

Hearing, Philosophical Perspectives

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Hearing and auditory perception are rapidly developing topics in the philosophy of perception. Recent work has focused upon characterizing what we hear, and upon similarities and differences between audition and other modalities. Future work should address how theorizing about audition impacts theorizing about perception more generally.

This entry concerns questions about the *objects* and *contents* of hearing. It includes discussion of the *spatial* content of audition, the role of *time* and *pitch* in the individuation of auditory objects, and of audition's role in the perception of *speech*.

Objects of Hearing

One sort of question about what we hear concerns the intentional *objects* of auditory perception. What kinds of things do we hear? We hear sounds. But what kinds of things are sounds? Recent answers include: sensible properties, events, or something that depends upon pressure waves. We can also ask what other sorts of things we hear. For instance, we might auditorily perceive things and happenings that make sounds, such as clarinets, crashes, or conversations. Perhaps we even hear silence.

Contents of Hearing

A related question about what we hear concerns the *contents* of auditory experience. In hearing, how do we experience the world to be? One common way to pose this question appeals to the correctness or veridicality conditions for auditory perceptual experiences. Framed in this way, audition's content is *prima facie* relevant to theorizing about audition's objects.

Hearing and Space

One central philosophical question about auditory content concerns *space*. Hearing furnishes information about space: thanks to hearing, you can learn that the fridge is to the left or that the dumptruck is far away. Does audition represent space or have spatial content? An extreme view is that it does not. Some claim that while we "work out" spatial facts on the basis

of audition, hearing itself is aspatial; it reveals no spatial features.

However, empirical research on spatial hearing suggests that audition does have spatial content. Subjects auditorily discern direction and distance in a way that suggests perception rather than "working it out".

Nevertheless, vision and audition differ with respect to space. Following P. F. Strawson's example, some philosophers hold that audition, unlike vision, is not intrinsically or inherently spatial. On such an account, audition may have some spatial content, but it inherits that content from another spatial modality, such as vision or tactile-kinaesthetic perception. So, a purely or exclusively auditory experience would be non-spatial. Perhaps this is because audition lacks vision's inherent spatial *structure*.

An alternative account rejects that audition is inherently aspatial. The difference between vision and audition, instead, is said to be one of degree. Vision's spatial content is more fine-grained and accurate than audition's.

Furthermore, the spatial characteristics of the objects of vision and audition differ. Vision's objects include cohesive three-dimensional items akin to material objects. Not only do they seem located in space relative to each other, but they also have a rich internal spatial structure. While audition's objects include individual items located in three-dimensional space, they do not seem to have the rich internal spatial structure of vision's objects. Vision's objects are perceptually individuated and identified in terms of their spatial features, while space is less important to individuating and identifying audition's objects.

Hearing, Time and Pitch

How are audition's objects individuated and identified? Two kinds of features are most important. First, *time* plays a role in audition analogous to space in vision. Sounds are temporally extended, and they are individuated and identified in terms of their temporal structure. The sound of a spoken word, a melody, or a police siren is individuated in part by its patterns of change in time.

Second, *pitch* also plays a role in individuating audition's objects. Distinct pitches from a single source (such as a loudspeaker) frequently are heard as two distinct audible individuals. Tones of the same pitch from different sources frequently are heard as one audible individual, as when two loudspeakers play the same pitch. In audition, unlike vision, spatial discontinuity may

be neither necessary nor sufficient for distinct audible individuals.

Some philosophers have argued on these grounds that auditory objects are complex individuals with temporal, rather than spatial, structure. Others, in part on the basis of pitch, have challenged whether the role of time in audition is analogous to that of space in vision.

Speech and Hearing

No discussion of hearing is complete without considering *speech*. Three questions are of philosophical interest.

First, what accounts for the phenomenological difference between listening to speech in a language you know and in one you do not know? The difference might be just that in the former case you grasp or understand the meanings associated with the sounds you hear. The phenomenological difference thus is entirely cognitive -- it stems from the phenomenology of understanding. Or, the difference might be at least partly perceptual. One might, for instance, hear meanings or auditorily represent semantic properties. Or, one might hear language-specific attributes such as phonological features. On an austere perceptual account, just the audible acoustic features of the sounds of speech might differ once you know a language.

Second, what are speech perception's objects? The traditional account is that hearing speech involves hearing sounds, then grasping their associated conventional meanings. Speech perception and ordinary non-linguistic audition thus share objects. But empirical evidence indicates that speech sounds, such as phonemes, do not map in a consistent way onto features of the acoustic signal. Some authors therefore reject that speech perception and ordinary audition share objects. Anti-realists argue that apparent speech sounds are mere mental constructs. Others suggest that, unlike ordinary audition, speech perception's objects include articulatory gestures of the mouth and vocal tract. This realist account is bolstered by the fact that visual cues about mouth gestures impact the perception of speech, as shown by the famous McGurk effect, in which a visual presentation of a moving mouth alters how a voice sounds.

Third, to what extent is the capacity to perceive speech distinct from ordinary audition? Some hold that speech perception involves a dedicated perceptual modality. Others hold that speech perception is a variety of ordinary audition, whose objects and perceptual resources are continuous with ordinary hearing. This requires an account of the special significance of speech sounds for humans -- even neonates prefer speech to non-speech sounds.

Cross-references

Content of Perception; Hearing; Perception, Philosophical Perspectives; Vision

Further readings

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