was in the doorway and I can remember her saying, 'Everything will be okay. I'm here for you.'

Quantitative Data for Ways of Understanding Voice Experiences

Voices as Distinct from Internal Dialogue

Four questions in the Hearing Voices Questionnaire addressed the subject of how people understand their experiences of hearing voices. The first asked participants to rate the extent to which they believed that their voices were their own thoughts. As Figure 11 illustrates, almost half (46.9%) of the questionnaire sample believed with complete certainty that their voices were distinct from their own thoughts. The majority (71.4%) were at least somewhat convinced of this. Only 6.3% of participants reported believing completely that their voices were their own thoughts, although 21% indicated holding this belief to some extent.
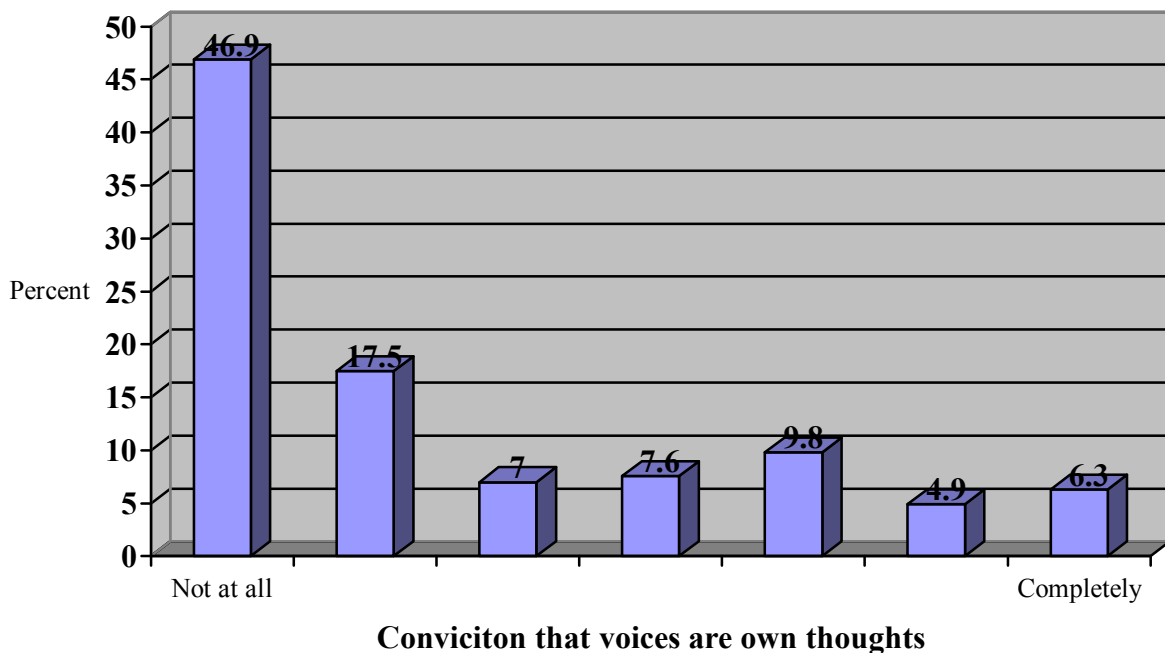
Figure 11. The extent to which participants believe that their voices are their own thoughts

Voices as a Culturally Normal Experience

The second question asked participants whether they believed that hearing voices was a normal experience in their culture. As can be seen in Figure 12, most people (71.3%) did not

consider hearing voices to be a culturally normal phenomenon and only ten people (6.8%) believed it to be a completely normal experience. Written comments on the questionnaire indicated that many participants themselves did not consider their experience to be abnormal, but believed that the majority of people around them thought it was unusual and undesirable.

There was a significant difference between the responses of Maori and Pakeha participants to this question. The mean score on the likert scale for Pakeha was 2.26 and the mean score for Maori was 4.63 (Z = -4.617, df = 20.382, p < .005), indicating that Maori were significantly more likely to consider hearing voices to be a culturally normal phenomenon.
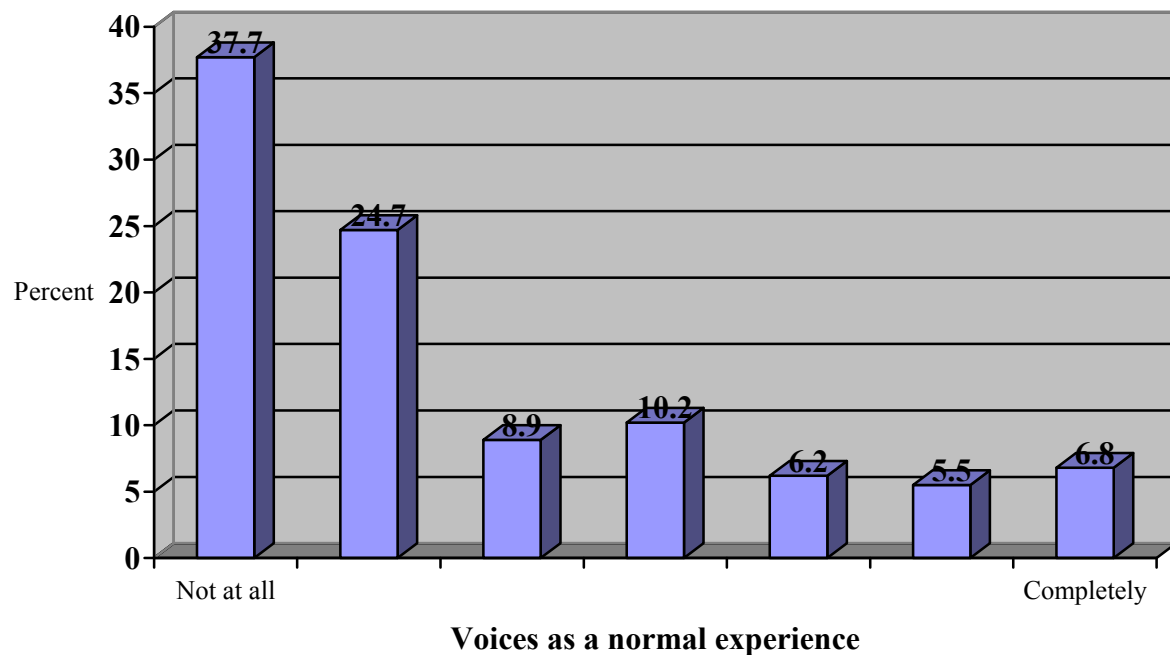
Figure 12. The extent to which participants consider hearing voices to be a normal experience in their culture

Voices as a Consequence of Adverse Experiences

The third question concerning explanatory models asked participants to rate the extent to which they believed their experience of hearing voices was due to difficult or traumatic life events or situations. As Figure 13 illustrates, responses to this question tended to be more variable than responses to the previous two questions. Just over half (61.4%) of the questionnaire sample were not strongly convinced of a causal connection between difficult life

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circumstances and their voices. This included 28.3% of participants who did not at all believe in any such connection. Well over a third (38.6%) of participants, however, scored above the mid-point on the likert scale, suggesting they held a more than moderate belief that their experiences were due to adverse life events.
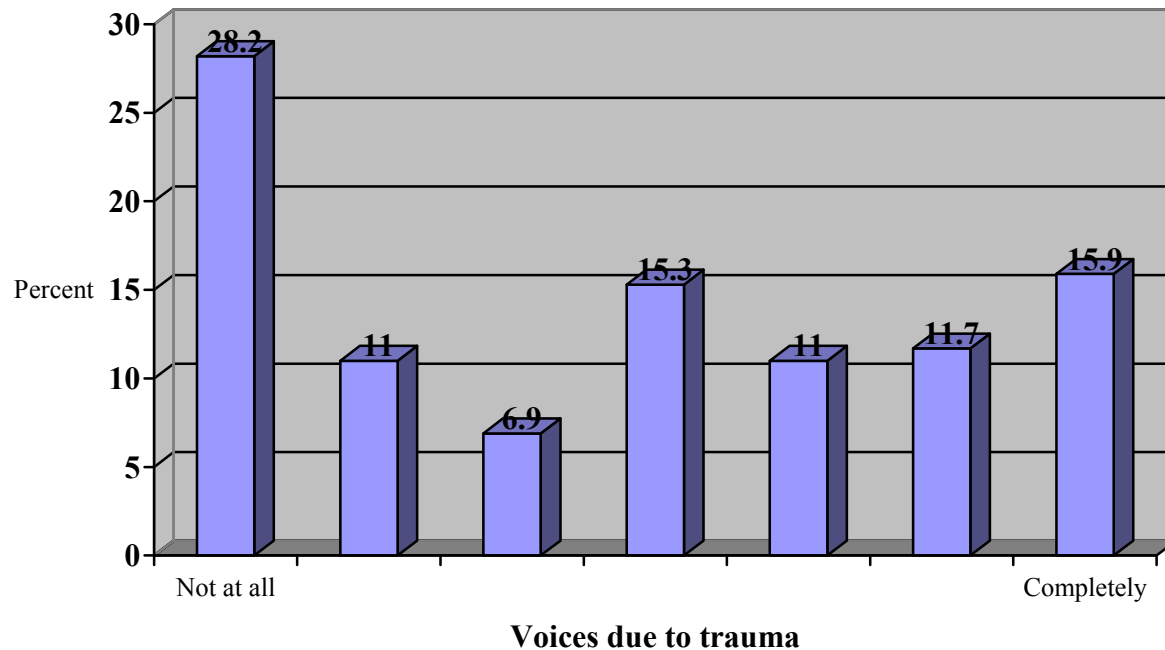
Figure 13. The extent to which participants believe that hearing voices is due to difficult or traumatic life events or situations

Other Possible Explanations For Voice Experiences

The fourth question provided respondents with a list of possible explanations for why they hear voices and requested that respondents indicate all of the explanations they considered relevant to their experiences. This list is presented in Table 9, accompanied by the frequency and percentage of participants who reported believing that the explanation applied to them.

The most frequently recorded explanation defined hearing voices in the context of a spiritual experience. Other common explanations included the voices providing support, the voices as a part of the person and the voices as a consequence of traumatic or stressful life events. Only a small proportion of participants considered their voices to be the result of biological factors such as a brain disorder or drug use.

Table 9. Frequencies and percentages of participants indicating possible explanations for their experience of hearing voices and cluster membership for each item

Explanation	Frequency	Cluster	Male	Female	Maori
I am having a spiritual experience	66 (42.9%)	1			
The voices come to me to support me in my times of need	57 (37.0%)	1			
The voices are part of myself, but not the same as my thoughts	51 (33.1%)	1			
The voices are a consequence of traumatic or stressful life events	50 (32.5%)	2			
I am special/I have special abilities	43 (27.9%)	1			
Everyone hears voices, but not everyone knows/admits it	41 (26.6%)	1			***
I hear the voice of a loved one who has recently passed away	36 (23.4%)	1		*	*
I inherited it from my parents/ancestors	35 (22.7%)	1			***
The voices are a symptom of a mental illness	32 (20.8%)	2			
The voices help me cope with my emotions	24 (15.6%)	1			
The voices are replays of conversations I have had in the past	22 (14.3%)	2			
I have done something bad and this is punishment	20 (13%)	2	**		
My ancestors are talking to me	19 (12.3%)	1			***
The voices are a consequence of difficult relationships I have experienced	18 (11.7%)	2			
I have a brain disorder or brain disease	15 (9.7%)	2			
The voices are a result of my drug use	12 (7.8%)	2	***		
Other	70 (45.5%)				

Significance levels for comparisons across gender and ethnicity: * .05, **.01, ***.001

Almost half of the questionnaire respondents indicated believing that their voice experiences were due to some reason not listed in the questionnaire. Example responses include: "I have telepathic abilities," "The voices result from over-zealous doctors who think prescribing vast amounts of pills is the answer," "I hear voices because I listen," "Maybe my subconscious takes on an entity" and "I have no explanation."

A number of significant gender differences were found for this question. For example, significantly more women (29.4%) than men (11.8%) believed they were hearing the voice of a loved one who had recently passed away (χ^2 (1, N=154) = 5.885, $p < .05$). Men, however, indicated a preference for viewing their experiences of hearing voices as a consequence of their own actions. For example, significantly more men (23.5%) than women (7.8%) believed that their voices were a form of punishment for past acts (χ^2 (1, N=154) = 7.362, $p < .01$) and

significantly more men (17.6%) than women (2.9%) understood their voices to be the result of drug use (χ^2 (1, N=154) = 10.173, $p < .001$).

A number of significant differences were also found across ethnicity. Compared to Pakeha participants, Maori participants were significantly more likely to explain their experiences of voices as an inherited ability (χ^2 (1, N=154) = 17.127, $p < .001$), as their ancestors talking to them (χ^2 (1, N=154) = 25.532, $p < .001$), and as the manifestation of a loved one who had recently passed away (χ^2 (1, N=154) = 4.199, $p < .05$). Maori participants were also significantly more likely to report believing that everyone hears voices but not everyone knows or admits it (χ^2 (1, N=154) = 21.112, $p < .001$).

A hierarchical cluster analysis of all 16 explanatory model items was performed using the Dice method (Finch, 2005). Items most naturally fell into two clusters, which are presented in Table 9 above. When an analysis was performed for three clusters, only one item, "Drug use" fell into the third cluster. The results of the cluster analysis show that that people tended to explain their voices in terms of either spiritual models or psychological and biological models. That is, those people who endorsed a biological explanation were also likely to endorse a psychological explanation, but not likely to endorse a spiritually-based explanation.

Qualitative Data for Ways of Understanding Voice Experiences

Each interview participant was asked to explain how they understood their experience of hearing voices. Thematic analysis of the transcripts revealed three major categories of explanatory models: biological, psychological and spiritual. Each of these categories was made up of several more specific sub-categories (see Figure 14). A reliability audit carried out by an independent rater found an overall inter-rater agreement of 82%. After discussion between the two raters, the category definitions were clarified and the coding of 17 text units was modified, so that 100% inter-rater agreement was reached. Examples of disagreements and modifications can be found in appendix H.

Figure 14. Categories of explanatory models for hearing voices identified by the 50 interviewees
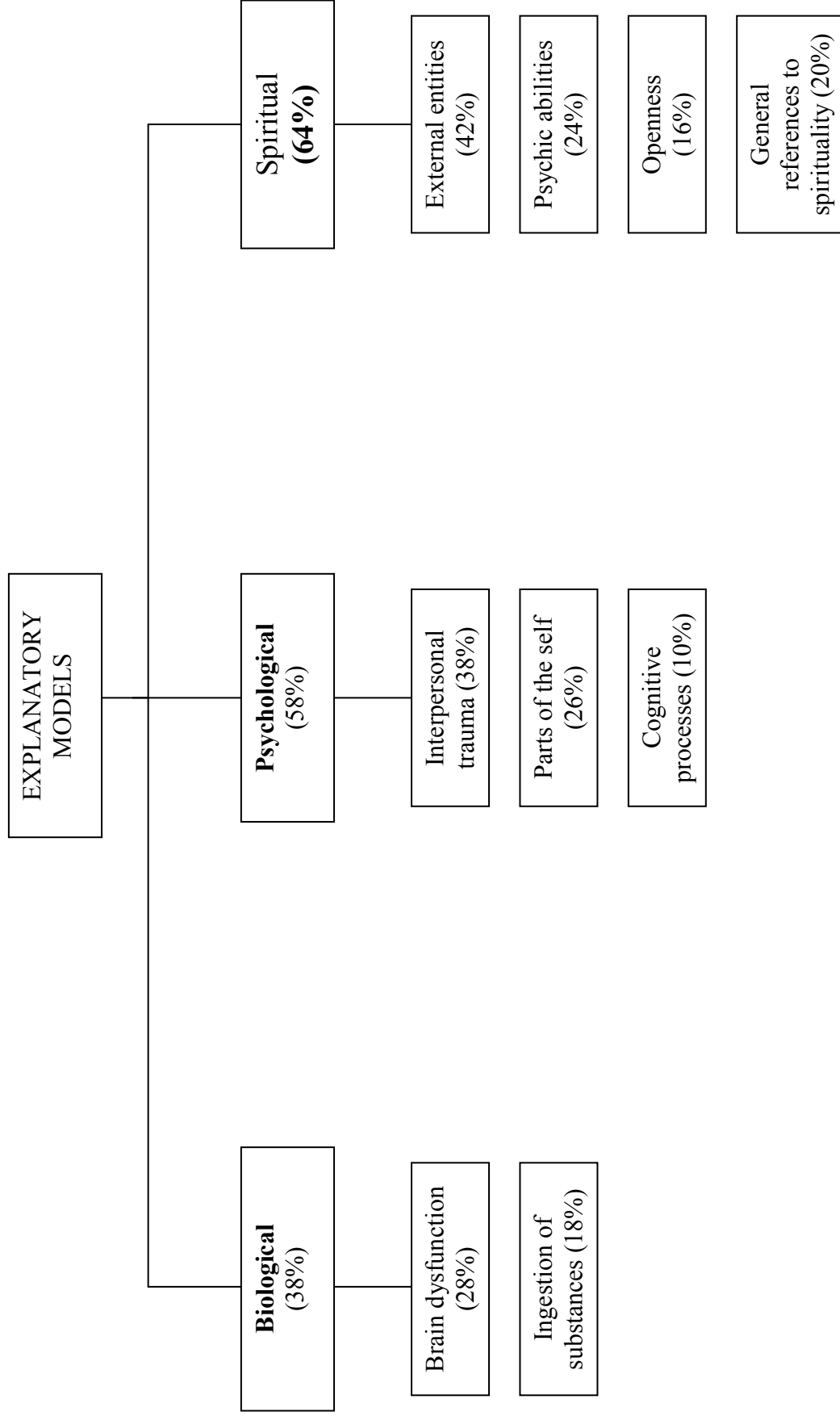
<u>Biological Explanatory Models</u>

      <u>Brain dysfunction</u>

Nineteen of the 50 interview participants referred to a biological understanding for their experiences. The majority of these explanations were related to the notion of brain dysfunction, such as that caused by mental illness, structural damage and epilepsy. Five people thought their voices were caused by a mental illness. Two of them referred more specifically to a chemical imbalance in the brain. Pamela, for example, who had been diagnosed with Schizophrenia, said:

Pamela: It's a chemical imbalance and people that hear voices should realise that. As far as I know, the only way you can get rid of them is medication.

Three people wondered whether their experiences were related to having received an electric shock. Zac believed there was a link between the electric shock treatment he received in a psychiatric hospital and his voices which began soon after. Clara and Jessica also considered electricity as a possible cause:

Clara: I also, very interesting thing, too, about this time, and I wonder if there is a link, but I had a really bad electric shock. I pulled out the iron, and I was thrown several metres back into a wall, so, yeah. That may have triggered it.

Jessica: I had copped a lot of electricity in my younger years, so whether it's something it did to my brain or something.

Four participants identified structural damage as a possible cause of their voices:

Clara: The other thing that possibly is a factor is that I lost my eardrum in childhood, my left eardrum, and therefore I have no sense of spatial sound recognition.

Otis: As I said, I was three months premature. Is this part of my brain that didn't develop because of that experience?

Three of the interview participants had a diagnosis of epilepsy and all believed their voices were related to this disorder:

Yvonne: These ones I hear are actually from the seizures. I only hear them when I go into semi-partial seizures.

Cecil, who was waiting for neurological confirmation of an epilepsy diagnosis, explained:

Cecil: The only thing I can think of is that in temporal lobe epilepsy, as with people with mild epilepsy, when they get stressed out they have a seizure. If I'm more stressed out the neurotransmitters in my brain respond to stress with false perception.

      <u>Ingestion of substances</u>

Hone, however, who also had a diagnosis of epilepsy, believed that his voices were not due to the disorder itself, but to the prescription drugs he had taken for it:

Hone: The voices that we're talking about is the conscience that's been turned up a few notches, because of foreign objects like pills, like alcohol, all those sort of things… And I back that theory up, you know,

when I had my (temporal lobectomy) operation in 1990, I was allowed to take myself off my medication, wean myself off my medication and as the medication left my system so did the voices.

Four other participants made a causal link between prescription drugs, such as anaesthetics and morphine, and their voice experiences. For example, Rita had some very negative voices after the birth of her first child and concluded:

Rita: It must have been the drugs.

Four participants believed that some of their voices were caused by their use of recreational drugs, such as marijuana and LSD. Makarere, who reported having both positive and negative voice experiences, believed that her negative experiences were due to drugs:

Makarere: I understand it as having changed my perceptions.

Otis also identified recreational drugs as a causal factor:

Otis: Marijuana straight away triggers the negative voice… The concept that it can produce paranoia. So possibly that voice loves to feed on paranoia, and it gives it free reign to come forth and bombard me with negativity.

Psychological Explanatory Models

Interpersonal trauma

Twenty-nine of the 50 interview participants identified psychological factors as the cause of their voice experiences. The most commonly cited cause was interpersonal trauma. This concept was referred to by 19 people and involved the idea that traumatic relationships or traumatic events either caused the voices or caused mental illness involving voices:

Jessica: I had a sexual abuse, I sort of base it on being sexually abused, but I've never actually done anything about that.
Alison: I'm sure they're an echo of her abusing me.
Ziggy: So the thing that I have worked out is that there is a link, there's a clear link that makes sense about, you know, my neighbour and the murder and my mum yelling and him trying to drown me.
Rita: But the trauma theory does make a lot of sense. I think that it's got to come out in some way. For some people it comes out in a physical way, it could be addictions, for some people voices.

Most participants were unable or unwilling to elaborate on the process by which adverse early experiences might lead to hearing voices. However, six participants referred to concepts such as conditioning and internalisation:

Patrick: I came to the realisation that those voices were all, they were aspects of repressed childhood or other things that I'd repressed. I sort of internalised my anger as I was growing up.
Makarere: It was stuff that was said to me as a very young child and it was stuff that I kept repeating to myself. It was not voices I didn't know, it was voices of those who were alive that had abused me that continued to abuse me so it was their voices.
Andrew: It started off with other people saying things about me and it's finished off with me hearing this voice in my head. That might be what it is."

Although only 19 interview participants described their belief in a causal link between significant adverse events and hearing voices, a total of 31 interview participants (62%) referred to being subjected to such events prior to or around the time they first started hearing voices. For the purposes of this study, trauma was defined as any event or series of events that the participant either labelled abuse or described in such a way as to suggest it had a significant and enduring effect on their life. More precise definitions as used in the literature were not appropriate as information about interpersonal trauma relied on unsolicited self-report. A reliability audit carried out by an independent rater found an overall inter-rater agreement of 81%. After discussion between the two raters, nine text units were excluded, and four were kept, so that 100% inter-rater agreement was reached. Examples of excluded text units can be found in appendix H.

Twenty-six (52%) of the 50 interview participants made reference to experiences of trauma in their childhood, before the onset of their voices. These covered a range of events, including being subjected to or witnessing sexual, physical and emotional abuse, traumatic loss, identity issues and significant physical illness (see Figure 15). In accordance with the feedback given during the piloting of the semi-structured questionnaire, participants were not directly asked whether they had been subjected to trauma. However, they were asked to give a brief summary of significant events during their childhood. When participants mentioned a trauma history this was acknowledged and participants were able to discuss the events in more detail if they thought it relevant to their experiences of hearing voices. Ten participants made references to sexual abuse specifically. Several of them requested that the interviewer not probe them any further and this request was respected. Ten participants described a history of physical violence in their childhood. Examples of reports of sexual and physical abuse are illustrated by the following extracts:

Astrid: I was sexually assaulted when I was 13 or14… There was sexual abuse in my past as well… My family's way of dealing with it was not to mention it, so I kept it all to myself and never spoke to anyone about the effects of it or anything.

Diana: But he (my father) was quite severe. Very, very difficult, very aggressive and quite violent and I was aware of this from a really, really young age and that's why I know I had those voices when I was really young… Maybe that was linked to the safety thing as well, that I needed something to get away from that pressure from knowing that my father just wasn't like other parents. Yeah, and I was afraid a lot because he made me feel that way.
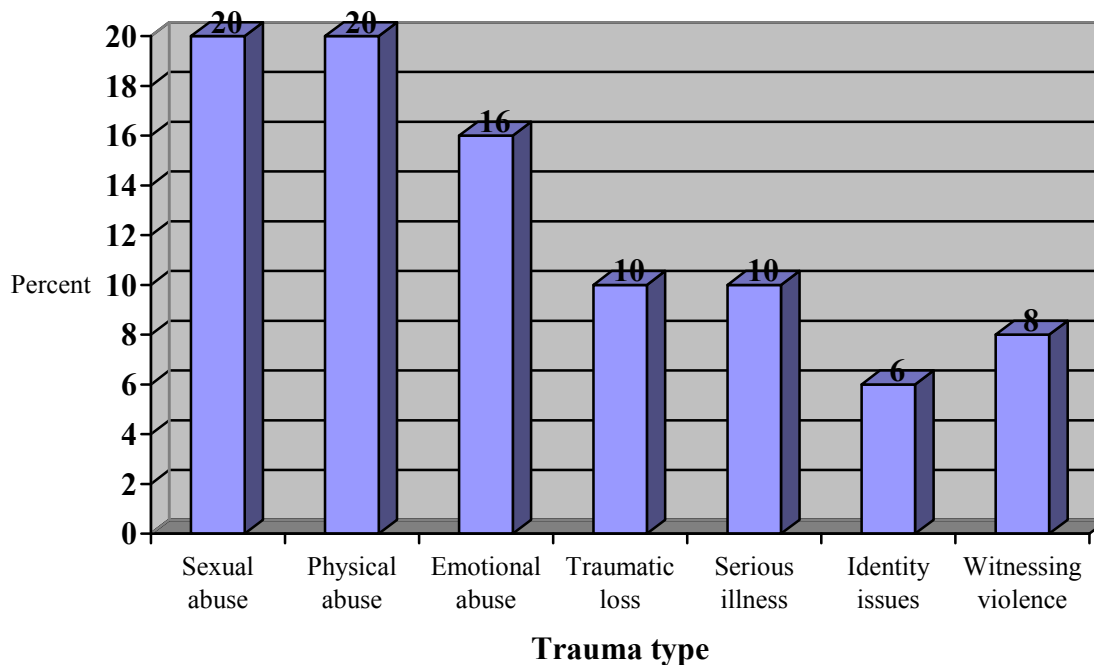
Figure 15. Types of childhood trauma reported by interview participants to have occurred prior to or around the time of voice onset

Eight participants reported being subjected to emotional abuse as children. Some participants were reasonably specific. For example, Anne explained how her family managed her epilepsy:

Anne: My mum didn't want people to know that I was blacking out. And that's because she thought they would put me in a mental hospital. And so when I fell down in front of her friends she would just pick me up by the scruff of the neck, kick me on the backside to make me walk, and I'd tumble, and she'd pick me up again and push me into the room and shut the door.

Other participants made more general references to emotional abuse:

Ruth: We didn't have any physical abuse, but we had it all underneath and to me that's just as bad or worse, and today they would call it abuse. But nobody dealt with it in those days.

Bella: I think the voices started as a safety mechanism. I had a mother who was psychologically abusive, sometimes physically abusive, though not so often. But very emotionally abusive.

Four of the interview participants described growing up in a violent household and witnessing physical aggression towards others:

Patrick: My father came home before mum and when mum got home he started laying into her just full-on beating her up.

Clara, who hallucinated the voices of people arguing, recounted:

Clara: My parents had a violent relationship… I'm the middle of three sisters, and I both witnessed a lot violence and received a lot of violence.

Five interview participants reported the traumatic loss of a parent in their childhood:

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Janine: My father left when I was four and came back when I was seven. And in that time that he was gone, my fretting for him was horrific and obviously his for me, the miss you things um for me were really hard. So yeah, often when I would go sit under the thing, I would see him, I knew he was there.

Five interview participants reported suffering from a serious illness as children. These experiences were identified as traumatic because they involved serious threats to safety, long hospital stays, and/or social isolation:

Otis: I was very, very sick. I never went to kindergarten, never associated with children or babies. That could have something to do with it.

Finally, three people referred to trauma related to their developing identities. This included issues around adoption, foster care and coming to terms with being gay. For example, Makarere explained:

Makarere: There is a lot of things that happened, like I was adopted away from my culture and my birth certificate was falsified and my ethnicity was changed so I'd be adopted by Pakehas, and um I was adopted by a very strict, repressive roman catholic couple who specifically asked for no Maori in this child and so because I was white enough, they got away with that.

In addition to the childhood trauma summarised in Figure 15, eight interview participants reported encountering trauma in their late teens or adult life, before the onset of their voices. For example, one woman recounted an extremely traumatic labour, which resulted in the death of her baby and significant physical injury to herself. She could not pinpoint the exact period in which she started hearing voices but thinks it was around this time. Another woman described how her voices began soon after a near-fatal car accident:

Ilana: The reason I was sitting in the sun was because I had been involved say five or six months previous in a very bad car accident which put me in hospital for a few months and I sort of took about a year to recuperate at home and it was a couple of months after I came home that I heard him, so I had plenty of time and my mind was totally empty and I suppose it was a good time for him to introduce himself to me.

Parts of the self

Thirteen of the interview participants explained their voices in terms of them being self-generated, as a part of their self or an alter ego:

Makarere: They were my negatives from the fact that I didn't love myself. I felt rejected and all of that, so that was all my demons basically within myself that were tormenting and attacking me and that was because I was doing it to myself.

Zelda: I always took it to be something from within me, from the meditation, from the higher self. And I was quite familiar with that. You know, getting little messages from yourself, from your bigger self.

Quentin: I'm sure the lower voice, if you like, was telling me to shoot the people on the other side of the hill, but I didn't. I went off and shot some rabbits. And I think that early reading of Freud probably helped because I was getting this higher voice-lower voice sort of concept.

Bella: I've always thought of it as being facets of my personality which is not quite integrated as it should be. That's how I've perceived it up to now.

Cognitive processes

Five participants linked their voices to abnormal cognitive functioning:

Cameron: My opinion of the voices is that there is excess mental operation.
Cecil: I always had an underlying assumption they were just part of, it was just my imagination being hyperactive.
Ryan: It's almost as though my ear hears a sound and for some reason or other the part of my mind that interprets the language, interprets the sound as language.

Spiritual Explanatory Models

Thirty-two of the 50 interview participants reported a spiritual model of understanding their experiences of hearing voices. Explanations were categorised as spiritual when the person believed that they heard voices because an entity or entities were actually talking to them, when they talked about having a special ability and when they made a general reference to spirituality underpinning their understanding of their experiences.

Communication with external entities

When asked how they understood their experiences of hearing voices, 21 participants responded by emphasising the existence of actual entities. For some people these entities were spirit guides and religious figures:

Brenda: There was just something about it that I knew that this was a spiritual higher authority speaking to me. That's all… that's what it was.
Kate: With what I've learned since then, I look back now and I could virtually say it was like God giving me this god almighty shake up, to get me well.
Quentin: I believe we have guides, either for right or wrong, and you attract the sort of guides that your nature attracts, and your nature attracts them according to the things you love most.

