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Listening to voices: The use of phenomenology to differentiate malingered from genuine auditory verbal hallucinations

Simon McCarthy-Jones [a,*], Phillip J. Resnick [b]

[a] ARC Centre for Cognition and its Disorders, Department of Cognitive Science, Macquarie University, Sydney, Australia
[b] School of Medicine, Case Western Reserve University, Cleveland, OH, USA

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ABSTRACT

The experience of hearing a voice in the absence of an appropriate external stimulus, formally termed an auditory verbal hallucination (AVH), may be malingered for reasons such as personal financial gain, or, in criminal cases, to attempt a plea of not guilty by reason of insanity. An accurate knowledge of the phenomenology of AVHs is central to assessing the veracity of claims to such experiences. We begin by demonstrating that some contemporary criminal cases still employ inaccurate conceptions of the phenomenology of AVHs to assess defendants' claims. The phenomenology of genuine, malingered, and atypical AVHs is then examined. We argue that, due to the heterogeneity of AVHs, the use of typical properties of AVHs as a yardstick against which to evaluate the veracity of a defendant's claims is likely to be less effective than the accumulation of instances of defendants endorsing statements of atypical features of AVHs. We identify steps towards the development of a formal tool for this purpose, and examine other conceptual issues pertinent to criminal cases arising from the phenomenology of AVHs.

1. Introduction

Experiences of hearing voices in the absence of any appropriate external stimulus, referred to in the psychiatric literature as auditory verbal hallucinations (AVHs), are a common feature of many psychiatric disorders. Although they are most frequently found in people diagnosed with schizophrenia, with approximately three in four people with this diagnosis experiencing AVHs, they may also be found in people with other psychiatric diagnoses including bipolar disorder, borderline personality disorder, and posttraumatic stress disorder, as well as healthy members of the general population (McCarthy-Jones, 2012).

Ever since the publication of one of psychology's most well-known and controversial studies (Rosenhan, 1973a), it has been recognized that trained mental health professionals may be deceived by individuals falsely claiming to be experiencing AVHs. Although there is little reason to suspect that distressed individuals routinely presenting to mental health services are falsely claiming to hear voices, there are a number of situations where there may be a potential benefit for individuals to falsely claim to be experiencing AVHs. Such individuals are said to be malingering, which the DSM-IV-TR (APA, 2000) defines as "the intentional production of false or grossly exaggerated physical or psychological symptoms, motivated by external incentives" (p. 739). These external incentives may include attempting to evade military service, obtaining unwarranted social welfare payments, or escaping prosecution either through being found incompetent to stand trial, or not guilty by reason of insanity at trial. This is true despite some studies suggesting that persons found not guilty by reason of insanity serve a longer time with loss of freedom than those who are found guilty of the crime (Perlin, 1990). The existence of defendants malingering AVHs in criminal cases (e.g., People v. Schmidt, 1915) and persons malingering AVHs to gain financial advantage (e.g., Jaffe & Sharma, 1998) are well documented. Indeed, it has been claimed that AVHs are the most frequently malingered symptom of psychosis by criminal defendants (Schmidt, 2009).

The reasons individuals choose to malinger AVHs specifically (as opposed to other experiences associated with psychosis) may include the perceived association between AVHs and insanity in the public eye (e.g., Leudar, Thomas, McNally, & Glinski, 1997), and the effectiveness of AVHs in potentially obtaining a successful insanity plea. In Knoll and Resnick's (2008) three-stage conception of professional psychiatric opinion formation for the applicability of an insanity defense, the presence of AVHs can be seen to aid the formation of an opinion of insanity at all three stages. Knoll and Resnick's conception can be applied to the Model Penal Code insanity standard developed by the American Law Institute in 1955. This states that "A person is not responsible for his criminal conduct if at the time of such conduct as a result of mental disease or defect he lacks substantial capacity to appreciate the criminality of his conduct or to conform his conduct to the requirements of the law" (Knoll & Resnick, 2007).

In line with this Code, Knoll and Resnick (2008) argued that opinion must firstly establish if the defendant had a "mental disease or defect." A psychiatric diagnosis per se is not enough to meet this requirement. The DSM-IV-TR (APA, 2000) contains an explicit disclaimer that simply having a diagnosis included in the manual does not imply that it meets

* Corresponding author at: ARC Centre for Cognition and its Disorders, Department of Cognitive Science, Macquarie University, North Ryde, NSW 2109, Australia. Tel.: +61 2 98508669.
E-mail address: s.mccarthyjones@gmail.com (S. McCarthy-Jones).

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legal criteria for a mental disease in an insanity defense (Knoll & Resnick, 2007). Given that AVHs are defined as a characteristic symptom of schizophrenia, and that the 1982 American Psychiatric Association Position Statement on the Insanity Defense stated that for a disorder to be a "mental disease or defect" it should "usually be of the severity (if not always of the quality) of conditions that psychiatrists diagnose as psychoses", AVHs are likely to lead to the judgment that the individual has a "mental disease or defect".

Secondly, expert opinion must establish evidence of capacity. AVHs may overwhelm an individual's ability to conform his/her conduct to the requirements of the law. Similarly, in the case of a deific decree (in which a person hears the voice of God instructing him/her to perform an action), a criminal defendant could argue he/she did not know the wrongfulness of his/her actions, and therefore qualify for insanity in U.S. states that do not have an "inability to refrain" arm of the insanity test. Yet only 16 states in the U.S. have an insanity standard that allows for consideration of the capacity to conform one's conduct to the requirements of the law (Knoll & Resnick, 2007). In deciding whether a person could refuse to obey a command AVH, the evaluator must assess the consequences an individual believes will follow as a result of failing to obey the voice (Knoll & Resnick, 2007). The perceived consequences for failing to obey a command hallucination may range from restless sleep, to a significant danger to the self, to a belief that one's soul will spend eternity in Hell. Only consequences of the severity of these latter types are likely to meet the insanity standard.

