

*Projectivism, Empathy, and Musical Tension*¹

Kendall L. Walton
University of Michigan

*Beauty is an emotional element, a pleasure of ours, which
nevertheless we regard as a quality of things, . . . [in
short] pleasure objectified.*

—George Santayana, *The Sense of Beauty*, 1896

This is a challenging idea, to say the least. Nelson Goodman warned of “the temptation . . . to indulge in mumbo-jumbo about objectification” in attempting to explain the nature of aesthetic experiences and aesthetic objects, and derided “the sophisticated theory that what counts is . . . pleasure ‘objectified’, pleasure read into the object as a property thereof.” “What can this mean,” he asked, “apart from images of some grotesque process of transfusion”?²

I will not exactly aim to make sense of Santayana’s claim; I won’t have anything to say about the concept of beauty. But I shall propose a way of understanding some aesthetic properties that bears some analogy to what Santayana says about beauty. The properties of tension and relaxation (or release) in music will be my main examples, although it will be obvious that if what I say about musical tension and relaxation is right, it applies to some other aesthetic properties as well.

I shall also consider how we go about ascertaining the psychological states of other people, how we discover what others are thinking and feeling. An attractive recent theory has it that, in many instances, we simulate in ourselves the psychological processes occurring in the other person and attribute to her what we find ourselves thinking or feeling (actually or in imagination) as a result. I once considered myself a good friend of the simulation theory, but have since become partly disillusioned.³ I believe that we engage in mental simulation, as simulation theorists usually characterize it, far less often than they suppose. But I am not eager to endorse the simulation theory's main rival, the theory, according to which we come to understand others by applying, implicitly, a folk psychological theory. Too much attention has been paid to this rivalry. The smoke of the battle has obscured important features of what I will call empathetic understanding of others. Empathy may sometimes amount to simulation as it is traditionally understood, but sometimes it does not. And it may or may not involve the utilization of a folk psychological theory.

These two topics are linked. Listeners' experiences of tension and relaxation in music bear some analogy to empathetic understanding of other people. A careful look at empathetic understanding will illuminate the experiences of musical tension and relaxation, and will help to clarify the nature of these properties. The analogy would appear to support the idea, put forward by various authors in various forms, that listeners think of or experience music as though it is a person, or as containing or presenting one or many (fictitious) *personae*.⁴ My conclusions, however, will tend mostly in the opposite direction.

I. MUSICAL TENSION AND RELAXATION

Tension and release or relaxation are, by virtually all accounts, of absolutely fundamental importance in music. They are so pervasive that it is hardly necessary to cite examples, although I will mention several as we go along. Roger Sessions remarked that "The principle of tension and relaxation is perhaps the most important single principle of musical rhythm, and its bearing on all questions of musical expression cannot be overestimated."⁵ Victor Zuckerkandl refers to "force" rather than tension: "In music there would hardly be anything left to describe if force had to be excluded from the discussion. Force is as real as music itself."⁶ Fred Lerdahl and Ray Jackendoff speak of "the tensing and relaxing, inherent in the motion of pitch-events," "the incessant breathing in and out of music in response to the juxtaposition of pitch and rhythmic factors."⁷

The musical scholars quoted above are concerned exclusively with

Western tonal music. What about music of other kinds? *Progressions* from relaxation to tension and from tension to relaxation, the buildup of tension and its subsequent release or resolution, may play a less significant role in some non-Western music, if they are present at all, than they do in the music of Bach, Mozart, and Beethoven. But much non-Western music—much Javanese *gamelan* music, for instance—does present a relatively steady state of tension, or a steady state of relaxation (not release), and presenting these states is a centrally important function of the music.⁸ One Javanese musician, however, describes progressions of tension and release in *gamelan* music like those we find in Western tonal music: The “melodic flow of a *gongan*” [a phrase or section of a piece ending in a stroke of the large gong] consists in an “initial statement, tension, and resolution.”⁹

The sources of tension and relaxation, the musical characteristics responsible for these qualities, are many and various. Some music theorists have concentrated on harmonic parameters, on the tension (often) inherent in dissonances, and the relaxation that attends their resolution into consonances. But characteristics of melody, rhythm, meter, dynamics, tempo, texture, timbre, and form are obviously important also.¹⁰ The unpredictable syncopations in Stravinsky’s *Rite of Spring* produce almost unbearable tension. Steady, relentless, entirely predictable, driving rhythms, characteristic of Beethoven, often do so as well.¹¹ Rapidly repeating sixteenth note accompaniment figures common in baroque string music may stir up a frenzy.¹² The rising melodic motion of the opening theme of Bartok’s *Music for Strings, Percussion and Celesta* involves a small but definite increase of tension, which subsides as the melodic line descends. The pattern of tension and relaxation in subsequent inversions of the theme is clearly not the same. Various musical devices for creating tension are often used in combination, of course. Obvious examples are everywhere—including in Arnold Schoenberg’s *Verklarte Nacht* and in Samuel Barber’s *Adagio for Strings*.

It is one thing to identify the sources of tension in music, and quite another to say what musical tension is. What is it that harmonic dissonances in tonal music or Stravinsky’s syncopations or Beethoven’s driving rhythms are responsible for? This would seem to be an especially philosophical question, but philosophers of music have been strangely silent about these properties.

There are obviously different kinds of tension and relaxation to be distinguished. And in some cases one might prefer terms other than these—“energy” or “force” or “intensity” or “stress” or “restlessness,” for instance, in place of “tension”; “stability” or “calmness” or “repose” in place of “relaxation.” Relaxation following tension is sometimes aptly characterized as a *resolution* of the tension, but sometimes it is not. Sometimes one’s impression is of a conflict being resolved or a difficulty overcome or a

question answered. But in other instances musical tension merely dissipates. The tension may be of a kind that doesn't call for resolution or solution. This is true, it seems to me, of the tension attending Vivaldi's rapidly repeating sixteenth note accompaniment figures. I resist characterizing tension in general as a demand for resolution, or defining it in terms of expectations or the frustration of expectations.

I will not be concerned with these differences now. My present interest is in what many varieties of musical tension and relaxation, and many of their relatives, have in common.

Let's begin with this question: Are tension and relaxation "in the music" or "in the listener"? The best quick answer is *both*.

II. TENSION IN THE MUSIC

We hear tension in music. And we hear resolutions or relaxations of tension. These would seem to be perceptual properties of music if any aesthetic properties are. Perhaps they and properties such as gracefulness, elegance, and garishness are *secondary* ones, like colors, and are "in the object" only in whatever sense colors are. Secondary properties are said by some to be powers or dispositions to affect observers in certain ways, or properties things possess by virtue of bearing relations of one sort or another to (potential or ideal) observers. Even if some such view is right, it seems to me that we *experience* colors as neither dispositions nor relational properties, but as intrinsic, monadic features of physical objects. I am following the lead of Mark Johnston and Sydney Shoemaker on this point. Johnston writes that "*Steady* colors, as opposed say to highlights, do not appear to be relational properties and do not appear to be dispositions to look colored," even if they actually are such. "A course of experience as of the steady colors is a course of experience as of light-independent and observer-independent properties, properties simply made evident to appropriately placed perceivers by adequate lighting." By contrast, he says, "a course of experience as of the highlights reveals their relational nature. They change as the observer changes position relative to the light source," etc. "They wear their light- and observer-dependent natures on their face. Thus there is some truth in the oft-made suggestion that (steady) colors don't look like dispositions. . . ." ¹³ Shoemaker thinks that various relational properties possessed by external objects, those of producing or being apt to produce experiences of certain kinds (e.g., color experiences) in particular observers or in observers with certain sensory constitutions, are not represented in the observer's experience as relational; we are not aware of them as relational properties (prior to philosophical reflection). ¹⁴

Whatever the real ontological character of musical tension and relaxation, it seems clear that listeners experience them as intrinsic properties of passages of music, not as relational properties or as dispositions or powers to affect us. One way to see that this is so is to contrast musical tension and relaxation with the properties of being *surprising*, or *amusing*, or *disgusting*. The latter “wear their observer-dependent natures on their face”; we experience them as what they are—capacities to surprise or amuse or disgust.