For others, the voices belonged to people they knew, either living or deceased:

Oliver: There are people I actually know and it's their voice I hear. Whether it's just my mind's representation of their voice or actually their voice, I can't discern but the impression, the feeling that I get, is that it's them.
Alison: I see her (my deceased mother) as being alive in some sort of, not physical, but in some kind of spiritual way, some kind of ways that she could manifest herself.

Spiritual explanations also include paranormal explanations involving telepathy and alien contact:

Zara: There are things like that are really bizarre and you do wonder and you think well maybe some people, maybe there's a telepathic link, maybe sometimes your mind crosses with someone else's and you see little snaps of their life or you hear little snaps of what they're hearing.

Oscar recalled hearing his father's voice when he was miles away from home:

Oscar: I was really dumbfounded. I thought my father had some kind of personal power, like what I'd read years previously in Carlos Castenada… I really thought my father had personal power of a degree which I didn't ever and wasn't ever likely to have, but I was really amazed at my father having this incredible

power to be there in this tree and tell me he wanted me to come straight home and that was an awesome experience.

Psychic abilities

Twelve participants understood their experiences of hearing voices as due to having a special gift or ability:

Ben: Because I'm psychic, psychic to a degree. Some people see, some hear, some sense, and I have it to a degree but it doesn't, not even once a year does it function, unless there's some urgency in it.

Oscar: One night in about 1974, I'd bugged on with some drug mates to the spiritualist church to an open circle, and there was this self-styled medium. He put his hands on my shoulders and he said, 'Son, I see that you're protected by a big white light all around you.' So I'd always felt, since then, that I was kind of a chosen one or some sort of protected one… some special gift and he could see me in a special light and I shouldn't forget that. And that was what I was sort of thinking when this young girl's voice came along.

Three Maori participants made a specific reference to Maori spiritual beliefs in helping them to understand their experiences:

Zara: I thought oh well you know maybe it's a Maori gift or something and it's just kind of coming to fruition.

Makarere: My mother told me that all the oldest women in our family have been *Tohunga* from a long time back and they all hear them. It's called *te taonga o te wairua*, the gift of the spirit.

Lisa, who had a diagnosis of Bipolar Disorder and had worked on developing her mediumship skills said of her voices:

Lisa: I know they might be say from all sorts of realms and it depends on your beliefs. Maori have a strong belief in life after death and where we go and things like this and as I said before, I'm a medium, but that doesn't mean to say because I have a mental illness that I can't be a medium.

Five other participants also made specific references to having psychic medium abilities, and three of these, all women, worked professionally as mediums. Kate believed that these abilities were accessible to all:

Kate: It's like all those beings that have passed over, they are all trying to communicate with us down here, but we don't know how to and we're scared of it. So once they find somebody who's open to communicating with them, it's like they're queued up to get through… You have the ability to do this. It's just whether you want to develop that skill. Everyone does, it's just whether they develop it.

Ilana, however, believed that she had been specially chosen:

Ilana: We each have one (a spirit guide) and if we're meant to be a medium our guide is someone who is a little bit more special than a guide of someone who's not going to be a medium in life.

Five participants reported believing that their ability to hear voices was inherited.

Ben: This is hereditary. My father had these experiences.

Amanda: I think it's hereditary, my grandmother did. My mum is, if she would let go of the fear… So I think it's a family thing.

Otis: As a young person she (my mother) could tap into the spiritual world and went crazy or whatever. I don't know the right word to explain the situation but she had to have this shock treatment to assist her in that traumatic period. Is this a gene she's passed on to me?

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Although Otis indicated that his mother may have suffered from mental illness, he emphasised the possible role of a gene which made her susceptible to communications with the spiritual world, rather than a gene which made her vulnerable to mental illness. All of the participants who referred to heritability did so within the context of the genetic transmission of psychic abilities, not of mental illness.

Openness to the experience

Eight of the interview participants reported that they heard voices because they were more open to the experience. These participants believed that contact with the spiritual world is something we are all capable of, but requires a willingness to open up to the experience. For some people this was about quietening the mind to allow the voices to come through:

Lee: But it will happen when my mind is more quiet, because I think with luck everybody can. If we can stop our minds then everything in the universe will open up.
Zelda: I think anyone can hear them if they maybe start paying more attention or start meditating, or start doing spiritual exercises.

For other people opening up to the experience involved chemical changes in the brain:

Makarere: It's almost, it might have even been that maybe drugs… because people said this in the 70s with LSD and all of this, is that it will put you into another space. It could be that it opens you up to the spiritual world, who knows?
Lisa: Science is proving that in some way the neurons in your brain, lack of shooting chemicals or whatever, there are biochemical changes in the brain that are happening anyway that predispose people more to hearing voices. But I would say that perhaps it just predisposes people to be a lot more perceptive to what's already there.

General references to spirituality

Ten participants made general references to spirituality when they were asked to explain their understanding of why they heard voices. Several people talked about the concept of intuition:

Olivia: If I was to relate a word it would be intuition. There would probably be a belief in and around it, also, based on the fact that I'm a spiritual person as well. I believe that there's more to life than just our conscious mind.

Other participants talked about the spiritual world and how their voices proved that they were in communication with that world:

Amanda: The most important thing is that there's a whole other spectrum, that there's like a whole other world out there that we're just not aware of, that our brains just aren't developed enough for some things, that we're unaware of a whole other spectrum of life beyond our physical. And it's like a spiritual energy, if you like, and that's how I would call it, that there's a whole other community of people out there who are willing to help. Whether it's angels, or what we call guides, or those sorts of things.

Although it is clear from the examples given above that many participants were uncertain about their hypothesised explanatory models, only one participant insisted that she really had no idea as to why she heard voices. All the other participants had at least some tentative explanations. Most participants held multiple notions, and some believed in contradictory ideas simultaneously. Eleven participants held firmly to one explanatory model of their experience. Nine of these were spiritual explanations, mostly related to having special psychic abilities. One person adhered to the psychological model of Dissociative Identity Disorder that had been explained to her by her psychologist and one person firmly believed that his voices were due to a negative reaction to his epilepsy medication.

Emotional Reaction to the Voices

Quantitative Data for the Emotional Impact of Hearing Voices

In addition to the question focussing specifically on the emotional impact of participants' first voice hearing experience, two further questions in the Hearing Voices Questionnaire explored emotional reactions to voices. The first question provided a list of emotions and asked participants to indicate all of those that they had experienced in response to their voices. As can be seen in Figure 16, the most commonly reported emotional reaction was feeling encouraged. This was reported by 42.9% of the questionnaire sample. This was followed closely by feeling reassured, which was reported by 41.6% of the sample. Negative feelings were also frequently reported. These included anger (29.2%), sadness (25.3%) and fear (24.7%). The least commonly reported emotional reaction was excitement, which had been experienced by 20.1% of the sample.

Participants were also asked to indicate if they had experienced any other emotional reactions to their voices. Over a third (33.8%) responded in the affirmative. Examples of other types of reactions were extremely variable, with no new themes of emotional response emerging. Examples included "disgusted," "guided," "frustrated," "disappointed" and "abused."
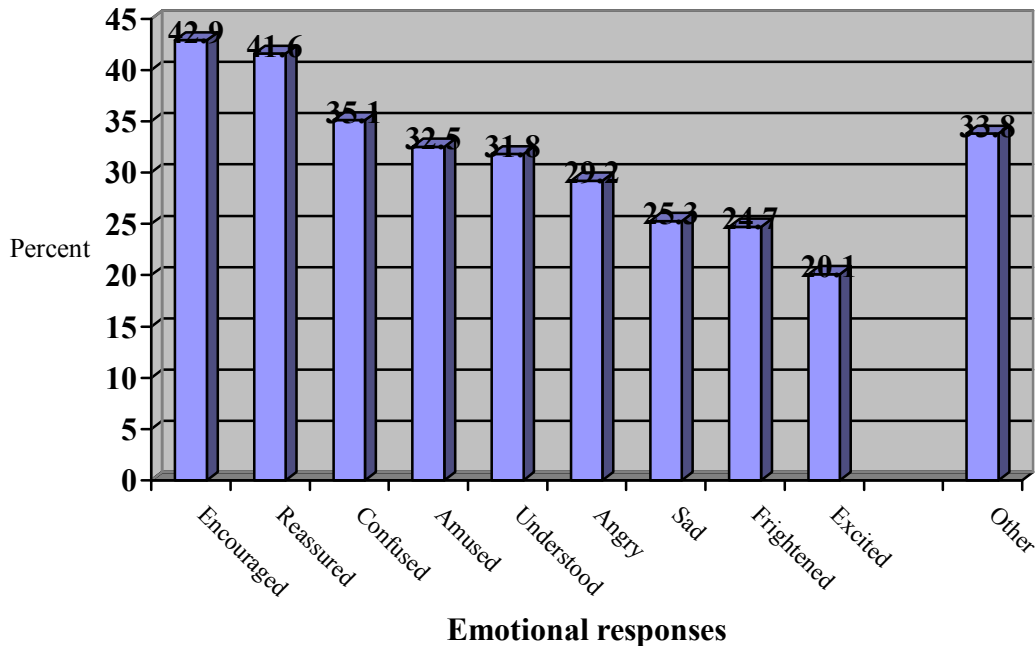
Figure 16. Emotions experienced in response to hearing voices

The second question asked participants to indicate whether hearing voices in general was a more positive or negative experience for them. As Figure 17 illustrates, of the 150 participants who responded to this question, almost half tended towards a positive emotional reaction to their experiences. This included 15.3% who reported that they were always happy or content when they heard voices and 28.7% who reported having a mixed reaction, but feeling mostly happy or content. Just under a quarter of the participants indicated having a more negative reaction, with 8.7% being always upset or distressed and 15.3% having a mixed reaction, but feeling mostly upset or distressed. A very mixed reaction of strong positive and negative feelings was reported by 23.3% of the sample and a much smaller percentage (8.7%) indicated that they felt mostly indifferent to the experience.
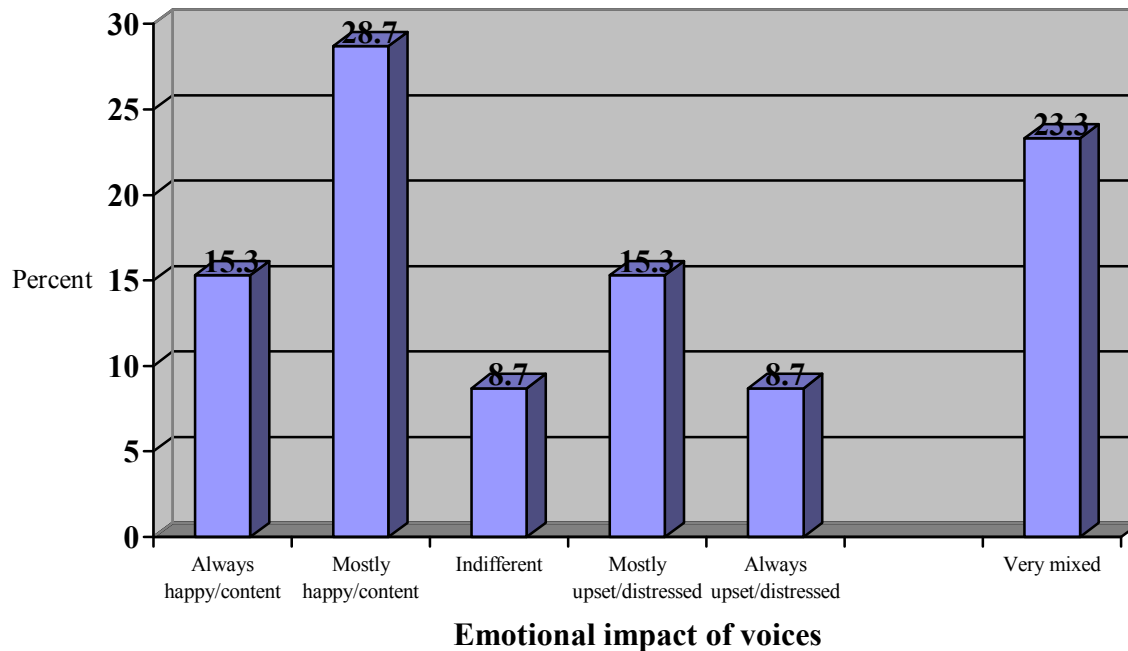
Figure 17. Emotional reaction to the experience of hearing voices in general

Correlates of Positive and Negative Emotional Reactions

As reported above, a total of 101 (66%) participants indicated tending towards either more positive (43%) or more negative (23%) emotional reactions to their experiences of hearing voices. Statistical analyses comparing these two groups revealed no significant relationships on any of the demographic variables (gender, age, ethnicity, education). However, as can be seen in Table 10, the analyses found that the 66 participants reporting a positive emotional reaction were significantly more likely to be able to identify their voices (χ^2 (1, N=101) = 6.661, p = .01), believe that their voices were Gods, spirits or guides (χ^2 (1, N=101) = 13.781, p < .001), and have voices that acted as a helpful guide (χ^2 (1, N=101) = 43.392, p < .001). People in this group also tended to hold a stronger conviction that their voices were actually the voices of specific entities (Z = 2.931, p < .005) and that hearing voices was a normal experience in their culture (Z = 4.170, p < .005).

Table 10. Variables for which significant differences were found between the 66 participants reporting a generally positive emotional response to their voices and the 36 participants reporting a generally negative emotional response to their voices.

	Positive emotional reaction	Negative emotional reaction
Content	Positive content ***	Negative content ***
Identity	Can identify voices ** Believe voices are gods, spirits or guides *** More convinced of voice identity *** Less likely to view voices as own thoughts ***	Can't identify voices ** Believe voices are people they know *** Believe voices are people they don't know *** Less convinced of voice identity *** More likely to view voices as own thoughts ***
Form	Voices act as a helpful guide ***	 Voices talk or argue with each other *** Voices comment on them as a person ***
Duration	Shorter duration ***	Longer duration ***
Intrusion	Disturb contact with others less *** Take over thoughts less ***	Disturb contact with others more *** Take over thoughts more ***
Control	More control over voices ***	Less control over voices ***
Onset	Positive content *** Positive emotional reaction ***	Negative content *** Negative emotional reaction ***
Beliefs	I am special/I have special abilities *** The voices come to support me *** I inherited it from my parents/ancestors * The voice belongs to a deceased loved one *** I am having a spiritual experience *** Hearing voices is a normal experience ***	 The voices are punishment *** The voices are a result of my drug use * I have a brain disorder * Symptom of mental illness *** Consequence of trauma *** Consequence of difficult relationships * Voices are a replay of conversations *** Voices due to difficult/traumatic events ***

$* \ p < 0.05, \ ** \ p < 0.01, \ *** \ p < 0.005$

People who reported a negative emotional reaction were significantly more likely to identify their voices as belonging to people they know (χ^2 (1, N=101) = 7.9, $p < .001$) and people they don't know (χ^2 (1, N=101) = 8.222, $p < .005$), have voices that talk or argue with each other (χ^2 (1, N=101) = 7.795, $p < .005$) and have voices that comment on them (χ^2 (1, N=101) = 10.688, $p < .001$). People in this group were also more likely to report hearing negative content ($Z = 8.143, p < .001$) and having a negative emotional reaction the first time they heard voices ($Z = 5.264, p < .005$). They reported hearing voices that talked for longer periods ($Z = 2.843, p < .005$), disturbed their contact with others ($Z = 5.479, p < .001$), took over their thoughts ($Z = 5.553, p < .001$), and over which they had less control ($Z = 2.978, p < .005$). Finally, people who had a negative emotional reaction to their voice experiences were more

likely to identify their voices as their own thoughts ($Z = 2.902$, $p < .005$) and believe that their voices were caused by difficult or traumatic events ($Z = 3.182$, $p < .001$).

A logistic regression analysis was performed with emotional reaction to hearing voices as the dependent variable and the topographical characteristics content, form (commenting and arguing voices), duration, intrusiveness and control as the predictor variables (see Table 11). These predictor variables were selected based on their highly significant relationships with the dependent variable (as described above), while non-significant and weakly significant topographical variables, such as frequency, were excluded. Because these variables also shared highly significant relationships with each other the Forward Wald Method was used to obtain a stepwise selection of variables (Brace, 2003).

A total of 90 cases were analysed (others were automatically excluded as they contained some variables with missing data). Voice content was the only significant predictor in this model, accurately predicting 100% of participants who had a positive emotional reaction in response to hearing voices and 81.3% of those whose response was negative. The overall percentage of cases that were successfully predicted by content alone was 93.3% (χ^2 (1, N=90) = 79.027, $p < 0.001$).

Table 11. SPSS output for logistic regression showing voice content as only significant predictor of emotional response to voices.

Classification Table	Observed		Predicted		
			emotional reaction		% Correct
			positve	negative	
Step 1 pos neg emotional reaction	positve		58	0	100.0
	negative		6	26	81.3
Overall Percentage					93.3

Variables in the Equation	B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 content2	3.622	.738	24.102	1	.000	37.416
Constant	-7.554	1.526	24.512	1	.000	.001

Variables not in the Equation			Score	df	Sig.
Step 1 Variables	duration		.139	1	.709
	intrusive1		2.316	1	.128
	intrusive2		2.198	1	.138
	control		.339	1	.560
	form3(1)		.124	1	.725
	form6(1)		2.162	1	.141
Overall Statistics			6.072	6	.415

In terms of beliefs about voices, participants who tended towards a positive emotional reaction were significantly more likely to report believing that hearing voices is a special ability (χ^2 (1, N=101) = 16.688, p < 0.001), that their voices come to support them (χ^2 (1, N=101) = 18.893, p < 0.001), that hearing voices is inherited from parents/ancestors (χ^2 (1, N=101) = 5.741, p < 0.05), that their voices belong to a recently deceased loved one (χ^2 (1, N=101) = 11.454, p < .001), and that the voices are part of a spiritual experience (χ^2 (1, N=101) = 12.069, p < .001).

Participants who tended towards a negative emotional reaction to their voices were significantly more likely to report believing that their experiences are a punishment (χ^2 (1, N=101) = 30.648, p < .001), a result of drug use (χ^2 (1, N=101) = 6.246, p < .05) or a brain disorder (χ^2 (1, N=101) = 10.079, p < .005), a symptom of mental illness (χ^2 (1, N=101) = 27.630, p < .001), a consequence of trauma (χ^2 (1, N=101) = 38.753, p < .001) or difficult relationships (χ^2 (1, N=101) = 4.762, p < .05) and replays of conversations (χ^2 (1, N=101) = 7.878, p < .005).

Qualitative Data for the Emotional Impact of Hearing Voices

The interview allowed for in-depth probing into the impact that the experience of hearing voices had on participants' lives. Thematic analysis grouped the responses into immediate and enduring emotional responses, including positive and negative reactions, surprise and acceptance (see Figure 18).

Immediate Emotional Responses

Positive reactions

Seventeen of the 50 interview participants reported having some sort of positive emotional reaction when they heard voices. For some people, particularly in relation to hearing the voice of God or a higher spiritual being, this reaction was described in terms of being filled or surrounded by love or positive energy:

Janine: Okay, when God talks to you it's like a huge light and there's all this warmth and… it just runs through your body and it fills you up from head to toe and just comes out your heart.

Brenda: It was like he wrapped me around in like a big warm cloak of love. I didn't really get much opportunity to experience what it feels like to be loved and here was this total acceptance, total love.

Other people had feelings of reassurance when loved ones who had recently passed away spoke to them and told them they were at peace. Zara, for example, had lost a cousin several years prior to losing her grandmother, to whom she was close:

Figure 18. Categories of emotional impact of hearing voices identified by the 50 interviewees
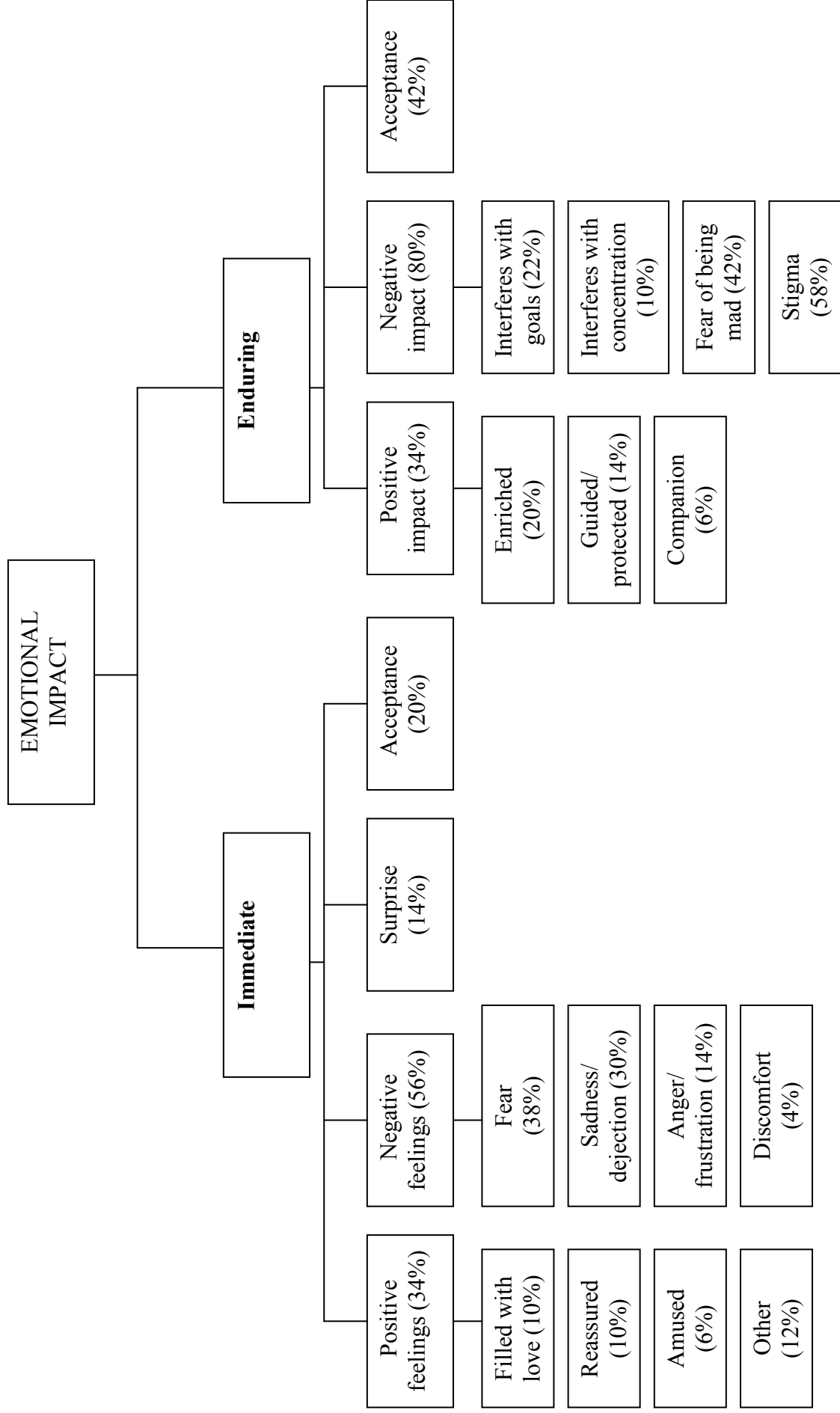
Zara: At first I was really upset. I was crying and I felt her saying, 'It's okay,' and then I saw my cousin Calvin say, 'I'll look after her now,' (crying) and so that was really lovely to have those words in a positive way. I'd been through so much horrible stuff lately it was nice to, you know, back then, that was nice to actually see it as a gift rather than a curse, you know.

Several participants talked about how their voices amused them and made them laugh:

Chloe: When Jesus speaks to me he's very funny.

Janine remembered as a little girl she would hide under the stairwell and talk to her dad, who had left her family many years before:

Janine: I can't remember what he would have actually said to me under there at that time. I just know that it used to make me laugh and make me smile.

Some participants reported that despite the fact that hearing voices could have some negative consequences for them, they tended to have positive feelings during the experience itself:

Cameron: Apart from the actual effects of some of them, of some of the voices, some of the sounds and stuff, it's actually a very pleasant feeling for me.

Negative reactions

Twenty-eight interview participants reported having a negative emotional response when they heard voices. The most common negative response was fear, which was reported by 19 participants. For some people the fear was related to not being able to comprehend what was happening:

Ida: Frightening, because I didn't understand it.
Isac: I initially was scared shitless. I wondered what was going on.

Several people said they became scared once they realised that there was nobody physically present:

Kate: Once I realised no-one else was in the room… I was terrified.

For other participants the fear was directly related to what their voices were saying. Both Pamela and Yvonne had experienced threatening voices:

Pamela: They were telling me to kill myself and I thought, somebody wants me dead and I was then scared for my life.
Yvonne: I actually was so completely freaked out because I really thought I was going to die, I thought I was going to be sent to hell.

One participant reported hearing voices during the interview and he became visibly upset:

Andrew: I'm going to be put into jail for being psychiatric, and the voices say in jail I'll get raped… I'll get raped and beaten up and all that sort of thing… That's a real bad one, and I'm petrified.

The second most common negative emotional response to the experience of hearing voices was sadness/dejection. This was reported by 15 interview participants. Once again, some of

these feelings were related to the content of the voices. For example, Alison would hear her mother's voice bombarding her with criticism:

Alison: I felt that I was worthless, totally worthless, totally wicked, the world would be better off without me.

Otis was ridiculed by his voices:

Otis: And I remember crying and being distressed… Then there was huge self-loathing because of the voice using religious teaching to ridicule me.

While some people responded with fear to the confusion of not understanding what was going on when they heard voices, other people responded with feelings of helplessness and dejection. Ida, upset by a repetitive voice, sought console from her parents:

Ida: They comforted me while I was crying. I just felt really confused because that's a really random thing to hear.

Isabelle was also upset by the novel experience of hearing voices:

Isabelle: Well, from when my father first passed away and I was getting his voice then, and I'd never experienced anything like that before, so I guess I was getting upset, you know.

For some people depressive feelings were related to a sense of hopelessness about never being free of the voices. Lisa, who had described mostly positive voices, had also had some negative experiences:

Lisa: I know that in the past there have been a couple of occasions where I've really, I think I've just got really dark and wanted to stay in bed… because they have sort of got control over you… but just the voice, they'd keep talking, I thought yeah, because of an ominous presence, and that wasn't nice.

Ian described a similar feeling of proximity:

Ian: It feels like that I've done wrong or I'm going to do wrong or something and it's never something that's good, it's something that's negative or bad… Like I said, I'm always being guarded or watched. I don't sort of have any freedom from them. They're like a bad smell attached to you.

Seven of the 50 interview participants talked about feelings of anger or frustration at their voices:

Ian: When I hear voices it makes me angry.
Olivia: It just makes me angry, not really sad.

Again the concept of confusion arose in this category:

Yvonne: Really quite confusing, can be quite confusing. That's why it's so frustrating for you, yeah.
Linda: (They make me feel) either angry or puzzled.
Ryan: Every time they spoke I felt as though I was making a mistake and I felt confused and angry as well.

Finally, two participants reported feelings of discomfort in response to their voices. In both cases, these feelings were spurred by a sense that their voices had invaded their privacy and knew intimate things about them. Kate reported:

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Kate: I can't remember the first time she came to me, other than it was embarrassing. I felt grandma knew everything about me.

Further exploration revealed the embarrassment was particularly related to Kate's budding sexuality. Celine had a similar experience in her teens, with a voice that would say things of a sexual nature:

Celine: He was the one I used to find the most uncomfortable, hearing his content and hearing him.

Surprise

Seven of the 50 interview participants reported responding with surprise when they heard voices. In most cases it was surprise to be having the experience of hearing a voice when they could see nobody talking to them:

Robert: Yeah, I was quite surprised… I realised quite clearly that it was not the norm.
Quentin: I remember the surprise really, when I realised that it was so loud, I was surprised when I realised that nobody could hear it.

One woman who had been hearing voices for quite some time was surprised not so much to be hearing voices but to be hearing the voice of a particular person who had passed away:

Ruth: I didn't expect ever to hear John's voice. And so it surprised me. And of course I was thrilled.

Acceptance

Ten of the 50 interview participants reported accepting their voice experiences without much of an emotional response to them. For example, Makarere reported that when her deceased grandmother came and spoke to her:

Makarere: I didn't question it, I don't know why, I just took it naturally.

Lara, who had occasionally heard her name being called, explained:

Lara: Because it's so vague I didn't really take much notice of it, because it was just one of those things.

Several participants described voice experiences that began in childhood, which they had accepted as a normal part of growing up:

Zelda: I think as a child I had a lot of visions. I always knew there were people standing there who weren't there. I always had people telling me stuff when I was a child. But I thought it was OK, you know?
Belinda: It's just like little incidences in your life. You'll hear a voice, you could be doing something and then hear a voice telling you to, don't go there or stay away from that area or things like that and I just thought, 'Oh well, where's the voice coming from?' And I'd understand, but it wasn't bad, no.

Enduring Emotional Responses
Positive reactions

Seventeen interview participants reported that over time, they developed a positive response to their experiences of hearing voices:

Chloe: I just know that the dimensions that I feel around me or I'm aware of around me, bring me joy and happiness in my life and that's how I accept it.

Linda: My voices are helpful and enriching because they broadened my experiences of life and they have also helped me to reflect on where I am and the consequences of your actions. So it's quite positive and enriching in the long term. Certainly nothing that I could say was negative or frightening, or whether I actually need to go and get psychiatric help or anything.

Several participants reported the positive benefits of hearing a voice that they interpreted as a guide or protector:

Diana: It's so unique and it was positive completely… that feeling of complete safety that I have on particular days is in the same way that when I hear that voice I feel completely protected.

Anne: Hearing the voice has helped me through life.

Christina's voices would guide her in both personal and financial endeavours:

Christina: It's had a positive consequence, like in my business. When my business was floundering and I couldn't work out different ways of doing it, I woke up one night to this strong sort of voice saying, 'You do this with this product, and this is how you put it together.' And so I just did that and it had a positive consequence on my business. It may feel like if I'm at the end of my tether, that I would be supported and helped to find a solution through that.

Other participants referred to the positive benefits of hearing a voice that they regarded as a friend or companion:

Belinda: You treat them as your good friend and one that protects you throughout your life. I think it's marvellous.

Rosa: The voice enhances my life in the way that I've constantly got somewhere to turn if I've got a problem. It's a comfort and a friend, really, my voice.