Finally, the defendant must establish that the AVH played a causal role in the offense. Here it is critical for the psychiatric evaluator to establish the relationship between the AVH and the defendant's criminal behavior (Knoll & Resnick, 2007). In summary, given that veridical AVHs can, for the reasons outlined above, lead to a successful insanity defense, malingered AVHs may lead to an unjust trial outcome.

In the U.S. about 1% of defendants charged with a felony plead insanity, and only 15–25% of these individuals are actually found not guilty by reason of insanity (Callahan, Steadman, McGreevy, & Robbins, 1991). Of this subset of individuals found not guilty by reason of insanity, Thomson, Stuart, and Holden (1992) found that about 9% reported command AVHs (hearing voices commanding them to do things) that were directly related to their offenses. Nevertheless, the potential for malingered AVHs to be involved in such defenses, as well as in other situations in which personal gain is sought, creates the need for clinical experts to be able to establish, as accurately as possible, whether a given individual who reports hearing voices is reporting a veridical experience or is malingering.

While the existence of malingered AVHs naturally focuses attention on preventing miscarriages of justice resulting from malingered AVHs going undetected, there is also the danger of injustice resulting from someone who has genuinely experienced AVHs being incorrectly labeled a malingerer. This issue was raised by the second part of Rosenhan's (1973b) classic study. Rosenhan contacted staff at a hospital to inform them that at some time during the following 3 months, one or more people faking AVHs would attempt to be admitted into the psychiatric hospital. Of 193 judgments on patients made by the staff and obtained by Rosenhan, 21% were alleged with high confidence to be faking. It was then revealed that, in fact, Rosenhan had sent no pseudopatients at all to the hospital. It is hence quite plausible that, in a court of law, some defendants who honestly report having had AVHs may be incorrectly deemed by expert testimony to be malingering.

The ability to accurately assess whether claimed AVHs are veridical or malingered is hence of crucial importance, particularly for the outcome of criminal trials in which the defendant is claiming such experiences as being relevant to his/her defense or their competence to stand trial. Clinicians called on to make this judgment must have a detailed knowledge of the phenomenology of genuine AVHs. Such decisions may also be profitably informed by knowledge of the phenomenology of malingered AVHs (Pollock, 1998). To address these important issues, this paper explores a number of key areas surrounding the relationship between the phenomenology of AVHs and the malingering of such experiences. Firstly, we argue that an incorrect understanding of the phenomenology of AVHs is still being employed in at least some contemporary criminal trials. This has the potential to lead to instances of defendants being wrongly labeled as malingerers. In an attempt to redress this situation, we will examine the phenomenology of genuine AVHs as established by contemporary research. Yet we will show that, although there are at least some phenomenological features of AVHs that are found in the majority of cases, the heterogeneity of AVHs means that an approach to assessing the veracity of an AVH based solely on comparing a claimed instance of an AVH against a profile of a typical AVH is likely to have significant limitations. The phenomenology of malingered AVHs will then be examined, and recommendations made for more valid assessments of AVHs.

2. Inaccurate conceptions of the phenomenology of AVHs in the courtroom

The court documents of a 2004 appeal (People v. Jefferson, 2004) provide a good example of an incorrect conception of the phenomenology of AVHs being used to evaluate the veracity of a defendant's claim to be hearing voices. In 1994, Senque Jefferson was incarcerated in California as a result of being convicted of first degree murder and a series of armed robberies. On the morning of March 10th 2000, as Jefferson was being escorted back from the exercise yard by two prison officers, he kicked one officer in the stomach, and the other in the leg. The appeal documents described how, after Jefferson was in turn punched by one of the officers in his shoulder and the back of his head, he spat on both officers. This led to him being convicted of two counts of battery. Later that same year, on July 3rd 2000, Jefferson was in the infirmary of Sacramento jail. That day he was taken to a holding cell in preparation for a meeting with a committee of mental health professionals to review his placement in the infirmary. The committee decided it would not see him that day, and ordered him to be taken back to his cell. As he was being taken out of the holding cell, Jefferson kicked one of the prison officers twice in the leg. This led to another conviction for battery. These incidents formed the third strike for Jefferson, who under the "Three Strikes Law" was sentenced to 50 years to life in prison.

How did Jefferson defend his actions? In relation to the incident in March 2000, the court documents described that Jefferson argued in his defense that: "As the officers placed him in his cell, defendant heard 'voices' outside his head. The voices told him the officers would hurt or kill him when he was in his cell, so he kicked the officers to get them off him." In relation to the second incident in July 2000, Jefferson argued that "the voices became loud while he waited in the holding cell, telling him not to leave the cell because the officers would hurt him". Jefferson described how "he heard voices 'everyday, all day'….The voices were usually those of women he knew when he was out on the street. They told him such things as his food was poisoned or a family member had died. At the time of trial he was on medication – involuntarily – that he felt lowered the voices. Although the voices were powerful, he was able to ignore them better."

The first part of Jefferson's trial involved establishing whether he was sane or insane. It was here that Jefferson's allegation that he was hearing voices came under scrutiny. One of the court-appointed psychologists met with Jefferson and asked him to describe the voices he heard in order to "determine whether defendant was faking a psychological problem". Jefferson stated that his voices "were voices of 'people that he knew in the past' and were 'in his ear'". The court-appointed psychologist attempted to compare the location and content of the voices Jefferson described against what she thought was the typical phenomenology of AVHs. The court documents described how in the court-appointed psychologist's experience, "schizophrenics typically described voices 'as coming from inside their head and being of either famous people or strangers or groups of people.' She [the court-appointed

psychologist] thus doubted defendant's claims." However, the research literature does not support the court-appointed psychologist's description of the phenomenology of hearing voices in people diagnosed with schizophrenia. In the following, we examine specific issues raised by the psychologist in turn.

