

Introduction: Hearing Ascriptions

1.1 What do we hear when we listen to music? This book is a philosophical study of the attempt to answer that question. It is about hearing ascriptions, statements of the form ‘So-and-so hears such-and-such’ originating in music theory and psychology, and the psychological states they attribute. It inquires into the meaning of such ascriptions and the nature of the states they ascribe.

On the view taken here, a hearing ascription attributes a state with a representational content, a state that represents a passage of music as being a certain way. The relevant questions are then what kind of content this is and how such psychological states compare and contrast with belief and thought.

I shall pursue and explicate the idea that musical hearing can be *nonconceptual*. In particular, I shall argue that the way an ordinary listener, untrained in music theory, hears music is nonconceptual in at least two main senses, which I call strong and weak respectively. Such hearing, I shall go on to argue, is to be contrasted with that of the trained music analyst, whose hearing is typically conceptual and theory-laden; musical training thus characteristically advances one’s

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listening from a nonconceptual to a conceptual level. In the later chapters of the book I shall explore some of the cognitive and aesthetic issues that arise in connection with theory-laden musical perception.

Caveat: this is not a study of the representational content of *music*, but a study of the content of mental representations of music. Music may represent storms, Adam's fall from grace, or locomotives, but this semantic dimension of music is not our topic. It is rather the cognition of music, considered more or less syntactically, and the description of that cognition.

1.2 Example 1.1 represents an ascription of musical hearing as found in Fred Lerdahl and Ray Jackendoff's generative theory of tonal music (hereafter, GTTM).¹ The graph describes a certain way of hearing the passage, which, to a first approximation, involves hearing the B in measure 2 (all references are to the melody notes) as subordinate to the C# in m. 1, the first E in m. 1 as still more subordinate, and so on. The graph thus lays out a certain complex pattern of relationships and dependencies, specifying one way of hearing the passage.

This is an exciting prospect. It is exciting that the hearing of music should be susceptible to rich and detailed description in this way, that something so elusive and difficult to talk about can be captured in the net of a symbolic representation, a "mental map," as it were, of musical perception.

Though exciting, this prospect has its share of puzzles. What *is* it for a way of hearing a piece to correspond to such a representation? What property of hearing is captured by such a graph: at what level does it describe a mental representation of a piece? There is an assumption here that a perceptual state, or its content rather, may be specified via words or symbols – that the mental state and the symbolic representation used to attribute it are in some way equivalent

¹Analysis given in Jackendoff (1987), p. 226, illustrating the theory presented in Lerdahl and Jackendoff (1983).

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The diagram illustrates the hierarchical structure of a musical excerpt. The tree diagram at the top shows a root node (e) branching into two nodes (d), which further branch into four nodes (c), and finally into eight nodes (a). Below the tree is a piano score with five staves labeled (a) through (e). Vertical dashed lines connect the levels of the tree to the corresponding staves of the score. Staff (a) shows the full piano score with a bracket labeled 'x y' over the final two measures. Staff (b) shows the first two measures. Staff (c) shows the first measure. Staff (d) shows the first half of the first measure. Staff (e) shows the first quarter of the first measure.

Example 1.1

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in content.² But this demands explication. Is this sort of psychological attribution like (or an instance of) a belief report, and if so what kind of belief report? Is what we capture in such an attribution like what we capture when we attribute a thought to someone? How, in other words, is *hearing* music – in the way described by such a graph – related to *thinking* about it in that way? And how is this notion of hearing related to our ordinary notions of perception – the garden-variety sense in which we see colors and shapes, tables and chairs? What, in Wittgenstein’s phrase, is the “place [of this notion of hearing] among the concepts of experience”?³

Puzzles arise, moreover, in trying to arrive at a coherent picture of our access to the facts expressed by these ascriptions that explains, at the same time, their interest to us. It is puzzling that we should find informative (and therefore strange and fascinating in a way) descriptions of what are after all *appearances* to us, descriptions that some of us can recognize as true. It seems impossible that we should be the authority for – have epistemic access to – the relevant facts and at the same time find them informative. Such are the semantic, psychological, and epistemological issues raised by the prospect of capturing musical hearing in words or symbols.

A (welcome) source of complication: GTTM is but one among many sources of hearing ascriptions. There are many accounts of hearing in music theory and psychology related to different levels of musical competence or understanding concomitant with different degrees of theoretical training.⁴ There is a basic level of competence at which one recognizes familiar tunes, is able to detect obvious mistakes, and hears certain melodic configurations as complete and others as incomplete, though one does not know any music theory and is not able to explain why one hears those passages as one does.⁵ It is this sort of competence that GTTM is primarily concerned to cap-

²Loar (1981), p. 31.

³Wittgenstein (1958), p. 193e.

⁴On levels of musical understanding, see Tanner (1985).

⁵For remarks on this basic sort of ability, see Dowling (1993a), p. 2.

