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The Omnipotence of Voices
A Cognitive Approach to Auditory Hallucinations

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We offer provisional support for a new cognitive approach to understanding and treating drug-resistant auditory hallucinations in people with a diagnosis of schizophrenia. Study 1 emphasises the relevance of the cognitive model by detailing the behavioural, cognitive and affective responses to persistent voices in 26 patients, demonstrating that highly disparate relationships with voices – fear, reassurance, engagement and resistance – reflect vital differences in beliefs about the voices. All patients viewed their voices as omnipotent and omniscient. However, beliefs about the voice's identity and meaning led to voices being construed as either 'benevolent' or 'malevolent'. Patients provided cogent reasons (evidence) for these beliefs which were not always linked to voice content; indeed in 31% of cases beliefs were incongruous with content, as would be anticipated by a cognitive model. Without fail, voices believed to be malevolent provoked fear and were resisted and those perceived as benevolent were courted. However, in the case of imperative voices, the primary influence on whether commands were obeyed was the severity of the command. Study 2 illustrates how these core beliefs about voices may become a new target for treatment. We describe the application of an adapted version of cognitive therapy (CT) to the treatment of four patients' drug-resistant voices. Where patients were on medication, this was held constant while beliefs about the voices' omnipotence, identity, and purpose were systematically disputed and tested. Large and stable reductions in conviction in these beliefs were reported, and these were associated with reduced distress, increased adaptive behaviour, and, unexpectedly, a fall in voice activity. These changes were corroborated by the responsible psychiatrists. Collectively, the cases attest to the promise of CT as a treatment for auditory hallucinations.

Auditory hallucinations have a powerful impact on the lives of those who experience them (Falloon & Talbot, 1981). However, the experience is also personal: some people experience them as immensely distressing and frightening whereas others are reassured and amused and many actually seek contact. Where some people shout and swear at voices and resist commands, others may harm themselves or other people at the voices' behest.

This diversity begs the question, how are the content and form of the voice, and the person's cognitive, affective and behavioural response, connected? That a link exists is well established. Romme & Escher (1989) used innovatory sampling methods to study hallucinations in clinical and non-clinical groups, and they showed how a person's ability to cope with voices varied according to his/her appraisal of the voices. Benjamin (1989) studied 30 hallucinators and found that all had meaningful, integrated and interpersonally coherent relationships with their voices. In people diagnosed as schizophrenic these relationships were orderly and interpersonally 'normal', but not always complimentary; these patients might claim that their voices liked them even though the content was hostile and attacking. Benjamin's clearly stated position (p. 293) is that the content of the voice is "directly responsible" for the person's behavioural and affective response.

The question arises as to why the individual should feel compelled to behave and respond affectively in such an apparently congruous manner. Recent work has suggested that essentially normal thought processes are involved in the way that delusional ideas are formed (Maher, 1988) and given up during recovery (Brett-Jones *et al*, 1987). Indeed psychological research shows that whether ordinary people accept comments and advice, and comply with commands, depends in large part on their appraisal of the situation. For example, in Milgram's famous studies, whether ordinary individuals could be persuaded to administer what they believed to be a lethal electric shock to other subjects was strongly influenced by their beliefs about the experimenter's authority and power, their own degree of control, and the presumed consequences of disobedience (Milgram, 1974).

Likewise, it is possible that the degree of fear, acceptance and compliance shown to voices might be mediated by *beliefs* about the voices' power and authority, the consequences of disobedience, and so on. For example, the belief that a voice comes from a powerful and vengeful spirit may make the person

terrified of the voice and comply with its commands to harm others; however, if the same voice were construed as self-generated, the behaviour and affect might be quite different. This cognitive formulation of voices was inspired by Beck's cognitive model of depression (e.g. Beck *et al*, 1979) which proposes that the behavioural and affective symptoms are consequences of particular negative beliefs (e.g. "I am worthless") and not antecedents (e.g. "She disagreed with me"). This premise gave rise to cognitive therapy (CT) for unipolar depression (Beck *et al*, 1979), an effective treatment approach that relies heavily on the disputing and testing of beliefs. The applicability of the cognitive model to voices could have similar important implications for treatment, in that if beliefs about voices could be weakened, this might reduce associated distress and problem behaviour.

Useful progress in the cognitive–behavioural management of schizophrenic symptoms has been made in recent years, largely concentrated on positive symptoms (Birchwood & Tarrier, 1992). There is growing evidence that secondary delusions may be weakened using CT (e.g. Fowler & Morley, 1989; Chadwick & Lowe, 1990). Again, Kingdon & Turkington (1991) have described how a number of established cognitive techniques may be used to help clients construe their symptoms and experience in non-psychotic terms. However, research has yet to investigate the clinical utility of such techniques in systematically identifying and categorising the types of belief people hold about their voices, and then making these beliefs the target of treatment. This is the purpose of the present two studies: if successful, the cognitive approach holds promise of a new method of easing distress and problem behaviour associated with drug-resistant voices.

Study 1. Applicability of the cognitive model to voices

The first study tested the prediction that the degree of distress and problem behaviour are consequences of beliefs about voices, and not of antecedents such as voice content. Twenty-six chronic hallucinators with a diagnosis of schizophrenia or schizoaffective psychosis were interviewed within a cognitive framework, in the manner in which Hibbert (1984) approached panic disorder. Specifically we assessed: (a) whether there exist beliefs that are held about voices; and, if so (b) the reasons (evidence) for these beliefs, including voice content; and (c) to what degree these beliefs are tied to individuals' behavioural and affective responses.

