

# Hearing Soundless Voices

## Abstract

Reports of hearing soundless voices are perplexing and yet not uncommon in psychiatric contexts. In this paper, I try first to understand why we talk about experiential modalities at all, and in the way that we do, and then apply this to these reports. This sheds light on what the experience might be like and why it is reported in the way that it is. I end by suggesting how this might help us to understand the differences between the phenomena that are reported as soundless voices and those that are reported as inserted thoughts.

## Introduction

The phenomenon of ‘hearing voices’, often viewed as a symptom of schizophrenia, is commonly called, in the scientific and clinical literature, ‘auditory-verbal hallucination’ (AVH). However, reports of hearing *soundless* voices, voices that are *not* auditory, which go as far back as Tuttle (Tuttle 1902) and Kraepelin (Kraepelin 1904) and appear in phenomenological interviews (Nayani and David 1996, Jones and Luhrmann 2016) and questionnaires (Woods et al. 2015) are relatively common. What are we to make of such reports?

One option is to dismiss these claims: one cannot hear soundless voices. This dismissal could be due to a combination of the following seemingly reasonable claims, each sufficient to consign the notion of ‘hearing soundless voices’ to the status of unintelligibility. The first is that one cannot hear what is soundless. The second is that voices cannot be soundless. I will not contradict either of these two claims. However, to dismiss these reports as unintelligible is to leave us none the wiser about the experiences that give rise to them. I will try to understand what these subjects

mean when they say that they are hearing soundless voices, and why they come to report their experiences as they do.

### **1. Preliminary clarification**

In recent years, there has been a resurgence of interest in the issue of how the perceptual modalities are to be individuated (Macpherson 2011, Matthen 2012). In examining this issue, it is important to distinguish a number of things. Firstly, it is important to distinguish the sorts of things that we are individuating. Thus one might distinguish *sensory* from *experiential* modalities.

There is a great deal of variation in how theorists have tended to think about sensory modalities. One thing that is common to several approaches is that sensory modalities involve a ‘sensory transducer’, namely, something that receives information from the outside world (e.g. the retina, the ear drum, touch receptors, etc.). There is also a great deal of variation in how theorists have tended to think of experiential modalities, but one way of distinguishing an experiential modality from a sensory modality is precisely that it may, but need not, involve the operation of a sensory transducer. Thus, experiences that aren’t instances of sensing (or relevantly related to such instances) can be divided into modalities. We can, for example, talk about auditory as opposed to visual imaginings, (episodic) recollections or hallucinations (or auditory as opposed to visual *aspects* of these kinds of non-sensory experiences).

Instances of hearing voices, in the relevant sense, are clearly not instances of sensing; they are not actually sensory events. There is not (or need not be) any objectively occurring sensory stimulation. They are experiences, and we are interested in their phenomenology, namely, what it is like for the subject to undergo them. More

specifically, in this paper, we are interested in the extent to which the subject's reports (viz. reports of hearing soundless voices) are informative of that phenomenology. As a result, we are interested in the experiential, rather than merely the sensory, modalities.

In attempting to individuate experiential modalities, there is a methodological distinction between a certain *scientific individuation project*, and what, for want of a better term, we might call a *folk individuation project*. The former type of project seeks to tell us what modalities objectively are, how we are to individuate them scientifically, independently of how we think or talk about them. An upshot of this is that someone may think that they are having an experience in a given modality when in fact they are not. It would also mean that, in principle, our general way of individuating modalities could be wide of the mark. For example, we might be wrong about the fact that we have five senses (see, e.g. Macpherson 2011). In contrast, the folk individuation project is not committed to presenting us with a clear delineation of what a given modality actually is, but is rather concerned with examining and understanding how and why we talk and think in terms of different modalities at all, and in the way that we do.

Here we are interested in what people mean when they claim to 'hear soundless voices', and why a significant number of people converge on that way of speaking. So, to sum up our preliminaries, we are interested in the *folk* individuation of *experiential* modalities.

## **2. Folk individuation as the receipt of certain kinds of information**

Why, in our everyday lives, do we talk about modality? What is gained by saying that someone hears or sees something, rather than saying, less specifically, that

they merely perceive that thing? Saying that someone is hearing (or seeing) as opposed to merely perceiving means that they are thereby receiving only certain *kinds* of information: it is a more specific claim. The notion of information that I am operating with is that of Stalnaker (Stalnaker 1978, 2008). Information involves ruling out possibilities (or in Stalnaker's terminology, possible worlds).<sup>i</sup> If something hasn't ruled out any possibilities it is *ipso facto* uninformative. The *more* possibilities something rules out, the *more* informative it is.<sup>ii</sup> Theoretically, then, ruling out all but one of the relevant possibilities about a given domain constitutes maximal informativeness about that domain.<sup>iii</sup> All sorts of things can inform, can lead to the ruling out of possibilities: utterances, inferences, and, of course, experiences. The information carried by an experience (or indeed an utterance) needn't be taken on board (for example, if you know you are hallucinating, or know you are being lied to), but the information can still be understood as ruling out possibilities, namely, the possibilities that *would* be ruled out *if* you took the experience or utterance seriously.