Negative reactions

Forty of the 50 interview participants reported that the enduring effects of their voice experiences were negative (seven of these 40 had also described positive enduring effects). For 16 people, the negative reaction was related to voices causing ongoing distress, interfering with goals and interfering with concentration. Cameron, for example sometimes received unhelpful guidance from his voices:

Cameron: Their effect is negative. I wouldn't like to say the actual intent is negative but I would say that the result is negative, if I act upon it.

Hone found his voice exhausting:

Hone: It's a continuous voice. Yeah, put it this way, you've just finished a marathon, and now you're really tired, you know. Can you concentrate while you're like that? Exactly, that's what it's like 24/7. That's what it was like for me."

Pamela had heard vicious voices during a psychotic break, and continued to be upset by the experience:

Pamela: It was an experience for two or three weeks 20 years ago and I remember it clearly and it still impacts on me now.

One of Bella's voices communicated that it had very high expectations of her:

Bella: It's always that you could have done better. That type of report was always going on in my head and so that made me less sure of myself, because I couldn't meet those expectations.

The fear of being mad

Sixteen of the interview participants made specific references to being mad or crazy. Twelve people talked about having wondered in the past whether their voices were a symptom of mental illness:

Rachel: Like a lot of people who hear voices, I thought, 'Oh no, does that mean I've got Schizophrenia or something?'

Yvonne: You think you're going nuts.

Four participants reported at the interview that they continued to wonder whether their voices might be a sign of mental illness:

Bella: Maybe I'm just loony!

Zara: Maybe I'm Schizophrenic?

Ida: I just have this huge fear that it will develop into Schizophrenia, having my brother with that (Schizophrenia). So when it happens, that's what's playing on my mind. Am I mentally unwell?

The stigma associated with hearing voices

Twenty-nine of the interview participants expressed concerns related to the stigma of being labelled a voice-hearer. This stigma was often associated with mental illness:

Pamela: I'm very wary of saying I've been diagnosed with anything to do with Schizophrenia, anything to do with hearing voices because there's a lot of people who would think I was something dangerous if I told them. There's so much prejudice around them. I'm very careful of what I say to people.

Makarere: And I'd hear them, but I wouldn't listen to them because I thought that, that was all a sign of madness and if anyone finds out I'm going to end up getting locked up.

Other participants also expressed concerns that some people made an immediate connection between hearing voices and Schizophrenia:

Otis: I've really talked to no-one about this because of the stigma and people thinking I'm a nutter or mental.

Robert: Probably, you know, the stigma around the mental health thing. People tend to want to label things they don't understand.

As a teenager, Cecil had already developed an understanding of the stigma around hearing voices:

Cecil: It's social suicide to mention that you hear voices. At high school it was, not really now.

Christina had also learnt this lesson early on:

Christina: I remember talking about it to some people at school, and getting laughed at, and being told not to talk about it.

Bella continued to feel the effects of stigma:

Bella: There's social ostracism when you bring that kind of thing up, people think it's weird.

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Many participants reported that these sorts of reactions, either experienced or anticipated, prevented them from talking to people about their voice experiences.

<u>Acceptance</u>

Twenty-one interview participants reported that over time they had come to accept their experiences of hearing voices. For some participants, the experience had become a part of who they were:

Cameron: Well, I've had it so long it's just really like a part of me, and I do accept it as a part of me. But it's sort of like a rogue part. Voices in my experience have been a part of me that I have learnt to live with and that I am comfortable with.

Chloe: I've just always lived with it so to me it's just a natural part of my being.

Some participants had made a concerted effort to minimise the impact the voices had on their lives:

Chris: Really I think yeah, probably I've tried to just get on with life so and um I guess just accept it and move on and achieve some of the goals I've set myself.

Others reported no difficulty in accepting the experience:

Makarere: It's just very natural. It's like breathing, it's like living.
Zac: I'm not at all worried about it.

Cecil echoed the sentiments of a number of participants:

Cecil: What I really want, I don't want the voices to go away. I'm happy that they will just always be there. What I really want to do is understand why.

Coping Strategies

<u>Prevalence of Use of Coping Strategies</u>

The Hearing Voices Questionnaire asked participants to indicate, from a list of 20 items, all of the things they had tried doing to reduce the distress that hearing voices might cause them. A large number of participants (31%) reported either that their voices didn't bother them or that they didn't want to make them go away and therefore did not endorse any coping strategies. These participants were significantly less likely to have been in contact with the mental health system (χ^2 (1, N=154) = 13.141, p < .005), to hear negative voice content (χ^2 (1, N=154) = 2.962, p < 0.001) and to be distressed by their voices (χ^2 (1, N=154) = 28.403, p < 0.001). They were significantly more likely to endorse spiritual explanations for voices, such as "I am special/I have special abilities" (χ^2 (1, N=154) = 11.116, p < .005), "I hear the voice of a

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loved one who has recently passed away" (χ^2 (1, N=154) = 13.024, $p < .001$), and "I am having a spiritual experience" (χ^2 (1, N=154) = 10.987, $p < .001$).

The majority of participants (69%) had used at least one coping strategy. As can be seen in Figure 19, the most common coping strategies reported by questionnaire participants were ignoring the voices (used by 51.9% of the 106 participants who reported using at least one strategy) and talking back to the voices (51%). Forty-eight participants (45.3%) reported using prayer or meditation and forty-seven (44.3%) listened to music or the radio to reduce their distress.
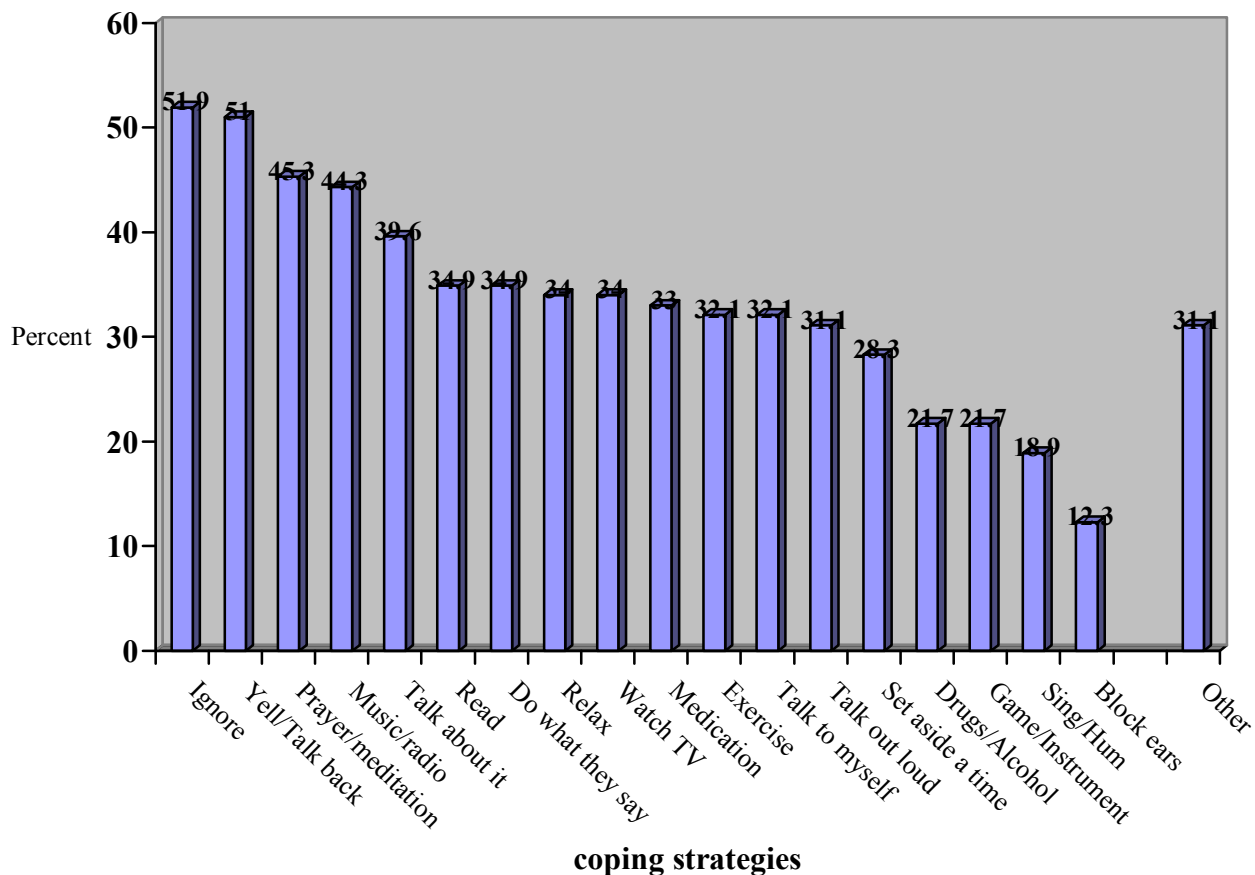
Figure 19. Coping strategies used by questionnaire participants who indicated making some attempts to reduce the distress caused by their voices

The least commonly reported coping strategy was blocking the ears, which had been tried by only 13 (12.3%) of the strategy-using participants. This was followed by singing or humming,

a technique used by 18.9% of participants. Using drugs or alcohol and playing a game or musical instrument had each been tried by 21.7% of participants.

Participants were also given the opportunity to name any other strategies they may have tried. Almost a third (31.3%) of participants named at least one technique not provided in the questionnaire list. These personalised techniques included "concentrating on the heart chacra," "thinking about something else," and "sleep" (see Table 13).

<div align="center">Effectiveness of Coping Strategies</div>

In addition to indicating which coping strategies they had tried, questionnaire participants were asked to rate the effectiveness of each strategy. Ratings were made on a likert scale, on which 1 indicated "not effective at all" and 7 indicated "very effective." Table 12 presents these findings, including the number of participants who had tried each strategy, as well as the mean and mode ratings of effectiveness.

Table 12. Effectiveness ratings, on a scale from 1 ("not effective at all") to 7 ("very effective"), for coping strategies used by questionnaire participants.

Strategy	No. who have tried strategy	Mean	Mode
Other	33	6.47	7
Set aside a time to listen to the voices	30	5.00	7
Sing or hum	20	4.89	7
Prayer or meditation	48	4.86	7
Take prescribed medication	35	4.67	5a
Relaxation	36	4.55	4
Listen to music/radio	47	4.47	7
Play a game/instrument	23	4.38	4a
Do what the voices say	37	4.29	7
Physical exercise	34	4.16	2
Talk to someone about the voices	42	4.09	1
Read	37	4.04	1a
Yell/talk back to them	54	4.02	1a
Talk to myself	34	3.62	4
Ignore them	55	3.57	1
Watch TV	36	3.39	1
Talk out loud	33	3.30	1
Use drugs/alcohol	23	2.67	1
Block ears	13	2.31	1

a: Multiple modes exist. The smallest value only is given by SPSS output.

As can be seen in Table 12, the highest mean rating was given to personalised techniques ("other") that had not been provided in the questionnaire. The second most highly rated strategy was setting aside a time to listen to the voices. This was followed closely by singing

or humming and prayer or meditation. The majority of strategies (68.4%) had an average rating of at least four, indicating that on the whole, participants found the strategies they used to be at least somewhat effective.

The least and second least frequently used strategies, blocking ears and using drugs or alcohol, respectively, were also reported to be the least and second least effective strategies. While one person did find blocking their ears to be a very effective strategy against their voices, no participants reported using drugs or alcohol to be very effective. All other coping strategies were reported as being both not at all effective and very effective by at least one participant.

More detailed information about personalised techniques and their effectiveness is provided in Table 13. No participants who had used a personalised technique rated it to be not at all effective. However, three people did report very little effectiveness. The strategies of these three participants were "wishing the voices would go away," "talking to an empty chair," and "painting or gardening." The vast majority (71.9%) of participants found their personalised strategy to be very effective. Examples of very effective strategies include "having sex", "using a closing down exercise" and "identifying and avoiding trigger situations."

Table 13. Effectiveness ratings, on a scale from 1 ("not effective at all") to 7 ("very effective"), for personalised coping strategies used by questionnaire participants.

Strategy	No. who have tried strategy	Effectiveness ratings	Mean rating
Engage in religious practice (church, prayer)	3	7,7,7	7
Sleep	2	7,7	7
Learn about related phenomena	2	7,7	7
Listen to voices then decide their merit	2	7,7	7
Use closing down exercise	2	7,7	7
Do something else	2	7,7	7
Think about something else	1	7	7
Unbroken concentration	1	7	7
Concentrate on the heart chacra	1	7	7
Ask the voices questions	1	7	7
Communicate with voices there and then	1	7	7
Have sex	1	7	7
Identify/avoid triggers	2	6,7	6.5
Ring a friend	1	6	6
Have a cold shower	1	6	6
Engage in a hobby, e.g. painting/gardening	3	3,6,6	5
Use positive self-talk	1	5	5
Eat healthy food	1	4	4
Wish they would go away	1	2	2
Not specified	4	-	-

Qualitative Data for Coping Strategies

Forty-two of the 50 interview participants reported having used at least one coping strategy to manage their voice experiences. The eight people who did not were, for the most part, very accepting of their experiences and had never attempted to modify them. They reported their voices to either be positive and helpful or to not significantly impact on them. A few participants reported being extremely moved by their experiences but had only encountered voices a few times in their lives, and therefore had not thought about managing them.

Thematic analysis of interviews with those participants who did implement coping strategies revealed six overall management styles (see Figure 20). These were focussing, distraction, spiritual interventions, chemical strategies, improving well-being and blocking ears. Consistent with the quantitative results, some participants used a range of strategies, while others tended to stick to one or two methods.

Focusing and Engaging

The most frequently reported coping style was to focus on or engage with the voices in some way. Such techniques were used by 35 (83%) of the strategy-using interview participants, with varying degrees of success. Fifteen participants reported having challenged their voices. For some people this meant challenging what the voices said. Otis, who had been living without any negative voices for a number of years at the time of the interview, explained:

Otis: I temporarily defeated the voice every time. Just a general example, the voice would say, 'You're no good. You're worthless,' and I would say back to the voice, 'Fuck up. I am brilliant. I am unbelievably awesome.' So the voice would possibly come back with, 'You're not,' and I would say, 'I am.' And I'd have these debates with the voice… The first time I did that, it could have lasted hours, and then the voice went away… And then I became better at that, and I could defeat the voice more quickly. And more quickly, and more quickly, and more quickly.

Other people challenged the authority the voices had over them. Brenda had a similar experience to Otis, becoming increasingly more effective in challenging her voices:

Brenda: It didn't happen just like that, 'Go away!' and they go away, but I could tell them, 'I do not accept this. I recognise you for what you are. I do not accept the negative things you are saying to me. I do not have to justify myself to you'… And then there was gradually, they eased out to the point, bit by bit over time, where I could look at what they were saying and choose to not accept it.

The effectiveness of the challenge appeared to be related to the person's belief in their power over the voices. People who told their voices to go away and then hoped that they would reported that this strategy didn't work:

Alison: I was told (by a psychologist) to tell her (the voice) to go away and so on.... I felt I was acting a part that didn't come from the heart, and I felt that she (the voice) knew that.

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Figure 20. Categories of coping strategies used by the 42 interviewees who identified using at least one strategy

COPING STRATEGIES

Focus/ engage (83%)
- Challenge voice content (24%)
- Challenge voice authority (12%)
- Obey voice commands (10%)
- Set limits (21%)
- Selective listening (24%)
- Talk/write about voices (33%)
- Understand voice–related phenomena(33%)

Ignore/distract (55%)
- Ignore voices (31%)
- Engage in leisure activity (26%)
- Keep a busy life-style (7%)

Spiritual strategies (36%)
- Spiritual protection (17%)
- Call to higher power (10%)
- Engage in spiritual activity (19%)

Chemical strategies (43%)
- Prescribed medication (33%)
- Recreational drugs/alcohol (14%)

Improve general well-being (7%)
- Diet (5%)
- Exercise (2%)
- Rest and relaxation (5%)

Blocking ears **(7%)**

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Four participants reported doing the opposite of challenging the voices, that is, doing what the voices told them to do:

Celine   So I kind of went round trying to do things and I got, I'm still quite ritualistic, so I started performing rituals to try and appease it, so I started that kind of behaviour.

Three of these participants reported finding this strategy ineffective. However one woman, whose voices instructed her to do things like study, cook and clean up her room, found that obeying the instructions could help to reduce the voices:

Olivia: If I ignore them then they keep on going. I need to consciously like think about what they are saying or one of the other voices has to, like I have to listen to them before they go away.

Nine participants had tried relating to their voices as though they were people, expecting to be treated with respect by the voices and making themselves available at times that suited them. Most of the nine had been advised to try this strategy by either a friend or mental health professional and most found it to be effective:

Ida: My friend told me that I should talk to like, that seems like really good advice, to say, 'I'll listen to you but you need to turn the volume down.' I've tried that and that worked.
Makarere: So if I'm tired and not in the mood for a whole lot of people wanting to talk to me and teach me, I just say, 'No, I'm tired tonight, leave me alone please.'

Two people, who were both plagued by very negative voices, did not find this strategy helpful:

Andrew: It doesn't work saying come back another day.

A similar technique, selective listening, was used by ten participants. This entailed the person choosing to listen to or take the advice of only those voices they deemed helpful and to ignore or block out those voices deemed unhelpful:

Oliver: Something my mother said to me about star signs. She said if it's good, believe it but if it's not, ignore it.

All ten participants reported finding this technique to be effective. Zara explained how she used this strategy:

Zara: When it first started happening I'd try and say, 'Who is it?' 'What's your name?' and 'Are you dead or alive?' or 'Where are you?' But I never really got anything satisfactory or anything positive from it. So then I decided well if it's not anything good coming from it then I'd just ignore it, because it's not enriching my life in any way and I found by doing the chanting it works, I could just block it out.

Fourteen participants reported either talking about or writing about their voice experiences as a way of managing them. Keeping a diary offered a means for the person to reflect on their experience and identify potential trigger situations, as well as personal resilience factors. Many people found it helpful to share their story, either with somebody who had had similar experiences, or with someone they trusted:

Diana: But I had such a strong relationship with my friend that I was able to share it and she completely took it in so I was able to actually get a lot of it off my mind on to somebody else.

Fourteen people also talked about the effectiveness of developing their understanding of voice-related phenomena. These understandings took various forms:

Chloe: Okay I see or feel things on a multi-dimensional level, that's how I relate it to my physical consciousness. To be able to rationalise to myself without feeling like I'm going a bit loopy, I've had to define the areas of communication that I have.
Cecil: Normally I find that I accept it as a product of my mind - as soon as I identify it, it's gone. So it's random noises in the brain and as soon as I identify it, it's gone.
Patrick: Another thing that helped me was some of my, along the way, I picked up in the Psychiatric manuals it was, um, they had a triangle with a cognitive, behavioural, emotional and physical. I changed that into everyday thinking, that cognito was to think, behavioural to act, physical to be and emotional is to feel. And I used that, I made that into something that works for me.
Lisa: I think I could easily have got swallowed up in voices and in negative thoughts, all sorts of things, absolutely, if I hadn't had a context to put it in.

Distraction

The second most common theme included strategies aimed at distracting from or ignoring the voices. These strategies had been employed by 23 (55%) of the 42 strategy-using interview participants. Some participants referred to distraction techniques such as listening to music or reading a book. Other participants talked about keeping busy generally. These distraction techniques were mostly reported to be helpful in the short-term:

Zara: And I think by just keeping myself busy I managed to cut a lot of it out.
Patrick: I found even when I was concentrating on something like study, cooking, talking to people, exercising, it was just about focussing on me and not thinking about other people, yeah, not psyching myself out with other people.

Many participants also reported attempting to ignore their voices. A few people found this to be an effective strategy:

Ryan: It's like background noise. You can ignore it… they sort of become repetitive and you've just got to tune it out.

Most people, however, found this technique futile or detrimental:

Andrew: Well I can't really ignore them because they're there.
Celine: If you ignore them they always get louder and more persistent.

Spiritual Interventions

Fifteen (36%) of the 42 strategy-using interview participants reported using some form of spiritual intervention to manage their voices. Thematic analysis grouped these interventions into three categories: spiritual protection, calling for help from a higher power, and engaging in spiritual practice.

Seven participants referred to protecting themselves from the voices through various forms of visualisation or psychic blocking. Chloe used this strategy for the interview:

Chloe: I asked that only those that could assist be present, so I do put blocks up to the other realms of coming in.

Amanda also found this strategy to be effective at keeping herself safe from constant harassment by voices:

Amanda: You have to protect every day. I do protect every day because I am open to spirits all the time… It's just like, protect before you do anything. And it's like saying the Lord's prayer or bringing the divine light around you, that you're fully protected before delving into anything to do with voices.

Zara also reported trying various forms of this technique but with limited success:

Zara: I'd visualise pulling down doors, you know, or pulling like I was in a cube something… I was trying to cut myself off in a square type of thing. But that was never really overly effective. And I remember one time I used to visualise things, like visualise like an electric grill, like a fly grill. Everything that came out got electrocuted (laughs).

Four participants, all of whom believed themselves to have psychic abilities, called on more powerful figures to help them manage their negative voices. Three people found calling on God or Jesus to be particularly effective in stopping negative voices:

Kate: And if you mention the name God or Jesus, they'll definitely go. They're scared.
Ilana: Call to the Lord. Say, 'Lord please help me. Lord please give me your protection,' anything similar. Just acknowledge that the Lord is there and you will get almost instant relief.
Belinda: Ask the Lord for his protection.

Ilana and Belinda also asked their spirit guides to protect them from distressing voices, as did Zelda:

Zelda: I felt I had a lot of help when I needed it, especially when I asked for help. It came from the spirits.

Eight participants had engaged in spiritual or religious practices as a way of trying to cope with their voices. These included attending church, chanting, and meditation. Participants reported varying degrees of success using these techniques. Some participants, like Ziggy, found them of no help at all:

Ziggy: I've tried saying the Hail Mary and doing all the stuff that are meant to drive the demons away, and it doesn't really affect it.

Other participants found that their voices became less invasive:

Pamela: When I sat in the Church, they were quieter and less shouting at me.
Zara: I found chanting really helpful for me… It just focuses your mind and so then if I hear any voices or anything I just ignore them, I just focus on the chant and it helps me go to sleep.

None of the participants using these techniques found that they reduced the frequency of their voices, only that they became less intrusive.

<u>Chemical Strategies</u>

Eighteen (43%) of the 42 strategy-using interview participants reported that they had tried using some form of chemical substance to alleviate the distress associated with their voices. Twelve people had used prescribed medication, such as anti-psychotics, anti-depressants and anti-convulsants, four people had used recreational drugs, such as marijuana, cocaine and alcohol, and two people had used both.

Four of the six participants who used recreational drugs reported that it stopped their voices only because they drank or got high to the point of blacking out:

Ian: Well, they stopped, because I couldn't hear them. I was so wasted.

One participant found that marijuana reduced his anger towards the voices, but that overall it made his psychotic symptoms worse. Another participant reported finding what he called "optimistic, adrenaline-based drugs," such as cocaine and methamphetamine, helpful:

Otis: They gave me the process or the self belief to defeat the negative voice… Those chemicals that I put in my body stretched my brain or jumbled it all up so I got fresh perspectives on things in life. And I think those fresh perspectives helped me to come to terms with or battle those negative voices. For me personally, and I can only talk about me personally, that was 50% of the victory was those experimentation with drugs.

This participant was quick to assert, however, that he would not advise anyone else to use drugs as a way of combating their voices.

Of the fourteen participants who reported using prescribed medication to cope with their voices, seven found it effective. For example, Alison had been hearing her mother's voice constantly for many years:

Alison: But I haven't had any trouble since I went to the doctor and took these pills. The pills seemed to cope with her very well, so that's a nice down-to-earth method of getting rid of her.

Pamela had been hearing distressing voices during a psychotic break:

Pamela: I was given some medication… and when I took that they changed. They became quieter and friendlier. It was like a complete change and they stopped shouting and I was hearing them for a good several days to two or three weeks.

Five participants reported finding prescription drugs ineffective for their voices:

Ziggy: And the voices don't go away, and the medicine doesn't make them go away, for me.

Some of these participants found the medication to be not only ineffective, but also to cause nasty side effects:

Rita: I kept trying to explain that the drugs were worse than the symptoms and it was like having two illnesses because you have side effects and hallucinations, or whatever you want to call them.

Hone believed that his anti-convulsant medication had caused his voices:

Hone: And I back that theory up, you know, when I had my operation in 1990, I was allowed to take myself off
         my medication, wean myself off my medication and as the medication left my system so did the voices.

Two of the participants reported experiencing mixed results from medication, depending on their personal situation, their symptoms and the type of medication.

Improving General Well-Being

Three of the interview participants referred to improving their general health and well-being in an attempt to better manage their voices. Strategies included eating well, using aromatherapy and keeping physically fit. All three participants continued to struggle with voices from time to time, but found keeping themselves well to be an important part of their overall management programme:

Ryan: My approach is to try and improve the way my mind works rather than stop it from working with drugs
         and it's got better.

Blocking Ears

Three participants had tried blocking their ears as a way of reducing the impact of the negative voices they were hearing. Patrick put on earmuffs and found this helped him to focus on his study. Ida covered her ears with her hands, but with no success. As a child Belinda was plagued by what she described as bad spirits:

Belinda: You leave your lights on and set yourself under the bed covers, cover yourself up but not understanding
         that they still come even though you've covered yourself and left the light on.

Help and Support for Hearing Voices

Mental Health Services

Just over half (54.5%) of the questionnaire participants reported having had some contact with mental health services. These participants were asked to indicate how much their contact was related to their experiences of hearing voices by choosing an appropriate number on a 7-point likert scale, where 1 represented "Not at all related," 4 represented "Somewhat related" and 7 represented "Completely related." Most (58%) of these participants reported that the contact they had had with mental health services was less than somewhat related to their voice experiences, including 40.7% who reported that their contact with mental health services was not at all related to their voices. Of the entire questionnaire sample, only 34 participants

(22%) indicated that they had come into contact with mental health services for reasons at least somewhat related to their voice experiences.

Contact with Mental Health Services in General

Statistical analyses compared those participants who had used mental health services with those who had not. Significant differences were found on most variables in the Hearing Voices Questionnaire. These are presented in the second column of Table 15. Chi Square analyses showed that participants who had experienced mental health contact were much more likely (p.< .01) to hear the voices of people they didn't know, have voices commenting on them and to hear negative voice content. They were also significantly more likely to report a negative emotional reaction overall, as well as feel angry, frightened, confused and sad.

In terms of beliefs about voices, participants who had used mental health services were much more likely (p.< .01) to believe their voices were a symptom of mental illness or a consequence of trauma or difficult relationships. These participants were much less likely to believe their voices belonged to a deceased loved one and to report that their voices did not bother them.

Although contact with mental health services was positively related to the likelihood that participants would explain their voice experiences from biological and psychological perspectives, 64.3% of current or ex-service users did not believe that their voices were a symptom of mental illness and 84.5% did not believe their voices were the result of a brain disorder or disease. In addition, 19% of service users reported that their voices did not bother them.

A series of Mann-Whitney tests revealed that participants who had had contact with mental health services reported experiencing significantly more (p.< .01) negative content and emotion, both the first time they heard voices and in general. They reported hearing voices that were more intrusive and more frequent. Finally, this group was much less likely to define hearing voices as a normal cultural experience, and much more likely to believe that their voices were caused by difficult or traumatic events.

<u>Contact with Mental Health Services Specifically for Voice Experiences</u>

A second series of statistical analyses compared participants who had been in contact with mental health services for reasons "Somewhat" to "Completely" related to their voice experiences with participants who had either had no contact with mental health services or who reported that their contact was not related to their voices. As can be seen in column 3 of Table 15, significant differences were found on many of the same variables reported above.

Chi Square analyses showed that participants whose contact with mental health services was related to their voice experiences were much more likely (p.< .01) to hear voices commenting on them as a person and to report feeling angry, frightened, confused and sad. They were significantly less likely, however, to report feeling reassured. They were also much less likely to identify their voices as belonging to God(s), spirits or guides, and to report that their voices didn't bother them.

In terms of beliefs about voices, people who had received a psychiatric intervention for their voices were much more likely (p.< .01) to believe their voices were a form of punishment, a symptom of mental illness, a consequence of trauma, and a replay of conversations. These participants were significantly less likely to say they heard voices because they were having a spiritual experience.

As was seen with mental health service contact in general, contact related to voice experiences was positively related to the likelihood that participants would explain their voice experiences from biological and psychological perspectives. However the majority (55.9%) of current or ex-service users did not believe that their voices were a symptom of mental illness and an even greater number (82.4%) did not believe their voices were the result of a brain disorder or disease. In this group, only a small proportion (5.9%) of participants reported that their voices did not bother them.

A series of Mann-Whitney tests indicated that participants who had had mental health contact for their voices were much less likely (p.< .01) to believe their voices were actually the voices of specified entities and much more likely to identify their voices as their own thoughts. They experienced more negative content and emotion, both the first time they heard voices and in general. They reported hearing voices that were more intrusive, more frequent and over which

they had less control. Finally, people in this group were much more likely to believe that their voice experiences were due to difficult or traumatic events.

A logistic regression analysis was performed with mental health contact related to hearing voices as the dependent variable and voice content, duration, frequency, intrusiveness, voices commenting on the person and emotional impact as the predictor variables (see Table 14). These predictor variables were selected based on their highly significant relationships with the dependent variable (see Table 15). However, they also shared highly significant relationships with each other. Therefore, the Forward Wald Method was used to obtain a stepwise selection of variables (Brace, 2003). Although some beliefs were significantly correlated with mental health contact, they were not included because it is reasonable to assume that some beliefs may be subsequent to, rather than predictive of, contact with psychiatric services.

A total of 125 cases were analysed (others were automatically excluded as they contained some variables with missing data). Voice content was the strongest predictor, accurately predicting 55.2% of participants who had received a professional intervention for their voices and 83.3% of those who had not. The overall percentage of cases that were successfully predicted by content alone was 76.8% (χ^2 (1, N=125) = 23.42, $p < 0.001$). Voice duration was the second strongest predictor. While combining content and duration together in a model led to an increase in overall successful prediction to 82.4%, this model led to a decrease in accurate prediction of mental health contact related to hearing voices to 44.8% (χ^2 (2, N=125) = 31.821, $p < 0.001$). Emotional reaction was also found to be a significant predictor but adding this variable to the model only increased the overall prediction accuracy to 83.2% (χ^2 (3, N=125) = 36.918, $p < 0.001$).

Table 14. SPSS output for logistic regression showing voice content as most significant predictor of whether or not participants had contact with mental health services.