Method

Fourteen men and 12 women were selected who had heard voices for at least two years; their average age was 35 years (range 23–59). All except one were receiving depot neuroleptic medication at All Saints' Hospital, Birmingham; one was in hospital and the remainder were out-patients. All satisfied DSM–III–R criteria for schizophrenia or schizoaffective disorder (American Psychiatric Association, 1987).

All participants volunteered for the study, with no refusals. Each was asked whether he or she would be willing to meet with a psychologist to discuss the experience of hearing voices. It was made clear that the discussion would be confidential, and that information disclosed would neither be entered in the main case notes nor lead to a change in medication.

Interviews were conducted by either one of the authors; in several cases it took more than one interview to collect all relevant information. Information was gathered using a semi-structured interview (details available from the authors on request). Interviews assessed the content of the voices, beliefs about voices, other collateral symptoms that were regarded as supporting the beliefs, other confirmatory evidence, and influence over the voice. 'Confirmatory evidence' refers to actual occurrences that are perceived to support a belief: for example, a belief that voices give good advice would be strengthened if complying with a command led to a desired outcome. 'Influence' concerns whether the individual could determine the onset and offset of the voice, and could direct what was said. The behavioural and affective responses were also elicited.

Results

A cognitive analysis of each individual's experience of voices was completed on the basis of the interview data. The beliefs elicited fell into distinct categories: those about a voice's identity, power, and meaning, and those about compliance. While limited space prevents information for all 26 participants being given in detail in Table 1, we describe 12 people's experience of hearing voices; information about all 26 patients' experience is available from the authors on request.

Beliefs about voices

Omnipotence. All voices were perceived as being extraordinarily powerful. Nineteen patients (73%) reported collateral symptoms (e.g. visual hallucinations) that contributed to the sense of omnipotence. In six instances the experience of control was attributed to the voices. However, not all the evidence was of this type: 11 people (42%) gave examples of how they attributed events to their voices, and then cited the events as proof of the voices' great power. For example, although S14 and S16 both cut their wrists under their own volition, they subsequently deduced that the voices had somehow made them do it. Similarly, S17 attributed responsibility for his having sworn out loud in church to his satanic voices. This 'superhuman' quality was reinforced in all cases by 'hard' evidence that the voices were omniscient – that is, knowing (i.e. commenting on the

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person's present thoughts and past history, and predicting his or her future. Finally, 21 people (81%) were unable to influence either the onset and offset of their voices or what was said, once again suggestive of the voices' power.

Malevolence and benevolence. Four broad classes of belief emerged, and three representative examples of each appear in Table 1. Twelve people (S1–S12) believed the voices were malevolent. Malevolence, the wish to do evil, took one of two forms: either a belief that the voice was a punishment for a previous misdemeanour, or an undeserved persecution. For example, S1 believed he was being punished by the Devil for having sinned, and S3 believed he was being persecuted without good reason by an ex-employer. Six people (S13–S18) believed the voices to be benevolent. Benevolence, the wish to do good, took a number of forms: to help the person maintain mental well-being; to protect the person, often from malevolent voices; an advisory role; to help the person develop social power; to develop a personal interest in the person (e.g. marriage). For example, S14 believed that the voices were from God and were there to help develop a special power.

The third group (S19–S23) comprised five people who believed they heard a mixture of benevolent and malevolent voices; a paradigm of this group was S23, who was tormented by a group of evil space-travellers and yet protected and nurtured by a guardian angel. The final three people (S24–S26) were uncertain about their voices because of an inconsistency or incongruity in what was said. 'Uncertainty' was defined as having a strong doubt about the voice's identity, meaning or power, where this doubt was the result of the person's deduction. For example, S26 was certain that his voices wanted to help but observed that they had got things wrong: they wanted him to kill himself and move on to the next and better life, yet his religion told him that suicide is a sin and those who commit it go to hell.

Connection with voice content. The voice content was frequently put forward as evidence for a particular belief. Thus it was commonly said that evil commands were evidence that the voice was bad, and kind protective words were evidence that the voice was good. Also, as we have seen, the belief in omnipotence was supported in all cases by the apparent omniscience of voices; they all 'knew' about the person's private thoughts and actions, and many accurately foretold the future.

However, the class of belief was not always understandable in the light of voice content alone – that is, in eight cases (31%) the beliefs appeared to be at odds with what was said. In the case of S2 and S12 the voice content was benign, yet these voices were construed as malevolent. The reverse was true of S26, whose voice called him a fool and told him to commit suicide and yet was construed as benevolent. Similarly, S24's voice told her to kill her family and herself; she believed the voice was God's and that he was giving her the chance to see her dead daughter by going to heaven. Again, S25 believed his voices to be benevolent in spite of them telling him to kill his daughter. S15's voice told him to commit suicide and yet still was thought to be a benevolent goddess. S18's voices insulted her and told her to kill and yet were seen as benevolent. Perhaps most strikingly, S11's voice identified itself as God and yet she disregarded this and believed it to be an evil force.

Behavioural and affective consequences

The behavioural responses to voices may be organised into different categories. One important criterion is whether the person willingly engages with the voice. *Engagement* may be defined as elective listening, willing compliance, and doing things to bring on the voices (e.g. watching television, being alone, calling up voices). *Resistance* was a second category and may be defined as arguing and shouting (overt and covert), non-compliance or reluctant compliance when pressure is extreme, avoidance of cues that trigger voices, and distraction. A final category, *indifference*, was defined as ignoring and disregarding the voice.

At times people who habitually engaged with voices tried to 'shut them up to get some peace' or shouted at them when they became a nuisance. Therefore engagement, resistance and indifference are probably best thought of as predominant behavioural dispositions that describe the person's response to voices most of the time.