Claim 1. *Voices are typically heard as coming from inside the head (with the corollary that voices heard as coming from outside the head are atypical).*

The research evidence does not support the claim that internally-located voices are emblematic of genuine AVH, and externally-located voices are atypical (e.g., Junginger & Frame, 1985). For example, the largest study on this question (McCarthy-Jones et al., 2012) found that of 199 psychiatric patients (81% who had been diagnosed with schizophrenia), 38% heard both voices coming from inside and outside their head, 34% only heard internally-located voices, and 28% only heard externally located voices. The second largest study of this question (Nayani & David, 1996), which studied 100 psychiatric patients (the majority with a diagnosis of schizophrenia), found that 38% of patients described having a voice which was located inside their head, whereas "49% of the sample heard their voices through their ears as external stimuli" (p. 180).

Claim 2. *Voices are typically those of famous people or of groups of people or those of strangers.*

A significant number of people diagnosed with schizophrenia identify their voices as being those of famous people. For example, Leudar et al. (1997) found that 6 of 13 people diagnosed with schizophrenia said that their voices were those of public figures. However, their findings also imply that the majority of such voice-hearers did not say their voices were of public figures. Of relevance to the claim that the voices heard are typically those of strangers, Nayani and David (1996) found that "Hallucinated voices were often known to the patient in real life, indicating that they may be modeled on the memory of a real voice." (p. 181). Indeed, in their study 46% of patients heard voices which could be identified as likely being real, known people, such as a relative, neighbor, or doctor. Similarly, Garrett and Silva (2003) found that 46% of patients (the majority of whom had a diagnosis of schizophrenia) "believed they recognized at least one of their voices as a specific friend, family member, or acquaintance". Furthermore, McCarthy-Jones et al. (2012) found that 70% of patients reported that the voices they head were like those of people who had spoken to them in the past. The wider AVH literature is also replete with examples of people hearing voices of people they personally know and have actually encountered in the past (e.g., Romme, Escher, Dillon, Corstens, & Morris, 2009). Finally, in terms of hearing the voices of groups of people, McCarthy-Jones et al. (2012) found that 53% of patients had never heard all their voices speak at the same time (like a chorus) and, although Nayani and David found 57% of patients described hearing the sounds of crowds of people mumbling or talking together, this was in addition to the individualized voices they heard.

It hence appears the court-appointed psychologist's description of the phenomenology of AVHs was flawed in light of the available scientific evidence, most of which had been published prior to the trial (e.g., Nayani & David, 1996). We are not offering an opinion as to whether or not the defendant was actually hearing voices. This cannot be determined from a review of court documents.[1] Rather, we simply note that the stated phenomenology of AVHs used in the courtroom was inaccurate, and that the existence of such a mischaracterization of the phenomenology of AVHs creates the possibility that instances of genuine AVHs may be incorrectly judged as malingered, or vice versa. One potential remedy to this situation is for mental health professionals to develop a more accurate understanding of the phenomenology of typical AVHs.

3. The phenomenology of genuine and malingered AVHs

3.1. Typical properties of AVHs

The phenomenology of genuine AVHs has previously been documented in a) reviews of the AVH research literature (McCarthy-Jones, 2012), b) specific individual empirical studies (Garrett & Silva, 2003; Hoffman, Varanko, Gilmore, & Mishara, 2008; Leudar et al., 1997; McCarthy-Jones et al., 2012; Moritz & Larøi, 2008; Nayani & David, 1996), and c) in reviews that have aimed to summarize the phenomenology of AVHs with a specific view to aiding the detection of malingered voices (Resnick & Knoll, 2008). However, a limitation of previous reviews is that they have only been able to draw on one study of the phenomenology of AVHs with a large sample size, that of Nayani and David (1996) which examined AVHs in 100 psychiatric patients. All other studies have employed a significantly smaller sample size. This raises questions about the reliability of the findings of previous reviews.

The potential for overdependence on Nayani and David's (1996) findings recently motivated a new empirical study by McCarthy-Jones et al. (2012) on the phenomenology of AVHs, employing the largest sample of psychiatric patients to-date (N = 199; 81% with schizophrenia). This study reported a number of new findings, highlighting that patients may hear a greater number of voices than had been previously thought, showed that voices speaking at a normal conversational volume was less common than had been previously thought, and that 12% of patients reported hearing voices that they felt were identical "replays" of memories of previous conversations they had experienced (an experience more often associated with posttraumatic stress disorder than psychosis). By adding these findings to the corpus of existing research in this area, the profile of the phenomenology of a 'typical AVH' may be improved, which can be used as a better yardstick to assess the validity of claimed AVHs.

Table 1 presents a summary of a number of phenomenological properties found in the majority of AVHs. From this, a portrait of typical AVHs can be developed. The typical voice-hearer will hear more than one voice. The voices will be different from the voice-hearers own voice, and will sound much like hearing other people speak. The voice-hearer will usually be able to identify who are at least some of the voices (e.g., identifying some of them as real, known people, or attribute the voice to a supernatural entity such as God or the Devil). The voices will typically be heard several times a day or most of the time, with the length of each instance being highly variable (lasting from just seconds to continuing for over an hour). The voices will attempt to influence the voice-hearer's activity by issuing commands {"Command: voices"} to perform specific actions, and may also judge the voice-hearer, typically negatively, through critical or abusive comments directed at him/her. In addition to these negative voices, positive voices will very often be reported, which are kind, loving and supportive. Voices will tend to be very repetitive in what they say. The voice-hearer will have some control over his/her voices, and some will be able to ask questions of the voices and get answers back. Individual voices will also typically be accompanied by background mumbling voices. In addition to this, voice-hearers will generally be able to clearly recall the first time they heard the voice (Romme & Escher, 1993), and will report other forms of hallucinations as well, such as music, clicks and bangs, visual hallucinations and/or tactile hallucinations (Nayani & David, 1996). Furthermore, they will have developed a range of strategies to cope with their voices (Farhall, Greenwood, & Jackson, 2007), will report that their voices become more frequent

[1] Although other aspects of Jefferson's alleged experiences with AVHs described in the trial transcripts may be informative in aiding such a decision. For example his report that medication helped him not by ridding him of the voices but allowing him to "ignore them better" is consistent with many genuine patients' reports of how medication helped then (e.g., Elkes & Elkes, 1954).