Is the tension that we hear in music *actual* tension, tension literally so called? Probably not, if this implies that the sounds themselves are literally tense. There is more than one kind of tension, and perhaps more than one (literal) sense of “tense.” But it is not at all clear that sounds are among the kinds of things that can be tense in any literal sense of the term. Maybe we should say that music *represents* or *expresses* or *suggests* or *portrays* (actual) tension, that what we hear in it is *fictive* tension, or *metaphorical* tension, or an *impression* or *illusion* of (actual) tension. One music theorist remarked that music embodies or represents tension and relaxation in successions of sound, as a painting embodies, represents, a tree in a two-dimensional array of pigment.¹⁵ There is no actual tree in the picture, but there is a representation of one, a “picture-tree,” and we see it when we see the picture. Is hearing tension in music like seeing a tree in a picture? The analogy is strained at best. Although “represent” is the right word for the picture of a tree, “embody,” fuzzy though it is, seems closer to the mark in the case of musical tension. Some prefer to describe music as *expressive* of tension.¹⁶ This may go better with the idea that music embodies tension; to say that a work of art expresses melancholy or anguish or joy seems approximately equivalent to saying that it *is* melancholy or anguished or joyful. But suspicions may be aroused by the fact that, notwithstanding their obvious importance and pervasiveness, musical tension and relaxation are not among the commonly cited paradigms of objects of expression. We shall note shortly one respect in which describing tense music as expressing tension is apt to mislead. Nevertheless, listeners enjoy an experience which can reasonably be characterized as “hearing tension in (a passage of) music.” And music properly so heard surely has *something* to do with some variety of real tension.

Patterns of musical tension and relaxation are, no doubt, partly responsible for whatever expressive properties music may possess, for its expressing gaiety or exuberance or melancholy or determination, whether or not it also expresses tension and relaxation. Tension and relaxation may also have something to do with what music represents, when it is representational. In section X we will see how similar properties of a painting may serve representational ends.

What kind of real tension is it that music represents or portrays or

expresses or embodies or gives an impression of or is experienced as possessing? Is it physical tension, like that of a coiled spring or a taut cable or flexed muscles? Is it a psychological property, a tense feeling or sensation or mood? These questions are complicated by others: Is a tense feeling a feeling as of something's being physically tense, or just a feeling with a certain phenomenal character? If "tense" applied to music is a metaphor, we need to ask whether the non-metaphorical sense of the term underlying this metaphorical use is a physical or a psychological one. Maybe "tense" predicated of psychological states is itself metaphorical, parasitic on its application to physical objects or states. If so, does *this* metaphorical sense play a role in the metaphorical application of the term to music? Or is there a single unitary concept of tension, of which physical and psychological tension are species?

Lerdahl and Jackendoff remark that "the opening tonic [of Mozart's A-Major Piano Sonata, K331] seems to stretch like a rubber band, which in measure 4 belatedly springs loose."¹⁷ They and others use a variety of physical analogies in characterizing patterns of tension and relaxation in music: *attractional fields or forces, pulling events in certain directions, gravitation, inertia*.¹⁸ Those who regard musical tension as an expressive property probably have a psychological state in mind, for expression is almost always understood to take only psychological states (emotions, moods, feelings, attitudes, perhaps character or personality traits) as objects.

I don't find myself much tempted by either alternative. Neither seems unreasonable, but neither is compelling. And I don't think it makes much difference which examples of musical tension we consider. Most any tense instrumental music can be used effectively to *illustrate* either physical or psychological tension. Tense passages of Schoenberg's *Verklärte Nacht* might serve well to illustrate a story or cartoon in which a slingshot is stretched to its limit, or tectonic plates confront one another at a seismic fault. But the same music would be equally effective illustrating a story in which a character faces a difficult decision with momentous implications. The music alone, apart from a story or a text or a title, seems neutral. It does not seem that, in order faithfully to characterize my experience of tense music, I must choose.

This is surprising. Physical tension and feelings of tension are very different sorts of things, and we are not likely to confuse them in other contexts (even if they are species of a single genus). One might expect that we would have sorted out the nature of musical tension as well. I don't think we have. I think the question is unlikely even to arise in the minds of most listeners and critics, even when they explicitly think of and describe passages of music as being tense.

Certain other predicates commonly applied to music (and to works of

art of other kinds) seem clearly to be meant in a psychological sense, predicates such as “exuberant,” “melancholy,” “confident,” “timid,” “angry,” and the old favorites “happy” and “sad.” Other predicates are more likely to suggest physical states or events: “turbulent,” “flowing,” “rigid,” “jerky,” “rising,” “falling,” etc. I find myself curiously uncertain which of these groups “tense” belongs with. (Again, there are complications. The predicates of the second, physical category, when they are applied to music, might suggest something mental, a *feeling* of turbulence or rigidity, an experience of falling, etc. And psychological predicates may suggest physical behavior by means of which the psychological states are expressed).¹⁹

I believe that musical tension is indeterminate in this unusual respect. (Certain other aesthetic properties may be similarly indeterminate, including *calmness*, *severity*, being *disturbed*, or *in turmoil*.) We have here a reason to be skittish about saying that music *expresses* tension: To do so would be to resolve, artificially, the ambiguity or indeterminacy in favor of psychological tension.

III. TENSION IN THE LISTENER

Tension is not *just* in the music. I think it is clear that one typically *feels* tension, or something like tension, when one listens to tense music, and that one relaxes when the tension in the music is released or resolved or replaced by relaxation. Often, my muscles actually do tighten in response to tension in music and then relax when the music calms down. Sometimes I have a sense of the tendency of the music to make me tense, even if it doesn’t actually do so; I feel its influence. Perhaps one feels tension in imagination, or imagines feeling tension. Let’s let any or all of this qualify as “tension or something like it.”²⁰ Notice that, although my experience is of course a mental state, my body is sometimes in a physical state of tension, and I experience it as such. Whether the tension “in the music” is psychological or physical, or something else, is a different question.

Tense music is thus (with qualifications) *tension-evoking*. Musical tension is something like the property of being surprising or exciting or disgusting, i.e., surprise-, or excitement- or disgust-inducing (even though, as I mentioned, we *experience* tension and these -ing properties differently). It is unlike a tree in a picture in this regard. I don’t feel anything like a tree when I recognize a tree in a picture, nor do I perceive the picture’s capacity to induce tree-ish feelings; my experience is more like one of *perceiving* a tree. The tree in the picture is “out there.” Musical tension—“some” of it, anyway—is (typically) in me, the listener.

One can sometimes recognize tension in music without feeling tense. A

jaded piano teacher whose senses are numbed by long years of service may recognize tension when he hears it. He might do so without feeling even a tendency of the music to make him tense. I believe that jaded piano teachers can be said not only to hear *that* there is tension in music, but also to hear the tension itself. But in hearing the tension they are hearing, if not feeling, its capacity to excite tension.²¹ One may also be able to recognize that something is surprising or disgusting or amusing even if, for one reason or another, one is not actually surprised or disgusted or amused. And I see no objection to allowing that one can perceive a thing's surprisingness or disgustingness or amusingness, without actually experiencing anything like surprise or disgust or amusement. Being surprising is, nonetheless, a capacity to surprise. And musical tension is, in part, a capacity to induce tension in listeners.

But (to reiterate) there is also tension *in the music*, or anyway we experience tension as being in the music. We attribute to the music what we feel, or what the music has a tendency to make us feel. Something that is surprising or disgusting, by contrast, is usually not itself in any sense surprised or disgusted, nor do we experience it as such. The surprise or disgust is *only* in the observer.²²

Not all tension-inducing music is tense itself. Music sometimes produces tension in us which we do not read back into it. Harmonic or formal anomalies may create uncertainties about where the music is going and leave the listener tense as a result. But the music itself might (as it were) sail blithely along, unconcerned and unbothered. Music can be irritating or maddening—because it strikes us as ostentatious or arrogant or self-indulgent or sappy, or because it threatens to put us into a stupor we would rather not be in, or because it is blatantly designed to manipulate us. Along with the listener's irritation comes tension. But the music itself need not be tense or perceived as being tense, any more than it is or is perceived as being irritated or angry. Some music makes me tense by boring me to frustration. But what bores and frustrates me may be precisely a *lack* of tension in the music. I set aside, for now, music which is merely tension arousing. I shall be interested in cases in which we hear tension in music, in addition to feeling tense ourselves or recognizing the music's capacity to arouse tension.