When these behavioural categories are compared with beliefs about malevolence and benevolence, the results are striking. Without fail, when a voice was believed to be benevolent the person willingly engaged with it, and when a voice was believed to be malevolent it was resisted. Those people who were uncertain about their voices displayed no clear pattern between beliefs and behaviour. Affective responses to voices corresponded very closely to behavioural responses. All 17 malevolent voices habitually provoked negative emotions (anger, fear, depression, anxiety). Ten of the 11 benevolent voices habitually provoked positive emotions (amusement, reassurance, calm, happiness) when they spoke; the one exception was S16 who felt predominantly anxious on hearing a benevolent voice, perhaps because the voice issued warnings about possible danger. All three people who were uncertain about their voices experienced negative affect when these voices spoke.

Compliance with commands

Although people had clear intentions about whether to comply with commands, at times these were compromised. Compliance is governed by at least five factors. Firstly, compliance can be total (all commands obeyed in full), partial (only certain commands obeyed), or absent. Secondly, there is the general disposition to consider; malevolent voices are to be resisted and benevolent voices are to be courted. However, and thirdly, all people interviewed who heard imperative voices had additional beliefs about the consequences of obedience and disobedience (see Table 1). Beliefs about disobedience varied in severity from being nagged to being killed. A fourth factor is the commands themselves – voices may give innocuous commands ("make a cup of tea", "watch your step"), or severe commands ("kill him"), or both. Finally compliance would seem to be influenced by extra factors such as the person's mood, and the pressure and persistence of the voices – patients who respond to such factors often present as losing tolerance for their voices.

We feel it is helpful to classify commands as mild or severe (i.e. life-threatening). Immediately one parameter can then be established. Fourteen voices (eight benevolent, six malevolent) gave only mild commands; all these

Table 1
A cognitive analysis of voices: a sample of 12 from the 26 patients (all diagnosed schizophrenic)

Patient no., sex, age, duration of illness	Voice content	Beliefs: identity, (I) meaning (M), and effect of compliance (C)	Evidence: content (C), symptom (S), attribution (A), influence (I)	Affective response to voices	Behavioural response to voices
S1 M, 49 years >20 years	Imperative Told to rape and kill	I. Voice of Devil M. Being punished for killing someone C. Devil will drive me mad if I don't obey	C. Content is evil and knows my thoughts and past S. Delusion of control I. None	Frightened Angry	Shouts back and swears (covert) Compelled to listen No compliance
S2 M, 43 years >20 years	Imperative "Be careful" "Try harder"	I. Powerful witches who used to be neighbours M. Punishment for being noisy and stopping studying C. If I disobey they keep on at me	A. Recognise voices C. Read thoughts and know past I. None	Exhausted Tormented Scared	Shouts back and swears (covert) Compelled to listen and complies unwillingly
S3 M, 31 years 10 years	Imperative "Be untidy" "Don't wash"	I. First and only employer M. Controlling me and holding me back in life C. My intelligence is better than his so I don't obey	C. Reads thoughts and knows my past S. Delusion of control A. Voice gets worse if I make progress I. None	Irritated Depressed	Listens and argues with voice No compliance
S14 M, 32 years 8 years	Imperative Voices give marvellous advice	I. Voices from God and have his power M. To protect me and develop my powers C. If I obey bad things will not happen	C. Know thoughts and history A. Their advice stops conflict S. Experience of control I. No influence	Strong Confident Happy	Elective listening and compliance
S15 M, 24 years 3 years	Imperative "Kill yourself" "Give up smoking" "Don't go to church today"	I. An ex-girlfriend, who is a goddess M. She protects me. I hear because I've great power C. She nags me if I don't comply	C. Know thoughts and past A. Grandiose delusion I. Can call up voice and influence content	Interested Some irritation	Elective listening Selective compliance
S16 F, 23 years 2 years	Imperative Not to trust people Gives warnings	I. A dead friend M. I am in touch with another dimension C. If I resist I will fall victim to the other side	S. Derealisation Delusion of reference C. Sounds like friend and identified itself C. Predicted death of friend	Anxious	Listens carefully Avoids certain people Complies fully
S19 F, 34 years 10 years	Voice 1. Advises and imperative "Make tea", "You are the bride in Bible" "That's possessed" Voice 2. Imperative "Kill her" "Stab her" "Eat earth"	I. Voice 1 is my boyfriend. Voice 2 is Russians and Germans M. I have a mission from God to marry my boyfriend C. Russians will nag and kill me if I resist	C. Voice says so Knows what I'm thinking A. Felt pinpricks and passed out on ward – influence of voice 2 S. They appear as shadows on the wall	Voice 1. Reassured Voice 2. Fear	Voice 1. Listens attentively Obeys willingly Voice 2. Shouts back in mind. Distracts (TV, talks over). Some reluctant compliance

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Table 1 (*continued*)