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ture. At a more sophisticated level of understanding, there are the self-descriptions of musical hearing by music analysts, whose competence includes an ability to describe their hearing in theoretical terms, an ability they owe in part to extensive aural training. There is no need to identify these different levels of hearing with one another. The questions posed earlier are multiplied, then, by the number of distinct kinds of musical competence there are: for any such concept of hearing we will want to know what that sort of hearing is, what its relation is to belief and thought, and so on. And we will want to know how such notions of hearing are related to, and contrast with, one another.⁶ Most important, we will want to put those contrasts to use in order to characterize the differences between levels of musical competence or understanding.

One reason why it is plausible that different notions or levels of hearing are involved here is that the *same* music-theoretic vocabulary is often used in the description of more than one level of competence: it is one thing to hear intervals in the psychologist's sense, another in the ear-training teacher's. Therefore the distinction between such levels is not simply in the features perceived, but in the way they are perceived. The question, then, is how these different levels or notions of perception are to be distinguished from one another.

The problem is hinted at in a music appreciation text by Robert Winter:

You have been experiencing the elements of style – *rhythm* and *beat* and *meter*, for example – all your life. But now our goal is to translate those intuitive experiences into conscious ones.⁷

Winter is describing a certain program of aesthetic education, in which one moves from one level of musical understanding to another. These levels of understanding correspond to different levels of

⁶We should not be surprised if there are important differences among such notions. As Robert Cummins writes, “To suppose that [different cognitive theories] all make use of the same notion of representation seems naive” (1989, p. 12).

⁷Winter (1992), p. 15.

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psychological ascription on which one may be said to hear, or experience, a certain rhythm or meter. The question is, what is the correct account of that distinction? Winter suggests one diagnosis: one level is “intuitive,” another “conscious.” But this is problematic: for what “experience” is not “conscious”?⁸

Many writers, like Winter, are inclined to appeal to the notion of consciousness in order to characterize the distinction between different levels of hearing.⁹ This study takes a different tack: it is *conceptualization* that does the explanatory work. On this view, the distinction between conceptual and nonconceptual levels of representation is central to characterizing differences between levels of musical understanding; conceptualization is at the heart of growth in the appreciation and understanding of music. My purpose is to argue for these points and, more important, to explain what they mean, and to show what is necessary to establish them.

In recent years there has been much interest in articulating the ways in which perceptual experience and other kinds of mental representation may be regarded as nonconceptual.¹⁰ One philosopher who has pointed to the importance of conceptualization for theories of musical understanding is Malcolm Budd, who writes:

To experience music with musical understanding a listener must perceive various kinds of musical processes, structures and relationships. But to perceive phrasing, cadences and harmonic progressions, for example, does not require the listener to conceptualise them in musical terms.¹¹

⁸Of course, it would be unreasonable to expect a worked-out theory of these matters to appear in a music appreciation text; such a text should inspire the relevant growth, not give a theory of it. I quote Winter simply because the passage aptly points to the problem.

⁹E.g., Jackendoff (1987), p. 293; Levy (1983), pp. 101, 169–72; Meyer (1956), pp. 25, 50–2.

¹⁰See Crane (1992a) for a general discussion.

¹¹Budd (1985), p. 247. The suggestion that musical understanding need not involve conceptualization can also be found in Meyer (1973), p. 16.

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Budd's suggestion amounts to this: a correct psychological attribution of musical hearing can be made using music-theoretic concepts the listener does not possess. And this is one meaning that might be given to the claim that musical hearing (of a certain kind) is nonconceptual.

In the next chapter, I shall argue for a version of Budd's claim on which a concept is taken to be – or, rather, to be individuated by – a mode of presentation of a property. The claim will be established, then, by Fregean considerations of cognitive significance, whereby the statement that a passage has the relevant property has an information value distinct from that of the perceptual state thereby described. That perceptual state, in other words, is epistemically distinct from the belief expressed by the relevant music-theoretic sentence. This shows that these kinds of hearing and thought are conceptually distinct. In contrast, however, a trained listener's perceptual concepts are typically integrated with theories of music and analytic frameworks. The present analysis locates the contrast between such listeners, then, in terms of epistemic and informational relations rather than, say, the comparatively murky notion of consciousness.

But there are different degrees of nonconceptuality. For all that has been said, it is open that what is being attributed in these cases is, or essentially involves, some conceptual faculty or other, as long as those concepts are *different* from the music-theoretic ones employed in the attribution. Such psychological ascriptions may, in other words, attribute perceptual beliefs, involving perceptual concepts, as long as such concepts are distinct from the music-theoretic ones expressed by the relevant theoretical terms. This points to a stronger sense of “nonconceptual”: musical hearing is nonconceptual in this sense if it is not a matter of the exercise of a conceptual faculty at all – if it is not perceptual belief. (I call this *strongly* nonconceptual, in contrast to the previous sense, which I call *weakly* nonconceptual.) I shall argue that an ordinary listener's musical hearing is strongly nonconceptual, too. The reason it is strongly nonconceptual is that

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listeners typically cannot discriminate between events they represent in a certain way and events they do not represent in that way. But the possession of a perceptual concept goes hand in hand with a capacity for perceptual discrimination. The relevant sort of musical hearing is not the exercise, then, of a concept; it is not, *qua* type, a perceptual belief.