To clarify how the tension induced in the listener and the tension embodied in the music are related, let's look at a contrasting example. Consider Claude Monet's *La Débâcle* (fig. 1). There is *coldness* "in the picture"—in a relatively clear sense in this case: *La Débâcle* represents coldness, or it represents things (the lake, the weather) as being cold. But I don't just recognize the frigid scene when I look at the painting. I also feel "cold" myself, or something like coldness—not literally, perhaps, but I may actually shiver, or feel as though I am going to. Perhaps the best way of describing my state is

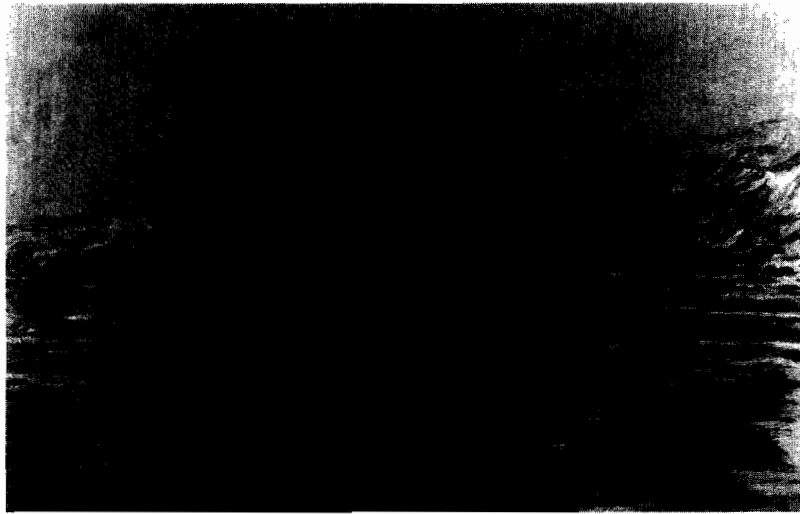


Fig. 1. Claude Monet, French, 1840–1926. *The Breakup of the Ice* (La Débâcle) 1880 (oil on canvas, H. 60.3 cm; W. 99.9 cm.). University of Michigan Museum of Art, Acquired through the generosity of Mr. Russell B. Stearns (LS&A, 1916), and his wife, Andrée B. Stearns, Dedham, Mass., 1976/2.134.

to say that I vividly imagine feeling cold or that I feel cold in imagination. (This imaginative experience is, of course, not just an intellectual contemplation of the proposition that I feel cold.) In any case, I have feelings which are appropriately, if not literally, characterized as feelings of coldness.²³

So the tension of a passage of music and the coldness of *La Débâcle* are both, somehow, “in the work” and both are also, somehow, felt by the appreciator. The two cases seem to me to be significantly disanalogous, however, although the difference may not be as sharp as it appears at first to be. Briefly, viewers feel “cold” when they look at the painting because of the (represented) coldness in the painting. But it is because a passage of music makes listeners feel tense that there is tension in it. I recognize the cold scene, the ice on the water, etc., in *La Débâcle*. As a result, I shiver; I feel “cold.” But it is by virtue of the feelings of tension which certain passages of *Verklaerte Nacht* arouse in me that I attribute tension to them; I do not first recognize a portrayal of tension, to which I respond with tension of my own. There might easily be a painting representing a cold scene, which I recognize as such, even if it has no tendency at all to make me feel cold (the small reproduction of the Monet displayed above, for instance). But if a passage of music has no tendency at all to elicit in me anything like a feeling of tension, if I don’t hear it as something that might, under favorable

circumstances, make me feel tense, I would not, I think, be inclined to call it tense (in anything like the sense of “tense” that I am considering).

I said that the difference between these two examples may not be as sharp as it seems. It is possible that the colors of the painting, apart from what they represent, have some tendency to make me feel “cold.” And I don’t rule out that some suggestion of (represented) tension in the music is responsible for my feeling tense. To some extent, I suspect, the explanations go in both directions in both instances. Nevertheless, it is largely the feelings of tension the music produces in me that encourage and justify my attribution of tension to the music. And it is largely the other way around in the case of the cold painting. I might add that there is no reason to suppose that appreciators who feel cold or tense, and who attribute coldness or tension to the work, must be aware of which comes first, their feeling or their attribution, or aware that the explanation does or does not go in both directions.

IV. PROJECTIVISM

Santayana’s definition of beauty as “pleasure objectified” recalls David Hume’s observation that “the mind has a great propensity to spread itself on external objects,” and his characterization of *taste* as “gilding or staining . . . natural objects with the colors borrowed from internal sentiment.”²⁴ Contemporary incarnations of such views travel under the banner of “projection” or “projectivism.” Some have suggested that colors and other secondary qualities, or moral properties, are really just projections of features of our experiences onto the world.²⁵ Richard Wollheim gives an account of expressive properties of art in terms of a kind of projection.²⁶

Sydney Shoemaker confessed to being “in the uncomfortable position of finding [projectivism concerning secondary properties] both plausible and unintelligible.”²⁷ “The impression of unintelligibility derives, I believe, from the presumption that the properties of our experiences which we supposedly project onto external objects are ones that external objects could not possibly possess.”²⁸ “There is something profoundly unattractive about the view that there is something like a category mistake, the attribution to things of features they *could* not have, involved in the content of every sense experience.”²⁹

I do not find projectivism with respect to colors especially plausible. But I don’t find it exactly unintelligible either, at least not simply because it postulates systematic category mistakes in the intentional content of our experiences of the world. I mentioned Shoemaker’s suggestion that certain properties which, on reflection, we know to be relational (dyadic) are nevertheless experienced as being monadic. He also suggests that the relation

being to the right of is sometimes experienced as being dyadic and is naturally thought of as dyadic, although we realize on reflection that it is at least triadic. (x is to the right of y relative to z.)³⁰ This is a pervasive and systematic error in the content of our experiences, and the error is akin to a category mistake. There *is* no dyadic relation of being to the right of; hence, no pair of objects *could* exemplify this relation.

We have begun to see that listeners do experience music as being tense, even if the attribution (taken literally) is a category mistake. This seems rather different from the case of colors, however. For we arguably are perfectly aware of the mistake when we experience music as tense; we don't fool ourselves. If pushed we are likely to retreat to the idea that the music portrays or expresses or represents or suggests tension, or that the attribution is metaphorical. No such retreat is readily available in the case of colors. Perhaps we do fool ourselves into thinking that objects are colored, if projectivism about colors is right.

Richard Wollheim speaks of projecting one's sadness or melancholy onto the world or onto a work of art. This—what he calls *complex* projection—is not experiencing the object as being sad or melancholy in the sense that persons are sad or melancholy, however, so Wollheim avoids saddling experiences with category mistakes, or even with systematic error. It does involve experiencing the world as “of a piece with” one's emotion. Wollheim's notion of projection is very different from the one I will be developing. And the examples his is designed to deal with seem very unlike those I am interested in. For one thing, I will be concerned with properties of works of art other than expressive ones, where expression is assumed to be only of psychological states. Wollheim understands what he calls projection to be motivated by anxiety, a desire to rid oneself of the emotion, in the case of sadness or melancholy, or to sustain it, in the case of love. And he thinks that projecting one's melancholy or sadness helps to relieve one of it.³¹ None of this seems to me to be true, ordinarily, in the cases I have in mind. Finally, his examples seem not to involve anything like imaginatively occupying shoes other than one's own.

V. MENTAL SIMULATION

I switch gears now and consider, not our experiences of works of art, but our experiences of other people and the judgments we make about their mental lives. The hypothesis that people are targets of projection escapes the worries I have just been considering. Properties of my experience can be attributed to other subjects of experience without committing category mistakes. And such attributions may well be true.

It is well known that our own emotional or affective states play a vital role in our judgments about the mental states of others. Rather than simply perceiving that another person has certain thoughts or feelings, or inferring this from what I perceive, I go partly by my affective responses. I recognize someone's arrogance or pompousness partly by noticing the resentment or irritation I feel toward him. A person's aggressive manner shows itself in the defensiveness it arouses in me or in my feelings of intimidation. I come to understand how helpless someone is in part by noticing my tendency to nurture him or her. It would be a mistake, I believe, in the first two examples, to regard my resentment or irritation as nothing but a symptom of the person's arrogance or pompousness, as a clue which leads me to suspect arrogance or pompousness, which I then verify more directly by considering the specifics of his behavior. Arrogance and pompousness are response-dependent properties consisting (partly) in a propensity to produce irritation in others, just as being disgusting consists (perhaps entirely) in a propensity to elicit disgust. To be arrogant is, in part, to be *irritating*.

These are not instances of the "objectification" of one's feelings, or projection. It is not what one feels oneself—irritation—that one attributes to the other person, but something different—pompousness or arrogance. When we engage in what has been called *mental simulation*, however, we attribute psychological states to others on the basis of our experience of the same psychological states, or at least similar or corresponding or analogous ones. I put myself in your shoes, in imagination, and judge from how I feel or what I am inclined to do, as a result, that that is how you feel or what you are inclined to do. I shall be especially interested in emotional contagion, which is sometimes described—perhaps not aptly—as a primitive kind of mental simulation. I may "catch" a mood or feeling from another person, and thereby have reason to attribute it to her.

Simulation theory is controversial. One point of contention concerns whether the simulation theory collapses into its supposed rival, the theory theory. Some have claimed that to engage in simulation is itself to deploy a psychological theory, to utilize (tacit) knowledge of correlations between the observable circumstances and/or behavior of other people and their thoughts and feelings. For now, I will say just that if this is so, it does not make simulation superfluous. For simulation can then be understood as a special, distinctive way of accessing and utilizing one's psychological theory, and it behooves us to explore what is special about it.