Patient no., sex, age, duration of illness	Voice content	Beliefs: identity (I), meaning (M), and effect of compliance (C)	Evidence: content (C), symptom (S), attribution (A), influence (I)	Affective response to voices	Behavioural response to voices
S20 F, 20 years 2 years	Two pairs. Imperative and comment Pair 1. "We want to know you" "She's beautiful" "Sit where we can see you" Pair 2. "She's ugly" "Do it properly" "Kill her"	I. Two male film stars, and their two jealous friends M. The stars want to know me and perhaps marry me. The friends prevent this and want to kill me C. If I comply with the stars I feel better. Jealous friends punish disobedience	S. Reference and visual hallucinations and thought stopping C. Know my history and my thoughts and future A. They are powerful and won't go away I. None	Stars: feel happy and excited Jealous friends Upset and angry	Stars: elective compliance and listening Friends: shout back and swear. Reluctant partial compliance
S21 F, 26 years 10 years	Voice 1. Imperative "Hit him" "Kill him" Voice 2. Imperative Tells to resist Voice 1, and to do good things	I. Devil and God M. Devil punishing for causing parents' divorce. God protecting me C. Devil nags if I resist. God wants me to resist	C. 1 good, 1 bad C. Know thoughts and past S. Delusion of reference	Annoyed Frightened	Devil: avoid and resist Sometimes give in and comply Obey God
S24 F, 59 years 35 years	Imperative "You must kill Cathy, your family and yourself"	I. God. *but* God wouldn't tell to kill M. Punishment for past misdemeanour C. If I comply I'll go to heaven and see my daughter and dog	S. Visual hallucinations (dead daughter; seen her 'age' over 30 years) C. Know what I'm thinking	Fear Reverence	Appeases voice; partial reluctant compliance
S25 M, 54 years >20 years	Imperative Kill daughter, steal, read Bible	I. God and Devil have entered my body. *But* God wouldn't teach bad things M. They want to help; they ordain what we must do C. If I resist they bite me	S. Delusion of control C. Know thoughts and past I. None	Scared Nervous Miserable	Listen unwillingly and some unwilling compliance Avoidance of cues
S26 M, 50 years >20 years	Imperative "Kill yourself" "He's a fool" Told to commit suicide	I. Two benevolent spirits M. Want me to go to next, better world C. *But* I don't obey because they don't make sense	They read my mind and know my past Fantastic visual hallucinations. Suicide is a sin I. None	Irritated	Ignore Never comply

benevolent voices were complied with willingly and in full, and all but one malevolent voice was complied with in full, although reluctantly – the one exception was S3 (see Table 2). Severe commands were given by 12 voices (one benevolent, 11 malevolent) and all were currently being resisted. However, 10 of the 12 voices that gave severe commands also gave mild ones, and in all 10 cases these were obeyed at least occasionally. It is as if compliance with mild commands was an attempt to appease the voices' requirement for sterner actions. Of those people who were uncertain about the voice, two complied partially and one not at all.

Comment

The study offers striking support for the cognitive model. All the patients displayed much "effort after

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Table 2
Percentage conviction scores in all beliefs at the start of therapy, at its conclusion, and at follow-up

Patient	Belief	Start of therapy	Conclusion of therapy	Follow-up
M	The prophet Masuma is talking to me	100	0	0
	The voices are helping me through personal difficulties	100	0	0
	I cannot think for myself without the voices	85	20	25
	I cannot control the voices	100	20	15
N	God is talking to me	100	5	5
	If I resist I will be punished	90	5	5
	I cannot control my voices	90	35	0
D	The Devil is talking to me	50	20	0
	I am being used to transmit messages to the Prime Minister to ruin the economy	50	50	50
	I cannot control the voice	100	50	85
	If I comply the economy will be ruined	100	20	65
T	If I do not comply they will make my eyes roll up	80	15	15
	If I talk while hallucinating it will come out gibberish	85	10	0
	I cannot control my voices	95	20	20

meaning" (Bruner, 1957) and this meaning frequently went well beyond the information given by the voices. On the basis of beliefs about presumed identity, omnipotence, and purpose, voices were believed to be either malevolent or benevolent, and it is this belief that seems to underlie people's behaviour towards voices. This distinction adequately explained important differences in distress and behaviour (though not compliance), and therefore questions the prevalent idea that people's coping response to voices emerges through trial and error or serendipity (e.g. Falloon & Talbot, 1981).

These data are encouraging but preliminary, and need to be replicated on a wider scale. Also, the methodology needs to be operationalised and the measurements more objective. At present we are constructing a self-report measure of malevolence and benevolence, and this should show whether these concepts are mutually exclusive or in fact habitual dispositions that sometimes blur.

Study 2. Cognitive therapy (CT) with voices

In Study 1 we concluded that much distress and voice-driven behaviour is shaped by beliefs about the voices' power, identity and purpose. When voices are viewed from this cognitive perspective a new possible therapeutic approach is evident, namely, the distress associated with voices might be eased by weakening these beliefs. In Study 2 we describe a cognitive therapy we have developed that is intended to undermine the patients' central beliefs about auditory hallucinations in a systematic fashion. Four case summaries of the therapy in action are included as provisional evidence of its usefulness.

The cognitive treatment approach to hallucinations involves the elucidation and challenging of the core beliefs that individuals hold about their voices. The weakening or loss of these beliefs is predicted to ease distress and facilitate a wider range of more adaptive coping strategies. The intervention briefly comprises the following components (a fuller account is in preparation: Chadwick & Birchwood, 1994).

Opening phase: engagement, education and rapport

It has already been suggested that powerful beliefs and emotions characterise patients' relationships with their voices. It follows that patients are likely to find the prospect of disengaging from their voices risky and uncomfortable. For this reason, it is essential that the therapist comes across as competent, trustworthy, and as understanding about voices. In our experience it helps if therapists acknowledge that they do not hear voices, but emphasise that they have spoken to many people who do and have learned about voices in this way. We believe it helps too if the therapist anticipates responses and makes predictions: "Usually the people I've spoken to are surprised or shocked by how much the voices know about them", or, "I expect the voices are worse at certain times of the day, and when you are under pressure". We always tell patients that they may withdraw from therapy at any point without penalty, and this may also reduce anxiety and facilitate engagement.