Classification Table		Observed	Predicted			
			.00 - Contact related – 1.00		% Correct	
Step 1	Contact related	.00	80	16	83.3	
		1.00	13	16	55.2	
	Overall Percentage				76.8	
Step 2	Contact related	.00	90	6	93.8	
		1.00	16	13	44.8	
	Overall Percentage				82.4	
Step 3	Contact related	.00	90	6	93.8	
		1.00	15	14	48.3	
	Overall Percentage				83.2	
Step 4	Contact related	.00	87	9	90.6	
		1.00	17	12	41.4	
	Overall Percentage				79.2	

Variables in the Equation		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1	content2	1.314	.298	19.401	1	.000	3.719
	Constant	-3.838	.702	29.868	1	.000	.022
Step 2	content2	1.133	.309	13.418	1	.000	3.104
	duration	-.419	.148	8.029	1	.005	.658
	Constant	-1.778	.953	3.482	1	.062	.169
Step 3	content2	.456	.419	1.185	1	.276	1.578
	duration	-.454	.155	8.583	1	.003	.635
	feel1b	.739	.336	4.843	1	.028	2.094
	Constant	-2.546	1.035	6.049	1	.014	.078
Step 4	duration	-.489	.152	10.430	1	.001	.613
	feel1b	.989	.252	15.406	1	.000	2.687
	Constant	-2.255	.989	5.199	1	.023	.105

Variables not in the Equation			Score	df	Sig.
Step 1	Variables	frequency	7.815	1	.005
		duration	8.623	1	.003
		intrusive1	1.339	1	.247
		intrusive2	3.047	1	.081
		feel1b	4.351	1	.037
	Overall Statistics		15.839	5	.007
Step 2	Variables	frequency	1.959	1	.162
		intrusive1	.037	1	.848
		intrusive2	2.261	1	.133
		feel1b	5.098	1	.024
	Overall Statistics		8.142	4	.087
Step 3	Variables	frequency	2.584	1	.108
		intrusive1	.081	1	.776
		intrusive2	.716	1	.397
	Overall Statistics		3.123	3	.373
Step 4(a)	Variables	content2	1.203	1	.273
		frequency	2.922	1	.087
		intrusive1	.018	1	.893
		intrusive2	.886	1	.347
	Overall Statistics		4.269	4	.371

Table 15. Variables that are significantly associated with a) contact with mental health services, b) contact with mental health services specifically for voices, and c) wanting help or support for voice experiences.

	Mental health contact	Mental health contact related to voices	Wanting help now or in the past
Identity			
Hearing voices of people I don't know	$\chi^2 = 6.809^{**}$	-	-
Voices belong to God(s), spirits, guides (-)	-	$\chi^2 = 12.844^{***}$	-
Form			
Commenting on my thoughts and actions	-	$\chi^2 = 4.884^{*}$	-
Commenting on me as a person	$\chi^2 = 13.828^{***}$	$\chi^2 = 15.225^{***}$	$\chi^2 = 6.597^{**}$
Commenting on other people	$\chi^2 = 5.078^{*}$	$\chi^2 = 6.807^{**}$	-
Telling me what to do	-	-	$\chi^2 = 4.219^{*}$
Talking or arguing with each other	$\chi^2 = 6.386^{*}$	-	-
Acting as a helpful guide (-)	$\chi^2 = 4.065^{*}$	-	-
Content			
Negative content	$Z = 5.007^{***}$	$Z = 5.056^{***}$	$Z = 3.049^{***}$
Negative content at onset	$Z = 3.663^{***}$	$Z = 4.533^{***}$	$Z = 3.058^{***}$
Emotional reaction			
Negative emotional reaction	$\chi^2 = 23.540^{***}$	$\chi^2 = 31.194^{***}$	$\chi^2 = 31.194^{***}$
Negative emotional reaction at onset	$Z = 3.716^{***}$	$Z = 4.660^{***}$	$Z = .4.748^{***}$
Feeling angry	$\chi^2 = 16.219^{***}$	$\chi^2 = 20.425^{***}$	$\chi^2 = 12.594^{***}$
Feeling frightened	$\chi^2 = 14.531^{***}$	$\chi^2 = 17.226^{***}$	$\chi^2 = 5.287^{*}$
Feeling confused	$\chi^2 = 10.111^{***}$	$\chi^2 = 11.837^{***}$	$\chi^2 = 8.313^{***}$
Feeling sad	$\chi^2 = 12.778^{***}$	$\chi^2 = 8.778^{***}$	$\chi^2 = 10.173^{***}$
Feeling amused	-	$\chi^2 = 4.009^{*}$	-
Feeling reassured (-)	-	$\chi^2 = 9.372^{***}$	$\chi^2 = 4.266^{*}$
Feeling encouraged (-)	-	$\chi^2 = 5.271^{*}$	-
Voices don't bother me (-)	$\chi^2 = 13.141^{***}$	$\chi^2 = 13.434^{***}$	$\chi^2 = 10.444^{***}$
Beliefs I (possible explanations)			
Punishment	$\chi^2 = 5.853^{*}$	$\chi^2 = 10.990^{***}$	$\chi^2 = 11.456^{***}$
Result of drug use	$\chi^2 = 4.251^{*}$	-	-
Symptom of mental illness	$\chi^2 = 24.663^{***}$	$\chi^2 = 17.083^{***}$	-
Brain disorder	$\chi^2 = 6.777^{*}$	$\chi^2 = 4.404^{*}$	$\chi^2 = 4.760^{*}$
Consequence of trauma	$\chi^2 = 18.895^{***}$	$\chi^2 = 21.296^{***}$	$\chi^2 = 11.827^{***}$
Consequence of difficult relationships	$\chi^2 = 9.517^{***}$	-	$\chi^2 = 4.445^{*}$
Replay of conversations	$\chi^2 = 5.193^{*}$	$\chi^2 = 14.752^{***}$	-
Voices belong to a deceased loved one (-)	$\chi^2 = 11.270^{***}$	-	-
Spiritual experience (-)	$\chi^2 = 4.184^{*}$	$\chi^2 = 8.992^{***}$	-
I am special (-)	-	$\chi^2 = 3.956^{*}$	-
Beliefs II (strength of belief on likert scale)			
Voices as own thoughts	$Z = 2.447^{*}$	$Z = 3.036^{***}$	-
Voices actually belong to other entities (-)	$Z = 2.314^{*}$	$Z = 2.754^{**}$	-
Normal cultural experience (-)	$Z = 3.280^{***}$	-	$Z = 2.043^{*}$
Due to difficult or traumatic life events	$Z = 3.706^{***}$	$Z = 3.747^{***}$	$Z = 2.337^{*}$
Frequency and intrusiveness			
Increased frequency	$Z = 2.639^{**}$	$Z = 2.999^{***}$	$Z = 3.093^{***}$
Increased duration	$Z = 2.724^{**}$	$Z = 3.789^{***}$	$Z = 2.724^{**}$
Disturbed contact with others	$Z = 4.684^{***}$	$Z = 3.567^{***}$	$Z = 3.368^{***}$
Take over thoughts	$Z = 3.519^{***}$	$Z = 3.406^{***}$	$Z = 4.068^{***}$
Decreased control over voices	$Z = 2.499^{*}$	-	-

$* p < 0.05$, $** p < 0.01$, $*** p < 0.005$; (-) inverse relationship; **Bold** indicates highly significant (p.< 0.01) relationships across at least two columns.

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The Hearing Voices Questionnaire asked participants to indicate whether they thought that some form of support, professional or otherwise, for their experience of hearing voices would be helpful. Sixty people (39%) responded in the negative, 37 (24%) said that they would have liked to receive support in the past, and 55 (35.7%) indicated that they would like help now.

A third set of statistical analyses was run, comparing the 92 participants who indicated wanting help or support now or in the past with the sixty participants who did not. As can be seen in the fourth column of Table 15, many of the significant differences found in the mental health contact comparisons were also found for these comparisons.

Those participants who reported wanting help now or in the past were more likely to have voices telling them what to do or commenting on them, more likely to feel angry, frightened, confused and sad, less likely to feel reassured and less likely to report that their voices did not bother them. In terms of beliefs about voices, these participants were more likely to believe their voices were a form of punishment, a symptom of a brain disorder, and a consequence of trauma or difficult relationships.

The Mann-Whitney tests performed on ordinal variables indicated that participants who reported wanting help now or in the past experienced increased negative content and emotional impact, both at onset and in general. They also heard voices more often and for a longer duration, and were more likely to have disturbed contact with others and voices taking over their thoughts. They were less likely to say that hearing voices was accepted as a normal experience in their culture, and more likely to say that their voices were due to traumatic experiences.

Participants were also asked to indicate the types of help or support that they thought would be most helpful for them. Examples of responses include "building self-confidence," "someone who believed what I heard was real to me and did not tell me that they were not true," "to know others experience the same thing and how they feel about it," "discussing it with other voice-hearers" and "just someone who understands that they are not made up."

Some participants identified forms of support they believe would have been helpful in the past. Examples of these responses include "contact with other spiritually gifted people to help

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guide me," "someone to talk to without judging me and telling me I should see a psychiatrist," "someone to tell me that hearing voices is OK, especially after a death of a close family member" and "being reassured that I was not mentally ill and given some coping strategies."

<div align="center">Qualitative Data Regarding Help and Support for Voice Experiences</div>

Interview participants were asked to discuss the types of help and support they had received for their voice experiences, as well as the types of interventions they would have liked to receive. Not all participants had received some form of help, but all were able to identify at least one type of support they think may have helped in the past or would help now. The responses were varied, but tended to fall into one of four categories: psychiatric or psychotherapeutic interventions, spiritual interventions, information and education, and normalising (see Figure 21).

Psychological Interventions

Nine of the 50 interview participants talked about the ways in which their contact with mental health services had been positive. This figure does not include those participants who reported finding prescribed medication beneficial, as these data have been discussed above in the context of coping strategies. Aside from the benefits of medication, therefore, participants made reference to three helpful aspects of psychological interventions.

Three participants referred specifically to the benefits they found from cognitive-behavioural-type interventions:

Oscar: What's been helpful for me, the big breakthrough for me is, it has been on the level of a breakthrough, has been, it was that conversation with (my therapist) about drawing a real distinction about what I hear and what I interpret that to mean.

Five participants reported that sexual abuse counselling helped to reduce the distress they experienced in relation to their voices:

Ziggy: I think one thing that has been difficult but also helpful is I decided to do, get some counselling around sexual abuse… And what's helped about my voices is, and I know there's some controversy about this kind of thing, but it has helped to reaffirm my sense of, my own sense of my story, of who I am, reaffirm who I am, in my recovery and worth.

A further 14 interview participants indicated that they would like or would have liked to receive some form of psychotherapeutic intervention. For six people, this was about having easier or earlier access to professional help:

Bella: If I had the opportunity to get counselled I would give it a go and see if it helped, but it's cash… it costs mega bucks.

Figure 21. Categories of help and support identified by the 50 interviewees

SYSTEMS OF HELP AND SUPPORT

Psychological interventions
(46% found or would find helpful)

Sexual abuse counselling (10%)

CBT-type intervention (6%)

Holistic approach (12%)

Other (18%)

Spiritual interventions
(12% found or would find helpful)

Priest (6%)

Clairvoyant medium (4%)

Tohunga (2%)

Information and education
(40% found or would find helpful)

Psychological perspectives (16%)

Spiritual perspectives (6%)

Other voice-hearers' perspectives (6%)

Coping strategies (4%)

Education for others (8%)

Normalising
(46% found or would find helpful)

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Otis: I think definitely seeing, as a child, when I first told my mother about the voices, I think seeing somebody then, that would have been great.

Six participants talked about how they would have liked to have access to alternatives to standard psychiatric interventions. In particular, participants made reference to a holistic approach incorporating spirituality and cultural issues, with less emphasis on medication:

Lisa: I suppose cultural (Maori), because even though it was around me I guess I didn't speak much about it, cultural accessibility might not have been going on at that time.

Rita: I wish, it might be just a fantasy but… Soteria house was it? Yeah, something like that. Where people can actually go and be nurtured without the fear of the system taking over. Something like that.

Patrick, the only participant who reported having encountered an holistic treatment approach, found this very helpful:

Patrick: I found that they understood about my spirituality, they understood about my life path, they understood that I was my own best healer and they were wanting to help me all the way through.

Nine participants reported experiencing psychiatric or psychotherapeutic interventions as unhelpful. Analysis of these participants' dialogues revealed an overall theme of therapists not being in tune with the client and/or not respecting the client's opinions or capacity to take control. Complaints were particularly related to being forced to take medication that the voice-hearer found unhelpful and/or unpleasant. Ryan, who admitted himself voluntarily to hospital, explained:

Ryan: They didn't really offer an option of not taking medication and I really felt it was like punishment. It made me feel awful and I thought well, it didn't really help much last time.

Spiritual Interventions

Five of the 50 interview participants reported finding benefits from spiritual interventions for their voice experiences. In all cases these interventions involved seeking out and getting help from a spiritual expert, such as a priest, a clairvoyant or a *tohunga*. For example, Zara recounted a time when her voices had become very distressing:

Zara: I had my uncle send this priest over from the Ratana's and he came three times and I spoke to him and he gave me some blessings and things like that and he was really good.

However, Zara also had some negative experiences of spiritual interventions, including unhelpful contact with *tohunga*, clairvoyant mediums and a shaman. Three other people also reported finding spiritual interventions unhelpful.

Pamela: We had a Church down at (the hospital) and I went to see him (the Chaplain) and got him to pray over me. And other people in hospital that were Christian, they were praying over me because the Chaplain had said it might be my illness. I said there are demons screaming around me and there were people praying over me trying to get rid of these demonic screams, but eventually I realised the only way I could quieten them was to take the medication.

One participant had had an exorcism performed on him, which he found of no benefit, and one participant reported that she thought an exorcism might be the only way to be rid of her voices, although she had not tried this strategy.

<u>Information and Education</u>

A third theme that came out of the thematic analysis was information and education. For all four participants who reported having found this beneficial for their voice experiences, the source of information was a mental health professional. Two people were given information which they found helped them to better understand their voice experiences:

Astrid: I can't remember what it (the video) is called but it was all about DID and explains it. It had a balloon, a man holding a long sausage balloon and he twisted it in half and he said, "It's like that, it's like you have your experiences of life and everything in this balloon and somehow you've blocked off one experience from the other, like he twisted the balloon. They're still all one if you release them but they're blocked off and have got these two separate parts… That was really helpful, because I'm quite an intellectual. I like to find out how things work and that

Otis: And I remember seeing a psychiatrist and I talked to them about it, which was very cool, very positive. And that was when they first taught me about self-talk, which totally fascinated me. Totally fascinated me. I mean, for me, that was a turning point in my life. Understanding about the concept of self-talk.

Two people were given information about different types of coping strategies that they could go home and try out for themselves. No participants reported finding information and education about voices unhelpful.

Sixteen participants said that they would like to have more information about hearing voices. Six people wanted to know more about voices from a psychological perspective:

Ida: I definitely want an explanation, that's why I went and got the MRI done and the EEG done, because if I'm deteriorating in my mind I want to be aware of it so I can not get to the state my brother's in.

Otis: I'd love to (have a diagnosis), I've never had one. To gain more information, more understanding.

Three people reported wanting access to information from a spiritual perspective:

Henry: When I was a youngster, if somebody at the time would have explained to me that it is quite possible that the voice that I hear was a spirit of some description, that this is a possibility, and that there's nothing to fear, and that this is something that can be also taught and mastered, they would have showed me ways for controlling that, and instilling a sense that I'm in the driving seat of this experience, and not the victim, I think that would have helped.

Three people wanted to have more information about other voice-hearers' experiences. For example, Clara was eager to have access to the research outcomes of the present study:

Clara: Well, I'm very interested in what the results might be in terms of the commonness of having some kind of auditory hallucination without that being symptomatic of a psychiatric disorder.

Four participants made specific references to education for other people, including family, friends and the general public:

Isabelle: It would be nice if people could have a little bit more understanding.

<u>Normalising Hearing Voices</u>

Ten of the 50 interview participants described the positive benefits they had gained from having their voice experiences normalised. Some people had been told by professionals or friends that hearing voices was a relatively frequent phenomenon:

Zara:　One time I spoke to the doctor about that and she said 10% of people hear voices at night and you know, and it just made me feel so much better.

Other people found comfort in talking to other voice-hearers and realising that they were not alone in their experience:

Christina: I've spoken to a few other people since then, like where I used to live, mainly from the spiritualist church, who have had similar types of experiences, and I've also since I've been back in New Zealand spoken to a few Maori people who have had similar experiences so that's normalised it for me now.

Thirteen participants reported that they would have found having their voice experiences normalised helpful. Again, this included being able to speak about voices to mental health professionals and friends without being negatively judged, as well as communicating with other voice-hearers:

Kate:　And they (my friends and family) couldn't do that (support me) because they were terrified of the subject. Nobody wants to know about it because they're terrified. It's got to be brought out in the open.

Anne:　Well, it's been very nice talking to you (the interviewer) because I can't talk to anyone else. It's like a world that I live in. It's another world, with the voice. It's another world for me.

Astrid:　I also suggested to my counsellor, but she didn't think it would be a good idea, but I did think, and I still wonder about, meeting with some other people that have the same experience. Somehow a feeling I wasn't the only one, that might be helpful.

The Essential Structure of the Hearing Voices Experience

In accordance with the final step of the phenomenological approach taken in this study, the essential structure of the hearing voices experience was sought out by the researcher. The essential structure of an experience refers to the essential characteristics of that experience as described by most of the interview participants most of the time. Therefore, the qualitative results presented above, including categories and quotes, allow the reader to evaluate the relevance of the proposed structural model outlined below. Further, five participants' personal accounts of their voice experiences are also presented as examples of how the essential characteristics can be found in each person's story.

The proposed essence of the phenomenon of hearing voices may be described as comprising five components, as presented in Figure 22. The first component is that voices tend to say things that are personally meaningful to the voice-hearer. The voice content may be positive, negative, neutral or ambiguous, but is likely to be relevant to the person's present state of mind, relationships with others, or thoughts about the past or future.

Figure 22. The essential structure of the experience of hearing voices
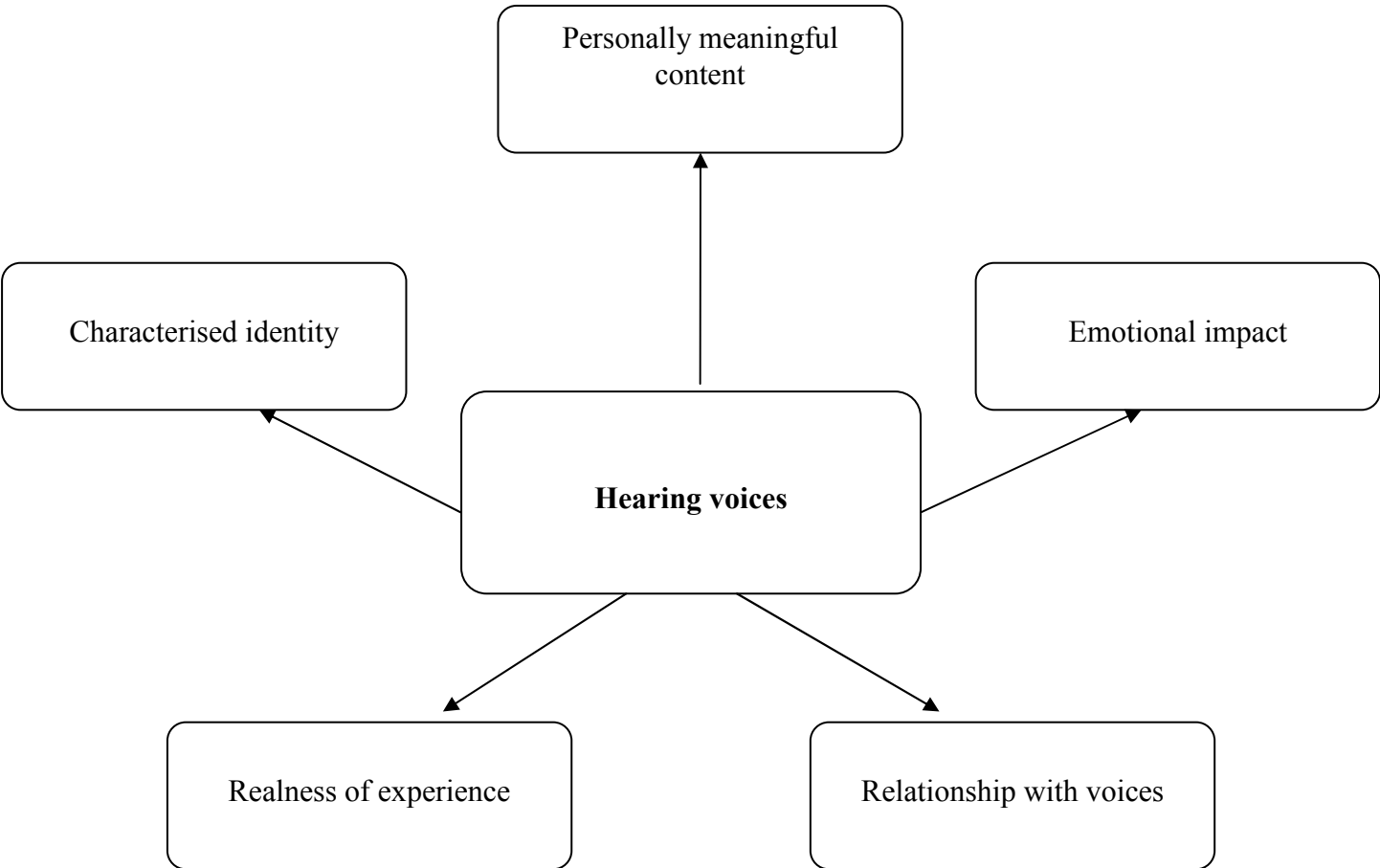
The second component is that voice-hearers tend to assign a characterised identity to the voices they hear. Sometimes they may be certain that the voice actually belongs to a friend or family member, a spiritual force or a stranger. Other times they are less convinced that the voices originate from actual beings, but assign them a characterised identity anyhow. For example, they may assign a symbolic name to each voice, such as "my guardian angel" or "the demons." These names are often stereotypical and help to distinguish one voice or a group of voices from the others that the person may hear.

The third component is that voice-hearers tend to develop a relationship with their voices. Sometimes this relationship is established from the very first encounter and remains stable over time. Other times the relationship evolves and changes. As the relationship develops, so does the person's role in relation to their voices. Some people take an active role, calling on their voices when needed and setting limits around when it is appropriate for the voices to come to them. Other people take a passive role, feeling helpless and powerless in relation to their voices.

The forth component is that the experience of hearing voices impacts significantly on voice-hearers' lives. Some people describe the experience as positive and enriching while others describe it as negative, intrusive or frightening. Voice experiences can affect the way voice-hearers view themselves and the world around them. They can influence their actions and their relationships with others. Voice experiences can also impact on how other people view those having such experiences, usually in negative ways.

Finally, the fifth component of the essential structure of hearing voices is that the experience is described as having a quality of realness. Participants describe their experiences as real, even if they are unsure of the objective existence of the voice in the material world. Voices tend to be experienced as external to the person's sense of self and distinct from internal dialogue, even when the voice is not situated as outside the person's body.

In terms of the relationships among these structural components, there appears to exist a consistent congruence between voice content, voice identity, the relationship between voice-hearers and their voices, and emotional impact. More specifically, when voices are identified as well-meaning (usually spiritual) entities, they tend to say nice things, the person tends to describe a positive relationship where they feel respected, and they describe their experiences

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as positive and enriching. On the other hand, when voices say nasty or unpleasant things, they tend to be characterised as malicious beings who leave the person feeling attacked and helpless in a one-sided relationship. These experiences are described as having a negative impact on the person's sense of self-worth and on their lives generally.

<div align="center">Personal Accounts Illustrating the Essence of Hearing Voices</div>

Four participant's stories were selected to demonstrate the proposed model of the essence of hearing voices. These stories were chosen to illustrate the diverse range of experiences reported by interview participants, but may be considered representative of the sample. For example, one person from the selection has heard multiple negative voices since her childhood, one person hears the voice of her spirit guide, one person has been hearing his father's voice since he passed away and one person has heard the voice of God on several occasions. Each personal account has been written as a summary of the phenomena reported by the interviewee, to give the reader a flavour of the person's experience (identifying details have been changed to preserve each participant's privacy). Table 16 summarises how each person's experience contains the essential characteristics of the proposed model of the phenomenon of hearing voices.

Sara

Sara is a Maori woman in her late twenties who has experienced negative voices for most of her life. She was fostered out as a baby and subsequently experienced many changes in foster homes, and felt that none of her foster families had any love for her. Sara recounted a childhood full of abuse, including repetitive physical and sexual assaults by numerous caregivers.

Sara was subjected to her first experience of sexual abuse at the age of four. This went on to become a nightly occurrence. On the second night, Sara heard a voice saying that her abuser would kill her. "I started hearing voices the second night that this person - I knew this person was gonna come in and do what they were gonna do and that's when I started hearing the voices." Sara recalls feeling very frightened and thinking that she couldn't tell anyone about the voices because they would just say she was being stupid. She didn't understand what was going on but thought that something was really wrong with her.

Sara's experience started out as one voice and increased over time to numerous voices, with various identities. Some voices are female, but most are male. She identifies some voices as deceased family members and others as unknown entities. She locates all her voices outside her head: "If there was a person that was there, standing next to me, I don't think it would be any different if a person was standing there or if a person wasn't standing there."

Sara's voices have only ever said negative things to her. They tell her she is worthless, that she is going to die, and that she should do things that go against her morals. When she was young, in particular, the voice content was often associated with her experiences of abuse: "Any time I would get physically hit or abused, sexually or emotionally or let down, I would start to hear these voices immediately saying, 'Go and kill that person, he's evil, what he's doing to you, you should kill him.'" For the most part, Sara has been able to ignore the commands of his voices. However, she once physically assaulted someone when spurred on by her voices.

Sara described another type of voice experience, which occurs when she goes to certain beaches. She hears a group of voices telling her to leave the beach immediately. She believes that these might be the voices of her Maori ancestors, protecting her by warning her away from *tapu* places.

Despite being diagnosed with Schizophrenia, Sara does not believe that her voices are a symptom of mental illness. Although she is convinced that her voices belong to actual entities and are not her own thoughts, she tends to use a psychological model of explanation, believing they are a consequence of trauma and difficult past relationships.

In terms of emotional impact, Sara describes feeling both fearful of and angry towards her voices. They interfere when she is trying to concentrate or engage in social interactions. Sara tried using drugs and alcohol and also prescribed medication, but found these gave her no relief from her voices. In fact, Sara has not found any effective coping strategies but finds that if she ignores them they go away eventually.

Sara did not find the psychiatric interventions she received helpful. In particular, she complained that they did not take a holistic approach. She did not trust her psychiatrist and would lie about her symptoms, including the voices, as she was fearful that her medication

would be increased. Presently, she sees a counsellor on a regular basis to help her work through issues not directly related to her voices. Sara does not believe there is anything she can do about her voices, either personally or with professional help. She continues to hear persistent voices and be distressed by them.

Rosie

Rosie is an English woman in her fifties who works professionally from home as a spiritual medium. Her experiences of hearing voices began over a decade ago when she first met her spirit guide. Rosie was sitting in the sun recovering from a physical injury when Bartholomew presented himself to her as a vision and told her that he was her spirit guide. At first she wondered if she had gone "stark raving crackers" but because he was "so matter-of-fact and honest" she listened to what he had to say and took him seriously.

Rosie provided a relatively detailed description of Bartholomew: "He's older, he's got white hair so he's older and he's got very dark brown eyes, quite a prominent nose. He's got short hair and very tight curly hair, tight crinkly hair and very flat ears, quite small ears. Quite dark eyebrows and eyelashes... And he's got a very good sense of humour… Bartholomew wouldn't thank me for saying old fashioned, but he uses 'thee's' and 'thy's' and sort of speaks in a slightly old-worldly way rather than a modern way of speech."

Since his first visit, Bartholomew has continued to visit Rosie regularly, offering advice and guidance, and teaching her about her mediumship abilities. She thus developed the skill to communicate with other beings from the spiritual realm. Sometimes these are other people's spirit guides, sometimes they are people who have passed on from this world, and sometimes they are evil spirits attempting to influence her in negative ways. She describes the location of her voices as both inside and outside her head, "all around."

Rosie has heard the voices of her own deceased family members on numerous occasions. Her mother has talked to her twice since passing away several years ago, to tell her that she was happy on the other side. She has also experienced her father visiting, although this she knew because she could smell him. She did not hear his voice. On one occasion, Rosie was working on her family tree when suddenly some of her ancestors came into the room and helped her by providing information.

Rosie has also experienced what she calls "bad spirits" who tell her to do "unchristian things," such as stealing and lying. She reported, however that she does not feel compelled to obey these voices and copes with them by calling to her spirit guide for help. She also finds that calling on "the Lord Jesus Chirst" makes the unwanted voices go away.

Overall, Rosie is happy to have her voices and feels in control of her experiences. She is currently writing a book based on the knowledge that Bartholomew gives her about the universe, the spiritual realm, mental illness, and other topics. Some of the content is a summary of what Bartholomew has told her and some was provided by automatic writing, when he took control of her hand and wrote sections for her. She also has posted on her wall a series of predictions of major world events that Bartholomew wrote using her hand. She reported that some of these have already come true.

Linda

Linda is a Pakeha woman who is married with grown children. She has a tertiary qualification and has worked professionally for much of her life. She describes herself as a devoted Christian who attends church, but does not adhere strictly to any particular religious dogma.

Linda reported several one-off experiences of hearing the voice of God. Her first experience was as a young girl, aged about six or seven, when she was at church with her family. When the priest called for the penitent to go up and repent their sins she heard a voice instructing her to go up. At first she thought it was her dad who said this, then realised that he had not said anything so assumed that she must have imagined it. Then the voice came again. When it called a third time she decided that it must be God and that she had better do what he asked.

Linda described feeling elated by this experience. That night she told her parents she heard angels singing in her ears: "I also remember having this incredible - it was tinnitus probably, in the ears - a very strong ringing in my ears. I didn't know what tinnitus was, I had never experienced that before and I don't remember saying to my parents, but they have told me numerous times over the years that I have said, 'I think the angels in heaven are so happy they are singing, I can hear them in my ears'." Linda continued to experience ringing in her ears throughout her adult life, although she did not find this particularly disruptive and did not seek professional advice.

Linda next heard voices when she was 24. She situated this experience in the context of unrequited love. She had been praying to God, asking that the young man with whom she was in love would do well in his exams. A voice replied that if he did well he would probably leave town, thus diminishing her chances of seeing him again. She felt that through prayer she held this man's destiny in her hands and decided that the Christian thing to do would be to pray for his good fortune, rather than try and keep him close-by.