Table 1
Typical phenomenological properties of auditory verbal hallucinations (AVHs) and voice-hearers' relations with them.

Property of AVH	Majority of voices	Exceptions
Acoustics	Are like hearing other people speak (Garrett & Silva, 2003; Leudar et al., 1997)	44% of patients found to report that their AVHs were more like ideas than external sensations (Nayani & David, 1996) Absolutely silent AVHs reported by 5% of patients (Moritz & Larøi, 2008) {"Moritz, S."}
Clarity	Speak clearly (Garrett & Silva, 2003; Leudar et al., 1997)	Mumbling voices are commonly heard, but it is rare for patients to only hear mumbling voices (Nayani & David, 1996) 21% of patients hear some voices that speak gibberish, i.e., don't make sense (McCarthy-Jones et al., 2012)
Reality	Are experienced as very real (McCarthy-Jones et al., 2012)	11% of patients report voices which are 'dream-like' or only 'somewhat real' (McCarthy-Jones et al., 2012)
Number	More than one voice is heard (McCarthy-Jones et al., 2012; Nayani & David, 1996)	18% of patients report hearing only one voice (McCarthy-Jones et al., 2012)
Location	Are either externally-located, internally located, or both (McCarthy-Jones et al., 2012; Nayani & David, 1996)	AVHs may be experienced as coming from other parts of the body, e.g., the stomach (Nayani & David, 1996)
Accent	Differ from the voice-hearer's own voice (Hoffman et al., 2008; Nayani & David, 1996)	McCarthy-Jones et al. (2012) found 34% of voice-hearers said it was possible that it was actually their own voice and thoughts they heard, and 74% never heard voices with accents
Identity	Sound like someone the patient knows (McCarthy-Jones et al., 2012; Nayani & David, 1996)	Conversely, a significant minority do not know identity of voice (McCarthy-Jones et al., 2012; Nayani & David, 1996)
Frequency and length	Occur several times, or most of the time, each day. Most commonly they will last for hours, but often will speak for seconds or minutes only (McCarthy-Jones et al., 2012; Nayani & David, 1996)	Some patients experience continuous AVHs (Hoffman et al., 2008) Many have AVHs that are constantly with them (McCarthy-Jones et al., 2012)
Content	Attempt to regulate voice-hearer's activity by issuing commands {"Command:voices"} or telling them to perform specific actions, and/or judge them, being typically critical or abusive (McCarthy-Jones et al., 2012; Nayani & David, 1996)	Around 40–50% of voice-hearers have positive, benevolent AVHs (McCarthy-Jones et al., 2012; Nayani & David, 1996)
Repetitive	Are repetitive in terms of which voice is predominant and what it says (Hoffman et al., 2008; McCarthy-Jones et al., 2012)	A significant number of AVHs have novel content each time (Hoffman et al., 2008; Nayani & David, 1996)
Relation with AVH	**Majority of voice-hearers**	**Exceptions**
Speaking to voices	Can talk {"Talking with voices"} interactively with their voices, asking questions of them and getting answers back (Garrett & Silva, 2003; Leudar et al., 1997)	Conversely, many cannot (Garrett & Silva, 2003; Leudar et al., 1997; Nayani & David, 1996)
Control	Exercise at least some control over their voices at some times (Moritz & Larøi, 2008; Nayani & David, 1996)	Conversely, 11% of patients have been found to say they have no control at all (Moritz & Larøi, 2008)

when they are alone, and that contextual factors (e.g., their mood) impact the frequency of their voices (Nayani & David, 1996).

Despite this ability to describe typical AVHs, these are highly heterogeneous experiences, as has been observed before in the research literature (Jones, 2010; Larøi, 2006; McCarthy-Jones, 2012) and this heterogeneity is reflected in Table 1. Previously, due to the heterogeneity in the perceived location of AVHs, Resnick and Knoll (2008) had suggested that the "location of hallucinations should not be used to determine their genuineness" (p. 55). We are able to now go further than this to propose that none of the properties listed in Table 1 should be used alone to determine the genuineness of AVHs, due to the heterogeneity of the experience. Thus the creation of a profile of a typical AVH has significant limitations for use as the sole yardstick to assess the validity of a claimed AVH. Instead, further approaches are needed.

3.2. Atypical properties of AVHs

Another approach is to examine if an individual who is claiming to hear voices is reporting a significant number of properties atypical of AVHs. The technique of asking about the presence of atypical features of an experience as a method to assess malingering has previously been successfully employed in relation to the malingering of psychiatric symptoms (e.g., Rogers, Kropp, Bagby, & Dickens, 1992).

Resnick and Knoll (2008) previously noted a number of properties of atypical AVHs, which included being continuous, vague/inaudible, not associated with delusions, using stilted language, being non-context dependent, being unbearably distressing, and the voice-hearer having no strategies to diminish malevolent voices, obeying all commands, and not showing behavioral evidence of being distracted. However, McCarthy-Jones et al. (2012) found that 48% of voice-hearers said their voices were "constantly with them", even if they were not talking continuously. There is also some evidence that many voice-hearers may hear voices in the absence of delusional ideation (Sommer et al., 2010) and it is possible that the clinically observed relation between AVHs and delusions may be due to "Berkson's" selection bias (Bentall, 2009); the tendency for hospitalized patients to be suffering from more than one troubling experience, rather than there being any causal link between the two.