The central beliefs are defined at an early stage together with the evidence used to support them. The cost in terms of distress and disruption associated with the voices is specified, and it is made clear how much of this is a consequence of the beliefs about identity, power, meaning and compliance. The patient is asked to consider the advantages and disadvantages of these beliefs being false; because the

former usually outweigh the latter, this discussion may be used as an inducement to engage in therapy. However, it is emphasised that one acceptable outcome of therapy would be that the patient continue to hold his or her beliefs. Indeed, the whole therapy is conducted within an atmosphere of "collaborative empiricism" (Beck *et al*, 1979) in which beliefs are considered as possibilities that may or may not be reasonable.

Very early on in the therapy, the patient is introduced to other people who hallucinate, and views videos of clients (at least some of whom have completed therapy successfully) discussing their voices. Information about voices is provided to back this up. These measures serve a dual purpose. Firstly, it has been suggested that a common and beneficial therapeutic process is 'universality' (Yalom, 1970) – that is, the recognition that many others experience the same or similar problems. Secondly, it may prepare the patient for the later suggestion that the voices might be self-generated.

Disputing beliefs

Disputing a belief's veracity involves the use of two cognitive techniques: hypothetical contradiction and verbal challenge.

Hypothetical contradiction (Brett-Jones *et al*, 1987). This measure is thought to assess how open people are to evidence that contradicts their core beliefs. The patient is asked to consider how, if at all, a hypothetical but contradictory occurrence would alter a belief. For example, in the present study one woman heard a voice commanding her to kill, which she believed to come from God. She was asked if this belief would be altered should a priest inform her that God would never command anyone to sin.

Verbal challenge (Chadwick & Lowe, 1990). At first, the patient is asked to question the evidence for his/her beliefs and to generate other plausible interpretations. For example, another woman in the present study believed that her voices foretold the future: as evidence for this she cited how they would predict her husband's return home a few minutes before he actually appeared. This woman was asked: "Let's suppose for a moment that the voices cannot foretell the future; how else might they anticipate your husband's return?".

Having considered the evidence, the next stage in therapy is to question the beliefs directly. This involves first pointing out examples of inconsistency and irrationality, and then, offering an alternative explanation of events: namely, that the voices might be self-generated and that the beliefs are an attempt to make sense of them. An inconsistency might be discussed as follows: "You say that if you don't comply with commands you will be punished, maybe even killed; and yet you regularly resist the voices and these consequences have not occurred". Suggesting that the voices might be self-generated needs to be done carefully. It should be put forward as a possibility worth considering, not a certainty, and as a helpful way of making sense of things if the beliefs fail.

Testing beliefs empirically

In all the cognitive therapies, beliefs are subject to empirical test. We use two approaches to testing. On the one hand, we have a set procedure for testing the ubiquitous belief: "I cannot control my voices". First, it is reframed as: "I cannot turn my voices on and off". The therapist then engineers situations to increase and then decrease the probability of hearing voices. An initial thorough cognitive assessment should identify the cues that provoke voices, and one technique with a high likelihood of eliminating voices for its duration is concurrent verbalisation (Birchwood, 1986). For example, with one woman in the present study the voices were elicited by discussing a provocative topic, and then stopped by concurrent verbalisation on a neutral topic. The patient rouses and quells the voices several times to provide a complete test.

With all other beliefs the empirical test was negotiated by the patient and the therapist: for example, the therapist might ask: "You say that the voices take all your decisions for you; can you think of how we might test if this is actually the case?". It is essential to examine beforehand the implications of the test not bearing out the belief; if the belief will be modified or adapted, or whether the patient has a ready explanation for the outcome that leaves the belief untouched.

Case reports

Three out-patients and one in-patient were referred by psychiatrists because of drug-resistant and troublesome auditory hallucinations (all had participated in Study 1). One was not on medication, one had medication withdrawn shortly after the intervention started and reinstated at a lower dose just before it closed, and two were on established and stable regimes that were not altered at all during the study. All satisfied DSM-III-R criteria for schizophrenia or schizoaffective disorder. Cases 1, 2 and 4 were treated by MB and case 3 jointly by MB and PC.

Case 1. M

M is a 34-year-old married woman of Iranian origin with a three-year history of schizoaffective disorder. Onset

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followed the dissolution of her first marriage and was marked by visual hallucinations of the Islamic prophet Masuma and accompanying auditory hallucinations in Arabic. At the time M experienced a significant depression. The visions and depression resolved, but the voice remained and resisted neuroleptic treatment. For several months before the study, and throughout it, M was not on medication.

The voice was ever present and offered advice on her functioning as housewife (e.g. telling her to try new recipes), mother (e.g. telling her when to change a nappy) and wife (e.g. advising how to please her husband). M felt great reverence for the voice and it directed the majority of her behaviour. To most observers, including her husband, M was increasingly undermined by her voices and was losing all confidence in her own judgement.

Four beliefs were identified concerning the voice's identity, purpose and power (see Table 2). Engagement was initially a problem because the voice was superficially so supportive. Also, M disclosed that previous attempts to be independent of the voice had dissolved once the voice said: "Remember your faith". Dependence was also reinforced by fear that if left alone she might fail in her different functions as wife and parent.

Belief 3, that she could not think without the voice, was weakest and therefore tackled first. The main piece of evidence was that the voice was involved in all day-to-day decisions. However, a detailed diary revealed that over a week 58% of her actions were voice-driven, 32% were self-governed, and 10% represented a rejection of the voice's advice. M was impressed by this result. The belief about controlling the voice was refuted in the standard manner of switching it on and off.