Since information involves ruling out possibilities, different kinds of information involve ruling out different kinds of possibilities. I don't intend these 'kinds' to cluster neatly. However, I want to suggest that when we are talking about different kinds of possibilities being ruled out in experience, some of these differences in kinds of information contribute to us forging our folk-boundaries between the modalities. To illustrate, suppose you can see a spillage of clear fluid on a table. In so doing you have established (the inverse function of ruling out) a great deal (vision is a relatively informative modality). For example, you have established the colour of the table, the colour of the liquid, the shape and extent of the spillage, and so on and so forth (i.e. ruled out that things are otherwise). However, you haven't ruled out possibilities about the stickiness of the spillage (e.g. is it like water, or like sugar

syrup?). By touching it, you can rule out the relevant possibilities. By smelling it, you can rule out yet others (e.g. is it odourless, or does it, perhaps, smell like petrol?), and so on and so forth.

Within one modality (as carved up by our folk taxonomy) different kinds of information are ruled out in different cases. Suppose someone can only see in black-and-white: they can see line and contrast etc. but they cannot see colour. Thus they can see that the ball is of a certain shape or shade, but they haven't ruled out the plethora of possibilities that an individual who can see colour can: that it's green and not blue or red, or purple etc. These different kinds of information remain within the boundaries of vision.

What has determined the boundaries of this folk taxonomy is simply the practicalities of our informational engagement with one another. If someone has their back turned to me, and I say (without tapping them on the shoulder) "Excuse me", and they don't turn around, somebody might enlighten me by telling me that the person is deaf. As a result, their not turning around fails to be mysterious to me. Furthermore, I thereby know that there are a set of events that I can bring about in their 'earshot' that will go undetected. The same applies to when I wave at somebody who is blind, or tap the shoulder of someone who has no sense of touch, or indeed try to establish reference to something in virtue of its colour ("pass me the blue one") in a conversation with somebody who has monochromatic vision. The practicalities of our informational engagement with others, and how we talk about that engagement, is why we talk about modalities at all, and why we talk about them in the ways in which we do.

This view resembles one put forward by Matthew Nudds (Nudds 2003). However, it is importantly and illustratively different. Nudds thinks of modalities in

terms of ways of perceiving, rather than in terms of the information received. He would presumably say that I cannot rely on the information alone to distinguish modalities, but have to appeal to ways of receiving that information. This is because I can receive the same information in different ways, namely, in different modalities. I can, for example, inform myself about the shape of an object by seeing it, but also by feeling it. To say this, however, is simply to use a more coarse-grained notion of information than the one I have in mind. The tiniest experiential detail can in principle be captured by the notion of information that I'm operating with. Your experience rules out that the world is any other way than the way it is presented as being, and so the phenomenological differences between the modalities will be reflected in informational differences. Furthermore, although modalities overlap in terms of what is presented (enabling, for example, blind people to partake in the same three-dimensional world of objects as fully sighted people through touch and proprioception) the way this information necessarily clusters helps to distinguish modality. For example, you cannot typically *see* shape in the absence of seeing colour and shade, whereas you cannot typically *feel* shape without thereby feeling texture, and so on. Part of our understanding of what it is to see shape as opposed to feel it, is that in being informed about shape visually, you are informed about other things too. In other words, to say that you can get the same information from vision and touch is to abstract away a coarse-grained story from the fine-grained informational dynamics that differentiate the modalities. Note that, although the information alone should suffice to tell you, if it is possible to do so at all, whether a given experience is in a certain modality (namely, ways of receiving that information are redundant in this respect), this does not dictate where the boundaries of modality are drawn (which I take to be folk boundaries). As I've said, this is to do with the practicalities of how we

talk and think about these things, and this is unlikely to generate clear-cut boundaries (and it would be unnecessary if it did).

An upshot of this way of thinking about information is that it always, at least in the experiential case, includes oneself, however subtly.<sup>iv</sup> Perceptual experience doesn't only tell me about the world in some objective, perspective-less way; it tells me about how the world is *in relation to me*. The relevance that this has for distinguishing modality is that the role we play in the experience importantly varies from modality to modality. For example, a case of active, exploratory touch might involve (however implicitly) information about my arm, hands and fingers as well as the object. Vision in contrast is a distal sense.