One could add to Resnick and Knoll's (2008) amended list the items found by McCarthy-Jones et al. (2012) to occur in less than 5% of patients with AVHs, namely having a voice whose *normal* speaking tone is screaming or yelling, hearing only female voices, hearing only children's voices, never hearing the same voice twice, and never hearing voices with the same theme or content. These items are combined with the items from Table 1 noted as being atypical, as well as other findings from the research literature, to create a list of atypical properties of AVHs, which are presented in Table 2. Some of the characteristics listed in Table 2, such as alleging that all command AVHs cannot be resisted, have been explicitly used by experts as part of their considerations that voice-hearers were malingering their AVHs in court cases (e.g., U.S. v. Ramirez, 2007).

Although a small minority of voice-hearers may report atypical facets of voices, such as those presented in Table 2, the presence of many of these items would have a very low cumulative probability, and would hence suggest an individual was malingering AVHs. Thus, for example, although Hellerstein, Frosch, and Koenigsberg (1987)

Table 2
Properties of atypical auditory verbal hallucinations.[a]

Source	Property
The voice-hearer reports…	• all voices being vague, inaudible, or mumbling. • not having any positive or benevolent voices. • having no repetitive voices. • hearing voices coming from inside parts of their body other than their head. • having hallucinations only in the auditory verbal modality (i.e., not having any non-verbal auditory hallucinations, e.g., music, clicks or bangs, or visual or tactile hallucinations). • not having any coping strategies for dealing with malevolent voices. • not at least sometimes having any control over the voices. • having voices that are not affected by context (e.g., mood, place or circumstances). • the voices are unbearably distressing. • obeying all commands of the voice. • voices changing gender mid-sentence. • voices sounding mechanical or robotic, or being the voices of animals. • voices neither criticizing nor abusing them, and not making comments related to on-going activities. • being alone does not increase the frequency of the voices. • not being able to recall the first time they heard their voice. • the voice's normal speaking tone is shouting or yelling. • hearing only female or only children's voices. • never hearing the same voice twice. • never hearing voices with the same theme or content. (Farhall et al., 2007; McCarthy-Jones et al., 2012; Moritz & Larøi, 2008; Nayani & David, 1996; Romme & Escher, 1993; Stephane et al., 2006)
An external observer sees…	• no behavioral evidence of distraction.

[a] It is important to reiterate that although each property listed here is atypical, some people will indeed hear voices with such properties.

found that the content of command AVHs were only homicidal in 5% of cases, making such voices atypical of AVHs according to present criteria, this does not mean that someone who claims that they had such AVHs demonstrate prima facie evidence of malingering. Instead, it is necessary for individuals to allege a number of rare properties of AVHs in addition to hearing homicidal commands, before a valid judgment on their veracity can be made.

Such an approach is taken in the reliability subscale of Stephane, Pellizzer, Roberts, and McCalannahan's (2006) Computerized Binary Scale of Auditory Speech Hallucinations (cbSASH). The 168 item cbSASH includes 30 items that are atypical of genuine AVHs, which constitute the reliability subscale. Items on this 30-item reliability subscale include statements on atypical content (e.g., "The voices order me to sleep", "I hear the voices of animals", "The voices speak different languages that I can't understand", "The voices sound mechanical or robotic"), atypical triggers ("I hear voices more when I feel bloated", "Certain foods make me hear voices", "I hear voices whenever I open the window"), atypical form ("The voices refer to me as 'Mr…' or 'Mrs…'", "The wind seems to blow the voices into my head"), and atypical coping strategies (e.g., "I drink milk to stop or decrease the voices"). Participants score 1 for each of these 30-items that they respond to in the affirmative. If their resultant score is greater than 7, then they are deemed to be malingering. This (unpublished) cut-off point is derived from the cut off-score on the Fp infrequency subscale of the Minnesota Multiphasic Personality Inventory (MMPI-2; Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989), through a correlation analysis between the Fp subscale and the cbSASH reliability subscale (Massoud Stephane, personal communication). Stephane et al. (2006) found, in a sample of patients with schizophrenia, that none of the items on this subscale were endorsed by more than 40% of patients. Furthermore, cbSASH scores correlated with the infrequency scales (Fb and Fp) as well as the variable response inconsistency (VRIN) subscales of the MMPI, adding evidence of the scale's validity.

However, no work has been done to test the ability of this scale to detect individuals who are actually malingering AVHs, and it has not yet been used in a legal setting. Furthermore, this scale does not include items based on many of the atypical properties of AVHs identified here (Table 2). The inclusion of such items would likely lead to the development of a more sensitive tool. The development and psychometric validation of a new formal malingering AVH assessment tool would thus be a fruitful task for future research. Such an instrument may also be informed by what we know about the phenomenology of malingered AVHs, which we turn to next.

3.3. Feigned AVHs

Although it has been suggested by Resnick and Knoll (2008) that detailed knowledge about genuine AVHs is the clinician's greatest asset in recognizing simulated hallucinations, it has also been proposed that knowledge about the properties of feigned AVHs may also be informative (Pollock, 1998). If an individual attempts to malinger voices, what sort of AVHs are they likely to fabricate? By establishing this malingered phenomenology, and then comparing it with the phenomenology of genuine AVHs, we may be able to identify key points of difference which could be useful for the detection of malingered AVHs. This is precisely what a study by Pollock (1998) attempted to do. Pollock compared 30 offenders in a medium-secure prison who were considered to have genuine AVHs in the context of a diagnosed psychotic disorder (the majority of whom had a diagnosis of schizophrenia) with 30 offenders with no psychotic disorder who were asked to simulate having AVHs. Participants were then asked 40 open-ended questions about their voices, based on the items used in Nayani and David's (1996) phenomenological survey of AVHs. In addition there were questions on other experiences associated with psychosis and on the reality of the voices, which they responded to using Likert scales. Key differences found by Pollock between the responses of the genuine voice-hearers, and the answers given by offenders who were attempting to fake voices are presented in Table 3.