Belief 2, that the voice helped her through personal difficulties, rested on two points: that it gave good advice and that it predicted the future. However, discussion clarified that the predictions had high probability – perhaps that the husband would be home at the usual time. The most potent advice was novel recipes. However, questioning revealed that none of the ingredients was actually new and a subsequent test involving the husband confirmed that the recipes were not novel but rather variations on one theme. The main evidence that the voice was a prophet was that it spoke in Arabic, directed her to pages of the Koran, and knew her thoughts. M acknowledged that this evidence was equally consistent with the view that the voice was self-generated. As therapy progressed, M practised planning each day's activity the preceding night and thereby increasing her autonomy.

Therapy lasted 18 weekly sessions, some involving her husband, and conviction in all four beliefs weakened considerably over this time (Table 2). This improvement was confirmed by her psychiatrist, who also noted a significant lift in mood, confidence and self-initiated behaviour. M volunteered that the voice was less intrusive and regarded it more as an irritation. These benefits led to her returning to work.

Case 2. N

N is a 59-year-old woman with a 16-year psychiatric history, and visual and auditory hallucinations dating back 20 years. She first presented with disorientation, depression and hallucinations; there ensued numerous suicide attempts and bouts of depression, which were woven around the hallucinations. Her unusual presentation drew inconsistent diagnosis. She was referred during a five-month admission which had been precipitated by a worsening of the hallucinations and her beginning to act on them with possible danger to herself and her family. During her stay in hospital she was treated with neuroleptics, electroconvulsive therapy (ECT) and antidepressants, with no effect. There were no negative symptoms but N was moderately depressed as a result of the prolonged admission. Neuroleptics were stopped three weeks into the study and not resumed until a maintenance dose was initiated towards the close of therapy.

N heard one voice through her ears that announced itself as God. The voice commanded her to kill herself, members of her family and a work colleague ("Do your work, kill her", "Go to the canal"). Also, the voice sometimes accused persons who were not family members of being evil and advised her against talking to them. On average the voice spoke in ten-minute episodes ten times a day. These episodes were linked to visual hallucinations of her dead daughter and her dog, who "came to her" at night and beckoned her to join them in heaven by obeying God's commands. In this vein, at times N carried a knife with her, although she susbsequently suggested that this was an act of appeasement.

N believed the voice to be God, although she was puzzled why God should compel her to murder and suicide. She also believed that she could not control the voice and that if she resisted punishment would ensue. Consequently she stopped talking and listened carefully when it spoke, and appeased it by shadowing commands and going a small way towards compliance (e.g. carrying a knife).

CT spanned three months, with short meetings held regularly. A central consideration that engaged N in collaborative empiricism was the question: "Just suppose that this is not the voice of God, what then would be the consequence of compliance?". N was already puzzled by why God should compel her to murder and suicide as this went against her Catholic faith (she was classified as uncertain in Study 1). The doubt that the voice was God was increased when she was invited to consider the wisdom of the voice's plan of how she was to complete the murders – essentially, kill one person in a public place and then take a 12-mile bus journey to complete the mission. The belief that disobedience brought punishment was disputed by pointing out that she had resisted the commands for three years, and sometimes even ignored the voice, using distraction.

There was much additional support for the belief that the voice was self-generated. It worsened when she thought about her daughter and dog and eased when she used concurrent verbalisation, so displaying that she could control the voice. The visions were illogical and went against her faith – the dog spoke, whereas her faith stated that animals were without souls and could not enter heaven; her daughter 'aged' over the years when ageing should not occur in heaven.

The outcome of treatment was very good. As is shown in Table 2, her conviction in the three beliefs fell dramatically.

Also, she came to doubt strongly the identity of the visions, and on those nights when these troubled her she was able to turn over and ignore them. These changes were corroborated by her psychiatrist and she was granted increasing home leave which hitherto had been thought too dangerous. At the time of writing there had been no hallucinations in either modality for 2 months.

Case 3. D

D is a 41-year-old single unemployed economics graduate with a ten-year psychiatric history. For the last three years she had heard voices daily, in half-hour bursts, usually in the morning and at bedtime. The content was invariably to do with economics, such as: "Infinitely power the rise in inflation", "Negatively power productivity a million, trillion times". These and similar statements were usually perceived as commands and occasionally as predictions. D also held a delusional belief that she could transmit her thoughts using telepathy.

D believed the voice to come from the Devil, and that he was using her telepathic power to destroy the British economy. Specifically, the Devil would give a command that in economic terms was disastrous, D would be compelled to repeat this command and in so doing would unwittingly transmit it telepathically to the Prime Minister, who would act upon it. She believed that if she resisted, the economy would be saved but the voice would continue to torment her.

These beliefs had a profound impact. Each time the voice began she would resist by saying exactly the opposite of the command, until she finally weakened and repeated the Devil's command, when the voice would stop. She monitored the economy religiously and felt guilt, anger and depression when it dipped.

Therapy lasted for 13 sessions spaced over six months. Each session lasted one to two hours. CT raised a number of doubts in D's mind about her beliefs. For example, how was the Prime Minister to know that he was to act on the commands, and even should he know this, what does "infinitely power" require? Again, on the one hand she believed that repeating the Devil's commands would destroy the economy and yet she reluctantly did repeat the commands on many occasions. The belief about compliance was tested rigorously. The method used was that a command be chosen and D repeat it up to 100 times and wait to see if disaster ensued. This was done sequentially with commands demanding enormous increases in the cost of bus fares, the cost of milk, the inflation rate, the interest rates, and the level of personal taxation. In all these the beliefs were refuted.