About two years later Linda was experiencing some difficulties in her life and was unsure about how to resolve the situation. The same voice came and told her to visit a man who was a friend of her father. She followed this advice and the visit was very helpful. Linda believes the voice of God came at critical times in her life to guide her in making her own decisions. She reported that overall she views these experiences as positive and enriching.

Linda also reported having experienced paranormal phenomena in relation to her family. Several years ago her mother was very ill in a rest home and Linda had a feeling that she was going to die. Linda woke at midnight to a hymn being played in her head, which she associated with her mother, and found out the next morning that she had indeed passed away in the night. Linda also believes that her father came to her in a dream when he died. She does not, however, refer to either of these experiences as hearing voices.

Eddie

Eddie is a middle-aged Pakeha man who has only ever heard one voice, that of his deceased father. His experiences began just after his father, to whom he was very close, passed away. He spent a lot of time with him in the few weeks preceding his death and viewed his passing as a comfort because he had been very ill. From the moment he passed away, Eddie felt his father's presence around him much of the time and this developed into him hearing his voice.

Eddie first heard his father's voice during a difficult period with his wife. He was sitting on the steps outside his home when he saw a bird on the fence, singing: "It was almost like the bird was calling out my name, you know. I just made a connection to that. And it was like he was telling me to leave, to get out. And often, after that experience, I would actually have this bird, that would follow me around." Over the following days, the presence of the bird was accompanied by his father's voice calling his name.

Eddie was a little confused by his experience at first and became upset, but this developed into curiosity. He talked to his mother about the voice because his mother had previously described having similar experiences, although not with Eddie's father. However, Eddie did not talk to anyone else about his experience because he was concerned that they might not understand and think he was mad or making it up.

Eddie knew that the voice he heard belonged to his father because it sounded just like him. When he heard his name being called it reminded him of when his father called out to him as a child. He used his full name, Edward, rather than the abbreviated Eddie that most people called him as an adult. "And I would often spin my head round and go, 'Yeah?' as if I was just a child calling back."

Eddie feels blessed to hear his father's voice. He believes his father is letting him know he is still around watching over him. He also reported that on several occasions his father has called his name in order to show his support of a decision and to indicate the location of an item he was searching for.

Table 16. Summary of examples of the essential characteristics of hearing voices, taken from four case studies.

	Sara	**Rosie**	**Linda**	**Eddie**
Personally meaningful content	Commands to harm her abuser, warnings to leave tapu places	Teachings about topics that interest Rosie, commands to hurt loved ones	Advice and guidance for important life decisions	Christian name
Characterised identity	Male voice, family members, tupuna	Shakespearean elderly man, bad spirits, family members	God	Deceased father
Relationship with voices	Abuser-abused relationship	Teacher-student relationship	God-disciple relationship	Father-son relationship
Emotional impact	Fear, anger	Happiness, life is enriched by spirit guide, angry at bad spirits	Elation, views experiences as positive and enriching	Confusion, curiosity, blessed
Realness of the experience	Believes actual entities are talking to her	Believes in the spirit world and that she is in communication with it	Believes she has a direct line to God	Believes father is watching over him

<u>Experiences That Do Not Fit the Proposed Model of the Essence of Hearing Voices</u>

This model of the essential structure of the phenomenon of hearing voices was developed based on the commonalties found across the experiences described by the interview participants. However, this model does not adequately fit all of the 50 interview participants' descriptions. Specifically, five people's experiences seemed to fall outside of the scope of this model.

Two participants, Cecil and Ida, who both associated their voices with epileptic seizures, described random content that held no personal meaning for them. Further, they did not assign an identity to their voices or have a relationship with them. Cecil and Ida both described their voices as occurring *to* them, as random events, over which they had no control, nor indeed sought any control. Cecil had heard random syllables, the occasional word and one sentence only. He also reported visual hallucinations. Ida had heard a clear verbal utterance twice only. The other experiences she described as "like a memory download" of the day's events.

Laura's voice experiences were limited to hearing her name being called on several occasions only. She had not formed an opinion of the identity of the voice calling to her, and it had happened so rarely that no relationship between her and her voice had developed. Laura reported that these experiences had had no real impact on her life, either at the time or afterwards.

Finally, two participants, Carrie and Oliver, described experiences that seemed to be very similar to inner dialogue. Their voices tended to consist of replays of conversations or the playing out of future conversations. Oliver equated his voices to "intuition" and Carrie equated hers to "internal dialogue." Neither assigned an identity to their voices, and thus neither had an image or character with which to develop a relationship. Carrie's experience is described in greater detail below, as an example of experiences that do not fit with the proposed model of the essence of hearing voices.

<u>Carrie</u>

Carrie is a young Australian woman with a high-level tertiary qualification and professional career. In her early 20s she suffered from depression, which she believes was triggered by stress. It was during this period that Carrie first "became aware of this phenomenon (of

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hearing voices).” She was worried that it might mean she had a severe mental illness such as Schizophrenia. Carrie hears one voice, which she refers to as an “internal type dialogue.” Carrie had difficulty describing the characteristics of the voice but said, “It's always been the same. It's what I call internal type dialogue. There's no definite, I can't say that it's my mother's voice or my brother's voice or any particular person. It's got no sort of definite accent or anything like that and it's internal, within my head I guess.”

From her descriptions, Carrie's voice seems to be akin to internal speech. She plays out future scenarios in her mind and reflects on previous social interactions. She reports that it interferes with her concentration, although generally she can refocus her attention and ignore the voice if she needs to.   Although she hears the voice daily, it becomes more apparent when she is in a stressful situation. She did not notice a change in the voice associated with a change in mood.

Carrie has talked to her General Practitioner about the voice and was told she just had to live with it. She has not discussed the experience with anyone else as she believes they would not understand.

CHAPTER IV: DISCUSSION

Study Limitations

As with most research, this study has some limitations, which need to be discussed so that the results may be seen in context. The first is the use of a self-selected sample. One aim of the research was to map the diversity of experiences found in the general population of New Zealand. Although a census-type survey exploring this topic may have been ideal, the researcher was limited by time and funds. Therefore, an attempt to reach multiple sectors of New Zealand society was made by using multiple media sources, including national television, radio and print aimed at mainstream New Zealand, articles in university magazines aimed at student populations, and a late night television show aimed at young adults. Unfortunately, appeals to culturally-specific media, such as Pacific Island and Indian radio stations and a Chinese newspaper, were unsuccessful. This might help to explain the lack of respondents from ethnic groups other than Maori and Pakeha.

Despite the focussed attempt to obtain a good cross-section of the New Zealand population, the nature of the sample selection process means that this cannot be ensured. Some specific examples of areas where possible sample biases may be influencing data outcomes include the disproportionate gender representation, high levels of educational attainment in the sample, the high frequency of positive voice experiences and spiritual explanatory models, and the finding that most participants reported that their voice experiences had a significant impact on their lives. Each of these is addressed individually in subsequent sections of this chapter.

A second limitation of the present study is the lack of diagnostic assessment. The research findings indicate that voices do not appear to be always indicative of severe mental illness. Evidence for this was based on the fact that a large number of questionnaire respondents did not report having had contact with the mental health system and only a small minority reported having a psychiatric diagnosis. It is possible that a large number of the participants would have met diagnostic criteria, had they been tested for it. However, conducting diagnostic interviews was not a feasible solution to the question, mainly due to time and funding restraints. Further, it is of note that the interviewer is a training clinician and impressions from the interviews suggested that most interview participants would not meet

criteria for a DSM-IV-TR diagnosis (American Psychiatric Association, 2000).   A similar problem was evident for findings related to self-reported trauma histories.   It was deemed inappropriate to verify, and in some cases even explore, participants' reports of traumatic experiences, and so there is a potential for over- or under-reporting of such events. It is suggested that under-reporting was made more probable by not asking.

A third limitation can be found in the procedure of conducting statistical analyses.   Some statistical relationships were reported despite their level of significance reaching only 0.05. These results were reported because of their potential relevance to the present and future studies.   However, they must be treated with caution and would require replication before any strong conclusions can be drawn.   Further, there is an increased risk of type 1 error (false positives) due to extensive number of analyses run.

A fourth limitation of the present study is that it did not map changes in experiences across time.   The interviewer noted that some participants reported experiences that developed from negative to positive and vice versa, but these reports were not included in the data analysis. Analysis of these changes may have provided further information about the relationships participants had with their voices and, in particular, how these relationships might reflect contextual changes in the person's life or changes in models of understanding.   Belofastov (2004) captures these changes in her study of voice-hearers with psychiatric diagnoses, but it is an area of research that is lacking in general population studies.

A fifth limitation of the present study is that it only captures a snapshot of a limited number of individuals' experiences.   As Bannister et al. suggest, "all meaning is indexiacal, which means that it will change as the occasion changes and as it is used in different ways" (1994, p.10). It is therefore important to acknowledge the patterns of influence on the research data gathered. Firstly, this piece of research was conducted as part of a PhD degree in Psychology. Therefore, the literature consulted tended to fit within a psychological paradigm, with much less emphasis on biological literature and an almost complete neglect of the spiritual and mystical literature. This same bias would have influenced the construction of both the questionnaire and the semi-structured interview format.

A second way in which the researcher may have influenced the data gathered was during the interview process. Interview participants talked to the interviewer as a trainee psychologist, a

researcher and an interested listener. Their stories may have contained different information and/or been told in a different way had they been told to someone else and/or in a different context. In particular, there are inherent power differences in the relationship between interviewer and interviewee. An attempt was made to minimise this difference by observing the principles of confidentiality, consent and the right to withdraw; by using a semi-structured interview format; by offering participants the tape of their interview; and by following the phenomenological approach of bracketing assumptions.

Another common limitation to qualitative approaches is the subjective nature of qualitative data analysis. Once again, the explicit naming and bracketing of assumptions can work to counter this bias. For example, evidence of the researcher's success at bracketing her assumptions about psychological origins of voices might be found in the attention paid to all explanatory models reported by participants. Lengthy discussion was given to biological and spiritual models of understanding because these were identified by participants as important. Had the researcher worked within her own assumptions she may have dismissed these explanations or interpreted them from a psychological perspective.

The problem of the subjective nature of qualitative data analysis was also addressed through the use of numerous reliability audits, the process for which is outlined in detail in Appendix H. While another researcher may have developed different categories based on the same data, the rationale for each of the categories is in evidence throughout the results section, with examples from the interview transcripts provided in order to give the reader some information with which to evaluate the categorisation process.

Aims of the Study

The present study was guided by five main aims, as outlined in the first chapter. The first aim was to map the range of hearing voices experiences reported by an adult New Zealand sample. This included describing the demographics of the self-selected sample who responded to a media request for participants over the age of 18 who had had the experience of hearing voices that no one else can hear. It also included describing the topography of the voices reported by participants in this sample. These factors were explored for voice experiences in general, and also more specifically for each participant's first voice experience.

The second aim was to explore participants' beliefs about why they heard voices. This included describing the various explanations voice-hearers reported for their experience as well as attempting to group these explanations into more general explanatory models.

The third aim was to describe and analyse participants' reports of the impact of the experience of hearing voices on their lives.

The fourth aim was to investigate the ways in which voice-hearers manage their experiences. This included describing the types of coping strategies employed by participants and their reported efficacy. It also included describing the types of help and support sought out and received by participants specifically for their experiences of hearing voices, as well as the perceived helpfulness of these interventions.

The fifth aim was to seek out and describe a proposed model of the essential structure of the phenomenon of hearing voices, in an attempt to provide a definition of this phenomenon that will fit across the range of different voice-hearing experiences.

Demographics

The first aim of the study had three aspects. The first aspect was to describe the demographics of the participants, including gender, ethnicity, educational attainment, and contact with the mental health system.

A total of 154 people completed the Hearing Voices Questionnaire. Of this sample, two thirds were women and a third men. This was a self-selected sample and may be biased for a number of reasons. For example, more women than men may watch, listen to and/or read the television and radio programmes and publications that were used to promote the study. It is also possible that women are more likely than men to respond to requests for participation in surveys. However, the disproportionate amount of women in the study may also reflect a real difference in the prevalence of voice-hearers in the community, as indicated by previous research, in which the female to male ratio ranged from 1.2:1 to 2.2:1 (Grimby, 1993; Schwab, 1977; Sidgwick et al., 1894; Tien, 1991; West, 1948).

New Zealand is comprised of a rich inter-weaving of cultural diversity. Unfortunately, the present study was not able to capture this diversity, as different cultural groups could be encouraged but not coerced into participating. The vast majority of questionnaire participants were Pakeha (New Zealand European), with a minority of 12.3% identifying as Maori, and an even smaller minority (2.6%) identifying as belonging to some other ethnic group. The number of Maori participants is somewhat representative of the New Zealand population, in that the latest census results show 79.9% of New Zealanders identify as Pakeha or European, 14.7% as Maori, and 5.4% as belonging to some other ethnic group, including Pacific Island, Asian and Middle Eastern (New Zealand Statistics, 2001). Given the cultural demographics of the present study's sample, comparisons could only be made between Maori and Pakeha groups. Future research investigating voice phenomena with Pacific Island and Asian cultural groups, for example, would likely expand on and enrich the findings presented here.

Overall, the participants reported high levels of education. Just under half (44.8%) of questionnaire respondents reported having a tertiary qualification of some kind, while only 10.1% of New Zealanders over the age of 15 can make such a claim. A number of possible explanations could account for the disproportionately high level of education reported by the questionnaire participants, but without further information it is inappropriate to speculate about this here. It does, however, suggest that hearing voices does not necessarily prevent a person from succeeding academically, because almost half (48%) of those participants who had completed a tertiary qualification started hearing voices before the age of 18 (the usual age of university entrance). This assertion is supported by Honig et al.'s (1998) finding that among a group of 48 voice-hearers, including people diagnosed with Schizophrenia and Dissociative Disorders, as well as non-patients, 25% reported having higher vocational training, 31% lower vocational training, 29% a secondary level education, and only 15% reported going no further than primary school.

Over half (54.5%) of the questionnaire participants had been in contact with mental health services at some point in their lives. However, and more importantly, just under half (44.8%) of the participants had not. Further, only 22% of participants reported that they had had contact with mental health services because of their voices. Over a third of all participants reported having a psychiatric disorder. Not surprisingly, given the high prevalence of auditory hallucinations in Schizophrenia, the most common diagnoses fell within the scope of the schizophrenia spectrum disorders. However, only 20% of all questionnaire participants

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reported a diagnosis from the schizophrenia spectrum, the other psychoses or Dissociative Identity Disorder, despite these being the major diagnostic categories involving auditory hallucinations as a diagnostic criterion. Given that the statistics for diagnoses relied on self-report and that nine participants were unsure whether or not they had been assigned a diagnosis, it is possible that a greater number of participants than reported here may in fact have met criteria for a psychotic or dissociative disorder. It is unlikely, however, that this would be the case for all 123 other participants, or even for the 21 people who had been through the mental health system but did not report having a psychiatric disorder.

In summary, the demographic make-up of the sample is rich and varied. However, there are many more women than men and many more Pakeha than non-Pakeha. The sample is, on the whole, well-educated, and roughly equal in terms of whether or not they have had contact with mental health services.

Topographical Characteristics of Voices

The second aspect of the first aim of the study was to map the types of voice experiences reported by the sample. This included describing such characteristics as voice content, voice identity, location, form, number, frequency, duration, intrusiveness and control over voices.

There was great variability in the reports of the topographical characteristics of voices, both within and across participants. This in itself is an important finding because it suggests that hearing voices is a complex, multifaceted phenomenon. In terms of the questionnaire responses, all possible levels of each characteristic were reported by at least some participants. For some characteristics, however, a pattern did emerge. For example, the majority of participants reported hearing more than two voices. Most also heard voices on a regular basis (between once a week to every day) and most reported that their voices would usually talk for reasonably short periods (a word or sentence at a time to talking for up to half an hour).

In terms of the location of the voices, many more participants reported hearing voices inside their head than outside. Compared to previous studies (e.g. Nayani & David, 1996) a surprisingly large number of participants (a little less than 40%) reported hearing voices both inside and outside their head. In line with many clinicians' rule of thumb that dissociative

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voices are heard inside the head and psychotic voices are heard outside the head (Watkins, 1998), the three questionnaire respondents who had been diagnosed with Dissociative Identity Disorder all reported hearing voices inside their head only. However, only four of the 28 questionnaire respondents who had a psychosis diagnosis reported hearing voices outside their head only. Eight of the psychosis diagnosis respondents reported hearing voices inside their head and 15 reported hearing voices both inside and outside their head. It seems appropriate, therefore, to include "both inside and outside" as a third option in future studies investigating voice location, as it may be an important characteristic that has not been adequately assessed in the past. For example, most published studies to date only report on voice location as either inside or outside the head (e.g. Honig et al., 1998; Ross et al., 1990).

Although most (63.6%) participants reported having at least a little control over their voices, only 5.8% reported having complete control, in the sense that their voices only came when the person wanted them to. This finding is consistent with the definition of hallucination provided by Slade and Bentall (1988, p.23), which requires that the hallucinatory experience "is not amenable to direct and voluntary control by the experiencer."

In terms of the intrusiveness of voice experiences, most participants reported that their voices neither took over their thoughts nor disturbed their contact with other people. It might be reasonable to assume that those participants who heard voices outside their head would be more likely to report that their voices disturbed their contact with others as the voices would be competing with other external auditory stimuli. It might also be reasonable to assume that those participants who heard voices inside their head would be more likely to report that their voices took over their thoughts. Although this pattern did indeed emerge, the differences between the groups were not found to be significant.

Questionnaire respondents reported that their voices spoke to them in multiple forms, the most common of which was helpful advice or guidance. Interestingly, 66% of all participants had heard a voice commenting, either on their thoughts, actions, self and/or others. This is somewhat higher than the 40% reported by the non-patient participants in Honig et al.'s (1998) study. Over a quarter of participants had heard voices talking or arguing with each other, a much higher figure than might have been expected based on previous studies in both general and psychiatric populations (Caspi et al., 2005; Leudar & Thomas, 2000; Ross & Joshi, 1992). Given the low rate of diagnosed disorders in the questionnaire sample, this

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finding provides further evidence against the utility of these two Schneiderian first-rank symptoms (Schneider, 1959) as diagnostic criteria for Schizophrenia, or any psychiatric disorder.

<p style="text-align:center">Identity</p>

In accordance with the findings of previous studies (e.g. du Feu & McKenna, 1999; Leudar & Thomas, 2000; Romme & Escher, 1989; Watkins, 1998), most participants from the questionnaire sample could identify at least one of their voices. Just over half of the sample identified their voices as belonging to, or reminding them of, people they know. This percentage was almost twice as high as that found by Romme and Escher (1989), but concurs with Leudar and Thomas' (2000) finding that most people in their sample of long-time voice-hearers heard the voices of people that were known and significant to them.

Just under half of the questionnaire sample identified their voices as God(s), spirits or guides. This is in line with the 44% reported by Romme and Escher (1989) and the 55% reported by Scott (1967). Just over a third of the questionnaire sample identified their voices as people they don't know. Unfortunately no other studies used this criteria and so it is not possible to make a comparison.

A quarter of the questionnaire sample assigned their voices some other identity. The majority of descriptions in this category related to some form of inner voice or higher self. For some people this was the only voice they heard, but for most it was one among other voices which had been identified as people or spirit entities.

Thematic analysis of the qualitative data revealed that it may be more helpful to conceptualise voice identity under one of eight categories, as opposed to the four broad categories used in the Hearing Voices Questionnaire. Of these eight types of voice identity, six ("Unspecified entities," "Deceased person and spirits," "Spirit guides," "Parts of the self," "Living people" and "Gods and prophets") were reported by at least a fifth of the interview participants, suggesting they are relatively common identities. Two categories, "Animals" and "Aliens," were less frequently reported.

Two categories of identity were reported by over half of all interview participants. The first was "Unspecified entities." Participants who reported voices that were assigned to this

category talked about voices that they recognised and could identify in terms of gender and/or content, but were unable to say who or what the voices were. Most people who reported a voice that fell into this category reported also hearing voices of a more specific nature, such as a deceased relative or a spirit guide.

The second identity category frequently reported by interview participants was "Deceased persons and spirits." Most voices in this category were identified as deceased family members, although there were also voices described as ghosts of people unknown to the person and evil spirits. Just under half of the interview participants identified their voices as living people. Again, most commonly, these would be people who were significant to the person, and, more often than not, family members. These findings support the conclusions of Leudar and Thomas (2000) and Modell (1960), who argue that very often voices can be identified, either directly or indirectly, as persons that are significant to the voice-hearer, and, in particular, parents.

Interestingly, there was an unexpectedly high proportion of interview participants (28%) who identified one of their voices as a spirit guide. This phenomenon is not well-documented in the psychological literature, with the exception of Romme and Escher (1989), who found that 18% of their questionnaire respondents reported hearing the voice of a "good guide." This may be a phenomenon that needs more attention in future studies of voice-hearers.

Also of note was the high proportion (36%) of interview participants who identified their voices as a part of themselves. Of particular interest was the observation that although some voice-hearers refer to their voices as their inner dialogue or inner self, all could distinguish their voices from their self-talk. Well-known philosopher and psychologist, William James, also observed that although many people hear voices that they describe as "inner voices" the characteristics of these voices is "entirely unlike the inner speech of the subject with himself" (1892, p.132). Thus, even when voices are believed to be of internal origin, voice-hearers tend to experience them as different from their own thoughts.

This highlights an interesting point regarding the difference between the way a voice is experienced and the person's belief about the origin of that voice. For example, although the majority of questionnaire participants were completely sure about who their voices are, up to 40% of participants had some doubts about this. Exploration of this theme in the interviews

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revealed that in many cases, doubt was related to confusion about whether the voices were just a product of their own thinking or imagination. Other researchers have also reported this confusion (e.g. Modell, 1960). However, careful analysis of the qualitative interviews reveal that even when a person may question whether their voices are simply a product of their imagination, they are still able to distinguish them from their own self-talk.

<u>Content</u>

One of the most striking findings in relation to voice content was that almost half of the questionnaire participants reported that their voices said "mostly friendly or helpful things," while only a quarter reported that their voices said "mostly negative or unhelpful things." This is in stark contrast to media portrayals, mental health descriptions and lay perspectives of voices saying hostile, derogatory and dangerous things (e.g., The New Zealand Herald, September 20, 2003, p.3; Davison & Neale, 1996, p.389). This finding may be influenced by the process of self-selection of participants used in the present study. Romme and Escher (1989) found a similar pattern of responses in their self-selected questionnaire sample. About a third of their participants reported hearing voices that tended to be positive and friendly. These findings indicate that positive voice content is relatively common, at least within general population samples.

Another noteworthy finding was that when voice content was explored in more detail in the interviews, participants indicated that despite a tendency to report the overall experience of voice content as friendly or helpful, most had had variable experiences. In fact, no interview participants heard positive voice content only, three participants heard negative content only, and six heard neutral content only. Most commonly (in 22 of the 50 cases), interview participants reported hearing all three types of voice content. Few studies to date have accounted for this variability of content, but those that have report similar findings (Belofastov, 2004; Honig et al., 1998; Johns et al., 2002; Modell, 1960).

The in-depth analysis of the interview data also revealed that limiting descriptions of voice content to "positive," "negative" and "neutral" was inadequate. Within each of these three categories numerous sub-categories were created in order to provide a more comprehensive account. To the author's knowledge this is the first time that such an extensive and detailed account of voice content has been published. It is an important addition to current research as it highlights the variety and complexity of the hearing voices phenomenon.

Under the heading of "positive voice content," in which the responses of 58% of the interview sample had been categorised, participants described compliments, encouragement, comfort, helpful information, supportive advice and positive emotional sounds.   Under the heading of "negative voice content," in which the responses of 76% of the interview sample had been categorised, participants described criticisms, unhelpful or unpleasant advice and information, commands to harm themselves or others, and negative emotional sounds.

The vast majority (92%) of interview participants reported at least one experience of neutral voice content. This major category was divided into 10 sub-categories: advice and guidance, information, commenting, repetition, instructions, sounds, calling to the person, messages for others, premonitions and music.   Interestingly, interview participants who reported repetitive content and instructions did not give examples that could be classified as positive or negative (this excludes instructions to harm oneself or others, which have their own sub-category). As the examples in the results section illustrate, they were of a neutral or ambiguous tone. Both repetitions and instructions have been described in the psychiatric literature, but usually as unpleasant or aggressive in quality (Watkins, 1998).

It was also of interest that about a quarter of the interview participants described voices that called their name or tried to get their attention. Compared to other studies, this figure is quite low.   Four general population studies found that between 42% and 64% of their participants reported having this experience (Barret & Etheridge, 1992; Millham & Easton, 1998; Posey & Losch, 1983; Sidgwick et al., 1894).   However, hearing your name being called has been found to be reported much less frequently in a schizophrenic sample (Suhail & Cochrane, 2002), perhaps suggesting that the large proportion of participants in the present study with a psychiatric diagnosis led to less reporting of this type of voice content. Indeed, analysis of the diagnoses of the interview participants who reported hearing their name being called revealed that none had a diagnosis of Schizophrenia, although four of the thirteen did have other psychiatric diagnoses.

Another possible reason for the comparatively low rate is that because all interview participants were self-identified voice-hearers and all but two had other voice experiences in addition to hearing their name, participants in general may not have spontaneously conceptualised hearing their name being called as hearing voices. It is possible that this relatively benign experience occurs to many of us on occasion but is usually dismissed as

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mishearing or imagination, and will be especially likely to be dismissed by someone who has other more significant voice experiences.

Despite the fact that the term "voices" is often used synonymously with "auditory verbal hallucinations," it is not uncommon for voice-hearers to refer to non-verbal sounds and music as voices (Bell, no date; Close & Garety, 1998; du Feu & McKenna, 1999). In the present study eight interview participants reported hearing sounds such as rustling, banging and ringing and seven interview participants reported hearing music. When probed, these interview participants confirmed that they considered these experiences to be "voices." Several other participants also reported hearing similar sounds but considered them to be auditory hallucinations, not voices. No explanation for why some participants called sounds and music, "voices," and some did not, could be obtained. This finding does, however, suggest the importance of understanding each individual voice-hearer's own definition of "voices."

Finally, 10 participants reported hearing messages for others and 11 participants reported having auditory premonitions, which were sometimes accompanied by visions. These phenomena are not often reported in the psychiatric literature as they tend to be understood as belonging to the psychic or paranormal realm. Interestingly, however, all 19 of the interview participants who reported these experiences also reported a whole range of other voice experiences, suggesting that although messages and premonitions may be of a different ilk to comments, guidance and criticisms, these two types of voice content are not mutually exclusive and may often be experienced by the same individual.

The importance of voice content in relation to emotional impact and contact with mental health services, as well as the personal relevance of voice content will be discussed in later sections of this chapter.

<center>Topographical Characteristics and Culture</center>

A few significant differences were found for topographical characteristics across culture. Firstly, Maori participants reported hearing voices more frequently than Pakeha participants did. Although no studies to date have made cross-cultural comparisons specifically for the frequency of voice experiences within individuals, the findings of the present study are consistent with international studies reporting that hearing voices is more common in non-

Western cultures (Jocano, 1971; Johns et al., 1998; Schwab, 1977; Sidgwick et al., 1894). It is therefore possible that not only are individuals from non-Western ethnic groups more likely to report having voice experiences, they may also have these experiences more frequently. Future research investigating this further may clarify this.

Maori participants were also significantly more likely than Pakeha to hear voices commenting on them, acting as a helpful guide, and talking or arguing with each other. The higher proportion of comments and guidance may be understood within the context of some international research, which describes the phenomenon of hearing voices as serving an important spiritual or social function (Bourguignon, 1970), providing spiritual guidance (Sodi, 1995) and comprising an essential element of the practice of shamanism (Watkins, 1998). The significantly higher proportion of Maori reporting voices commenting and voices talking or arguing with each other, both first-rank symptoms of Schizophrenia according to Schneider (1959), cannot be explained in terms of higher rates of psychiatric diagnoses. No significant differences were found between Maori and Pakeha participants for either rates or types of diagnoses.

Finally, Maori participants were more likely to identify their voices as people they don't know and as beings such as God(s), spirits or guides. Because the phenomenon of hearing *tupuna*, or ancestors, talking to you is a well-known and relatively common experience among Maori (Cherrington, 1994; Lyndon, 1983; Taitimu, 2005), it was expected that a significantly higher proportion of Maori than Pakeha might report hearing the voices of people they know. However, it is possible that some Maori participants may have referred to their *tupuna* as spirits or guides. Makarere, for example, described *tupuna* as immortals and spoke of how they provided her with guidance. Further, Cherrington (1994) reported that in her sample of participants diagnosed with Schizophrenia, Maori were more likely than Pakeha to report culturally-specific hallucinations such as seeing and hearing Maori spirits.

<div align="center">Summary of Findings for Topography</div>

Overall, these findings suggest that the phenomenon of hearing voices should not be defined in terms of "typical" characteristics. Some people have voices that talk to them regularly, providing advice or criticising them in short bursts of single words or sentences. Other people have voices that talk about them or about other people. Some voice-hearers may have a voice experience only several times in their life, when an identified personality, such as God or a

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deceased family member communicates with them. Other voice-hearers may feel that their voices have always been with them and will always be a significant part of their lives. Others still, will experience multiple voices which manifest with a range of, or even all of, these characteristics.

These findings indicate that people working with voice-hearers should not make assumptions about the nature of their client's voices. If a genuine understanding of the experience is desired, time should be taken to ask about the characteristics of each voice, as an individual person may experience multiple types or forms of voices. Further, given the heterogeneity across topographical characteristics, applying any diagnosis on the basis of voice-hearing would be overly simplistic.

First Voice-Hearing Experiences

The third aspect of the first aim of the study was to focus specifically on participants' accounts of their first voice-hearing experience. Factors studied were: age at first experience, voice content and emotional reaction to the first experience and possible significant events preceding the first experience.

Age at First Experience

Factors surrounding the onset of voices appear to be of little interest to most researchers, both in general population and clinical studies. However, as data from the questionnaires and interviews illustrate, most voice-hearers in the present study could recall their first voice experience, and sometimes with great clarity. This finding was also reported by Romme and Escher (1989), although it is in contrast to the reports of participants in Leudar et al.'s (1997) study, who indicated difficulty pin-pointing the onset of their voices. All but two of Leudar et al.'s sample of 28 patients and non-patients reported always having voices and discovering this was unusual. Only four participants in the present study reported having always heard voices, although 23% did report hearing voices before the age of five.

Findings from the present study indicate that voices can begin at any time in a person's life, from early childhood through to old age. However, the majority (66%) of the questionnaire respondents reported hearing voices for the first time before they turned 26. This included

35.7% who had voices before age 12. This figure is somewhat higher than the 27.1% reported by Honig et al. (1998). When broken down by diagnosis, only 11% in Honig's sample of people diagnosed with Schizophrenia reported voices before age 12, while 33% of people diagnosed with Dissociative Disorders and 40% of non-patients did. It might therefore be possible that the mix of patients and non-patients in the present study may account for the difference in findings. Indeed, further analysis revealed that only two people (3.6%) who reported hearing voices before age 12 had been assigned a psychiatric diagnosis.