Suppose I want to predict how someone will feel or what she is likely to do if she misses her plane, or suddenly comes across an intruder in her basement, or goes on a caving expedition for the first time, or is condemned to death by firing squad. According to the simulation hypothesis, I imagine myself in similar circumstances; I imagine missing my plane or discovering

an intruder in my basement, etc. I may also imagine having certain beliefs or desires or attitudes which I take the other person to have, if they are different from my own. I then find myself deciding on a course of action or experiencing certain feelings, in imagination, and I conclude that the other person will actually choose that course of action or experience those feelings. I thus project my (imagined) experience onto the other person.

Why should we have confidence in this procedure? What reason is there to suppose that the state I find myself in as a result of imaginatively occupying another's shoes is likely to be similar to, or a pretend version of, the state she is actually in? The usual answer is that my imaginative experiment activates psychological mechanisms in me which are fundamentally similar to those at work in the other person. These mechanisms operate on actual and pretend states in similar ways, so they can be expected to yield similar or corresponding results. In short (as some but not all simulation theorists put it), the process occurring in the simulator "models" that occurring in the simulatee.³²

A (successful) *simulation*, as I will use the term, is one in which not only the inputs and outputs of the simulator correspond to those of the person being simulated, but the processes linking them do as well. (I won't try to say in what respects or to what extent the two processes must correspond.) This is what is meant by "simulation" in much of the literature³³ (although some have called this *process* or *process driven* simulation, and distinguished it from other kinds of simulation in which the processes do not correspond).³⁴

The result of my imaginative experiment is usually not exactly the same as the state the target person is in, of course. My cognitive system operates "off line" or the output is taken "off line"—it is disconnected from its usual role in guiding behavior. If in simulating someone who confronts a burglar I find myself "deciding" to call 911, I don't actually pick up a telephone. And I suppose that the output of my simulation doesn't count as a genuine decision; it is merely in imagination that I decide to call 911.³⁵ But I attribute to the other person an actual decision and an actual action. Some outputs of simulations—typically ones with no essential connection to deliberate behavior—are not merely imagined or pretend states, however. On imagining confronting a burglar I might actually experience a sudden panicky feeling and break out in a cold sweat—and I may attribute this state to the target of my simulation.

If the shoes I actually occupy are enough like those of a person I want to understand, imagining may not be necessary. I might predict how others will experience a roller-coaster ride by actually trying it out myself. My simulation, in this case, is not an *imaginative* experiment; neither the inputs nor the outputs are pretend states.

VI. EXPRESSIVE BEHAVIOR

Simulation purports to account for our ability to ascertain another person's psychological states on the basis of the conditions that give rise to them. In the examples mentioned so far, the simulator begins by projecting himself into the other person's *circumstances*. But what about cases in which we judge another's mental states from her behavior? Do we engage in simulation in these instances?

We do not *merely* observe the behavior, in many such cases; frequently we behave in similar ways ourselves, or imagine doing so. The nearly universal tendency to mimic, more or less automatically, the expressive behavior of other people, their facial expressions, gestures, and bodily attitudes, has been well documented. *Motor mimicry*—responding to smiles with smiles and to frowns with frowns—is evident even in very young infants.³⁶ On seeing someone leaping with joy or strutting with pride, we may feel our muscles contracting as though we are leaping or strutting ourselves, even if we don't actually do so.

Reproducing in ourselves, either actually or imaginatively, expressive behavior that we observe in others surely plays an important role in coming to understand what they think and feel. Robert Gordon speaks of simulation in such cases. “[M]uch of the work of simulation appears to be carried out by rather superficial imitative mechanisms. An example is the automatic and often subliminal muscular mimicry of the bodily postures and especially the facial expressions of others, beginning with the infant's smiling response to smiles. Feedback from such ‘motor mimicry’ appears to be an important factor in the recognition of emotions in others.”³⁷ It is plausible that imagined or actual mimicry leads one to feel something like what the other person feels. To ascertain what feelings a person expresses by frolicking, prancing, strutting, swaggering, cavorting, or romping in a certain manner, I frolic, prance, strut, swagger, cavort, or romp in a similar manner (actually or in imagination), and note what I then feel.

When mimicry leading to feelings or moods or emotions like those of the person mimicked is sufficiently automatic and spontaneous, we speak of the feelings or moods or emotions being *contagious* or *infectious*. Nellie is fidgeting nervously. I find myself fidgeting and feeling nervous also, when in her company. Attending a party in which the mood is one of gay abandon, I am caught up in the spirit of the revelers. My own mood shifts to match theirs, and I too behave with gay abandon. My fidgeting is unwitting mimicry, motor mimicry, of Nellie's fidgeting, which results in my feeling nervous (actually feeling nervous, probably, in this case). I may then judge Nellie to be nervous. I am aware of her nervousness because she makes me nervous; her nervousness is evident to me by virtue of infecting me. In like

manner, I may discover that someone is calm or excited or gleeful or down in the dumps because I find myself, when in her company, infected with these feelings. The notion of emotional contagion will be important when we return to the topic of musical tension.

In my recent examples, as in the instances of simulation outlined earlier, I occupy the other person's shoes, or shoes like hers, and attribute to her what I then find myself feeling. The difference is that the "shoes" I occupy are not in a certain *location*, a certain *situation*, but rather are *moving* or *behaving* in certain ways, or *configured* in a certain way.

This is a big difference. How can simulation of this kind (if that is what it is) work if, as common sense has it, expressive behavior is caused by the mental states being expressed? If my psychological mechanisms are relevantly like yours, I might expect the same or corresponding inputs, causes, to lead to the same or corresponding outputs, effects. But there is no reason, in general, to expect that my psychological mechanisms will run backwards, taking as inputs the outputs of yours, and yielding as outputs the inputs of yours. So how can (actually or imaginatively) mimicking someone's expressive behavior be expected to reproduce in me feelings or emotions like those which *cause* his expressive behavior?³⁸

Some well-known psychological studies establish that, to some extent at least, behavioral manifestations of emotional states are causes rather than results of those states.³⁹ I am sure that there is *some* truth in the Jamesian idea that we are sad because we cry and afraid because we flee, rather than the other way around. (Bodily movements and facial expressions are the causes at least of the sensations of one's body moving or being fixed in the ways in question.) Insofar as the mental states of the people we aim to understand are results of their behavior, there is no special problem for the simulation theory. I do not think this is the whole story, however. Surely there are causal relations running in the other direction as well, from emotional experiences to expressive behavior. And I would be surprised if the mechanisms involved do not figure in something like simulations, or empathetic understanding, of others' mental lives.

Here is one way they might do so. The simulator might observe the behavior of the simulatee, and then try out various feelings or emotions, imagining experiencing each of them to see which one leads him to behave or be inclined to behave or imagine behaving in the manner the simulatee does.⁴⁰ I would expect the simulator to utilize something like a theory in choosing which hypotheses to test by simulation. Often, probably, simulation simply serves to confirm judgments made on the basis of one's theory. The confirmation is of course limited insofar as more than one kind of experience might result in the behavior in question.

VII. MEMORY

I believe that coming to understand others by imagining behaving as they do sometimes involves a very different mechanism. Consider this case: An experienced but intuitive table tennis player is asked which way one must slice one's paddle in hitting the ball, in order to make it curve to the left, or to the right. To answer, she might imagine moving her paddle to the right, and then find herself imagining seeing the ball curve to the left. So, she concludes, a slice to the right produces a curve to the left. Alternatively, she might start with the effect, imagining the ball curving to the left after it is hit, and then find herself imagining having sliced her paddle to the right when she hit it. The point of these imagining exercises may be to ascertain something about physical events. But they also enable the imaginer to make predictions about her or others' mental lives. In the first variant of the experiment, the imaginer predicts that if one hits the ball with a rightward slice, she will then see it curving left.