Initially CT worked well for D. Conviction in all four beliefs about the voice fell and she lost the certainty that she had telepathic power (a fall from 100% to 50%). Also, she reported feeling less guilty and depressed, and a reduction in voice activity. Follow-up indicated that the extraordinary economic events in Britain in 1992, including a 5% rise and fall in interest rates in one day, appeared to have undone some of this good work. D was agitated and conviction in three beliefs had risen sharply. On the positive side, conviction in one belief had continued to fall during the follow-up period, and, perhaps most importantly, D was no longer resisting the voice by saying the opposite to the commands.

Case 4. T

T was a 29-year-old woman who had experienced voices since the age of 17. When she was 19 she experienced a florid episode that involved a worsening of the voices and related paranoid ideas about schoolfriends and her mother. This pattern was repeated three years later. On neither occasion was admission required as neuroleptics quelled the florid symptoms, although the hallucinations persisted. She had been maintained on 15 mg trifluoperazine since 1981 and this was maintained during the present study. Although T was demoralised by her illness, there were no negative symptoms and she held down a factory job.

She heard three voices talking in the second or third person inside her head, and 'recognised' these voices as old schoolfriends. The content was hostile and threatening ("We won't be so lenient next time, we're going to make your eyes roll up", "Look at her eyes", "You can't get rid of us"). T's eyes did frequently roll up in what appeared to be an ocular spasm. The voices also taunted her about a peccadillo from her youth. She had full insight, but felt caught in the voices' power. Accordingly, the beliefs selected were that if she did not do what the voices said they would make her eyes roll up, that if she tried to talk when hallucinating it would be gibberish, and that she could not control the voices

CT took place fortnightly for about 18 months and then every two months for a year. In the case of T the understandable concern about questioning the voices' authority was confounded by concern that work colleagues might discover her problem. However, she engaged well in collaborative discussion of alternative viewpoints and gained direct disconfirmation of all beliefs during CT. It was discussed how the eye rolling might be a spasm provoked jointly by tension and her coping strategy of fixed staring when hallucinating. She explored this by not leaving the workplace when the voices instructed. She found that eye rolling occurred regardless of whether she complied with the voices and that relaxation methods shortened the spasm. Similarly she discovered not only that talking over the voices was possible (initially she simply named objects in the room) but that it actually silenced them, and that her speech, although restricted, was far from gibberish. Finally, using this strategy in combination with resisting the voices allowed T to experience how she could indeed control them.

Conviction in all beliefs fell dramatically (see Table 2). She described a sense of liberation from the voices and a consequent increase in social activity. These improvements were corroborated by the referring psychiatrist. Also, frequency of voice activity was monitored throughout the study (see Fig. 1). Over a lengthy baseline period it fell slightly and then settled at 70–75 minutes a day for four months; it fell abruptly during CT to around 25 minutes a day, where it remained at follow-up.

Comment

Study 2 describes how the cognitive framework described earlier has spawned a new treatment for drug-resistant auditory hallucinations. The therapy involves disputing and testing the central beliefs

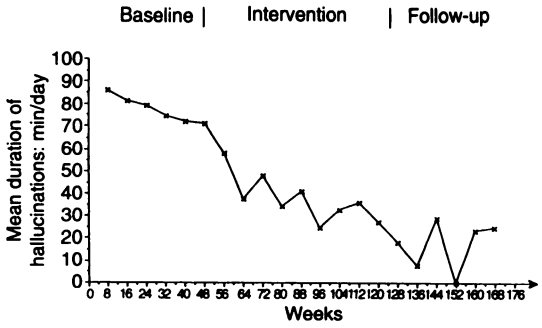

Fig. 1 Number of minutes patient T (case 4) spent hallucinating each day during baseline, cognitive therapy, and follow-up.

patients hold about their voices: namely, those of identity, meaning, power and compliance. Clinically significant and stable reductions in the strength of the beliefs were reported in three cases described. These improvements were corroborated by the psychiatrists concerned, and led to other changes in objective burden. Thus, M returned to work, T became more active socially, and N was discharged from hospital – an action which hitherto had been thought too dangerous for her and her family. The fourth patient, D, also responded well to CT, but an extraordinary set of external economic circumstances undid much of the earlier good work – this woman's experience stresses how important environmental factors are to the maintenance of core delusional ideas.

All four patients reported a reduction in the frequency and duration of voice activity, and in two cases the fall was documented. This was unexpected because easing the hallucinatory experience itself had not been an objective. How, then, might such a change have come about? There is now considerable empirical backing for the 'stress-vulnerability' model, which asserts that acute or chronic stress can precipitate or exacerbate episodes of disorder (Clements & Turpin, 1992). For malevolent voices it might be hypothesised that the distress and resistance occasioned increases the likelihood of voice activity, which leads to further distress, and so on in a vicious circle: thus, successful therapy influences not only the beliefs and their affective and behavioural consequences, but also the link between these consequences and the experience of hearing voices. However, benevolent voices habitually evoke positive emotions and yet reportedly voice activity still diminished (see M). One possible explanation is that these voices are maintained by reinforcing affective and behavioural consequences, and that as these weaken the voice activity is gradually extinguished.

The possibility that malevolent and benevolent voices are maintained through different psychological processes begs the question of whether challenging beliefs about voices is always beneficial. Given that malevolent voices appear to provoke mainly fear, distress and resistance, it might be presumed that reduced voice activity was desired by all. In contrast, benevolent voices are usually courted and produce positive emotional responses; because of this, reduction or loss of the voices may be less desirable both to the individual and to carers, who may perhaps fear a concurrent reduction in self-esteem. In the present study two women saw their voices as malevolent, one as benevolent, and one was uncertain, and yet therapy seemed to work well for each with no obvious untoward consequence. At present we are running a larger trial to examine whether the success of cognitive therapy depends in part on these categories.