Pollock (1998) concluded that individuals who were asked to fake voices typically reported a "single continuous voice of the same accent,

Table 3
Differences between AVHs of genuine and faking voice-hearers (adapted from Pollock, 1998).

Characteristic of voice	Percentage of 'simulators' claiming this property (N = 35)	Percentage of genuine voice-hearers claiming this property (N = 30)
Frequency: continuous	43%	0%
Duration: >1 h	54%	13%
Number of voices: single	69%	20%
Number of voices: multiple	31%	80%
Gender of voice: 'other'	14%	67%
Age of voice: mixed	0%	40%
Accent: same	60%	40%
Accent: different	3%	37%
Volume: shouting	43%	17%
Length of utterance: long	9%	77%
Length of utterance: few words	60%	13%
Identity of voice: recognizable	14%	50%
Repetitiveness: very repetitive	51%	7%
Intelligible voice: rarely	60%	17%
Content: abusive	31%	13%
Source: external	11%	67%
Source: both internal and external	63%	7%
Command related to crime	83%	10%
Person never responds to voices	0%	67%
Control over voices: yes	0%	73%
Distress: unbearable	54%	0%
Informed others of voice: yes	49%	7%
Others can hear the voice: yes	6%	53%

age and gender as the offender, occurring loudly in stilted language with little variability" (p. 320). Those faking the experience also stated their voices were unintelligible and unpredictable, and were less able to give a possible identity for the voice when compared with genuine voice-hearers. The choice to give their fake voices such characteristics is logical, argued Pollock, as "it is easier to provide a consistent and believable account of a single and simple hallucination which must be recognized as debilitating." (p. 322). Genuine voice-hearers were also more likely to rate their voices as being 'real' as compared to fakers. It was also noted that fakers did not endorse any additional hallucinatory experiences (0% for all categories), whereas the genuine voice-hearers reported that they also experienced visual (60%), gustatory (43%), olfactory (43%), and tactile (26%) hallucinations. Pollock concluded that "The findings here suggest that the malingering offender's choice to masquerade as mentally ill relies on strategies of avoiding detection by keeping the form of the presenting symptoms simplistic and ensuring sympathy and help by emphasizing exaggerated distress" (p. 323).

The accuracy of Pollock's (1998) study could be limited by the small number of genuine voice-hearers (N = 30) employed, which may have led to unreliable prevalence figures for this group. We hence compared Pollock's endorsement rates for items in Table 3 to the recent findings of McCarthy-Jones et al. (2012), for variables included in both studies. This comparison firstly suggested that Pollock had underestimated the repetitiveness of voices. Pollock reported (Table 1) that only 7% of genuine voice-hearers had very repetitive voices, compared to 51% in the faking sample. However, McCarthy-Jones et al. found that 72% of voice-hearers had voices that were repetitive (in terms of their content/theme). Thus, although those malingering may claim to hear repetitive voices, this is coincidentally like many genuine AVHs. A second limitation of Pollock's study is that while only 13% of genuine voice-hearer's said that their voices spoke for hours (compared to 54% of fakers), McCarthy-Jones et al. (2012) found 59% of genuine voice-hearers said their voices spoke for hours. Thirdly, although Pollock (1998) found only 7% of genuine voice-hearers heard both external and internally located voices (compared to 63% of fakers), McCarthy-Jones et al. (2012) found 38% of voice-hearers heard both externally and internally located voices. A further limitation of the Pollock study was that the malingered AVHs were reported by people with no previous genuine experience of AVH. If a person had previously experienced genuine AVHs, but malingered them at the time of a crime, they would likely be able to report AVHs with a phenomenology identical to genuine AVHs.

3.4. Concluding on the phenomenology of genuine and malingered AVHs

Due to the variability in the phenomenology of AVHs, the voices experienced by some genuine voice-hearers may still echo the typical faked AVH. Therefore, the approach of examining the cumulative number of atypical properties of an AVH reported by an individual appears to be the preferable way to attempt differentiation between genuine and malingered AVHs. That being said, although the task is not beyond the ken of expert clinicians, any clinician needs to tread carefully in any such analysis, given the paucity of nomothetic or population-relevant data in the area and their precise application idiographically to individual cases with sufficient sensitivity and specificity, as well as the high bar set in criminal cases for burden of proof. The field is in need of further research on the matter, as well as development of psychometric tests, which is addressed in the next section.

4. Future directions relating to the phenomenology of voices and their malingering

The ability to correctly distinguish between genuine and malingered claims of AVHs is an advanced clinical skill, which requires training and clinical experience. However, there are currently no psychometrically validated, formal assessment tools, which are comprehensively based on the phenomenology of AVHs, available to aid this task. As we have highlighted in this paper, this may lead clinicians' assessments about whether an individual's AVHs are malingered to be based on an idiosyncratic, non-evidence based conception of the phenomenology of AVHs. To remedy this situation, we described the phenomenology of a typical AVH. Yet we cautioned against reliance on this characterization of a phenomenologically 'typical' AVH as a sole yardstick to assess potential cases of malingered AVHs. This caution is urged due to the number of voice-hearers who will validly report voices that differ from the 'typical' AVH. AVHs are a highly heterogeneous experience. Instead, we argued that a more valid approach would involve additionally assessing how many atypical properties of AVHs a defendant endorses. Then a judgment can be made on the probability of them displaying the cumulative number of such characteristics they report.

In order to create a formal assessment tool for detecting malingered AVHs based on this premise, further development and psychometric evaluation of tools, such as Stephane et al.'s (2006) reliability scale, will be useful. They should employ some additional atypical items on the phenomenology of AVHs highlighted in Table 2 here. Such a tool, once developed, should of course supplement, rather than replace, other relevant investigative techniques, such as assessing the consistency of the history of reporting psychotic experiences, as well as employing other general tests for malingering, such as the MMPI-2 (Butcher et al., 1989) and the Structured Interview of Reported Symptoms (SIRS-2: Rogers, Sewell, & Gillard, 2010).