It is not by means of simulation (process simulation) that she arrives at this conclusion. The imaginer does not rely on the (off line) operation of the causal mechanisms which are at work in the actual case. Actually slicing one's paddle to the right, in a real game of table tennis, initiates a complex series of events involving air flow around the ball, friction, differential pressure, etc., resulting in the ball's curving left and in the player's seeing it curve left. Nothing at all like or analogous to this physical process occurs in the imaginer's mind. The causal mechanism whereby imagining hitting the ball leads to imagining seeing it curve involves, I would suppose, the activation of memory traces of the person's actual experiences playing table tennis on previous occasions. (She need not explicitly recall any particular experiences, of course.) Such memory traces come into play also, no doubt, when the imaginative experiment is run backwards, when the person first imagines the ball curving left, and then finds herself imagining having sliced it to the right. Memory traces have no place at all in the causal story whereby actually hitting a table tennis ball with a rightward slice produces a left-curving shot and a perception of a left-curving shot.⁴¹

Only someone who has played table tennis—only someone who has, in real life, sliced the ball to the right and seen it curve to the left and so possesses the required memory traces—can successfully carry out this imaginative experiment. (Well, having watched table tennis games, or conceivably having been told of them, might suffice.) But simulation can work, in principle, even if one has never experienced or heard of or thought about situations of the relevant kind. If you have never been spelunking and have never been in an elevator or closet or other closed space, and so have never experienced the slightest twinge of claustrophobia, you might nonetheless

test yourself for claustrophobia by simulating an adventure in a cave. You imagine squirming on your belly in a dark twisting passageway, your pack tied to a foot and dragging behind you because there isn't room to wear it on your back. You can expect to find yourself feeling uneasy, if you are susceptible to claustrophobia; you might even sweat profusely. At least I presume that you can expect this. You can if the imaginative experiment works by activating the "off line" operation of a causal mechanism, your propensity to feel claustrophobic, which is a permanent feature of your psyche and which would operate "on line" should you actually go on a spelunking expedition.

Although the table tennis player's imaginative experiment is not simulation as I am understanding it (process simulation), it mimics simulation in its outward form. The input for the experiment is an imagined experience, the experience of hitting the ball, which yields as output another imagined experience, that of seeing the ball curve. This sequence convinces the experimenter that an actual instance of the first experience would result in an actual instance of the second. The difference is that the causal process whereby the imagining of the one experience results in the imagining of the other is entirely unlike the causal process whereby the first experience would actually result in the second. Is the result of this experiment to be trusted? Are the two processes, the one involving memory traces and the very different real world one, likely to yield similar or corresponding results? It would seem so. But I have said nothing about why this should be so, or why we might expect it to be so. Some will hold that the imaginer relies on a tacit theory embodied in his memory traces. This depends, of course, on what is meant by tacitly possessing and using a theory. But the idea that the imaginative experiment is "theory driven" is less persuasive than it seems, for reasons I will sketch shortly.

It may well be that some or many of the standardly cited instances of (process) simulation are not such. Even if the relevant real world causal mechanism is entirely psychological—the mechanism whereby the experience of missing one's plane makes one upset, for instance—the imaginative experiment, which simulationists suppose to work by virtue of the off line operation of similar mechanism(s), may crucially involve something entirely different, the activation of memory traces, in whatever way the table tennis example does. In many cases it will be difficult to decide. There need be no phenomenological difference between the two kinds of experiments. If you imagine missing your plane and then find yourself being tremendously upset in imagination, there may be nothing in your experience to indicate whether memory traces which would not come into play should you really miss your plane play a role in your imaginative experiment. There will be mixed cases, no doubt, cases in which parts of the processes correspond and parts of them

do not, or cases in which genuine simulation runs alongside and is reinforced by a different causal process. This is a matter for empirical investigation, of course. My guess is that memory traces of some sort play an important role in just about all imaginative experiments of the kind we are considering and that there are few if any *pure* instances of mental (process) simulation. But I would guess, also, that there are many impure or partial instances, that the causal processes linking the inputs and outputs of imaginative experiments often correspond in significant measure to those linking the relevant real world experiences.

Others have recognized roles memory may play in simulations or empathetic experiences. Ian Ravenscroft thinks that memory may make simulation more likely by facilitating the causal process whereby the input of one's simulation leads to an empathetic response.⁴² The table tennis example shows that the role of memory may be to *replace* much of the causal process that occurs in the real situation with a very different one, hence disqualifying it as an instance of simulation (in his sense and mine). Shaun Nichols, et al., note that memories triggered by *beliefs* about another person's situation may contribute to one's empathetic emotional responses, and observe that "unlike off-line simulation, such information based accounts [of empathy] don't appeal to 'pretend' or deviant inputs."⁴³ I am urging that "pretend" inputs, imagining oneself in the other's shoes, may be what triggers the memories and leads to the emotion; merely believing or knowing what situation the other is in may not do the trick.

The role of memory traces in the experiment doesn't necessarily mean that the two processes are disanalogous. Memory traces might play a corresponding role in real life cases. When I actually miss a plane and am upset, memory traces of previous instances in which I or someone else missed planes—or trains or appointments—might be partly responsible.

We do not now have to be surprised by the fact that we sometimes come to understand others by imagining ourselves engaging in behavior or putting on facial expressions that result from their mental states. If these are not instances of simulation, they may be imaginative experiments informed by memory traces (either traces of memories of one's own expressions of mental states or of others'). If a person's kicking up her heels in a certain manner is an effect and not a cause of exuberance or glee, imagining kicking up one's heels in that manner, or actually doing so, may still (help to) cause one to experience something similar. And this may give observers reason to conclude that the person they observe is gleeful or exuberant. It doesn't matter for my purposes whether this is genuine (process) simulation. Let's call it an instance of *empathy*, whether or not the causal process in the observer corresponds to the one occurring in the other person.

Readers will have noticed an affinity between what I said about cases

in which memory traces are involved and Hume's account of inferences, based on the relation of cause and effect, to things not present to the senses or memory. "When an object appears, that resembles any cause in very considerable circumstances, the imagination naturally carries us to a lively conception of the usual effect." This is so because of a *custom* or *habit* acquired from past experience.

Now as we call every thing CUSTOM, which proceeds from a past repetition, without any new reasoning or conclusion, we may establish it as a certain truth, that all the belief which follows upon any present impression, is deriv'd solely from that origin. When we are accustom'd to see two impressions conjoin'd together, the appearance or idea of the one immediately carries us to the idea of the other.

Hume thinks we infer causes from effects as well as effects from causes in this manner.⁴⁴

VIII. CONTENT

As we have seen, there is a considerable variety of kinds of cases in which we learn about others by imaginatively or actually "occupying their shoes." But there are important similarities among them. In particular, what we learn contains a *demonstrative* element.⁴⁵ This is so whether or not the imaginative process corresponds to the real process, whether or not memory traces play a role in either process, whether we judge the other person's psychological state from circumstances that give rise to it or from behavior that results from it, and whether we engage in the imaginative experiment automatically or deliberately.

When I learn about Nellie's mental state by being infected by it, the content of my judgment is probably, in the first instance, something of the form: "She feels like (or something like) *this*," where "this" refers to an aspect of my own state of mind. We might put this by saying that I use my nervousness to represent Nellie's.⁴⁶ I may also—or I may not—find a predicate to characterize her state; I might describe her as nervous. But even if I do come up with a predicate, it is likely to be less specific than what I represent to myself about her using my own mental state; the predicate is likely to express only part of the intentional content of my judgement.

Of course, I have to pick out the aspect of my mental state which I use to represent the other person's. I see no reason to suppose that I must make use of a predicate in doing this; the respect(s) in which I judge her state to be like mine will come out in my dispositions to judge third persons, or myself at different times, to be in the same state. A predicate may be helpful,

however. I might say to myself, "She has *this* kind of nervousness" or "She is upset in this manner." Even so, the reference to my own state of mind is essential to the full specificity of the state I attribute to her. I may sometimes consciously modify my feeling's representation of the other person. Knowing that I have a greater tendency to panic than she does, or that she is more likely to enjoy uncertainty, I may say that she feels like *this*, *minus the panic*, or that she feels like *this*, *except that she enjoys it*. In any case, using my mental state to represent hers, I attribute to her a state which I probably cannot fully characterize by means of psychological predicates (or predicate-like expressions of a language of thought). And even if I do have a predicate that is exactly right, it need not figure in my representation of her state. My knowledge about her is, in this sense, nonconceptual.

This point holds generally for judgments of others based on simulation or empathy. If, imagining myself in the shoes of a person who misses his plane, I judge him to be upset, the content of my judgment, in the first instance, is that he feels (something) like *this*. I may or may not also declare him to be *upset*, using that or another predicate. Likewise for the table tennis case. One judges, in the first instance, that a ball hit with a slice to the right will travel in a way that looks like *this*. In all of these cases, I use my own mental state to represent another's.

The content of judgments of others based on an affective response that does not match their mental states may contain a demonstrative element of a different kind. If I detect a person's arrogance partly by means of my resentment toward him, my judgment is not: *This* is how he feels, where "this" refers to an aspect of my state of mind. But it may amount to: His feeling (attitude) is such as to elicit *this*.

The fact that, in my judgment about the other person, my state of mind serves to represent hers, seems to me to lessen considerably the attractiveness of the idea that in arriving at the judgment I must be utilizing a psychological theory—the idea that the simulation is (as some say) *theory driven*. Can it be said that I possess a concept of the property I attribute to her if I have nothing like a predicate for that property and no way of expressing it except via my own instantiation of it? I am not sure. But I see no reason to suppose that I must possess the concept before I experience the mental state in question. And if I lack the concept, how can I possess and utilize a theory involving it in the process by which I come to experience it? What I have, rather than a theory, is simply a capacity to be affected in a certain way, should I imagine being in shoes of a certain sort.