The cognitive model embodied in the present paper has some important implications for treatment. Firstly, it implies that simply advising patients to use a different coping strategy is unlikely to be helpful because of the probable conflict with central beliefs. For example, if a person believes that the voices are malevolent and intolerant of disobedience, he or she may be reluctant to employ distraction techniques. A second implication is that a lot of effort needs to go into establishing rapport, trust, and confidence, because the voices have a strong emotional and cognitive hold over the patients. A final implication is that if therapy is successful the person will inevitably come to see the voices as self-generated. In this sense, cognitive therapy for voices may be said to contribute to an individual's level of insight.

Although the methodology and measurement used were not sophisticated, the data and the reports from the responsible psychiatrists give the cognitive approach clinical validity. In no way could these cases be proof of the cognitive model of voices, nor is it suggested that they prove the efficacy of the cognitive therapy. Rather, the purpose is to present provisional support for a new approach to the understanding and treatment of voices, one that emphasises the necessity of appreciating the patient's efforts to understand and structure the experience of hearing voices.

Discussion

The first experiment bore out the prediction that resistance, engagement and distress are consequences

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of people's attempts to make sense of the experience of hearing voices. This cognitive perspective is in contrast to the 'coping strategy' approach (Falloon & Talbot, 1981; Brier & Strauss, 1983; Tarrier, 1987) which rather assumed that behavioural and affective responses ('coping strategies') are as it were randomly assigned to hallucinators. The first experiment offers provisional evidence that different 'coping strategies' appear to be driven by differences in underlying beliefs about voices, which in our sample was meaningfully captured by the malevolence/benevolence distinction.

Without exception, voices were seen as omnipotent – indeed, the presumed identity of a voice was almost always one traditionally associated with omnipotence. For many patients this attribution was supported by an experience of control, by fantastic visual hallucinations, and by the patient having no influence over the voice. Also, all voices were seen as omniscient, again emphasising their superhuman quality. These indications of omnipotence combine to imbue voices with a 'terrifying and compelling quality' so that people feel caught in their power (Bauer, 1969, p. 199). A critical part of CT with voices is to refute the belief in omnipotence and to test the possibility that the patient may learn to regulate the activity of the voices. Given the degree of fear and reverence involved, we believe that an open and collaborative atmosphere is vital.

The patients' beliefs displayed considerable effort after meaning (Bruner, 1957) and went well beyond the information given (i.e. content). Indeed, many times beliefs were at odds with content. There was also evidence of verbal regulation of behaviour, a normal process whereby strongly held beliefs can drive the way in which we behave, feel, and interpret events (Vygotsky, 1962). For example, one man reported how he swore out loud in church, and how he subsequently deduced that his powerful and malevolent voice had been responsible for this action. In this regard, the voices' perceived omnipotence and omniscience are pertinent because people are more likely to apportion blame to those with authority, knowledge and ability (Tennen & Affleck, 1990). What this points to is the fact that people's subjective experience of voices is not an irrelevant by-product but an active and potent influence. Strauss puts his finger on this point precisely: "When closer attention is paid to patients' reports of their experiences, one key phenomenon suggested is the importance of the interaction between the person and the disorder. This interaction evolves over time and has implications for understanding, studying, and treating schizophrenia and related disorders". (Strauss, 1989, p. 179).

The explanatory power of the cognitive model was weakest in relation to compliance. In our group the severity of the command, and not beliefs, was the single most important determinant of compliance – there was no compliance with life-threatening commands, and compliance with mild commands was commonplace. This might be because the relationship with a voice is regulated by wider considerations such as protecting self-esteem, structure and involvement with the world (Strauss, 1989), or perhaps people ask themselves the question: "What if my beliefs about the voices are wrong?". Both interpretations would explain why severe commands were resisted even when issued by benevolent voices. At present we are interviewing people who have acted on serious commands, to investigate whether such compliance is associated with factors specific to the hallucinatory experience (e.g. total certainty in the beliefs) or more general predictors of violence (e.g. previous history).

The precise importance of beliefs within a cognitive formulation is currently under review. In its early form, the cognitive position took a simple one-way causal model that gave cognition primacy over affect. The finding that affect may also determine cognition has meant that new reciprocal models now predominate (e.g. Gilbert, 1984). In relation to voices, our position is that beliefs are vital to the maintenance of affective and behavioural responses and render them understandable. Reciprocally, behaviour and affect strengthen or weaken beliefs. It is probably futile to assert primacy for either cognition or emotion, because starting points in dynamic reciprocal sequences are arbitrarily defined, and because both responses are forever evolving (see Parkinson & Manstead, 1992).

What can be asserted is that the affective, cognitive and behavioural responses evolve together and are always meaningfully related. In the present study, behavioural and affective responses to voices were always understandable in the light of the beliefs; without recourse to the beliefs many responses would have seemed incongruous. Indeed, one advantage of a cognitive formulation is that it draws out the structure and meaning that exist within a person's subjective experience of illness – something which is often disregarded or overlooked within psychiatry (Strauss, 1989).

The two studies reported are preliminary experiments that require replicating. The critical concepts of malevolence, benevolence and omnipotence need clear operational definitions and the measurement and methodology need to be tightened. Should the results prove to be typical, we believe they have major implications for the treatment of drug-resistant psychotic auditory hallucinations. An assumption of previous approaches to voice management has been

that alleviating distress is contingent upon eliminating the experience, and this has led to therapies such as monaural occlusion and distraction (Birchwood, 1986) or indeed pharmacotherapy. Against this, the present research strongly suggests that degree of distress is inextricably bound to subjective meaning, and that weakening critical beliefs about the voices might alleviate much of the associated distress and difficulty.

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