In this paper we have focused on the phenomenology of AVHs associated with psychosis, generally, and schizophrenia, specifically. However, AVHs are also found in a range of other psychiatric conditions. This raises the question as to whether the phenomenology of AVHs in these conditions differs significantly from those found in schizophrenia. Transdiagnostic research into voice-hearing is somewhat limited (Larøi et al., 2012). However, the small number of existing studies in this area suggests that AVHs are broadly phenomenologically similar across diagnostic classes. For example, Kingdon et al. (2010) found AVHs in individuals diagnosed with borderline personality disorder not to differ (if a Bonferroni correction is applied for the number of analysis of variance tests they performed) in their frequency, location, duration, loudness, amount of negative content, distress, disruption or controllability, from AVHs in patients diagnosed with schizophrenia. Similarly, reports of AVHs in veterans with posttraumatic stress disorder are highly similar to the voices heard in patients diagnosed with schizophrenia (Anketell et al., 2010; Mueser & Butler, 1987). However, significantly more research remains to be done into the potential for transdiagnostic differences in the phenomenology of AVHs. Thus, some caution may be needed in creating an assessment tool that can be used to detect malingered AVHs transdiagnostically.

Another pertinent topic that has recently drawn the attention of mental health researchers, and is likely to prove of relevance to the law, is the lack of a necessary connection between AVHs and psychopathology. In the Jefferson case discussed above (People & Jefferson, 2004), it was notable that the prosecution argued that "you can't get further apart from a reasonable person [than someone hearing voices]". Although this was part of a technical debate on the Reasonable Person standard, it highlights the ingrained perception of an association between AVHs and mental disease. However, a significant number of individuals, termed "healthy voice-hearers" by Moritz and Larøi (2008, p. 104), have been found to hear voices comparable in frequency, form and content to those of psychiatric patients, but in the absence of social or occupational impairment (Sommer et al., 2010). Such individuals can also be found through history, dating back to Socrates' experience of AVHs (McCarthy-Jones, 2012). The voices heard by healthy voice-hearers have been found to be underpinned by the same neural activity as those in psychiatric patients (Diederen et al., 2012). However, differences do exist at a phenomenological level, with healthy voice-hearers' AVHs being distinguished by having less negative content, and the voice-hearer having a greater degree of control over them (Beavan & Read, 2010). The existence of such individuals is consistent with the

long history of the concept of "hallucinations in the sane" (McCarthy-Jones, 2012). This raises a number of potential issues for the legal system. Firstly, it holds out the possibility that an individual may have AVHs, not suffer from a diagnosable mental disorder, yet their AVHs may still have played a role in their crime. Secondly, the lack of delusional ideation in this group of voice-hearers means that the often cited criteria for establishing whether a voice-hearing experience is veridical, namely co-morbid delusions, is not necessarily valid. As such, an awareness of the existence of healthy voice-hearers may prove important for both law makers and clinicians. A precedent legal case involving such a self- or other-identified healthy voice-hearer, and the specific issues this raises, has yet to occur.

5. Conclusion

In summary, this paper has identified both the typical and atypical phenomenological properties of AVHs, and reviewed what is known about the phenomenology of malingered AVHs. More work is now required, drawing on these findings, to establish a reliable and valid psychometric tool that can be used to assess the validity of an individual's claims to have had experienced AVHs. Such a tool has the potential to reduce miscarriages of justice that occur through malingered AVHs going undetected, and through genuine AVHs being wrongly labeled as malingered. Justice may be blind, but it should not be deaf to the voices of voice-hearers.