A consequence of the view of experiential modality that I'm suggesting is that if a blind person receives *exactly* the same fine-grained egocentric three-dimensional information about space, shape and colour, that a normally sighted person does, it doesn't matter to me *how* he receives this (it could be by magic or the grace of God) that would still count as visual experience. Of course, what makes that experience fall within the folk-taxonomy of the visual is its informational resemblance to the sorts of experiences that sighted people have. But just because sighted people are (somewhat obviously) required to calibrate the folk category of the visual, it doesn't mean that only sighted people can have experiences that are meaningfully called visual (indeed, blind people often have visual experiences, whether it's in imagination, memory, or in the vivid hallucinations of Charles Bonnet Syndrome).

### **3. Some illustrative cases**

I'm suggesting that we talk about, and think about, modalities in terms of getting and exchanging certain kinds of information. But one crucial point is that this

doesn't simply affect how we think of others and what they can experience: it also affects how we think and talk about our own experiences. We can see this in various cases where we are tempted to say that we are hearing or seeing, where, at least in terms of the sensory apparatus being exploited, this is not the case. Let's look at some examples.

### *Inner speech*

Inner speech is very often described as 'an inner voice in the head'. It is often described as an experience that shares a lot with hearing: it is like hearing, but devoid of the auditory sensory aspects. It plays out in the 'mind's ear', not the 'mind's eye'. Here you get information that is akin to the information that you get when somebody is talking, except that you don't have to get it via actually hearing sounds.<sup>v</sup> See, for example, what Cassam has to say about inner speech:

Auditory metaphors are virtually inescapable. The sense in which one is aware of inwardly saying to oneself that *P* is that one 'hears' oneself saying to oneself that *P*. This is hearing with the mind's ear rather than with the ears attached to one's skull. (Cassam 2011, p.10)

Interestingly, perhaps the most well-established aetiology of hearing voices takes it to involve, in some sense, misattributed inner speech (e.g. Feinberg 1978, Frith and Done 1989, Jones and Fernyhough 2007). It hardly seems misleading to refer to the experience of one's inner speech as 'hearing one's own voice soundlessly'. And by 'one's own voice', this clearly is not committed to the experience of determinate auditory qualities that sound like my own voice (pitch, tone, timbre, loudness). It is

recognisably ‘my voice’ in that I am the agent behind it. There needn’t be anything sensorially auditory about the experience.

*“Inner speech” and “voice hearing” in congenitally deaf people*

Now, we have talked about how experiences are divided up into modalities depending on the information that we are accustomed to getting through that modality. What about those who are not used to receiving any information through a given modality, because they lack that modality, but compensate by receiving equivalent information through another modality? Surely we would expect them to categorise experiences differently. This is exactly what happens. “Inner speech”, or its functional equivalent, in congenitally deaf subjects precisely does not play out in the ‘mind’s ear’, but in the ‘mind’s eye’ (McGuire et al. 1997). It involves experiencing vague, imagistic percepts of someone signing to the subject. Like inner speech, it also is associated with motoric imagery (the equivalent of the articulatory component in inner speech).

Interestingly, so-called ‘voice-hearing’ in congenitally deaf patients with psychosis is very much in keeping with this. Atkinson (Atkinson 2006) has done very important work correcting the ‘audio-centrism’ of mainstream clinical perspectives. She has shown that deaf voice-hearers experience vague visual imagery of being addressed in sign-language, or of disembodied lips. But they do not, as was previously thought, have auditory experiences at all. Thus the “loudness” of these “voices” is a way of referring to how intrusive or attention-grabbing they are. And so for the congenitally deaf, “hearing a voice” is receiving a communication, namely, information that for them is usually received visually. Hence it is thought about in precisely that way, even though the visual percept is indeterminate with regards to a

number of properties that would be gleaned by actually seeing someone signing. For example, if you ask “Was the skin tone of the hands dark or light?” or “Were they masculine or feminine hands?” there may be no answer to be given. Similarly, if you ask someone who is not deaf if her inner speech was high-pitched or low-pitched there may be no answer.

### *Tactile-Visual Sensory Substitution (TVSS)*

In TVSS (Bach-y-Rita, 1967), sightless (blind or blindfolded) people can “see” thanks to information coming in through a camera on their head, which gets transferred into tactile stimulation on their back (or tongue). They begin by attending to the proximal stimulus (what they are feeling on their back or tongue) and form explicit inferences about the distal stimuli that may have caused it. After a period of habituation, they start to attend to the distal stimulus directly, and with this the subjects start to report that the experience is something like seeing.