It was also interesting to note that only 22% of participants reported hearing voices for the first time between the age of 16 and 25, an age bracket often associated with the onset of schizophrenic symptoms such as hearing voices, at least in men (Goldstein & Lewine, 2000). When the bracket is expanded to between 16 and 35, to incorporate the peak period of symptom onset for women (25-30), the percentage of participants reporting voice onset is still only 35%. This suggests that the majority of voice-hearers in the present study do not fit the pattern of symptom onset for Schizophrenia, thus providing further evidence against the notion that voices should be understood primarily as a schizophrenic symptom. Indeed, even those participants with a diagnosis of Schizophrenia did not all match the usual profile for positive symptom onset. Only 10 of the 17 Schizophrenia participants reported the onset of their voices to be between 16 and 30. Three of the Schizophrenia participants reported hearing voices for the first time before age 16, two after age 30, and two participants didn't say.

Voice Content and Emotional Reaction at First Experience

There was great variation in both the content of, and emotional response to, initial voice experiences. Most significantly, although about half of all questionnaire respondents reported that the first words spoken to them by a voice was positive, less than a third had a positive reaction to the experience. Most others had a neutral reaction, but four participants reported having an extremely negative reaction to positive voices. In all four cases, participants identified a significant negative event occurring shortly before the onset of their voices.

Of those participants who reported a positive emotional reaction towards their first voices, all had heard either neutral or positive content. This suggests, quite sensibly, that hearing a voice for the first time that says mostly nasty or aggressive things will not cause the person to respond positively. Finally, of those questionnaire participants who reported a negative emotional reaction towards their first voices, 14 had heard mostly friendly or helpful things.

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This finding suggests that, in some cases, the experience of hearing voices itself may trigger a negative emotional reaction, despite the fact the voices are saying nice things.

<u>Significant Events Preceding the First Voice-Hearing Experience</u>

Although research into the topographical features of initial voices is very limited, several studies have investigated situational factors related to first voice hearing experiences (Belofastov, 2004; Honig et al., 1998; Modell, 1960; Romme & Escher, 1989). Over half (57.8%) of the questionnaire participants from the present study identified a significant event taking place shortly before their first voice-hearing experience, and in the vast majority (81%) of cases the event was negative. This finding is similar to previous authors' reports that between 58% and 70% of participants identified a traumatic event preceding the onset of their voices (Honig et al., 1998; Romme & Escher, 1989).

These findings suggest that for many people, the onset of voice experiences occurs within the context of, and may be directly associated with, significant and often traumatic life events. Examples taken from the interview transcripts illustrate obvious links, such as Ian hearing the voice of his abuser from early childhood and Ziggy hearing rustling in the walls after he violently killed a nest of rats. However, as Baker (1995) reported, for some people, times of trauma and stress are associated with the onset of helpful and guiding voices. This was the case for numerous participants in the present study. For example, as documented earlier, Makarere was grief-stricken by the sudden death of her grandmother, but was comforted by that same grandmother's voice from beyond the grave.

Explanatory Models

The second aim of the study was to explore, describe and analyse participants' explanations of who or what their voices are and why they hear them. This included aspects such as distinguishing voices from internal dialogue, accepting voices as a normal cultural experience and understanding voices in relation to adverse or traumatic events. It also involved grouping participants' specific explanations under three more general explanatory frameworks: spiritual, psychological and biological.

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Voices as Distinct from Internal Dialogue

The vast majority of questionnaire participants indicated that they were at least moderately convinced that their voices were not their own thoughts and only nine people out of 154 reported being completely convinced that their voices were their own thoughts. This finding is consistent with data from the interviews, which demonstrate that even when voices are conceptualised as "inner dialogue" they are still readily distinguished from thoughts and self-talk. Further, a third of all questionnaire participants endorsed the explanation: "The voices are part of myself but not the same as my thoughts," again suggesting a subtle but important difference between understanding voices to be of internal origin and understanding voices to be one's own thoughts. This has implications for working with voice-hearers, particularly for clinicians working from a cognitive perspective (Greene, 1978; Haddock & Bentall, 1993; Jenner & van de Willige, 2001), as it is important to acknowledge that even if a person comes to accept their voices as internally generated, this may not diminish the reality of the experience.

Voices as a Culturally Normal Experience

Given New Zealand's status as a Western nation, it was not surprising that most people in the present study did not consider hearing voices to be accepted as a normal experience in their culture (Asaad & Shapiro, 1986). Also unsurprising was the finding that Maori participants were significantly more likely than Pakeha participants to believe that hearing voices was accepted as normal within their culture.

Maori were also significantly more likely to endorse possible explanations for voices that were related to spiritual or normative perspectives such as "My ancestors are talking to me;" "I inherited it from my parents/ancestors;" "I hear the voice of a loved one who has recently passed away;" and "Everyone hears voices but not everyone knows/admits it." This is consistent with research from non-Western societies, which tend to place voices within a spiritual, non-materialistic context (Al-Issa, 1995; Bourguignon, 1970; Jarvik, 1970). It is further supported by previous studies in New Zealand demonstrating that Maori have culturally-specific explanations for voice phenomena, such as communication with ancestors, breaches of *tapu*, and *makutu* (Cherrington, 1994; Lyndon, 1983; Taitimu, 2005).

Voices as a Consequence of Adverse Experiences

It was interesting to note that only 28.3% of questionnaire participants did not believe at all that their experience of hearing voices is due to difficult or traumatic life events or situations. This suggests that although only 15.9% of participants were completely convinced of this, about three-quarters of the questionnaire sample held some notions of a causal link between trauma and voices. This is supported by the high frequency (33.1%) of questionnaire participants endorsing the item: "The voices are a consequence of traumatic or stressful life events."

These findings are consistent with the quantitative findings about first voice experiences, which show that the majority of questionnaire participants could identify a significant event preceding voice onset, and in four out of every five cases, this event was negative. It is also consistent with studies demonstrating an association between trauma history and hallucinations, in both clinical and non-clinical samples (Ensink, 1993; Escher, 2005; Hammersley et al., 2003; Honig et al., 1998; Kilcommons & Morrison, 2005; Morrison & Peterson, 2003; Offen et al., 2003; Read et al., 2003; Ross & Joshi, 1992; Whitfield et al., 2005).

Data from the interviews helped to provide more information about the nature of the traumatic events faced by people who go on to hear voices. Interview participants reported a range of adverse experiences, including sexual, physical and emotional abuse, traumatic loss, identity issues and significant physical illness. The most commonly reported types of trauma were sexual abuse and physical abuse, each reported by 20% of the interview participants. This was followed by emotional abuse (16%). This finding is consistent with studies reporting a particularly high association between sexual abuse and hearing voices (Ensink, 1993; Hammersley et al., 2003; Kilcommons & Morrison, 2005; Offen et al., 2003). It is noteworthy that this study did not ask specifically about abuse history and so it may be reasonable to assume an important amount of under-reporting. Further, because participants spontaneously reported abuse histories in the context of an interview about their voice experiences, at the very least it suggests that some voice-hearers who have been abused make a connection between their abuse history and their voices (see Lothian & Read, 2002).

Indeed, over a third (38%) of the interview participants reported beliefs in a causal link between interpersonal trauma and hearing voices. For some, the link was obvious, such as

hearing the voice of the abuse perpetrator or hearing a voice making reference to the abuse (see Ensink, 1993). For others, the link was less obvious but still meaningful to them. This was the case for people like Rita and Lara who had heard about theories linking trauma to psychotic and dissociative symptoms and thought this might apply to their situation.

Of note was that most participants had not developed a hypothesis about the underlying mechanism which might cause negative life events to lead on to hearing voices. Some had read about this association, others had developed their own ideas, but few made specific references to psychological processes that might link these two phenomena. Further, it seemed unimportant to many interview participants. As Pearson (2004) has suggested, making the connection between past trauma and current voices may be more important to voice-hearers than establishing the mechanism behind the connection.

Finally, it is important to note that although only 19 of the 50 interview participants made an association between their own experiences of traumatic circumstances and hearing voices, a further 12 interview participants spontaneously reported some form of significant adverse experience occurring prior to or around the time they first heard voices. Thus, the majority (62%) of all 50 interview participants reported some form of difficult or traumatic event or relationship and half identified this as a causal factor of their voice experiences. It is important to note, again, that in accordance with suggestions made at the piloting stage, the interviewer did not directly ask interview participants about trauma history, unless it was specifically referred to first by the participant. Therefore, there is a reasonable chance that the overall incident rate of trauma among the 50 interview participants is even higher. This would be consistent with the findings from Honig et al.'s (1998) study, in which 81% of patient and non-patient hallucinators reported a history of sexual abuse, physical abuse and/or emotional neglect.

Spiritual, Psychological and Biological Explanatory Models

Participants identified an extensive range of frames of reference they used to explain their experiences of hearing voices. These were grouped into three major categories: biological, psychological and spiritual. Explanations in the biological category included references to brain dysfunction and the effects of both prescription and recreational drugs. Explanations in the psychological category included references to interpersonal trauma, abnormal cognitive processes and different aspects of the self. In the category of spiritual explanations,

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participants talked about being in communion with external entities, having psychic abilities, being more open to mystic or spiritual experiences, as well as general references to spirituality, such as intuition and the existence of a spiritual realm.

In contrast to Romme and Escher (1989) who grouped parapsychological and mystical explanations under the category "psychological phenomenon arising from within the individual" and references to deceased spirits under the category "phenomenon the causes of which lie primarily outside the psychological characteristics of the person," the present study grouped these three types of explanations together. Evidence to support the use of a third major category comes from the hierarchical analysis of the 16 explanatory model items in the Hearing Voices Questionnaire. This analysis distinguished psychological and biological explanations from explanations that touch on the mystical, the parapsychological and the spiritual, showing that people who tend to endorse psychological and/or biological explanations do not tend to endorse spiritually-based explanations, and vice versa.

The hierarchical analysis also demonstrated that people who hold biological explanations also tend to hold psychological explanations, and vice versa. A couple of observations from the interviews may help to account for this finding. Firstly, it was noted that some participants referred to their voices as a symptom of mental illness, related to brain dysfunction or chemical imbalance, but also understood their mental illness to be caused by interpersonal trauma, such as sexual or emotional abuse in childhood. This is consistent with research into the neurodevelopmental effects of early trauma on the brain (Read et al., 2001). Secondly, some participants clearly delineated two sets of voice experiences, one caused by a temporary state of altered consciousness through the ingestion of drugs and one related more to psychological processes such as interpersonal trauma or different levels of consciousness. Finally, it was noted that some participants who believed their voices to be due to negative early childhood experiences or life stresses also wondered about whether the association between voices and mental illness might apply to them. The present study may have benefited from an analysis of different levels of conviction, as well as an exploration of the sources of people's explanatory models. For example, although the present study found that people who had contact with the mental health services were more likely to use biological explanations, it is unclear whether the explanation or the service contact came first.

Consistent with previous research (Angermeyer & Klusmann, 1988; Angermeyer et al., 1988; Jones et al., 2003; McCabe & Priebe, 2004), the present study found that the least favoured category of explanations was biological. Of the sixteen possible explanations presented in the questionnaire, the two least endorsed items were "I have a brain disorder or brain disease" and "The voices are a result of my drug use." The item "The voices are a symptom of a mental illness" was the ninth most endorsed explanation, endorsed by only 20.8% of all questionnaire participants. This is despite the fact that 54.5% of all questionnaire participants had been in contact with mental health services and 35.8% reported a psychiatric diagnosis, including 18.1% who reported being diagnosed with some form of psychosis. Further, 12 of the 28 questionnaire participants with a psychosis diagnosis did not endorse the mental illness item, and none of the three participants with a dissociative diagnosis endorsed this item.

Just one of the 50 interview participants endorsed a biological explanation only. This man believed that his voices were his "conscience turned up" and were the direct result of his epilepsy medication. He believed that all voices could be explained as the result of foreign substances, including alcohol and drugs, entering the body and turning up the volume of the person's conscience. All the other interview participants who referred to a biological explanation also wondered about psychological and/or spiritual processes. This finding is consistent with Cockshutt's (2004) assertion that many voice-hearers find the biological explanations proposed by the medical model of little value if presented alone, as they ignore the reality of voices and invalidate the experience.

Nine interview participants believed firmly that their voices were part of a spiritual experience and were best explained in terms of psychic abilities and/or openness to the experience of communing with the spiritual realm. Well over half (64%) of the interview participants felt that a spiritual explanation accounted for at least some of their voice experiences. Further, the item "I am having a spiritual experience" was the most frequently endorsed of all possible explanations listed in the questionnaire, reported by 42.9% of all questionnaire respondents, including 25% of the 56 participants with a psychiatric diagnosis.

Taken together, these findings suggest that spiritual frames of reference are an important, and for some the most important, aspect of many voice-hearers' explanatory models. Romme and Escher (1989) and Belofastov (2004) have already drawn attention to the significance of spiritual understandings, and Jones et al. (2003) found that 35% of their participants endorsed

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a positive spiritual perspective of their voices. The present study therefore supports calls by some authors for a more holistic approach to understanding and working with voices, including, in particular, the often overlooked spiritual perspective (Chadwick, 1997).

The Impact of Voice Experiences

The third aim of the study was to describe the different ways that hearing voices can impact on people's lives. This included a description of the various emotional reactions described by participants and an analysis of the factors influencing and being affected by these emotional reactions.

Emotional Impact

Voice-hearers expressed a whole range of emotional reactions to their voices, from fear and anger to reassurance and amusement. Overall, data from the questionnaires show that positive experiences tended to be more common than negative ones, although only a minority of participants reported feeling always happy or content in response to their voices. A reasonably large number of participants reported experiencing a very mixed reaction to their voices. Further probing in the interviews revealed that this would usually be due to the participant experiencing different types of voices. For example, one participant experienced her spiritual guide as positive but also heard the voices of evil spirits, which would engender a negative emotional reaction, such as fear or anger. Belofastov (2004) also found that when her participants identified multiple voices, they could experience positive feelings towards some and negative feelings towards others.

These findings are consistent with previous studies describing a vast array of emotional reactions reported by both psychiatric and non-psychiatric samples, and both within and across participants (Cheung et al., 1997; Close & Garety, 1998; Johns et al., 2002; Leudar & Thomas, 2000; Miller et al., 1993). Of note is the high frequency of participants in the present study who reported feeling amused by their voices. This emotion has not been addressed in previous literature, but was added to the questionnaire after consultation with two voice-hearers at the pilot stage. It was therefore interesting to note that about a third of all questionnaire respondents found this term appropriately described their response to some of their voices.

<div align="center">Indifference</div>

Only a small number of participants reported feeling indifferent to their voice experiences, suggesting that in general, voice experiences do impact significantly on voice-hearers' emotional state. It may be important to note, however, that the questionnaire participants were a self-selected sample and it is reasonable to assume that people significantly affected by any given phenomenon will be more likely to pursue participation in a study about that phenomenon. Few other studies have reported on indifference. Close and Garety (1998) found that only one out of 30 participants from their Schizophrenia sample reported neutral feelings towards their voices.

Future researchers may wish to consider incorporating into their studies the notion that, although it is uncommon, some voice-hearers, even those with psychiatric diagnoses, are not particularly disturbed or enriched by their voices (although they may be distressed by the implications of having such an experience – this is discussed further on). This should also be an important consideration for people working with voice-hearers, because it is possible that despite the negative connotations associated with voices, particularly in the context of Schizophrenia, some clients may be much more interested in addressing their anxiety symptoms or their loneliness than their voices. Indeed, one study found that many people diagnosed with Schizophrenia reported that their voice experiences were comparatively less distressing than other difficulties in their life (Belofastov, 2004).

<div align="center">Comparison of Psychiatric and Non-Psychiatric Samples</div>

Previous studies of patient and non-patient populations have found that although some participants from both groups describe some positive voices experiences, participants in psychiatric samples are less likely to report a positive response and more likely to report distress (Close & Garety, 1998; Grimby; 1993; Honig et al., 1998). Results from the present study support this finding. Questionnaire participants who had been through mental health services, whether the contact be specifically related to their voices or not, and participants who reported wanting help either now or in the past were significantly more likely to report having a negative emotional reaction to their voices. These participants were also significantly more likely to report feeling angry, frightened, confused and sad.

Mechanisms Behind Emotional Impact

As described in the introduction to this thesis, a number of possible explanations have been proposed to account for the different ways that voice experiences impact on individuals. Birchwood et al. (1993) suggested that increased distress in psychiatric populations may be due to the stigma associated with having a psychotic diagnosis. Indeed, many interview participants made references to the effects of the stigma surrounding voices, and in particular, the association between hearing voices and Schizophrenia. However, 29 of the 50 interview participants raised these concerns, but only 20 had a psychiatric diagnosis, and only nine had a diagnosis of Psychosis. It is therefore possible that if stigma is a primary factor in causing distress, then the fear of being labelled crazy may be just as distressing as actually having that label because of the anticipated discrimination associated with severe mental illness (Angermeyer, Beck, Dietrich, & Holzinger, 2004).

Other authors have focussed on the association between perceived control over voices and the distress they provoke (Close & Garety, 1998; Honig et al., 1998; Miller et al., 1993; Nayani & David, 1996; Sanjuan et al., 2004). Consistent with the findings of these researchers, the present study found that participants who reported having a positive emotional reaction to their voices reported having significantly more control compared to those participants who reported a negative emotional reaction. However, given the high number of significant associations found between emotional impact and other variables from the questionnaire, it was deemed wise to perform a logistic regression analysis to explore whether control was indeed the most important factor, or whether other factors were mediating the relationship.

The regression analysis constructed a model in which content was the only significant predictor of emotional response, accurately predicting 93.3% of the 90 cases analysed. This is consistent with the finding that derogatory voice content is significantly related to an increase in reports of depressive symptoms (Soppit & Birchwood, 1997). Although a direct association between what you hear and how you feel may seem intuitively obvious to many people, traditional psychiatric paradigms tend to assign no more importance, and sometimes no importance at all, to content compared to other topographical characteristics of voices (Leudar & Thomas, 2000; Romme & Escher, 2006). Alongside some other more recent research (Belofastov, 2004; David, 1999), the present study challenges the tendency to minimise the significance of what the voices say and instead suggests that exploration of voice

content may be a crucial component of both understanding and ameliorating the distress experienced by some voice-hearers.

The impact that voice experiences have on voice-hearers also seems to be mediated by beliefs about the origins of the voices. In particular, questionnaire respondents in the present study who tended towards a more positive emotional response to their voices were significantly more likely to endorse spiritual explanations for their experiences. They were also significantly less likely to endorse explanations that viewed voices as pathological phenomena, the result of negative actions by self or others or deficits in the person.

One hypothesis that might help to account for the association between voice content, explanatory models and distress found in the present study, along with the association between distress and controllability of voices reported by numerous other authors (Close & Garety, 1998; Honig et al., 1998; Miller et al., 1993; Nayani & David, 1996; Sanjuan et al., 2004), is that voice content drives the formation of beliefs about voices and that these beliefs influence the person's perception of control over their voices. All three of these factors would thus contribute to the person's level of distress.

This hypothesis would help to explain the finding that voice onset is often experienced as sudden and frightening and that over time voice-hearers move from confusion and uncertainty about their experiences to some level of understanding (Romme & Escher, 1989). If the voice content is nasty or aggressive, the person may come to understand their voices within the context of negative events, such as traumatic inter-personal relationships or a diagnosis of mental illness. Because they never felt in control of these abusive relationships and/or have developed a sense of hopelessness around their diagnosis, they are unlikely to feel able to exert control over their current voice experiences, thus reinforcing their feelings of hopelessness and distress. This notion is supported by Barrett and Caylor's study (1998), which found that although no differences were reported for initial voices, over time people diagnosed with Schizophrenia became more likely than students to report having no control over their voices. Barrett and Caylor refer to the possible role of being labelled "schizophrenic" and associated disempowering experiences, such as extended involuntary confinement and the extensive use of anti-psychotic medications.

On the other hand, if voice content is positive, the person may be more likely to understand their voices within the context of positive events, such as spiritual enlightenment or special abilities. If they do not already have a sense of control over these experiences, then they could access resources, such as literature, a spiritual medium or a church, which hold knowledge about these experiences and how to manage them. This would lead to increased feelings of control and/or empowerment, with regard to the voices and perhaps to other aspects of their life.

Although some participants expressed surprise at their first voice experience, many did not. It is suggested that when a person has no pre-existing model to account for their initial voice experiences, they are likely to feel some worry and confusion, and therefore distress. In an attempt to alleviate the confusion, they may hastily develop explanations for their anomalous experiences, perhaps resulting in delusional beliefs (Bentall, 2003, p. 376). However, some people will already have developed a model of understanding with regards to supernatural phenomena. For example, some of the participants in the present study had already been in contact with the spiritual church or were seeking enlightenment around the time of their first voice experiences. It is likely that in these cases distress will be minimised. This is supported by the present study's finding that positive emotional impact is significantly related to both the belief that voices are a normal experience and increased levels of control.

Coping Strategies

The fourth aim of the study related to managing voices and had two aspects. The first aspect involved describing the types of coping strategies employed by participants and their reported efficacy.

Consistent with previous studies with both psychiatric and non-psychiatric samples (Carter et al., 1996; Johns et al., 2002; Lakeman, 2000; Romme & Escher 1989; Wahass & Kent, 1997), the present study found that the majority of participants had tried using at least one type of coping strategy to manage their voices. The 48 questionnaire participants who did not report using coping strategies endorsed the item "My voices don't bother me/I don't want to make them go away." Not surprisingly, these participants were more likely to report positive voice content and emotional responses and less likely to have had contact with mental health

services. This is consistent with Honig et al.'s (1998) finding that people whose voices say positive things and are non-threatening have less difficulty managing them. Participants who reported not employing coping strategies were also more likely to have spiritual models of understanding their voice experiences. Thus, as previous authors have found, beliefs about voices appear to play a role in determining whether, and which, coping strategies are used (Chadwick and Birchwood, 1994; Romme & Escher, 1989).

<u>Styles of Coping</u>

Those participants who did attempt to manage their voices in some way reported using a vast array of coping strategies. It was hoped that strategies could be easily organised into categories, such as those outlined in the introductory chapter, as this would allow for comparisons between types of management styles, such as distraction and focussing. However, it became apparent that many techniques did not obviously fall exclusively into one or other of the categories. For example, the practice of meditation might be a simple behavioural distraction technique, it might provide a means to focus on higher voices, or it might generally contribute to relaxation and overall well-being. Further, Table 9 shows that the four most effective strategies include a focussing technique, a distraction technique, an anxiety–reduction technique and taking medication.

These findings are consistent with a study which compared participants using focussing techniques to those using distraction techniques and found that improvement in both groups was variable (Haddock et al., 1998). Another study found that participants who used multiple strategies reported their strategies to be significantly more effective than participants who used only one coping technique (Tarrier, 1987). It is apparent that some coping strategies may be effective for some people and other strategies for other people. The effectiveness of a strategy may also be dependent on the voice and/or the situation.

These assertions are supported by the interview data. For example, while some participants found taking their medication to be immensely beneficial, others reported no positive effects, and others still, complained that the side effects were worse than the distress caused by their voices. Another example is setting limits around when and how voices can communicate with the voice-hearer. Some participants were able to control their voices in this way but others said it didn't work at all. Some participants reported that although some voices responded to

them setting limits, others did not. In these cases the participants might resort to a second strategy, such as calling for help from God or their spirit guide.

A Multiplicity of Options

Taken together, these findings suggest that knowing about a range of techniques may be of great benefit to voice-hearers. Further, findings from the present and earlier studies indicate that personalised techniques are the most effective (Carter et al., 1996). One implication for people working with voice-hearers might be the importance of helping clients draw on coping strategies they have used effectively in the past or developing a list of ideas that make sense to the voice-hearer and encouraging them to test them out until they find a selection of strategies that work for them.

Despite the evidence supporting the development of personalised techniques, the present study also found that there is a general tendency for some strategies to work more effectively than others for most people who try them. This information may be a helpful starting point for voice-hearers developing techniques that work for them, as well as for researchers who wish to explore the mechanisms behind effective coping.

Authority Over the Voices

After personalised techniques (those reported as "other"), the most effective coping strategy reported by questionnaire respondents was setting aside a time to listen to the voices. It has been suggested that focussing strategies such as this may be effective because they allow the person to test out the power and omnipotence of their voices (Haddock et al., 1998). However, data from the interviews revealed that people who found this strategy effective tended to be reasonably empowered in relation to their voices when they began to set boundaries. The two interview participants who did not find this method helpful were both plagued by extremely distressing voices which occurred within the context of a diagnosis of severe mental illness, for which they had been treated medically.

A related coping strategy that was not addressed in the questionnaire but was reported by ten interview participants was selective listening. This entailed choosing either which voices to listen to, for example only friendly guides, or which voice content to pay attention to, for example only helpful advice or information. All interview participants who had tried this strategy found it effective. Once again, this strategy requires the voice-hearer to have a certain

amount of confidence in their ability to distinguish between helpful and unhelpful voices and to set boundaries about their relationships with voices.

Quite a few interview participants became more empowered in relation to their voices through developing an understanding of voice-related phenomena. Some people did this by writing about and reflecting on their own experiences or talking about it with people they trusted. Others found relevant literature or a relevant paradigm within which they could understand voice experiences and either normalise them or at least contextualise them, such as spiritualism or Maori perspectives.

The difficulty with trying to evaluate the mechanisms behind the effectiveness of these types of strategies is that it entails a somewhat circular logic. As Birchwood and colleagues (Birchwood, Meaden, Trower, Gilbert, & Plaistow, 2000) have demonstrated, the relationships voice-hearers have with their voices tend to mimic their relationships with other significant people in their lives. More specifically, subordination to voices appears to be closely linked to subordination and marginalisation in other social relationships. Thus, a person who is hearing intimidating and distressing voices is unlikely to be able to draw on the feelings of power and self-efficacy that are required to set boundaries on their voice relationships. On the other hand, people who perceive their voices as less omnipotent are likely to view themselves as more empowered generally and will therefore be able to manage their voices more effectively.

<u>Empowering the Voice-Hearer to Cope More Effectively</u>

These findings are consistent with Bak et al.'s (2005) findings that enhancing self-esteem and/or decreasing depression tends to reduce the frequency and/or distress of hallucinations. Indeed, some theories view voices specifically within the context of a defence against depression (Bentall, 2003, p.343; Gilbert et al, 2001). Thus, these findings suggest that people working with voice-hearers may be advised to address the individual's sense of social status and self-efficacy, perhaps through such means as group identification, assertiveness training or problem-solving therapy (Birchwood et al., 2000). Simply telling a voice-hearer to set limits or only listen to the good voices may be unhelpful advice to someone who doesn't know how to do this in their other relationships. However, when people begin to attain a sense of empowerment these strategies appear to be particularly effective.

Two other findings from the present study support the hypothesis that a person's own sense of self-efficacy may act as a mediator between the coping strategy used and its effectiveness. Firstly, the high effectiveness ratings for personalised techniques reported by questionnaire respondents indicate that when voice-hearers take an active approach to their voices, coming up with and applying strategies themselves, they are more likely to find their strategies effective. Secondly, coping strategies that were reported to be less successful involved attempts to avoid, rather than engage with or challenge, the voices. These strategies included blocking ears, using drugs and alcohol, talking out loud to drown out the voices, and watching television.

<center>The Efficacy of Some Common Coping Strategies</center>

Interestingly, although ignoring the voices was the most frequently tried of the coping strategies, it was one of the least effective. This is consistent with Carter et al.'s (1996) finding that the efficacy of a strategy seems to be unrelated to how many people use it. This was also the case for the strategy of singing or humming, which was tried by only 13% of all questionnaire participants but was rated the third most effective strategy overall. Singing and humming have been reported to be effective strategies by participants in other studies (Carter et al., 1996; Green & Kinsbourne, 1989; Johns et al., 2002).

Given the well-demonstrated association between hearing voices and activation in the speech perception and production areas of the brain (Buchsbaum et al., 1982; Grossberg, 2000; Hoffman et al., 1999; Hubl et al., 2004; Penfeild & Perot, 1963; Woodruff et al., 2002), it is reasonable to hypothesise that singing and humming may be effective techniques for coping with voices because they produce competing activity in the same cortical areas. However, this hypothesis would also indicate that talking aloud or to oneself should be just as effective, and yet data from the present study do not support this. One possible explanation might be that people who talk under their breath or talk aloud may often be talking to or reacting to the voices, whereas people who sing or hum attempt to focus their attention elsewhere, perhaps choosing songs that are calming or inspiring. This might also help to explain why prayer, meditation, relaxation and listening to music are also rated among the more successful strategies. The key factor may be switching attention away from the voices to some more pleasant activity, particularly one that calms, soothes, or inspires the voice-hearer.

<u>Summary</u>

In summary, there appear to be no sure-fire coping strategies that will work for all voice-hearers. Instead, the evidence suggests that voice-hearers should be encouraged to develop and test out their own selection of techniques that help them successfully manage their voice experiences. The beliefs a person has about themselves and their voices appear to be a significant factor in the choice of strategies, as well as in their effectiveness. Strategies that give control to the voice-hearer, such as setting limits and selective listening, appear to be particularly effective in the long-term, but only when the person has developed a sense of self-efficacy and empowerment over their voices.

To achieve this, some voice-hearers may find it helpful to draw on the positive dynamics played out in their other relationships. Some voice-hearers may feel more empowered through developing an understanding of voice-phenomena, by reading literature or talking to knowledgeable people. Other voice-hearers may benefit from a therapeutic context which addresses self-esteem and self-efficacy and/or provides a safe environment in which the person can test out the power and omnipotence of their voices. While the person is developing these skills they may find it helpful to use some more simple distraction techniques. Although individual differences should be taken into account, techniques that switch the person's attention away from the voices to some more soothing or inspiring activity, such as singing, humming, listening to music, prayer and mediation, appear to be effective for most people who use them.

Help and Support

The second aspect of the fourth aim of the study involved describing the types of help and support sought out and received by participants specifically for their experiences of hearing voices. It also included an exploration of the perceived helpfulness of these interventions.

One of the most striking findings from the results about help and support was that although over half of the questionnaire participants reported having been in contact with mental health services, only a fifth reported that this contact was for reasons at least somewhat related to their voice experiences. This suggests that despite commonly held notions about voices as a primary indicator of severe mental illness and as a phenomenon that sufferers would surely

seek to eliminate, many voice-hearers seek help instead for other types of psychological problems, such as anxiety and depression.