We are now in a position to make several further observations about emotional infection which will be important when we return to musical tension.

Emotional infection, automatic empathy, can occur without my making any judgment at all about the other person. One can empathize with some-

one without empathetically understanding him or her. When Nellie makes me nervous, I do not necessarily use my nervousness to represent her state of mind. I might feel nervous and be aware that I do, without having any idea what caused my nervousness. In that case I won't attribute nervousness to her.

It is also possible, however, that I should sense that Nellie is nervous without realizing how I sense that she is. I may not be aware that I am nervous, let alone that I caught my nervousness from her. (What is the content of my judgment about her, in that case? Try this: I *am* aware of what is in fact my nervousness, but I think of it as merely imagined nervousness, or as something like an "image" or a representation of nervousness. My nervousness, though I think of it in this way, is the referent of the "this" when I judge that Nellie feels like *this*.)

When I am infected by Nellie's nervousness, and my state of mind serves as a representation of hers, I probably not only make a *judgment* about her state of mind. I probably also *experience* her as being nervous. More specifically, I probably experience her as feeling (something) like *this*. Suppose, however, that although I am nervous and aware of my nervousness, I don't experience Nellie as responsible for my state. I might then learn in some other way that she is responsible—a perceptive friend whose judgment I trust might tell me, for instance. And I may infer that—*judge* that—Nellie feels like *this*. I am now using my state of nervousness to represent hers, but I don't *experience* her as feeling like *this*, or even as being nervous.

I would expect projectivists about color to make points analogous to at least some of what I have just said about the empathetic detection of Nellie's nervousness. If in seeing a stop sign as red one is projecting the color of one's experience onto the stop sign, the intentional content of the experience will be, in the first instance: "The sign is *this* color," where "this" refers to the color of one's experience. If I have what seems to me to be an after image, but which is actually a perception of a stop sign, my *experience* will not have the content "That stop sign has *this* color." But if my eye doctor sets me straight, I may then *judge* that the stop sign looks like *this*. There remains the fact that, according to the projectivist, my experience as of the stop sign being red is in error—it does not possess that property. My experience as of Nellie's being nervous may, of course, be correct.

IX. EMPATHIZING WITH THINGS

I have been discussing simulation of and empathy with other people, other sentient beings. Let's look at responses to inanimate things, like works of

art. Some works of art contain characters, fictional sentient beings, and we often respond to them, empathize with or simulate them, in much the way we do actual people. But what about our responses to the works themselves?

Mental simulation is not always simulation with someone, and empathy does not always have a sentient being as its object.⁴⁷ My bones ache, sometimes, at least in imagination, when I observe an especially uncomfortable looking chair. I expect that this is because I imagine sitting in the chair, and imagining this makes me feel something like the discomfort that actually sitting in it would involve. (The imagining probably occurs spontaneously, and I may be unaware of it.) But there is no person whom I simulate or empathize with. I imagine myself in a situation I am not actually in, but not one I understand anyone else to be in. There is no need to suppose even that I imagine another person sitting in the chair or recognize a fictitious person there and feel with him. The shoes that I imaginatively occupy are not those of anyone else. (This example is much like that of Monet's winter scene.)

In other cases I imagine being in a situation that is occupied by something, but not by a person. I may empathize with a column supporting a building, imagine being in its "shoes." I feel or imagine feeling the weight of the building on my shoulders, experiencing intense kinaesthetic sensations as I strain under the load. But I am not responding to what I recognize as another sentient or feeling person. I can, if I set my mind to it, personify the column, think of it as sentient and imagine its feeling the weight of the building, as I feel that weight myself in imagination. But I don't have to regard the column with an anthropomorphic eye in order to enjoy the empathetic experience I described. My imagining being in the situation a column is in suffices to explain my (imagined) kinaesthetic feelings; there is no need to imagine the column experiencing such feelings.

Simulation or empathy based on something like expressive behavior, an experience that begins with my imagining (or actually engaging in) expressive behavior, need not be a response to a person or to something I think of or imagine as a person. Certainly infants who mimic smiles at the tender age of several hours are not responding to what they understand to be other sentient individuals. I may find myself swaying with a tree blowing in the breeze, or leaning to one side as I observe the Tower of Pisa. There is something like motor mimicry going on in these cases, and I may feel unsettled or unstable, or "diagonally inclined." But I probably am not entertaining anything like the thought that the tree or the tower experiences feelings or sensations.

These examples are obviously much like instances of "infectious" emotions or "emotional contagion." But these terms would be misnomers, since the emotion (or feeling or sensation) I experience does not derive from any-

one else's experience of a similar one. And when we are infected by the actual emotions of others, being infected does not necessarily involve being aware of the people whose emotions infect us—being aware of them as people. Perception of the motion of their bodies, thought of as mere physical events, may initiate motor mimicry on my part and infect me with the feelings in question.

Our empathetic responses to inanimate objects are often grounds for attributing properties to them. And there may be something like projecting features of one's experience onto inanimate objects. Imagining myself in the "shoes" of a column may help me to appreciate the forces acting on it, the stresses and strains it undergoes. That a building is stable, or off balance, or likely to topple over, may become evident to me when I respond empathetically to it. I imagine being in the position or attitude or situation the building is in. I then find myself imagining experiencing kinaesthetic sensations indicating that my body is (for instance) about to topple over. As a result, I have the impression that the building I am looking at is about to topple over; I experience it as being in that condition. This is a rough and dirty method of understanding our physical environment, one that can easily give mistaken results. But it is often useful in making the condition of our fellow material objects vivid and obvious to us.⁴⁸

If we speak of projection, here, we must do so with care. It is not features of my experience which I project onto the object, but rather properties my experience represents my body as possessing. My experience is as of the building's being (not feeling) like *this*, where "this" refers not to the way I feel but to what state I feel my body to be in.

There is something more like the projection of features of experience, psychological properties, onto physical objects or inanimate environments than this, however. To explain what I mean, and to get us back to a consideration of musical tension, it will be helpful to consider ways in which a picture may depict a person's mental states, and the ways viewers ascertain what the person in the picture is feeling or thinking.

X. EMPATHY IN THE SERVICE OF REPRESENTATION

The obvious way to depict a person's inner life is by means of his behavior or posture or facial expressions. A picture may portray someone as feeling tense or nervous by portraying him as fidgeting nervously. Viewers might simply infer from the fidgeting, using a bit of psychological theory, that the character is nervous (that this is so in the world of the picture). But as with actual people, the nervousness may be infectious. The character's (depicted)

fidgiting may make viewers nervous, and thereby make it seem to them that he is nervous. They may experience him as experiencing feelings like their own, as being nervous. Experiencing him this way does not, of course, require that the viewer notice what it is about his depicted manner or demeanor that reveals his nervousness.

What produces the affect in a spectator, what makes her nervous, need not be the character's fidgiting or any other properties he is represented as possessing. Features of the work itself, considered nonrepresentationally, may do the job. I believe that this is true of one of Van Gogh's self-portraits



Fig. 2. Vincent Van Gogh. Self-Portrait (RF 1949-17). Courtesy Musée d'Orsay.

(fig. 2). *Something* about this painting makes me feel, if not nervous, at least somewhat uneasy or tense. On reflection, it seems to me that it is not, primarily, aspects of the sitter's (depicted) facial expression or bearing or anything else about him that has this effect, but rather features of the paint on the canvas: the busy brushwork in the background and on the jacket, the chopiness of the strokes on the face and beard. But I *think* of my affective response as an empathetic response to the person in the picture—and I believe this is the expected and proper way to think of it. I think of Van Gogh, the sitter, as infecting me with uneasiness or nervousness, and so I ascribe uneasiness or nervousness to him; I judge that (in the world of the picture) Van Gogh is uneasy or nervous.

The painting makes it fictional that Van Gogh is uneasy, but not by generating fictional truths about his appearance or facial expressions or demeanor. Features of the picture that seem not to generate any fictional truths directly, and certainly none about the sitter's appearance, serve indirectly to generate fictional truths about his state of mind. They do so by virtue of their infecting the viewer with uneasiness. (I take it to be fictional, true in the picture-world, that Van Gogh is manifesting his uneasiness, *somehow*, in his manner or demeanor, although it is indeterminate how exactly he is doing this. And it is fictional in my game world, it is part of what I imagine, that something or other in his manner or demeanor is responsible for my uneasiness but that I don't notice what it is.)