There is nothing mysterious about these reports given what we have said. It is because the subject gets the kind of egocentric, action-oriented, three-dimensional information-at-a-distance typically associated with vision. Furthermore, Bach-y-Rita noticed (and O’Regan and Noe (O’Regan and Noe 2001) were at pains to emphasise) that the visual phenomenology only emerges after a period of habituation if the camera is strapped to the subject’s head, and they can move their head (and hence the direction of the camera) in an exploratory manner, mimicking to some extent the sensorimotor contingencies of vision, namely, how visual inputs change when one moves one’s head.

However, even after successful habituation, what you get, informationally speaking, is a step down in richness from even black-and-white vision. Roughly,

colour vision gives you colour, shade, and shape. Black-and-white vision gives you shade and shape. TVSS experiences only give you shape (and perhaps some degraded sense of shade).

#### **4. What is meant by hearing soundless voices**

Now let's turn to some examples of first-person reports of soundless voices (from Woods et al. 2015).

It's hard to describe how I could 'hear' a voice that wasn't auditory; but the words used and the emotions they contained (hatred and disgust) were completely clear, distinct and unmistakable, maybe even more so that if I had heard them aurally.

..there are things I 'hear' that aren't as much like truly hearing a voice or voices. [...] Instead, these are more like telepathy or hearing without hearing exactly, but knowing that content has been exchanged and feeling that happen.

It is now clear why these sorts of experiences will be described in terms of 'hearing'. It involves the receiving of certain kinds of information typically associated with hearing, which, of course, is not to say that it involves receiving *all* of the kinds of information associated with hearing. For example, it seems to lack information about sound properties such as loudness, pitch, timbre. However, and this might vary from case to case, we do get a sense of the sort of information that is conveyed. For example, there is specific linguistic information ('the words used') and emotional information ('and the emotions they contained (hatred and disgust)'), or, more

generally, a communicated content ('but knowing that content has been exchanged and feeling that happen').

Thus it seems that 'hearing soundless voices' is in some ways analogous to black-and-white vision. In the former, you get some kinds of information associated with hearing, but not others. In the latter, you get some kinds of information associated with seeing but not others. However, it is illustrative to see where the analogy breaks down. In the case of soundless voices, what you get is information regarding "higher-level" properties in the absence of the "lower-level" sensory properties that typically ground them. This is not the case with black-and-white vision, where you merely get a restricted set of information about low-level properties. Although this presence of high-level information in the absence of the low-level sensory information that typically grounds it seems highly unusual in the case of a perceptual experience, it is relatively commonplace in imaginative experience. I can, for example, imagine a car without that car having to be a specific colour.<sup>vi</sup> This might lead one to suggest that soundless voices (and perhaps even verbal hallucinations more generally) are in fact imaginative experiences that are mistaken for perceptual ones. Alternatively, as we've briefly seen, several theorists have thought of voices in terms of another kind of experience that carries high-level information in the absence of sensory information, namely, episodes of inner speech.<sup>vii</sup> On this view, soundless voices would be episodes of inner speech that are, for whatever reason, mistaken for perceptions of someone else speaking.

In what sense these experiences of soundless voices are ones that aren't "really" perceptual experiences depends on what you mean by this. Our focus here is on why certain experiences are reported in perceptual terms (viz. in terms of 'hearing soundless voices'), bracketing the issue of whether it is strictly accurate to think of

them in this way. I am fully open to the idea that they could be grounded in the mechanisms that generate inner speech or imagination. But that is not what this paper is about.

### **5. Soundless voices and inserted thoughts<sup>viii</sup>**

In clinical contexts there is a distinction between hearing voices (soundless or otherwise) and a similar phenomenon, namely, inserted thoughts. Reports vary enormously, but the phenomena that are categorised as inserted thoughts are typically reported as the experience that one's thoughts are not one's own, or that someone else's thoughts are being inserted into one's head. Maintaining such a distinction between inserted thoughts and soundless voices does not delve theoretically beyond the reports of patients. Since these experiences are reported differently, they should be assumed to be different unless very good reasons suggest otherwise. In stark contrast, a consensus among theorists (as opposed to clinicians) is that since, generally speaking, the same experiences can be reported differently, especially if these experiences are difficult to put adequately into words, then this is probably what is happening here (see, for example, Langland-Hassan 2008, Ratcliffe and Wilkinson 2016). In other words, according to these theorists, soundless voices and inserted thoughts are fundamentally the same phenomenon (e.g. misattributed inner speech) but simply reported differently.