Statistical analyses revealed an important overlap between variables associated with mental health contact in general and mental health contact for voices specifically. These included variables such as negative content, frequency, duration and intrusiveness, among others. Further, most of these variables were also significantly related to whether or not participants reported wanting help or support for their voice experiences.

This finding is not surprising given that the significantly associated variables are those that tend to be associated with negative voice experiences (see Table 10). These include negative content and emotional reaction, both at onset and in general, hearing voices commenting, increased frequency, duration and intrusiveness, and believing the voices are a form of punishment, a symptom of mental illness and/or a consequence of trauma. Thus it seems that people who are in emotional distress, as evidenced by their contact with mental health services, hear voices that tend to be more negative in nature, even when they are not seeing mental health professionals specifically for their voices.

Factors Related to Help-Seeking Behaviour

This finding may be better understood when situated within the context of trauma history. Specifically, numerous studies have demonstrated an association between adverse life events and emotional distress (Boney-McCoy & Finkelhor, 1996; Kendler et al., 2000; Mullen, Martin, Anderson, Romans & Herbison, 1993). Numerous studies have also demonstrated an association between adverse life events and negative voice experiences (Ensink, 1993; Escher, 2005; Famularo et al., 1992; Honig et al., 1998; Read & Argyle, 1999). Further, many of the participants in the present study reported believing that their voice experiences were caused by difficult or traumatic life events or situations they had experienced.

While some people may respond to trauma by developing a psychosis, others may display symptoms more consistent with a diagnosis of depression or anxiety. As one participant pointed out, these symptoms may be even more distressing than their negative voices. Thus, in many cases, voice-hearers may make contact with mental health services for distress related to problems such as low mood or anxiety, which often occur within the context of life stresses. Unfortunately, mental health professionals tend to hone in on the voices and pathologise the

experience, rather than addressing the concerns for which the client first sought help. As Escher (2005) suggests, in such situations "problems of living become mental health problems; social problems become medical problems" (p.162).

Despite this, some participants clearly did want and/or receive help specifically for their voice experiences. A logistic regression was performed to better understand the relationship between the topographical characteristics of voices and receiving professional help for the experience. Consistent with the logistic regression analysing the relationship between voice topography and emotional response, voice content was found to be the most influential variable. Taken together, these findings suggest a pattern of experience whereby a person who hears voices saying nasty or unhelpful things will likely find the experience distressing and find themselves in the care of mental health services.

Participant Evaluations of Mental Health Services

The usefulness of mental health services to voice-hearers was explored further in the qualitative interviews. Interestingly, the same number of participants reported finding interventions from mental health services helpful as those who reported finding them unhelpful. In terms of unhelpful experiences, participants referred to having a lack of control over their own recovery process. In particular, participants did not appreciate being forced to take medication that they found unhelpful and/or unpleasant. This finding indicates the importance of people working with voice-hearers to create an environment of collaboration and self-determination, consistent with such paradigms as the Cognitive-Behavioural model and the Recovery Model (Beck, 1995; Deegan, 1996; Randal, Simpson & Laidlaw, 2003).

Participants also indicated the need for a holistic approach to working with voices. Only one of the interview participants had experienced such an approach. However, six other interview participants reported wanting access to alternatives to standard psychiatric interventions. Similar findings were reported by Belofastov (2004) in her Grounded Theory study of voice-hearing mental health service users. Participants in the present study emphasised the importance of integrating cultural, spiritual and contextual factors into therapeutic work. These factors continue to be neglected, despite calls by prominent authors and organisations that pharmacotherapy alone is insufficient (British Psychological Society, 2000; Leibman & Salzinger, 1998; Westacott, 1995). However, a recent article by the current President of the American Psychiatric Association (Sharfstein, 2005) offers some hope for change. He called

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for a movement away from the status quo in psychiatry of the "bio-bio-bio model" to a more genuine adherence to the bio-psycho-social model.

Implications for Treatment Interventions

In terms of psychological interventions, the findings from the present study suggest some practical implications. Firstly, because the most significant predictor of people coming into contact with mental health services is their experience of negative voice content, it makes sense that people working with voice-hearers should ask about what the voices say. This suggestion challenges the view held by some clinicians that in doing so they may be colluding with the person's delusional beliefs and unreal experiences, and therefore encouraging unwanted symptomatology (Escher, 2005; Leudar & Thomas, 2000). However, reports from participants in the present study indicate that by not doing so clinicians may be both invalidating the voice-hearer's world-view, thus hindering the essential process of rapport-building (Alford & Correia, 1994), as well as missing vital information.

In particular, voice content often provides important clues to unresolved or ongoing difficulties in the person's life, as evidenced in the present and previous studies (Belofastov, 2004; Famularo et al., 1992; Meadow, 1994). Further, there is evidence that most mental health consumers who have been abused believe there is a connection between the abuse and their mental health problems (Lothian & Read, 2002). The disproportionately high incidence of trauma in the life history of many voice-hearers suggests that the traditional voice management plan of diagnosis and medication will not adequately address or reduce the person's distress. Indeed, Lothian and Read (2002) found that mental health consumers reporting abuse were more likely than other mental health consumers to believe that their diagnosis was not an accurate description of their difficulties and to be dissatisfied with their treatment.

In contrast, specifically addressing abuse issues may both increase treatment satisfaction and decrease the distress associated with voices. For example, all five participants in the present study who had received counselling focussing specifically on their experience of sexual abuse reported finding this particularly beneficial in helping them to better cope with their voices. Many other participants referred to the potential benefits of talk therapy, but had found it difficult to access, often because it was not available through the standard mental health care packages and/or because of financial constraints. Thus, the second implication for

psychological treatments is that they should be more available for those who wish to work through their distressing experiences.

A third implication for treatment interventions is the need to address the spiritual dimensions of voices. Firstly, it is important to note that many people who hold spiritual beliefs about voice phenomena are not distressed by their voices and do not require intervention from mental health services. Whether it is the nature of the voices themselves that lead to spiritual beliefs about them or the spiritual context within which the voices develop that causes them to have certain topographical characteristics has not been discerned. Indeed, for the purposes of the present study, this distinction is unimportant. What is important is the overwhelming number of participants with all types of voice experiences who endorsed spiritual understandings for this phenomenon. Further, many people who had sought out and/or received help for their voices emphasised the importance of that help having a spiritual component.

While some researchers and clinicians have commented on the need to incorporate religion and spirituality into psychiatric approaches to dealing with distress, perhaps working within a bio-psycho-socio-spiritual model (Kroll & Erickson, 2002; Randal, 2005), there continues to be a reluctance from many health professionals to do so in practice (Chadwick, 2004). Indeed, many clinicians may feel incompetent to deal with such issues. But just as a psychologist who has no expertise in the legal system may support their client in accessing legal help to obtain a Protection Order, so might a mental health professional support their client to seek out a spiritual expert, such as a priest, a clairvoyant or a *tohunga*, if that is what the client believes may help them. Some voice-hearers in the present study found interventions from such experts beneficial, others did not. The overall message from the interview participants was the need for clinicians to be open to the clients' spiritual understandings and to work within that frame of reference.

Participants from the present study also stressed the need for more information and education about voice-related phenomena. Only four of the 50 interview participants reported having access to helpful information about voices, but a further 16 made specific references to wanting access to relevant resources, for themselves, for family and friends, and/or for the wider public.

The benefits of information appear to be multifactorial. Firstly, some participants found that learning more about voice phenomena, from psychological, spiritual and cultural perspectives, helped them to better understand and contextualise their experience. Secondly, some participants thought that practical advice about coping strategies from these perspectives would also be helpful. Thirdly, a number of participants reported wanting to have more information about other voice-hearers' experiences. Some were keen to access research literature, such as the findings from the present study. Others referred to the potential benefits of meeting with other voice-hearers in an informal setting to share information and experiences. Coffey et al. (2004) also found that many of the participants in their study believed that talking to others who hear voices might be beneficial. Finally, some participants referred to the benefits of educating other people about voice phenomena. As Baker (1995) suggested, sharing knowledge with friends and family can be helpful because it may demystify the experience and allow others to be more supportive.

Another potential benefit of providing information and education is the normalising effects that this may have. Indeed, just under half of the interview participants reported either that they had had their experiences normalised and found this helpful or that they would have found this helpful. These findings indicate the importance of taking the results from the present study back to the community, to provide information about voice phenomena not only to researchers and clinicians, but also to voice-hearers, their families and the general public.

Evidence of the strength of the predominant view of voices as abnormal, bizarre, and even terrifying came from large number of interview participants who reported feeling unable to talk to friends, family and mental health professionals because of the stigma attached to the experience. Escher (2005) argues that the generally accepted view of voices as symptoms creates a taboo that reduces the freedom of people to talk about their experience. Indeed, the major concern expressed by participants in the present study was that people might think they were mentally ill.

However, as other researchers have observed (Lakeman, 2000; Schwab, 1977), when voice-hearers find themselves in a safe and supportive environment in which they are not judged negatively but instead are asked curiously about their experiences, they tend to talk freely. Some participants in the present study had not told even their closest friends about their voices but were forthcoming with the most intimate details during the research interview. Further, a

number of participants talked specifically of the benefits they had gained by talking in-depth about their voices to the interviewer, and that this was facilitated by the interviewer's interested but non-judgemental approach. More importantly, many participants expressed the wish that they could talk to their friends and families about their voices and be received in the same way.

Summary

Patients are seen increasingly as consumers of mental health services and as such their perspectives on what is helpful should be seen as an integral part of service development and delivery (Chadwick, 1997). In general, participants in the present study called for a model of intervention that accepted their voice experiences as real, took an holistic approach incorporating contextual, cultural and spiritual factors, and worked more generally with voice-hearers, their families and the public to provide information about voice phenomena and normalise the experience. These findings support the development of consumer-based organisations, such as the Hearing Voices Network (2006), which encourage the sharing of experiences and support for voice-hearers, voice-focussed training for clinicians, and the provision of information to all interested parties. These organisations are currently having success in the United Kingdom, Continental Europe and North America (Intervoice conference, 2006). Although there are currently some relatively small-scale efforts towards groups and workshops for voice-hearers and clinicians in New Zealand (Lampshire & Loretto, 2004; Pearson, 2004), the findings from the present study suggest the potential benefits that could be made from a more structured and better-resourced organisation, modelled on the Hearing Voices Network.

Two Patterns of Experience: Voices as a Blessing and Voices as a Curse

After interviewing 50 voice-hearers, the researcher felt intuitively that, in general, participants tended to identify their experiences as either a valued blessing or an unwanted curse. In particular, the researcher noted that participants who valued their voices tended to have more spiritual beliefs, a more positive emotional reaction and less contact with mental health services. This was in contrast to people who experienced mostly unwanted voices. This latter group of participants tended to have more biological and/or psychological understandings of

their voices, have a more negative emotional reaction to them, and increased contact with mental health services.

Several statistical analyses were run in order to test out the researcher's intuitive conceptualisation. Firstly, the hierarchical analysis of beliefs about voices showed that participants tended to endorse either spiritual explanations or bio-psychological explanations. A second analysis demonstrated that a number of topographical characteristics and beliefs about voices were significantly related to participants' emotional reaction to their voices. Finally, a third analysis demonstrated that many of these same variables could significantly predict whether or not a person came into contact with mental health services. Table 17 presents a summary of these findings, thus proposing a framework wherein voice experiences may be considered either a blessing or a curse.

Table 17. Characteristics of the two general types of hearing voices experiences.

Positive experiences: **BLESSING**	Negative experiences: **CURSE**
Onset Positive content Positive emotional reaction	Onset Negative content Negative emotional reaction
Positive content	Negative content
Positive emotional reaction Feeling reassured Feeling encouraged Feeling amused Not being bothered by the voices	Negative emotional reaction Feeling angry Feeling frightened Feeling confused Feeling sad
Can identify voices Believe voices are God(s), spirits or guides More convinced of voice identity Less likely to view voices as own thoughts	Can't identify voices Believe voices are people they know Believe voices are people they don't know Less convinced of voice identity More likely to view voices as own thoughts
Form Voices act as a helpful guide	Form Talking or arguing with each other Commenting on self or others Giving Instructions
Decreased frequency Decreased duration Decreased disturbance in contact with other people Decrease in taking over thoughts Increased control	Increased frequency Increased duration Increased disturbance in contact with other people Increase in taking over thoughts Decreased control
Beliefs I am special/I have special abilities The voices come to support me I inherited it from my parents/ancestors The voice belongs to a deceased loved one I am having a spiritual experience Culturally normal experience	Beliefs The voices are punishment The voices are a result of my drug use I have a brain disorder Symptom of mental illness Consequence of trauma Consequence of difficult relationships Replay of conversations
	Contact with mental health services Contact with mental health services for voices Wanting help now or in the past

This is a simplified model. Experiences may be better conceptualised along a continuum, rather than forced into one of two categories. Further, some voice-hearers have both positive and negative voice experiences. However, the findings from the present study do suggest that overall, people tend to conceptualise their voices either as a valuable and desirable blessing or a distressing and unwanted curse, and that certain topographical characteristics and beliefs are associated with these two different types of experience.

Support for this model comes from Romme and Escher's (1989) study of voice-hearers in the general Dutch population. They compared "copers" and "non-copers" and found that many of the same types of variables identified above distinguished these groups. For example, people who could cope with their voices tended to report that their voices were more friendly, did not disturb contact with others and did not take over their thoughts. They were more likely to identify their voices as God(s) or spirits, a good guide and a special gift. Copers also reported being stronger than their voices and using more empowerment strategies, such as selecting which voices to listen to and drawing limits for their voices.

These findings support assertions by other authors that attempts to understand the phenomenon of hearing voices should not be restricted to the clinical psychiatric frame of reference (Chadwick, 1997; Escher, 2005). Instead, there should be an openness to the possibility that hearing voices can be a positive spiritual experience that does not require intervention by mental health professionals. Further, clues about the type of experiences a person may be having can be found through exploration of the variables identified in Table 17.

The Essence of the Voice-Hearing Experience

Although much of the work of the present study was concerned with seeking out significant differences in the types of experiences voice-hearers report, the fifth aim required that the researcher seek out the essential characteristics that were common across experiences. A model was developed which proposes that the essence of hearing voices is comprised of five components. These are that: a) the content of the voices is personally meaningful to the voice-hearer; b) the voices have a characterised identity; c) the person has a relationship with their voices; d) the experience has a significant impact on the voice-hearer's life; and e) the experience has a compelling sense of reality. Each of these five components suggests

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significant implications for understandings and/or treatments of voice-experiences, as discussed below.

The content of voices was shown to be of great importance in the present study. Firstly, it was found that voice content is the most significant predictor of both emotional reaction to voice experiences and whether or not the person seeks out and/or receives help for their experiences. As far as the author is aware, this is the first time that such a claim has been supported with quantitative data. Secondly, the high predictive value of voice content may be made more understandable when viewed in conjunction with the finding, based on qualitative data, that voice content tends to have high personal relevance.

Previous authors have reported finding similar associations between voice content and the voice-hearer's inner world of thoughts, memories and affective states (David, 2004; Rainer et al., 1970; Sedman, 1966; Soppit & Birchwood, 1997), as well as situational variables (Schaefer & Martin, 1968; Skirrow et al., 2002). The findings from the present study may constitute an important addition to these studies, because they demonstrate that voice-hearers themselves make such connections. The evidence provided by the present study suggests that it is not appropriate to understand voices as random symptoms with no personal, cultural or situational significance. Instead, voice content may give important, if sometimes rather obvious, clues about the world the voice-hearer inhabits, as well as their thoughts, feelings and relationship to this world.

The second essential component of the proposed model of the phenomenon of hearing voices is that voices tend to have a characterised identity. Like with voice content, the identity assigned by the voice-hearer to their voices may indicate their beliefs and attitudes, not only about the voices, but also about themselves, other people and the world. Some participants in the present study identified their voices as people they knew, such as a parent, grandparent, or friend. Some identified their voices as more stereotypical characters, such as God, demons or a spirit guide. As David (2004) found, each voice is often personalised or personified. Each has its own biography and patterns of behaving, consistent with the person's idea of how their mother, God, or a spiritual guide, for example, should behave.

The third essential component of the proposed model is that voice-hearers tend to develop a relationship with their voices. Usually the person's experience of the relationship will be

congruent with who the voices are and what the voices say. For example, many participants in the present study reported hearing the voice of someone who had been significant in their life before passing away. The relationship the person had with such voices would tend to mirror the relationship they had had with the person before they had passed away. For example, two women reported having critical and abusive mothers, in relation to whom they felt dominated and powerless. Both women went on to hear the voice of their mother continuing throughout their adult lives criticising and abusing them, even after passing way. Both women reported feeling powerless and abused in relation to their voices, and made no attempts to challenge them for a very long time.

The participants who reported hearing the voice of God tended to describe their relationship with their voice as somewhat akin to an authoritarian parent-compliant child relationship. God would ask them poignant questions or tell them what to do and they would abide by his will. The voice was viewed as all-powerful and superior but non-threatening. A somewhat similar type of relationship was described by participants who identified their voices as spirit guides. Most described their guide as more powerful than them, but well-meaning. Further, they would tend to follow the advice and teachings of their guides.

Consistent with findings reported by Birchwood and colleagues (2000), most of the relationships reported by participants in the present study appeared to be consistent with the relationships they experienced with significant others in their lives. However, this was not always the case. Some participants reported having warm and loving relationships with their voices, even when the voices first started within the context of abusive situations. Several interview participants recounted how they would hear the voice of a mother, grandmother, or uncle, soothing them in times of distress or protecting them by alerting them to dangers. Some participants reported that this was the most or the only loving relationship they had at that time. This finding suggests that in some cases the relationship the person develops with their voices may be fulfilling a need for love and protection that they cannot find in their "real-world" relationships.

The fourth essential component of the proposed model of the phenomenon of hearing voices is that the experience has an emotional impact on the experiencer. The impact might be immediate or enduring, positive or negative. For some, the impact was related to the voices themselves, and in particular to what the voices would say. For others the impact was more

related to the connotations of having the experience. In particular, participants in the present study reported being greatly concerned about the stigma associated with hearing voices. This often led to them feeling confused, vulnerable and fearful of sharing their experience with other people.

The fifth essential component of the proposed model is that the experience has a compelling sense of reality. Participant reports suggest that voices have a life of their own and are not under direct voluntary control, unlike some memories and mental images (David, 1999; Slade & Bentall, 1988). It appears crucial that people working with voice-hearers acknowledge the reality of the experience to the person, even when that reality cannot be participated in by them. This is not to suggest that it cannot be helpful to introduce to voice-hearers the notion that their voices may be self-generated (Greene, 1978), only that such an approach should be taken with care and sensitivity. For example, one participant in the present study found it very helpful when a psychologist suggested that his voices might be similar to self-talk. His response was not to assume that he should therefore be able to bring them under his direct control, but instead to believe that he was in a more powerful position to challenge them. In some cases, therefore, it may be helpful to work with voices in the same way that cognitive-behavioural therapists work with automatic thoughts (Beck, 1995), acknowledging that although they seem to have a life of their own, when they are unhelpful we can learn to challenge them.

Finally, it is important to note the relationships among the structural components of the phenomenon of hearing voices. The qualitative data suggests that there is a consistent structural pattern in which voice content and identity are related in obvious ways to the relationship a person has with their voices, and that these factors are again related to the person's emotional response to their experience. Each experience, therefore, appears to happen according to a relatively pre-determined template. Over time a person will be able to predict how each of their voices is likely to behave and how this is likely to make them feel. These patterns of relationships among the structural components are consistent with the patterns of experience identified in the previous section.

Implications for Treatment Interventions

The proposed model of the essence of hearing voices suggests a number of treatment implications that are consistent with suggestions made by previous authors. Firstly, a

fundamental principle for people working with voice-hearers is the importance of acknowledging the reality of the experience to the voice-hearer (Romme & Escher, 1993). Secondly, a good starting point may be to ask the voice-hearer about the topographical characteristics of their voices, and in particular who they are and what they say (Wagner & King, 2005). This will likely lead on to a conversation about the impact the voices have on the person's emotional state. It is also important to know how the person understands their relationship with the voices and the significance and function of the voices in their life (van Laarhoven, 1993). It may be helpful to explore whether the person has experienced relationships like this before and whether the voices can be understood within the context of these relationships (Morrison et al., 2005).

In some cases, some of the voices may be described as positive and helpful. It may be useful to acknowledge this and to explore what is different about the relationship the person has with these voices and whether they could be drawn on to support the voice-hearer against the more negative voices. In most cases, however, people coming into contact with treatment providers will experience predominantly negative voices. They will likely experience negative voice content and feel helpless and abused. Working with such people may therefore involve gently challenging the assumptions the person has about their voices and in particular their perceived power and omnipotence (Chadwick, Sambrooke et al., 2000, Jenner & van de Willige, 2001). To help in this process, the person may benefit from some initial work around self-esteem and self-efficacy (Birchwood et al., 2000).

These recommendations are consistent with the types of approaches used by cognitive-behavioural therapists (Dickerson & Lehman, 2006). One model of treatment which shows particular promise is a cognitive-behavioural therapy-based intervention developed by long-time voice-hearer, Ron Coleman and clinician, Mike Smith (1997). The Working With Voices Workbook is designed for voice-hearers to use alone or within the context of a therapeutic relationship. It guides the person through an exploration of voice content, voice identity, and the relationship they have with their voices. When used collaboratively by client and clinician, it is fundamental that the clinician acknowledges the reality of the voice-hearing experience to the voice-hearer. Through exploration of some different explanatory models, such as medical, psychological and telepathy, assumptions about voices are gently challenged. The person's power over their voices is expected to increase and the distress caused by voices

to decrease.   Because long-held beliefs can sometimes be difficult to challenge, the model also offers some ideas about coping strategies to relieve or reduce distress in the short-term.

Anecdotal evidence suggests that the approach advocated by Coleman and Smith is effective for many voice-hearers. However, there are to date no systematic studies of the effectiveness of this intervention. Given the evidence in support of this model provided by the present study, it may be helpful and informative to carry out such a study, perhaps in comparison to the standard treatment intervention of psychopharmacology.

Clinical Implications

Although a number of recommendations based on the findings of the present study have been identified throughout this chapter, it may be helpful to reiterate them here as a relatively comprehensive set of clinical implications. This set of implications is targeted at clinicians working with people who hear voices, but it may also be of interest to clinical training providers, national-level policy makers, and (hopefully) clinicians who have in the past tended to shy away from clinical work focussed on voices.

Focus on Distressing Voices

Firstly, it is vital that people working with voice-hearers acknowledge that not all voices are pathological. That is, not all voices cause significant distress or significantly impair the person's functioning. This is true even for those voices that occur within the context of psychopathology. A careful exploration of voice topography and impact should help both the clinician and the voice-hearer come to discern which, if any, of the voices would be appropriate targets for intervention. The clinician should never assume the voice-hearer wants to be rid of all (or any) of their voices, although, of course, this may be the case for some clients.

The Voices Are Real

Secondly, regardless of the clinician's own ideas about the origins and meaning of voices, they must endeavour to acknowledge the reality of the client's experience. This is what clinicians are taught to do when helping clients through many other types of distressing experiences, and it should be so for psychotic phenomena also. Experience is subjective and should be free of

value judgements. In terms of voice experiences, the clinician may do well to remember that the client most likely experiences their voices as having a life of their own. The voices will be perceived as having intent and volition, and these may translate into acts, such as verbal abuse, that do not seem directly amenable to the voice-hearer's control.

Explore Voice Content

Thirdly, content is crucial. Clinicians should not shy away from asking voice-hearers who their voices are and what they are saying. Many clients will likely make spontaneous connections between their current voices and their past or present life experiences. This will be particularly so for poignant life events such as trauma. In such cases, it may be helpful to spend time working through the trauma or refer the client on to a trauma specialist, as this seems to have positive effects on the voices, as well as on the person's overall well-being. Some clients may not be able or willing to make connections between voice content and life experiences because it is too painful a process, or because there may be no connection. In these cases the clinician may be better advised to explore the beliefs the person holds about their voices and focus the work around gently challenging those beliefs, particularly in terms of the power and omnipotence of the voices (see Birchwood & Chadwick, 1997).

Beliefs About Voices

In addition to exploring clients' beliefs about who and what the voices are, it is also important to discuss their understandings of why they hear voices. The therapist might work with the client to develop a shared formulation (Morrison, 2003), perhaps, in the process, gently challenging those explanations that seem unhelpful. The client's beliefs about their voices may also offer clues as to how they might best go about managing them and/or the most prosperous avenues for therapeutic intervention.

Spirituality

Spirituality is an important component of voices for many voice-hearers. For some, it is evident in the content and identity of their voices. For others, it may be in terms of their explanatory models. Either way, clinicians need to acknowledge this and be prepared to ask their clients about the role of spirituality in their voice experiences. If the client identifies this area as significant for them, it should be incorporated into the therapeutic work. This could be in the form of simply acknowledging the client's beliefs in the spiritual realm, exploring the client's relationship with the spiritual realm, and/or drawing on the client's sense of spiritual

strength to help better cope with the voices. If the clinician feels unable to pursue this avenue with their client, they should be encouraged to refer their client to someone who is spiritually competent, or at least support their client in the process of seeking out such a person.

Coping Strategies

Regardless of the clinician's preferred paradigm of psychological intervention, clients will most likely benefit from having a range of effective coping strategies at their disposal. Clinicians should talk to clients about the coping strategies they have used in the past and explore with them which of these, if any, have proven most helpful. The clinician should also be able to provide their client with up-to-date information about the strategies that other voice-hearers find effective. It may be wise to have a discussion with the client about which strategies might work best for them, and also the implications of using such strategies. For example, strategies that reduce all voices, including the positive ones, may be less attractive to some clients and/or cause distress if implemented with success.

When considering the appropriateness of different coping strategies, the clinician would be well-advised to remember that people experiencing distressing voices often feel powerless in relation to their voices, and also in relation to their other social relationships. Therefore, exploration of this and some work on self-esteem and assertiveness, when appropriate, will likely help the person to better manage their voices. Clinicians should not expect that voice-hearers will be able to stop or reduce the frequency of their voices if given a list of strategies and told that these tend to be effective for most voice-hearers. There will be a degree of personal variability in the choice and success of coping strategies and this will likely be mediated by self-esteem and power dynamics.

Stigma

Finally, the findings from the present study made overwhelmingly apparent the need to address the stigma associated with hearing voices. It may therefore be important to both discuss the effects of stigma on the person and also to normalise the experience. In terms of normalisation, three recommendations are proposed. Firstly, it may be helpful for the therapist to summarise some of the findings from general population studies and inform the client that up to 85% of people may hear voices at some time in their life (Millham & Easton, 1998; Posey & Losch, 1983) and that probably about 2-5% of people hear voices on a regular basis (Caspi et al., 2005; Tien, 1991). Some information about the commonality of related phenomena such as

hypnogogic (on falling asleep) and hypnopompic (on waking) hallucinations may also prove helpful. Secondly, the clinician may wish to consider either organising or referring their client on to a hearing voices group. Participants in such groups tend to report benefits from sharing their experiences with other voice-hearers and finding out that others have similar experiences. Thirdly, it may be helpful for the experience to be normalised in the eyes of the general public. This would require the provision of information and education about hearing voices. Given the success of national-level organisations like the Hearing Voices Network, which provide training, support and information through accessible media such as pamphlets and the internet, there is a strong indication for the establishment of a similar national-level, consumer-led network in New Zealand.

The evident importance of reducing stigma and normalising the experience of hearing voices also suggests a responsibility by the researcher to disseminate the findings of the present study to the New Zealand public, including voice-hearers, their families, and the people involved in their care. This will be done via much the same process as used to recruit participants. With significant public interest in this phenomenon, little difficulty is anticipated in gaining access to media exposure, such as national television, radio and newspapers. A summary of the findings will also be sent to all potential participants who contacted the researcher in the initial recruitment stages of the study. Finally, the researcher will work to disseminate aspects of the research findings to interested researchers and clinicians, through conference presentations and publications in peer-reviewed articles. It is hoped that supplying accurate information and encouraging discussion of this often marginalised phenomenon will work towards reducing stigma and taking some of the fear away from the experience.

Directions for Future Research

Given the high prevalence of voice-hearers in the general population (Bentall & Slade, 1985; Caspi et al., 2005; Schwab, 1977; Sidgwick et al., 1894, Tien, 1991, West 1948) it is surprising that so few studies to date have explored this phenomenon. Given the apparent complexity of this phenomenon, it is also surprising that even fewer studies have investigated it in depth and only two have incorporated voice-hearers' perspectives. Findings from the present study indicate several areas that may benefit from further research.

Firstly, it seems that there is a growing consensus among many researchers that hearing voices is not always indicative of mental illness and that this phenomenon occurs with relative frequency in the general population. However, the rate at which it occurs is still somewhat unclear. The main reason for this seems to be the lack of consensus around definition. For example, Grimby (1993) includes talking to one's deceased spouse in his definition of hallucination and Posey and Losch (1983) include thinking you hear your name on the radio or in a crowded store. In general, participants in the present study did not refer to such experiences as hearing voices.

Therefore, future studies of an epidemiological nature might benefit from a clearer definition of auditory verbal hallucinations. In particular, the findings from the present study indicate that voice-hearers consider voices to be phenomena that occur in the absence of a corresponding stimulus. For example, they did not refer to hearing their name on television or radio, or in a crowded street as voices. Participants also reported that their voice experiences tended to have the full force and impact of the corresponding actual (real) perception. They would usually be affected emotionally or behaviourally by what the voices said. Finally, participants in the present study felt that their voices had a life of their own and were not amenable to direct and voluntary control. Given these findings, future studies may benefit from applying a definition like that proposed by Slade and Bentall (1988) which incorporates these three criteria.

A second possible indication for future research is the importance placed by the participants in the present study on content, identity and relationships to their voices.   Although several studies to date have reported on topographical characteristics such as frequency, intrusiveness and duration, few have explored these other variables in depth. Content, in particular, was demonstrated to have significant influence on individuals' emotional distress and on whether or not they had contact with mental health services. This association was explored only in terms of whether the voice content was positive or negative. However, findings from the qualitative interviews suggest that voice content is much more complex than dichotomous categorisation allows for. Thus, future researchers may like to consider analysing the effects of hearing voices in relation to the multiple categories of voice content described in the present study. Future researchers may also find it helpful to draw on the eight identity categories provided by the present study as a starting point for investigations into voice-hearers' relationships with their voices.

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A third area of future research made apparent by the present findings is the influence that culture has on explanatory models. Unfortunately, the present study was limited by its sample size and demographic constellation. Further, it was deemed inappropriate to draw conclusions about cultural aspects due to the researcher's insufficient cultural knowledge. However, Taitimu (2005) is currently investigating Maori understandings of what psychiatry refers to as psychotic symptoms. This will likely include Maori understandings of hearing voices. Given the growing Pacific Island and Asian populations within New Zealand, it may also be helpful to explore voice experiences, beliefs about voices and perceptions of treatment for voice-hearers in these ethnic groups.