Similar examples are perhaps more obvious in the case of film music. It is well known that background music can affect how we understand the characters and events depicted on the screen. The music can color our perception of the states of mind and personalities of characters, encouraging us to regard them as sinister or vapid or terrified or determined or blasé or panicked.⁴⁹ The mechanism by which this happens, I believe, often parallels exactly the story I have just told about the Van Gogh self-portrait. The music arouses in us certain feelings or sensations. Imagining ourselves to have been infected by the characters we see on the screen, we ascribe similar feelings to them.

Now consider brushwork or qualities of line, shape, and color like to those in the Van Gogh self-portrait, but in a non-figurative painting, a painting which does not depict a person or anything else. Such a work may set in motion a process like that of simulation or empathy, activating, I would guess, the same psychological mechanisms that we habitually use in understanding other people, although in this case there is no person (actual or fictional) to be the target.

The same may be true of film music without the film, or music that never was attached to a film. Consider what we might call *nervous* music, used as background in a film. And suppose that this music induces us, in the

manner I just described, to attribute nervousness to a character on the screen. We feel nervous and have the impression of being infected by the character's nervousness. We thus experience him as feeling as we do, and we conclude that (in the world of the film) he is nervous. If I hear the music alone, without the film, it is likely to produce much the same affect in me, something like nervousness, and I am likely to experience my nervousness as an infection from outside. Since I don't experience or identify any sentient being as the source of my infection, my experience is not as of *so-and-so's* being nervous, or as of *that person's* being nervous.⁵⁰ But I do, all the same, feel as though I am in the company of one or more nervous people, even though I don't (even in imagination) pick out or identify any such person. I suggest describing this experience as an experience as of there being someone or other who is nervous.

Where, according to my experience, is there a nervous person or persons? Well, I suppose the answer is "in the music"—*somewhere* in there. For it is the music that I experience as infecting me with nervousness. Let this count as a kind of projection of my nervousness onto the music. It explains, in any case, the naturalness of describing the music as nervous, and it makes recognizing "nervousness" in music very much like recognizing nervousness in people.

The projection is technically in error; the music is not literally nervous, as I am, and to say that it is would be a category mistake. But of course in describing it as nervous, we don't mean, literally, that it possesses the mental state of being nervous. The property we do attribute seriously to the music is something like the property of being apt to produce in listeners an experience as of there being someone or something who is infectiously nervous.

The listener's experience does not amount to recognizing a fictional character or characters in the music, infectiously nervous one(s), nor as personifying some of the sounds one hears, thinking of them as persons. I can't, in my imaginative experience, identify who it is who infected me, not even as "the person who makes me feel nervous." For the source of an emotional infection in real life can be a group of people, as well as a single person. A nervous crowd may make me nervous, and it may do so even if no individual member of it alone does. Indeed, a crowd may be nervous even if none of its members are. If a crowd is responsible, there will be no such thing as *the* person who infected me with nervousness. And there is no way to tell from the infection itself, simply from my feelings of nervousness together with the impression that it is an infection from without, whether a crowd or an individual is responsible. So the infection doesn't enable me to identify any particular person or group of people. Unless I make such an identification by sight or by some other means, my experience will not be as of *so-and-so's* being nervous, or as of *that person's* being nervous, but merely

as of there being someone or other, one or more person or persons or groups of persons, who is/are nervous.

Music induces emotional infection, often, without any indication of an otherwise identifiable person. So I have an (imaginative) experience as of there merely being one or more nervous Nellie's or nervous crowds around. Since I use my own nervousness to represent the state I experience myself being infected by, I can characterize my experience as one of there being one or more persons (or groups) around, who are in *this* state, the state I am in.

XI. MUSICAL TENSION AGAIN

The reader will have anticipated that what I have said about nervous music is close to what I want to say about musical tension. I suppose that nervousness in music is one kind of musical tension. But several wrinkles remain.

The tension I feel when, in real life, I empathize with a tense person may be indistinguishable from the tension I feel when I empathize with a bent bow, a stretched cable, or a compressed column. Imagining myself in the situation the person or inanimate object is in, or mimicking its "behavior" or "bearing" or "demeanor," I feel tense. Ordinarily I also see what is infecting me and identify it as sentient or as inanimate. But the difference is probably not evident from the infection itself, from my feeling of tension. Tense music infects me with tension, but the music is likely not to suggest, at all clearly, either a tense person as opposed to a tense inanimate object or the reverse. So my experience is simply as of there being tension, there being one or more things or persons or groups of persons which or who, is or are, tense. Or rather, it is an experience as of there being something or someone or other, or several such, that/who is/are in this state—the state I am in. *Musical tension* is the property of being apt to elicit an experience of this kind.

Enjoying the experience I described is a far cry from recognizing a *persona*, a fictitious tense person, in the music. Nevertheless, tense music will have to be significantly humanlike, one might suppose, if musical tension is to be understood along the lines I am suggesting. For it may seem that music can infect human listeners with tension only if it resembles the behavior or bearing or gestures typical of tense people, even if listeners need not think of or experience it as being sentient or as containing a person. Emotional contagion or infection may appear to occur primarily as a result of motor mimicry.⁵¹ Mimicking an infectiously exuberant or anxious person, I behave or imagine behaving as though I am exuberant or anxious, and this tends to make me exuberant or anxious. Only if music "behaves" as tense

humans do will our mimicking it amount to behaving as though we are tense.

Some tense music does “behave” more or less as tense people do; rhythmically tense music often does. Perhaps most nervous music is recognizably like nervous humans. (Many recent accounts of musical expression rely heavily on supposed resemblances between music and human expressive behavior.)⁵² But it is not easy to see how dissonant harmonies or dense textures or tense-making formal and tonal characteristics can be nontrivially similar to the body language of tense people. And it hardly seems that such features of music provoke anything like motor mimicry in listeners. I wouldn’t know how to go about mimicking, with my body, the overlapping of durational segmentation and tonal segmentation which Carl Schachter holds responsible for tension in the opening eight measures of Mozart’s Piano Sonata K. 457.⁵³

Nevertheless, it seems obvious to me that musical tension deriving from dissonant harmonies or dense textures or Schachter’s overlapping segmentations is infectious; it tends to make listeners tense. Are there subtle resemblances of some sort, even if we can’t put our finger on them, and something like motor mimicry? Perhaps in some cases, but probably not in all. I do not think that emotional infection or contagion must involve motor mimicry or that it must rely on behavioral similarities.

Consider our experiences of friends in the animal kingdom, and judgments we make about their mental lives. (The shameless armchair psychology to follow is meant to engage the reader’s intuitions, not to be conclusive.) Cats purr and dogs wag their tails. In so doing, they express or exhibit attitudes or feelings or moods—at least we think they do. Purring cats are comfortable and contented; tail-wagging dogs are excited, joyful, eager to please. These are familiar if rather unspecific human states of mind, ones we often experience ourselves and recognize in other people. But purring and tail wagging are anything but human ways of expressing these states of mind; people do nothing of the sort when they are contented or excited or joyful. Yet observers familiar with the ways of dogs and cats would seem to recognize contentment, excitement, and joy in them just as immediately and automatically, and just as certainly, as they do in fellow human beings.

The theory theorist will say that this familiarity amounts to possession of a rudimentary theory of feline or canine psychology, which we call upon in order to identify Fido’s or Kitty’s mental states. Certainly it is implausible to suppose that we *simulate* Fido when he shows us his excitement by wagging his tail. (Simulation might be involved when we judge Fido to be excited because he hasn’t seen his beloved master all day.) But it seems to me that our understanding of dogs and cats may be much like empathetic

apprehension of the mental states of other people. We respond affectively to dogs and cats, obviously. And we often *share* their feelings, feel *with* them. We experience (something like) contentment or excitement, or anxiety or fear, when they do. It is possible that we first identify the mental states of our feline or canine friends and then respond empathetically with a like state. But I am inclined to think that, as in the case of humans, the empathetic response often comes first; we identify or recognize Fido's excitement or Kitty's contentment because we experience something like it ourselves, because it infects us. And we use our affective states to represent theirs; we judge Fido or Kitty to feel like *this*. Emotions or moods are sometimes contagious across species. Our susceptibility to infection from animals, as well as from people, is a form of sensitivity to their states of mind.

Emotional contagion triggered by purring or tail wagging does not involve motor mimicry; the infected person surely does not reproduce the purring or tail-wagging in herself, not even imaginatively. Memory—memory traces of experiences with cats and dogs whose purring or tail wagging coincided with contentment or excitement as evidenced by other, more humanlike behaviors—has a role in the process, no doubt. This shouldn't be a surprise if memory plays the roles I think it does in some of our previous examples.