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References

American Psychiatric Association (2000). *Diagnostic and statistical manual of mental disorders* (transitional ed.). Washington, DC: American Psychiatric Association.
Anketell, C., Dorahy, M. J., Shannon, M., Elder, R., Hamilton, G., Corry, M., et al. (2010). An exploratory analysis of voice hearing in chronic PTSD: Potential associated mechanisms. *Journal of Trauma and Dissociation*, *11*, 93–107.
Beavan, V., & Read, J. (2010). Hearing voices and listening to what they say: The importance of voice content in understanding and working with distressing voices. *Journal of Nervous and Mental Disease*, *198*, 201–205.
Bentall, R. P. (2009). *Doctoring the mind.* London: Allen Lane.
Butcher, J. N., Dahlstrom, W. G., Graham, J. R., Tellegen, A., & Kaemmer, B. (1989). *The Minnesota Multiphasic Personality Inventory-2 (MMPI-2): Manual for administration and scoring.* Minneapolis, MN: University of Minnesota Press.
Callahan, L. A., Steadman, H. J., McGreevy, M.A., & Robbins, P. C. (1991). The volume and characteristics of insanity defense pleas: An eight state study. *The Bulletin of the American Academy of Psychiatry and the Law*, *19*, 331–338.
Diederen, K. M. J., Daalman, K., de Weijer, A.D., Neggers, S. F., van Gastel, W., Blom, J.D., et al. (2012). Auditory hallucinations elicit similar brain activation in psychotic and nonpsychotic individuals. *Schizophrenia Bulletin*, *38*, 1074–1082.
Elkes, J., & Elkes, C. (1954). Effects of chlorpromazine on the behavior of chronically overactive psychotic patients. *British Medical Journal*, *2*, 560–576.
Farhall, J., Greenwood, K. M., & Jackson, H. J. (2007). Coping with hallucinated voices in schizophrenia: A review of self-initiated strategies and therapeutic interventions. *Clinical Psychology Review*, *27*, 476–493.
Garrett, M., & Silva, R. (2003). Auditory hallucinations, source monitoring, and the belief that "voices" are real. *Schizophrenia Bulletin*, *29*, 445–457.
Hellerstein, D., Frosch, W., & Koenigsberg, H. (1987). The clinical significance of command hallucinations. *American Journal of Psychiatry*, *144*, 219–221.
Hoffman, R. E., Varanko, M., Gilmore, J., & Mishara, A. L. (2008). Experiential features used by patients with schizophrenia to differentiate 'voices' from ordinary verbal thought. *Psychological Medicine*, *38*, 1167–1176.
Jaffe, M. E., & Sharma, K. K. (1998). Malingering uncommon psychiatric symptoms among defendants charged under California's "Three Strikes and You're Out" law. *Journal of Forensic Psychiatry*, *43*, 549–555.
Jones, S. R. (2010). Do we need multiple models of auditory verbal hallucinations? Examining the phenomenological fit of cognitive and neurological models. *Schizophrenia Bulletin*, *36*, 566–575.
Junginger, J., & Frame, F. P. (1985). Self-report of the frequency and phenomenology of verbal hallucinations. *Journal of Nervous and Mental Disorders*, *173*, 149–155.
Kingdon, D.G., Ashcroft, K., Bhandari, B., Gleeson, S., Warikoo, N., Symons, M., et al. (2010). Schizophrenia and borderline personality disorder: Similarities and differences in the experience of auditory hallucinations, paranoia, and childhood trauma. *Journal of Nervous and Mental Disorders*, *198*, 399–403.
Knoll, J. L., & Resnick, P. J. (2007). Insanity defense evaluations: Toward a model for evidence-based practice. *Brief Treatment and Crisis Intervention*, *8*, 92–110.
Knoll, J. L., & Resnick, P. J. (2008). Insanity defense evaluations: Basic procedure and best practices. *Psychiatric Times*, *25*, 35–41.
Larøi, F. (2006). The phenomenological diversity of hallucinations: Some theoretical and clinical implications. *Psychologia Belgica*, *46*, 163–183.
Larøi, F., Sommer, I. E., Blom, J.D., Copolov, D., Fernyhough, C., Ffytche, D., et al. (2012). The phenomenological features of auditory verbal hallucinations in schizophrenia and across clinical disorders: A state-of-the-art overview and critical evaluation. *Schizophrenia Bulletin*, *38*, 724–733.
Leudar, I., Thomas, P., McNally, D., & Glinski, A. (1997). What voices can do with words: Pragmatics of verbal hallucinations. *Psychological Medicine*, *27*, 885–898.
McCarthy-Jones, S. (2012). *Hearing voices: The histories, causes and meanings of auditory verbal hallucinations.* Cambridge: Cambridge University Press.
McCarthy-Jones, S., Trauer, T., Mackinnon, A., Sims, E., Thomas, N., & Copolov, D. (2012). A new phenomenological survey of auditory hallucinations: Evidence for subtypes and implications for theory and practice. *Schizophrenia Bulletin*. http://dx.doi.org/10.1093/schbul/sbs156 (Advance online publication).
Moritz, S., & Larøi, F. (2008). Differences and similarities in the sensory and cognitive signatures of voice-hearing, intrusions and thoughts. *Schizophrenia Research*, *102*, 96–107.
Mueser, K. T., & Butler, R. W. (1987). Auditory hallucinations in combat-related chronic posttraumatic stress disorder. *American Journal of Psychiatry*, *44*, 299–302.
Nayani, T. H., & David, A. S. (1996). The auditory hallucination: A phenomenological survey. *Psychological Medicine*, *26*, 177–189.
People v. Jefferson (2004). *119 Cal.App.4th, 508.*
People v. Schmidt. (1915). Court of Appeals of New York, 216 N.Y. 324
Perlin, M. (1990). Unpacking the myths: Mythology of insanity defense jurisprudence. *Case Western Reserve Law Review*, *40.* (pp. 599).
Pollock, P. (1998). Feigning auditory hallucinations by offenders. *Journal of Forensic Psychiatry*, *9*, 305–327.
Resnick, P. J., & Knoll, J. L. (2008). Malingered psychosis. In R. Rogers (Ed.), *Clinical assessment of malingering and deception* (pp. 51–68). New York, NY: Guilford Press.
Rogers, R., Kropp, P. R., Bagby, R. M., & Dickens, S. E. (1992). Faking specific disorders: A study of the Structured Interview of Reported Symptoms (SIRS). *Journal of Clinical Psychology*, *48*, 643–648.
Rogers, R., Sewell, K. W., & Gillard, N. D. (2010). *Structured Interview of Reported Symptoms-2 (SIRS-2) and professional manual.* Odessa, FL: Psychological Assessment.
Romme, M., & Escher, S. (1993). *Accepting voices.* London: MIND.
Romme, M., Escher, S., Dillon, J., Corstens, D., & Morris, M. (2009). *Living with voices: 50 stories of recovery.* Ross: PCCS Books.
Rosenhan, D. L. (1973a). On being sane in insane places. *Science*, *179*, 250–258.
Rosenhan, D. L. (1973b). Reply to letters to the editor. *Science*, *180*, 365–369.
Schmidt, R. (2009). *Psychiatry board review: Pearls of wisdom.* New York, NY: McGraw-Hill.
Sommer, I. E. C., Daalman, K., Rietkerk, T., Diederen, K. M., Bakker, S., Wijkstra, J., et al. (2010). Healthy individuals with auditory verbal hallucinations; Who are they? Psychiatric assessments of a selected sample of 103 subjects. *Schizophrenia Bulletin*, *36*, 633–641.
Stephane, M., Pellizzer, G., Roberts, S., & McCalannahan, K. (2006). The computerized binary Scale of Auditory Speech Hallucinations (cbSASH). *Schizophrenia Research*, *88*, 73–81.
Thomson, J. S., Stuart, G. L., & Holden, C. E. (1992). Command hallucinations and legal insanity. *Forensic Reports*, *5*, 462–465.
U.S. v. Ramirez (2007). 495 F.Supp.2d 92.