The methodology that I have promoted here treads a middle path between the clinical consensus that seeks to divide these phenomena, and the theoretical one that seeks to unite them. It invites us to reflect on why experiences are reported in the ways that they are, regardless of whether they are really the same “underneath” (whether neurologically, or aetiologically, or whatever). Here I speculate on some

potential factors that might lead someone to report an experience as a soundless voice rather than as an inserted thought. I hasten to emphasise that this is not an exhaustive list. Furthermore, I am not making claims about necessary or sufficient conditions for something to count as the phenomenon known as an inserted thought or a soundless voice. Anyone who has looked at the overwhelming variety of first person reports will see that it would be foolish to even attempt such an enterprise.

### *Linguistic information*

Some reports of thought insertion appear to be non-linguistic. For example, in a much-quoted report of thought insertion (Mellor 1970), the patient talks of having the thoughts Eamon Andrews in his head: “He treats my mind like a screen and flashes his thoughts on to it like you flash a picture”. This is not, of course, to say that no cases reported as thought insertion will be linguistic. Given that (at least in some people) thinking is (at least sometimes) reported as linguistic, this would not be surprising. However, it would be more surprising if one of these non-linguistic (e.g. picture-like) inserted thoughts ended up being reported as a soundless voice.

### *The perception-like receipt of information from the world*

A striking difference between the reports of soundless voices and inserted thoughts is that ‘hearing soundless voices’ suggests the receipt of information about the world, namely, the (albeit soundless) utterances of another agent. Inserted thoughts, in contrast, are experienced as thought, not as perception. Another agent is using my mind, my thinking apparatus, to think thoughts that aren’t mine (either because I don’t endorse their content, or because they seem to come out of nowhere).

In a sense the illusory agent, in controlling my thoughts a certain way, is betraying certain features of themselves (e.g. they might be malicious), but it isn't reported as a communicative utterance that I am perceiving.

### *Mode of address*

Many of the voices that we attend to in daily life are addressed to us, whether directly or indirectly. More importantly, our thoughts tend not to address ourselves in the second person, nor do they tend to represent other agents as the "addresser". Thus, if you have a soundless experience of another agent saying something to you (whether it's about you or not) you are more likely to report this as a soundless voice than as an inserted thought. If, on the other hand, you have a soundless experience of a content that's both about the world, and not addressed at you, but that doesn't feel like it came from you, this would, I suggest, be more likely to be reported as an inserted thought.

## **6. Conclusion**

I'd like to conclude by clarifying the precise scope and nature of my claims, so as to pre-empt any criticisms that may stem from misunderstanding. I have not addressed the issue of what objectively individuates modalities (neither experiential nor sensory). I have doubts as to whether this can be addressed, and in any case it is not the issue that I take to be most relevant to the phenomenon reported as hearing soundless voices. In a relatively uninteresting sense, we know that these people are not hearing soundless voices. They are not only wrong about the world (no agent is communicating with them), they are also struggling to adequately categorise their experience. A more interesting issue concerns understanding why these experiences are reported in the way that they are, a way that seems at first glance to be

contradictory. In order to address this, I have asked: What makes people talk and think about experiences in a certain way, and especially with respect to experiential modalities? Does reflecting on this help us to make sense of the reports of those who claim to hear soundless voices and the experiences that give rise to them? My answer is: I think it does.

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<sup>i</sup> Taking information on board involves excluding possible worlds from your belief-set, which is the set of possible worlds that is compatible with how things are as far you are concerned.

<sup>ii</sup> Although of course there are relevant and irrelevant possibilities, and there is an important question about the extent to which irrelevance interferes with informativeness.

<sup>iii</sup> Ruling out all of the possible worlds that you may be inhabiting down to 1 constitutes omniscience (conversely, leaving it open that you could be in any possible world would constitute total ignorance).

<sup>iv</sup> Information can be “detached” in some cases, notably the case of language (see Stalnaker 2008 for more on this notion of detachment).

<sup>v</sup> Evidence that we automatically think about “thinking” and inner speech in this way is ubiquitous. To take a somewhat crude example, when Mel Gibson’s character in *What Women Want* has his freak accident, and thereby gains access to their thoughts, he acquires the ability, not to see, nor feel, but to *hear* women’s thoughts (namely, their inner speech). Thanks to XX for this example.

<sup>vi</sup> I would like to thank an anonymous referee for suggesting this comparison with imagination, and also for this example.

<sup>vii</sup> There are good reasons to think that, although inner speech involves imagery, it is to be distinguished from imagination.

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<sup>viii</sup> I would like to thank Vaughan Bell for giving me the idea of comparing soundless voices and inserted thoughts.