A fourth potential area for future research is an exploration of the sources of voice-hearers' explanatory models. The present study did not investigate the ways in which context, culture and past experiences might influence beliefs about voices. One specific area of interest to the researcher is whether existing beliefs shape the way first voices present or whether voice characteristics shape beliefs about voices. An in-depth exploration of the individual's circumstances prior to and around the time of their first voice experiences might help to illuminate this issue.

Finally, in terms of research into treatment interventions, it is of note that in the age of evidence-based practice, there is a considerable lack of research on therapeutic interventions for voices specifically. The exceptions to this are mostly studies of cognitive-behavioural-based treatments, which tend to show varying degrees of therapeutic effectiveness (Bouchard et al., 1996; Chadwick, Sambrooke et al., 2000; Haddock et al., 1998; Jenner & van de Willige, 2001; Lee et al., 2002; Newton et al., 2005; Pearlman & Hubbard, 2000; Trygstad et al., 2002; Wiersma et al, 2001; Wykes et al., 2005). However, because cognitive-behavioural interventions can be extremely variable in their approach, and clinicians variable in their degree of experience and expertise, it is difficult to determine which aspects of therapy are most helpful in bringing about change (Dickerson & Lehman, 2006).

Given the support that the findings from the present study show for Coleman and Smith's (1997) model of treatment intervention, it may also prove fruitful to perform a systematic study of the therapeutic effectiveness of this model. Full training to clinicians is available and the workbook helps to provide a consistent and structured approach to therapy. In the researcher's experience, many clinicians shy away from working with voices because they

hold unhelpful assumptions about this phenomenon, including that it should be the exclusive domain of psychiatrists and/or specialist psychosis clinicians. Future research demonstrating the effectiveness of a structured treatment intervention accessible to all clinicians may help to overcome this reluctance and ultimately benefit those who experience distressing voices.

From a broader perspective, it may also be important for future research to explore ways in which we can reduce the stigma around hearing voices, as this was a theme identified by a large number of participants. For example, recent research into destigmatisation programs show that promoting the notion that mental illness is "an illness like any other" may not be helpful as it actually increases negative views and stereotypes (Dietrich et al., 2004; Read, Haslam, Sayce & Davies, 2006). Research investigating more helpful ways of talking about symptoms and experiences often related to mental illness may help to guide future policies and programs to bring about a positive change in attitudes towards the common, but often marginalised, experience of hearing voices.

Conclusion

Clearly the phenomenon of hearing voices is much more complex than suggested by the generally accepted view of voices as a symptom of severe mental illness. Voice-hearers from the present study reported a diverse range of experiences and explanatory models and most had never been diagnosed with a psychiatric disorder. Overall, experiences tended to be described by participants as either negative or positive and each of these two sets of experiences incorporated a similar pattern of topographical characteristics, explanatory models and emotional reactions. However, some essential characteristics of hearing voices that occur across experiences were sought about and described. These included personally meaningful content, characterised identity, a relationship with the voices, an emotional response to the experience, and the sense that voices are real.

Not all voice-hearers in the present study reported wanting help specifically for their voice experiences, although many said they would like to see a change in the way this phenomenon is perceived. Specifically, they called for more information about voices and normalisation of the experience to reduce stigma, particularly with regard to its association with severe mental illness. Those people who reported that they would like help for their voice experiences

tended to emphasise the importance of a holistic approach incorporating psychological, cultural and spiritual factors. While there are some significant limitations to the present study, it represents the first attempt to analyse and present such a large number of key components of the phenomenon of hearing voices from voice-hearers' perspectives. Future research investigating these key components in greater detail and with larger and more diverse samples will no doubt provide further evidence of the complexity of this experience. Hopefully, thereby, the stigma associated with this relatively common experience can be reduced and a greater range of helpful responses will be available to those with the gift, or curse, of hearing voices.

"ANGELS AT OUR TABLES": RESEARCHING NEW ZEALANDERS' EXPERIENCES OF HEARING VOICES

Researchers at the University of Auckland are undertaking a three-year investigation into the phenomenon of hearing voices. The research, led by Vanessa Beavan, a postgraduate researcher in the Department of Psychology, will involve a questionnaire survey, and interviews, with members of the general public who hear voices.

Recent research in Europe and the USA has discovered that about 10% of people hear voices fairly often, and that the majority do not require mental health services. Hearing voices when there is nobody actually talking is usually considered very rare and indicative of severe mental illnesses such as schizophrenia. The European studies, however, show that it is much more common than previously assumed and, for many voice-hearers, is not disturbing. Some voices are supportive and encouraging. One British study even found that the majority of us, soon after the death of a much-loved friend or family member, will hear their voice. In Britain and the Netherlands there are now groups where voice-hearers meet to discuss their experiences.

The New Zealand study will ask voice hearers whether their voices are helpful, neutral or distressing, how they react to the voices, and how they understand the fact that they have these experiences. Those who find the voices upsetting will be asked about the strategies they use to cope with the voices. It is hoped that the study will add to the small but growing international body of literature examining this poorly understood, but seemingly rather common, phenomenon.

Anyone who hears voices and might be interested in taking part in the study can contact Vanessa Beavan at the University of Auckland on **09 373 7599 ext 82266** or send an e-mail to **voices@auckland.ac.nz**

DO YOU HEAR VOICES?

Around one in ten people hear voices that no-one else can hear. Researchers at the University of Auckland are exploring the many diverse forms that these voices can take, and the different ways that voice-hearers understand this experience.

We are interested in contacting anyone who is over 18 and has heard voices that no-one else can hear. If you would like to participate by completing our anonymous questionnaire please contact

Vanessa Beavan:

Phone
(09) 3737599 ext 82266
Or email
voices@auckland.ac.nz

**APPROVED BY THE UNIVERSITY OF AUCKLAND
HUMAN SUBJECTS ETHICS COMMITTEE
17/11/2003 for a period of 3 years, from 01/11/03
Reference 2003/349.**

Study Number: _____   Today's Date   ___/___/___

Questionnaire
Experiences of Hearing Voices

University of Auckland Psychology Department

Thank you for agreeing to participate

The aim of this study is to gain a better understanding of the experience of hearing voices.   Your input will help us to gain insight into the range of voices people hear, the effects this experience can have on people's lives, and what has been helpful to voice-hearers in managing this experience.

Please answer all the questions from your own personal experience. There are no right or wrong answers. It is your personal view that is important.

Instructions for filling out this questionnaire:

To answer most questions you will need to put a cross (X) in place of the box or boxes that are most appropriate for you.   Example: Are you
         ☐ male
         X female   **(This shows that the respondent is a woman)**

Some questions ask you to give a written answer. For these please type your reply in the space provided. Example: Which ethnic group(s) do you belong to?
        ☐New Zealand European or Pakeha
        ☐ Maori   Iwi/Affiliation (if known):
        X Pacific   Please specify: **Tongan**   **(This shows that the**
        ☐Asian   Please specify: **respondent is Tongan)**
        ☐Other   Please specify:

Some questions offer you a choice of numbers on a scale. For these, please put a cross in place of the number that best describes your view.
Example: Do the voices **disturb your contact** with others?
    1_____2_____3_____4_____5_____**X**_____7
    Not at all   Quite a bit   Completely
(This shows that the respondent's voices disturb her contact with others almost completely)

Please try to answer all questions. You may, however, choose not to answer any specific question/s. Any information which could identify you or anyone else will be removed.

When you have finished the questionnaire, please close this document and send it as an attachment to voices@auckland.ac.nz
Thank you.

INFORMATION ABOUT YOU

1. Are you
   - ☐ male
   - ☐ female

2. Your age:

3. Which ethnic group(s) do you belong to?
   - ☐New Zealand European or Pakeha
   - ☐Maori   Iwi/Affiliation (if known):
   - ☐Pacific   Please specify:
   - ☐Asian   Please specify:
   - ☐Other   Please specify:

4. What is your highest level of education?
   - ☐Primary school
   - ☐ High school/Secondary school
   - ☐ Entrance into Tertiary education (Uni, Polytec)
   - ☐Completion of Tertiary Degree or Diploma

THE VOICES YOU HEAR

5. **How many** different voices do you hear?
   - ☐One
   - ☐Two
   - ☐More than two   Please specify number:
   - ☐Too many to count (e.g. a large group or crowd)

If more than one then please answer the following questions for your experience of hearing voices in general

6. Can you **identify** the voices?
   - ☐Yes
   - ☐No (Go to Question 8)

If yes: Who or what do you think the voices are? (please fill in all the categories that apply to you)

	Yes	Please give details
They belong to people I know (or remind me of people I know)		
They belong to people I don't know		
They belong to other types of beings, eg God(s), spirits, guides		
Other (please specify)		

7. How much do you believe that the voices are **actually the voices** of the persons or entities you have identified in the above table?

1_____2_____3_____4_____5_____6_____7
Not at all   Completely

8. What **form** do the voices *usually* take? (Please put a cross (**X**) by all those the forms that apply to you)
☐ Telling me what to do
☐ Commenting on my thoughts/actions
☐ Commenting on me as a person
☐ Commenting on other people
☐ Acting as a helpful guide
☐ Talking to each other or arguing with each other
☐ Other   Please describe:

9. What sorts of things do the voices *usually* **say**?
☐   Mostly friendly/helpful things
☐   Mostly neutral things
☐   Mostly negative/unhelpful things

10. **How often** do you hear voices?
☐ All the time
☐ Everyday
☐ More than 5 times per week
☐ 1-5 times per week
☐ Less than once a week

11. **How long** do the voices *usually* talk for?
☐ They talk all the time, without pause
☐ They talk for hours on end
☐ They talk for between half-an-hour to 2 hours
☐ They talk for between a few of minutes to half an hour at a time
☐ They talk for less than a few minutes
☐ They say only a word or a sentence each time

12. Over the last year, can you estimate *approximately* on average what **percentage of the time** you hear voices?
                About ____% of the time

13. **Where** do the voices usually sound like they're coming from?
☐ Inside my head
☐ Outside of my head (e.g. I hear them through my ears)
☐ Both inside and outside my head

please give details if you can:

14. Do the voices **disturb your contact** with others?
1_____2_____3_____4_____5_____6_____7
Not at all   Quite a bit   Completely

15. Do the voices **take over your thoughts**?
1_____2_____3_____4_____5_____6_____7
Not at all   Quite a bit   Completely

16. How much **control** do you have over whether or not you hear the voices?
    ☐ The voices only come when I want them to
    ☐ The voices will stop when I want them to
    ☐ Sometimes I can control whether the voices talk and sometimes I can't
    ☐ I have little control over whether or not the voices talk to me
    ☐ I have absolutely no control over the voices

17. In general, how does the experience of hearing voices **make you feel**?
    ☐ Always happy or content
    ☐ Mixed, but mostly happy or content
    ☐ Indifferent (My voices do not have an emotional impact on me)
    ☐ Mixed, but mostly upset or distressed
    ☐ Always upset or distressed
    ☐ Very Mixed (I experience very strong emotions, both positive and negative)

18. When you hear the voices, **how do you feel**? (please put a cross (**X**) by all the words that apply to you)

    ☐ angry   ☐ encouraged   ☐ frightened   ☐ reassured   ☐ confused
    ☐ amused   ☐ sad   ☐ excited   ☐ understood   ☐ other:_____

19. How much do you believe that the voices **are your own thoughts**?
           1_____2_____3_____4_____5_____6_____7
         Not at all   Completely

20. **Why** do you think you hear voices? (please put a cross (**X**) by all the reasons that apply to you)
        ☐ I am special/I have special abilities
        ☐ The voices come to me to support me in my times of need
        ☐ I have done something bad and this is punishment
        ☐ I inherited it from my parents/ancestors
        ☐ Everyone hears voices, but not everyone knows/admits it
        ☐ I hear the voice of a loved one who has recently passed away
        ☐ The voices are a result of my drug use
        ☐ My ancestors are talking to me
        ☐ The voices are a symptom of a mental illness
        ☐ The voices help me cope with my emotions
        ☐ The voices are part of myself, but not the same as my thoughts
        ☐ The voices are a consequence of traumatic or stressful life events
        ☐ I have a brain disorder or brain disease
        ☐ I am having a spiritual experience
        ☐ The voices are replays of conversations I have had in the past
        ☐ The voices are a consequence of difficult relationships I have experienced
        ☐ Other. Please explain:
        ☐ Other. Please explain:

21. To what extent is hearing voices accepted as a **normal experience in your culture**?
             1_____2_____3_____4_____5_____6_____7
           Not at all   Completely

Please explain:

22. How much do you believe that your experience of hearing voices is due to **difficult or traumatic life events or situations** you have experienced?

1_____2_____3_____4_____5_____6_____7
Not at all   Completely

Please explain:

23. How old were you when you had your **very first experience** of hearing voices?

Age:

24. How did this first experience **make you feel**?

1_____2_____3_____4_____5_____6_____7
Very happy   Neutral   Very distressed

25. This **first time** you heard voices, were the voices:

1_____2_____3_____4_____5_____6_____7
Mostly friendly   mostly   mostly nasty
or helpful   neutral   or aggressive

26. Did any **significant event/experience** take place shortly before you started hearing voices for the very first time?   ☐ Yes   ☐ No

If yes, please explain

27. If the voices are sometimes upsetting or annoying, please put a cross (**X**) by all the things you have tried to **reduce the distress they cause you**. Then rate the effectiveness of each strategy, by replacing the appropriate number with a cross (**X**).

1_____2_____3_____4_____5_____6_____7
Not effective at all   Somewhat effective   Very effective

a)	☐ They don't bother me/I don't want to make them go away		--------						
b)	☐ Yell/Talk back to them	1	2	3	4	5	6	7
c)	☐ Watch TV	1	2	3	4	5	6	7
d)	☐ Listen to music/songs/radio	1	2	3	4	5	6	7
e)	☐ Talk out loud	1	2	3	4	5	6	7
f)	☐ Ignore them	1	2	3	4	5	6	7
g)	☐ Read	1	2	3	4	5	6	7
h)	☐ Use drugs or alcohol	1	2	3	4	5	6	7
i)	☐ Talk to someone about the voices	1	2	3	4	5	6	7
j)	☐ Sing or hum	1	2	3	4	5	6	7
k)	☐ Block up my ears, eg with earplugs/cotton wool	1	2	3	4	5	6	7
l)	☐ Prayer or meditation	1	2	3	4	5	6	7
m)	☐ Take prescribed medication	1	2	3	4	5	6	7
n)	☐ Physical exercise	1	2	3	4	5	6	7
o)	☐ Play a game/musical instrument	1	2	3	4	5	6	7
p)	☐ Talk to myself/Say things under my breath	1	2	3	4	5	6	7
q)	☐ Do what the voices tell me to do	1	2	3	4	5	6	7
r)	☐ Relaxation	1	2	3	4	5	6	7
s)	☐ Set aside a time when I will listen to them	1	2	3	4	5	6	7
t)	☐ Other:	1	2	3	4	5	6	7

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DRUG USE

(Please remember that information given in this questionnaire is anonymous. No identifying information will be kept with this questionnaire.)

28. Do you think that your experience of hearing voices is **related** to your recreational drug use?
 (recreational drugs include alcohol, marijuana, hallucinogenics, amphetamines, and other illegal substances)
- ☐ I have never used any recreational drugs
- ☐ Yes (please say how):
- ☐ No
- ☐ I'm not sure

31. Do you hear voices only when you are high on drugs?
- ☐ Yes   ☐ No

EXPERIENCES WITH THE MENTAL HEALTH SYSTEM

32. Have you ever had any **contact with Mental Health** services or agencies?
- ☐ Yes
- ☐ No (please go to Question 35)

If yes please explain briefly (e.g. number/duration of hospitalisations/contacts, reasons for going):

33. If yes, how much was your contact with Mental Health services related to your voices?

1_____2_____3_____4_____5_____6_____7
Not at all   Somewhat   Completely

34. Have you ever been diagnosed with a **psychiatric disorder**?
- ☐ Yes   Please specify the diagnosis/diagnoses if known:
- ☐ No
- ☐ I don't know

HELP AND SUPPORT

35. Do you think some form of **support** (professional or otherwise) for your experience of hearing voices would be helpful?
- ☐ Yes   ☐ Not now, but I would have liked to receive support in the past   ☐ No

Please elaborate on the types of support that you think would be (or would have been) most helpful for you:

FOLLOW UP INTERVIEW

36. If you live in the North Island, would you be willing to take part in a face-to-face interview to discuss more fully your experiences of hearing voices and the impact of these experiences on your life?
- ☐ Yes   If Yes, please phone Vanessa Beavan (09) 3737 599 ex 82266 or e-mail your contact details to
- ☐ No   voices@auckland.ac.nz, or write your contact details here:

Thank you for taking part in this study

INFORMATION SHEET FOR PARTICIPANTS

Title of study: **"The experience of hearing voices"**

My name is Vanessa Beavan and I am a student at the University of Auckland enrolled for a PhD degree in the Department of Psychology. As part of my doctoral thesis, I am investigating the phenomenon of hearing voices, from voice-hearers' perspectives. Some people find the voices they hear distressing and some people find the voices helpful. Others find their voices both helpful and distressing. Many people have different ideas about where the voices come from and what purpose they serve. I am interested in how voice-hearers understand this experience. This research will help to provide information which can be valuable to other voice-hearers, mental health professionals, and the general public.

You are invited to take part by filling in a questionnaire, which is entirely **anonymous**. The questionnaire will take about 15-20 minutes to complete and, although I would really appreciate your contribution, you are under no obligation at all to participate. No material that could identify you will be used in any reports on this study. You do not have to answer any questions you do not wish to.

Should you find the questionnaire distressing and wish to talk with someone, you can contact   Dr John Read, a registered psychologist, at the number below. He will help you to find the appropriate support.

Thank you very much for your time and help in making this study possible. If you have any queries or wish to know more please contact me at the address below:

Vanessa Beavan
Department of Psychology
The University of Auckland
Private Bag 92019, Auckland
E-mail at voices@auckland.ac.nz
Tel: 09 373 7599 ex. 82266

My supervisor is: Dr John Read
                                      Department of Psychology
                                      The University of Auckland   E-mail at: j.read@auckland.ac.nz
                                      Private Bag 92019, Auckland.   Tel: 09 373 7599 ex. 85011

The Head of Department is: Professor Di McCarthy
                                                    Department of Psychology
                                                    The University of Auckland
                                                    Private Bag 92019, Auckland.   Tel: 09 373 7599 ex. 88516

For any queries regarding ethical concerns please contact: The Chair, The University of Auckland Human Subjects Ethics Committee, The University of Auckland, Research Office – Office of the Vice Chancellor, Private Bag 92019, Auckland. Tel. 09 373 7999 ex. 87830

APPROVED BY THE UNIVERSITY OF AUCKLAND HUMAN SUBJECTS ETHICS COMMITTEE on
17/11/2003 for a period of 3 years, from 01/11/03 Reference 2003/349.

INFORMATION SHEET FOR PARTICIPANTS

Title of study: **"The experience of hearing voices"**

My name is Vanessa Beavan and I am a student at the University of Auckland enrolled for a PhD degree in the Department of Psychology.   You have already provided me with some very valuable information by filling out the brief questionnaire on your experience of hearing voices, and you indicated on that questionnaire that you might be interested in being interviewed. I am therefore writing to you to invite you to participate in a research interview that will explore your personal experience of hearing voices in more depth.   I am particularly interested in a) getting a good personal description of what the experience of hearing voices is like for you and how it has affected your life, b) understanding your explanation for why you hear voices, c) finding out about help and support you either have received or would like to receive.

You are under no obligation to participate, and your decision will not affect the information we have gathered thus far. If you do choose to participate, you will be interviewed for about 1½ hours, at a time that is convenient to you in a room at the University of Auckland. If this location would be a problem we can explore the option of another comfortable setting, such as a community centre near you. You are welcome to invite someone to the interview for support, but the focus of the interview will be on your own experiences.

The interview will be audiotaped only with your consent and the tape can be turned off at any point if you request this. You may stop the interview at any time. Furthermore, you can withdraw information you provide in the interview in the seven days following the interview. Your name will not be used, and no material that could identify you will be used in any reports or conveyed in any way. The tapes will be kept in a locked cabinet in a locked office. Upon completion of the study you can choose to either have your tape returned to you or have it erased by the researcher.

Your participation will help to enhance our understanding of the experience of voice-hearers. It is expected that this research will provide valuable information about the beneficial and distressing aspects of hearing voices, how people manage this experience and what support (if any) they would find helpful. Upon completion of the study, a summary of our findings will be made available to all participants.   It is possible that you may find talking or thinking about some aspects of your voices distressing. Should this happen, please call Dr John Read at the number below, and he will help you to find the appropriate support.

Thank you for considering participating in this study. If you have any queries or wish to know more please contact me or my research supervisor at the address below.

      Vanessa Beavan
      Department of Psychology
      The University of Auckland
      Private Bag 92019, Auckland   E-mail at voices@auckland.ac.nz
My supervisor is: Dr John Read
      Department of Psychology
      The University of Auckland   E-mail at: j.read@auckland.ac.nz
      Private Bag 92019, Auckland.   Tel: 09 373 7599 ex. 85011
The Head of Department is: Professor Di McCarthy
      Department of Psychology
      The University of Auckland
      Private Bag 92019, Auckland.   Tel: 09 373 7599 ex. 88516

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CONSENT FORM

THIS CONSENT FORM WILL BE KEPT IN A LOCKED CABINET AT THE
UNIVERSITY OF AUCKLAND FOR SIX YEARS

Title: **The experience of hearing voices**

Researcher: Vanessa Beavan
               Department of Psychology
               The University of Auckland

I have been given and have understood an explanation for this research project. I have had an opportunity to ask questions and have them answered.

I understand that taking part in this study is voluntary (my choice) and that I may withdraw myself or any information traceable to me, at any time for up to seven days following my interview. I understand that my participation in this study is anonymous and that no material that could identify me will be used in any reports on this study.

I agree to participate in this research

I do/do not agree to the interview being audiotaped

Signed: ………………………..

Name: …………………………
(please print clearly)

Date: ………………………….

APPROVED BY THE UNIVERSITY OF AUCKLAND HUMAN SUBJECTS ETHICS
COMMITTEE on 17/11/2003 for a period of 3 years, from 01/11/03 Reference 2003/349.

Introduction of interviewer

Overview of research
- 3 yr PhD project
- New Zealanders' expereinces of hearing voices – diverse range
- 2 phases: Questionnaires (aiming for 200) and Interviews (50)

Overview of Interview structure
- about an hour to an hour and a half
- a description of the voices
- ask about how you explain this experience
- and ask about how you manage the voices if they are ever distressing or unwanted
- we'll begin at the beginning and work through to the present
- Pretty loose structure, and I want you to talk about the things that you feel are most relevant to your experience of hearing voices
- but I do have some guiding questions to help us stay on track

Confidentiality
- Important for you to understand that what we talk about in this room is confidential, in the sense that while I will be reporting information that you give me about your experience, I will not use that information in any way that could identify you. Nobody else will have access to your tapes, or the transcripts of the tapes.
- There's always a couple of exceptions to confidentiality in this type of clinical research
- The first is that I may share some of the data with my supervisors, Drs John Read and Claire Cartwright
- And the second is that if I have serious concerns about safety, for yourself or other people, I will need to share those concerns with my supervisor, and we may choose to take that further.

Participant Information sheet
- have you read the participant information sheet? (take time if needed)

Questions?
Consent form

Warm up
- Can you tell me how you found out about this research?
- Can you tell me why you are interested in participating in this research?
- Are you likely to hear your voices during the interview?
- If so, what should we do about that?

Important Information
- We're going to spend quite a bit of time today talking about your voices, but before we start, is here anything about your experience that you would like to tell me, that you think is important for me to know?

Onset of voices
- How did the voices start?
- What was that like?
- What was happening in your life around that time?
    - Work/school situation, family and friends, and significant events?
- Can you describe that first experience of hearing voices?
    - Number, identity, content, duration, location…
    - How did this experience make you feel?
    - What did you think was happening?
    - What did you do? (How did you cope?), How effective was that for managing the voices?

Evolution of the voices over time
- Since that first time you heard voices, have you heard voices again?
- Were these later experiences similar or different to the first time?
  In what way? (esp. topography)
- Times when voices more frequent, more intense?
- Belief system – Any changes over time?
- Emotional reaction – any changes over time?
- Strategies/coping – any changes over time?

Voices currently
- When was the last time you heard voices?
- Can you briefly describe that experience?
    - Number, identity, content, duration, location…
    - How did this experience make you feel?
    - What did you think was happening?
    - What did you do? (How did you cope?), How effective was that for managing the voices?

Others' perceptions/reactions
- Have you ever told anybody?
- If not, why not?
- Who did you tell? How did they react?

Help and support
- What types of help and support have you received in the past?
- What types would you have liked to have received in the past?
- And now?

Concluding remarks
- If you had one thing you wanted to communicate to me today, what would it be?
- If you had one thing you wanted to communicate to other voice-hearers, what would it be?
- If you had one thing you wanted to communicate to the general public about your voices, what would it be?

How was that for you?
- Parts of the interview you liked the most?
- Parts you found most challenging or difficult?
- On a scale of 1-10 how positive an experience would you rate it?

Thank you and wind up

Appendix H: Reliability Audit

Example reliability audit I: Explanatory models

A reliability audit was carried out for each of the major categories of "identity," "voice content," "trauma history" and "explanatory models." Each audit consisted of having a randomly-chosen proportion of the relevant text units independently coded, followed by discussion between the two raters and appropriate modification of coding so that raters reached 100% agreement. The following is an example of the audit carried out for the category of "explanatory models," which will illustrate this process.

In the reliability audit of the explanatory models analysis, a total of 159 text units were cross-checked (approximately 62% of all coding for this category). Each text unit was coded into a general category (e.g., "biological") and a sub-category (e.g., "brain dysfunction").

The inter-rater agreement for coding into general categories was 82%. The inter-rater agreement for coding into sub-categories was 75%. The two raters discussed the discrepancies and were able to achieve 100% agreement by adding, deleting and modifying some text units.

For the general categories, 11 text units were deleted, 4 were modified and 14 remained the same. For the sub-categories, the same 11 text units were deleted, 6 were changed and 23 remained the same. The second rater proposed 18 additional codings for the text units. Seven were added and 11 were not. The four major reasons for discrepancies between the two raters were lack of context or information, need for clarification of category definitions, and mistakes.

The following are examples of changes made to the coding after discussion between the two raters:

1. Example of a change made after the independent rater was given more information about the context in which the statement was made by the participant:
Text unit: "Maybe it's just something my brain generated from receiving some kind of media influence."
Interviewer's note: In the context of the interview it was clear that this woman was referring to a cognitive process, like a replay of something she had seen on television. Without this context the second rater had understood this statement to represent a delusional belief that radio waves were entering the participant's brain and controlling her thoughts.

2. Example of a change made after definition clarification:
Text unit: "So I think it's pretty likely that this was my father."
Interviewer's note: I coded this text unit as "spiritual." According to my definition, if the person believed they were hearing the voice of an actual entity, living or deceased then it was coded under the heading "spiritual." The second rater coded the text unit as "psychological" because according to his own beliefs it was not possible to actually hear the voice of a living person. This difference recurred a number of times because the second rater understood the "spiritual" category to incorporate only explanations that involved voices belonging to deceased people, gods, or spirits.

3. Example of when coding was deleted because not enough information was available to make a reliable decision:

Text unit: "Why do you think you hear these voices on the beach?"

"I don't know. Maybe because they're telling me that I shouldn't be there."

Interviewer's note: I coded this text unit as "spiritual" because I assumed the participant was referring to actual people or spirits that were communicating with him. The second rater however, pointed out that "they" could be referring to "the voices," which might be understood as a biological, psychological or spiritual phenomenon.

4. Example of a change made because one of the raters made a mistake:

Text unit: "Now it's my job, it's my role, it's my purpose in life."

Interviewer's note: I coded this text unit under "special ability" but the second rater pointed out that having suffered a biological illness could lead one to become a consumer advocate. So, what one does with an experience does not necessarily make the experience itself a special ability.

Example reliability audit II: Trauma history

In contrast to the process of performing a reliability audit on a random selection of text units for each of the major categories of "identity", "voice content" and "explanatory models," *all* text units in the "trauma history" category were reviewed and examples of exclusions are given below. This more comprehensive approach was taken for two reasons. Firstly, what constitutes "trauma" can be particularly difficult to define and so having two raters for every text unit should have increased consistency. Secondly, giving examples of excluded text units may help to counter any claims that the threshold for inclusion was too low.

For the purposes of this study, trauma was defined as any event or series of events that the participant either labelled abuse or described in such a way as to suggest it had a significant and enduring effect on their life. The reliability audit carried out by an independent rater found an overall inter-rater agreement of 81%. After discussion between the two raters, nine text units were excluded, and four were kept, so that 100% inter-rater agreement was reached. The following are examples of text units that were excluded because

1. Childhood sexual abuse

Text unit: "And my maternal grandfather tried to sexually abuse me at one stage."

Text unit: "And so as a child you have memories of him doing pretty nasty stuff to you as well?"

"Yeah, trying to drown me and on the edge of my remembering, kind of body sexual stuff and pretty bad stuff."

2. Childhood physical abuse

Text unit: "I feel allergic to her when I'm around her and I'm not sure where that came from but it may - I just have to make assumptions and that's not always the healthy thing to do but I perhaps feel that there was a little bit of physical violence, rejection and stuff like that doing that period of time and I understand it compassionately and that's how I deal with it."

Text unit: "I had some very violent moments growing up, when I was younger."

3. Illness/Injury

Text unit: "I got sick quite a lot. Like you went to the doctor, they didn't know what your sickness was, the old people always said that it's spirit, it's bad spirit that has caused the problem."

4. Identity

Text unit: "The worst thing that my mother ever ever told me was that when I first got adopted out, I got sent to a couple down in Tauranga, and this is the thing that affected me the most, I got adopted to a couple in Tauranga and I was with them for six weeks and they returned me. I was returned because the doctor had some concerns about the delivery, in which I had oxygen at birth and he thought there was a possibility that I was brain damaged. So the Tauranga couple sent me back and I was put up for re-adoption. Probably that... I don't know why she told me; I don't believe for a moment that her intent was to be malicious or anything, it was just somehow, I don't even know how it came up, but that had a huge effect on me… And I've never been able to get past it. And I have had lots of treatment, lots of treatment. But I've never really been able to get past that one.

5. Emotional Abuse

Text unit: But as far my parents were concerned, I couldn't do anything right."

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