The ordinary listener's hearing differs from that of a trained listener, then, not only in being weakly nonconceptual but in being strongly nonconceptual. Higher levels of appreciation are laden with music-theoretic concepts. Such training thus characteristically makes conceptual what was, at most, formerly nonconceptual: it brings about conceptual representation of properties that the listener had heretofore represented, if at all, nonconceptually. (That is the view argued for here, although, as we shall see, something like the paradox of analysis arises for the case of the trained listener.)

The later chapters of the study address some of the issues surrounding theory-laden musical perception and its larger implications. One such issue is whether there is a tenable distinction between perception and cognition. Jerry Fodor has argued for such a distinction on the basis of modularity theory; Paul Churchland has claimed that musical training is a counterexample to Fodor's view. I shall argue that, given Fodor's own view of perception, basic aural tonal training is indeed such a counterexample.

In the last chapter I turn to the aesthetic issues surrounding theory-laden hearing, in particular, how such hearing contributes to understanding and enjoyment. I argue against a strong separation of the explanatory and appreciation-guiding functions of music theory. I claim rather that the explanatory power of theory-laden hearing is part and parcel of its aesthetic value. I then discuss puzzles that ensue.

1.3 Hearing ascriptions are descriptions of the musical mind in music theory and psychology. The ascriptions in which we are mainly interested are those of a structural or syntactic nature, as opposed

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to emotive descriptions such as ‘He hears the music as sad (lively, majestic, etc.)’. Let us survey some examples and the contexts in which they occur.

One important source of hearing ascriptions is music analysis, which is part of the discipline of music theory. It entails the description of a musical work, detailing its structure and the relationships among its parts. There are many approaches to, and varieties of, music analysis, such as Schenkerian analysis, Forte’s set theory, the semiotic approaches of Ruwet and Nattiez, and the systems of such theorists as Riemann, Réti, Keller, and LaRue; music analysts often draw upon such systems as well as more ad hoc approaches.¹² At the same time, there is much common ground: in the analysis of tonal music, for example, there is a shared framework that includes what might be called “traditional tonal theory,” embracing such concepts as tonic, dominant, scale degrees, key areas, modulations, and the rhythmic and metrical features implied by conventional musical notation.

Probably the most influential and dominant paradigm in the analysis of tonal music in the United States is Schenkerian analysis, on which a tonal work is conceived of as an elaboration, or “prolongation,” of simpler passages, iterated at several hierarchical levels.¹³ This conception can be expressed in a graph via a specialized notation adapted from conventional music notation (Example 1.2).¹⁴ In this notation, stems and durational symbols indicate structural importance.

Inseparable from music analysis are statements about hearing.

¹²The analytic systems listed here are surveyed in Bent (1987). Less comprehensive in scope, but a good pedagogical introduction to analytic practice, is Cook (1987a).

¹³Schenker (1979 [1935]), p. 5. In strict Schenkerian terminology, ‘prolongation’ designates a particular kind of elaboration rather than elaboration in general, but as Neumeier and Tepping note, the term has taken on a wider sense than Schenker’s original usage (1992, p. 3).

¹⁴From Schenker (1979 [1935]), vol. 2, ex. 7(a).

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Beethoven, Sonata op. 27 no. 2, 1st mvt.

m. 5 23 26 27 28 33 35 38 42 49 50 51

(arpeggiation) $\overset{\wedge}{3}$ $\overset{\wedge}{2}$ $(\overset{\wedge}{3} - \overset{\wedge}{2})$ || $\overset{\wedge}{3}$ $\overset{\wedge}{2}$ $\overset{\wedge}{1}$

(NB: 5 - 5 - 5)

(#3-4 4- -#3)

I II V ———, I II V - I

(= I - IV V - I) B- A2)

Example 1.2

“This [graph] . . . shows how I hear it.”¹⁵ “Harmonically, one can hear m. 3 as revolving around F, and m. 4 around G. In that case, the entire progression of mm. 1–5 can be heard as an expansion of the I–IV–V–I of the opening measure.”¹⁶ “It is . . . possible to hear the establishment of the D-flat triad in m. 49 as the arrival of tonic harmony.”¹⁷ “This rhythmic arrival is heard also as the beginning of a new hypermeasure.”¹⁸ “In order to hear and understand the significance of chords as passing chords and to enable the ear to penetrate to the structural goal of a motion, a sense for musical direction has to be developed.”¹⁹ “Compare and contrast the ways of hearing [a passage from a Mozart string quintet] represented in the two analyses [that follow].”²⁰

Statements about hearing employing music-analytic vocabulary

¹⁵Cone (1968), p. 41.

¹⁶Ibid., p. 35.

¹⁷Krebs (1991), p. 49.

¹⁸Kramer (1988), p. 91. In much music analysis, the reference to hearing is implicit, but I do not claim that all music analysis is to be read in this way. See Chapter 6 for further discussion.

¹⁹Salzer (1962), vol. 1, p. 102.

²⁰M.A. theory examination question, Columbia University. It is not uncommon for analysts to hypostatize “hearings,” designated by analyses. See Krebs (1991), p. 51, and Kramer (1988), p. 130.