If I am right about cats and dogs, there is no need to suppose that infectious tense music must resemble people. Listeners may be infected without recognizing any approximation of human behavior in the music, and without engaging in motor mimicry. The listener may respond physically to the tension in the music nonetheless, exhibiting her tension in her *own* characteristic ways—by tapping her fingers and clenching her fists, for instance, not by doing anything like modulating to a distant key or becoming harmonically dissonant or acquiring a dense texture.

Dogs and cats can lead us astray. It would be misleading to say that, just as there are distinctively canine or feline ways of expressing or exhibiting excitement or contentment, there are distinctively musical ways of expressing or exhibiting tension. Listeners do not experience tense music as a bizarre creature expressing feelings of tension by means of dissonant harmonies, dense musical textures, and modulations to new keys, or as presenting or representing such a creature. Neither do listeners hear in the music peculiar inanimate objects that exhibit physical tension by these means, or things possessing indeterminately psychological-or-physical tension exhibited or expressed thus. Dissonant harmonies, dense musical textures, and modulations to new keys needn't be understood to be or to represent behavioral or physical manifestations of tension at all. Like the brushwork in Van Gogh's self-portrait, they work simply by producing in appreciators an experience of tension felt as an infection from without.⁵⁴

Unlike Van Gogh's self-portrait, tense music need not represent an identifiable (fictional) possessor of tension, let alone a person who feels tense. Tense music can easily be made to represent some such thing or person, however. A text or title, or just an appropriate context or tradition in a musical culture may do the trick. Some kinds of tense music are easily taken to represent a person's expressing feelings of tension in specific (human) ways, or something's exhibiting physical tension in a particular identifiable manner, although in many cases it will be indeterminate how, in the musical fiction, the tension is manifested. But any such representation requires an imaginative understanding of the music that goes beyond perceiving, and feeling, its musical tension. Musical tension and relaxation—their many varieties and many relatives—contribute enormously to the representational functions music often serves. They have a lot to do with music's expression of emotions as well, whatever this expression consists in. But these are optional layers of "meaning" built on top of such fundamental properties as those of musical tension and relaxation. It is important to realize how much there is to music, how much there is of what is moving about it, in several senses, quite apart from any of the usually recognized kinds of representational or expressive qualities.

NOTES

1. This paper grew out of a talk presented at the University of Virginia in 1995, and on several other occasions, including the conference on Self, Mind and Knowledge in honor of Sydney Shoemaker, at Cornell University. Thanks to the various audiences, and to Marion Guck, Fred Maus, Andrew Mead, Susan Pratt Walton, and especially David Hills. Thanks also to Sydney Shoemaker, whose perceptive and patient mentoring many years ago has guided my philosophical reflections ever since.
2. Nelson Goodman, *Languages of Art* (Indianapolis: Bobbs-Merrill, 1968), 243.
3. The present paper revises some of my claims in "Spelunking, Simulation, and Slime: On Being Moved by Fiction," in *Emotion and the Arts*, ed. Mette Hjort and Sue Laver (New York: Oxford University Press, 1997), 37–49. I no longer think that what I call "participation in make-believe" is, in general, a form of mental simulation, if "mental simulation" is understood as it usually is, i.e., as process simulation (*ibid.*, 38).
4. See, for examples Carolyn Abbate, *Unsung Voices: Opera and Musical Narrative in the Nineteenth Century* (Princeton: Princeton University Press, 1991); Edward T. Cone, *The Composer's Voice* (Berkeley: University of California Press, 1974); Stephen Davies, *Musical Meaning and Expression* (Ithaca, N.Y.: Cornell University Press, 1994), 367–69; Jerrold Levinson, "Musical Expressiveness," in *The Pleasures of Aesthetics* (Ithaca, N.Y.: Cornell University Press, 1996), 90–125; Fred Maus, "Music As Drama," *Music Theory Spectrum* 10 (1988): 56–73; Aaron Ridley, *Music, Value and the Passions* (Ithaca, N.Y.: Cornell University Press, 1995).
5. Roger Sessions, *Harmonic Practice* (New York: Harcourt, Brace, and World, 1951), 84.
6. Victor Zuckerkandl, *Sound and Symbol: Music and the External World*, trans. Willard R. Trask (Princeton: Princeton University Press, 1956), 372.
7. Fred Lerdahl and Ray Jackendoff, *A Generative Theory of Tonal Music* (Cambridge, Mass.: MIT Press, 1983), 179, 285. In a psychological study, Carol Krumhansl asked

subjects listening to a Mozart sonata “to indicate the amount of tension heard at each point throughout the piece”—presupposing that there is, at every point in the music, a degree of tension or relaxation (Krumhansl, “A Perceptual Analysis of Mozart’s Piano Sonata K. 282: Segmentation, Tension, and Musical Ideas,” *Music Perception* 13 [3] [1996]: 411).

8. Cf. A. Anderson Sutton, *Variations in Central Javanese Gamelan Music: Dynamics of a Steady State* (De Kalb, Ill.: Northern Illinois University, Center for Southeast Asian Studies, 1993), esp. 3–7, 164–65, 194–95, 199–201.
9. Sumarsam, Internet posting, June 9, 1998. He continues:

Even in kendhangan [drumming patterns], say the kendhangan kalih style of ladrang composition, you can feel the tension gradually rises, starting in the beginning of the third kenongan [the third of four phrases in the ladrang form]; [the] drumming pattern toward the last kempul [a medium sized gong which sounds at the middle of the fourth phrase] is the peak of the tension, and then resolution toward GONG. Kethuk salahan [an especially elaborate pattern played by a small gong, the kethuk], if it is played, helps to call the attention of the ensemble that the GONG is about to come.

10. Wallace Berry accepts the premise that “no change distinguishing contiguous sound events can be neutral with respect to intensity. Thus, pitch change, however slight, is suggestive of modification in the degree of intensity, as are any and all changes in tonal reference, harmonic content, rhythmic activity, textural complexity and quantity, metric structure, and coloration” (Berry, *Structural Functions in Music* [Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1976], 9–10).
11. Cf. the final movement of Beethoven’s Fourth Symphony, for instance. Also, the relentless driving rhythm of Sampak, Javanese gamelan music used to accompany fight scenes in shadow puppet performances.
12. In the Presto movement of the “Summer” concerto of Vivaldi’s *The Four Seasons*, for example. Contrast the sustained accompaniment in the Adagio Molto of “Autumn.”
13. Mark Johnston, “How to Speak of the Colors,” *Readings on Color: The Philosophy of Color*, ed. Alex Byrne and David R. Hilbert (Cambridge, Mass.: MIT Press, 1997), 141. See also 175.
14. Sydney Shoemaker, “Phenomenal Character,” 234–40.
15. Anthony Newcomb, contribution to American Musicological Society symposium entitled “Listening with Imagination,” New York, 1995.
16. This seems to be Jenefer Robinson’s position. See her “The Expression and Arousal of Emotion in Music,” *Journal of Aesthetics and Art Criticism* 52 (1) (1994): 19. Some speak of tension in music as a metaphor. See, for example, Krumhansl, “A Perceptual Analysis,” 427, cf. 429. To “embody” tension might be understood to mean being tense metaphorically.
17. Lerdahl and Jackendoff, *A Generative Theory*, 123.
18. See Fred Lerdahl, “Calculating Tonal Tension,” *Music Perception* 13 (3) (1996): 361, and his references to S. Larson.
19. Richard Wollheim mentions turbulence as something that may be an object of expression. Yet he “concur[s] with the traditional requirement that what is expressed is invariably a mental or psychological phenomenon” (*Painting As an Art* [Princeton: Princeton University Press, 1987], 80).
20. The output of a simulation may be either actual or pretend states. See Walton, “Spelunking, Simulation, and Slime,” 37–49.
21. “And those thin clouds above . . . /Those stars . . . /Yon crescent moon . . . /I see them all so excellently fair, /I see, not feel, how beautiful they are!” (Samuel Taylor Coleridge, *Dejection: An Ode*).

22. Jenefer Robinson rightly emphasizes the tendency of music to make listeners feel tense or relaxed, and its capacity to disturb, unsettle, startle, excite, calm, and soothe: "The expression of a feeling by music can sometimes be explained straightforwardly in terms of the arousal of that feeling" (Robinson, "Expression and Arousal of Emotion," 19). Stephen Davies objects to "her suggestion that the tension, and so forth, of music consists in its power to arouse a corresponding automatic response in the listener," claiming instead that "the relevant properties are of the music," that they are "possessed not as causal powers but intrinsically" (Davies, *Musical Meaning*, 104–5). Each of them is, in my view, partly right and partly wrong. Musical tension consists partly in a power to evoke tension in listeners, but only partly; it is also an intrinsic property of the music. Aaron Ridley gives an account of expression in music which is more like my account of musical tension. To perceive "melismatic" qualities of music as expressive is to respond sympathetically to them. See Ridley, *Music, Value and the Passions*, 138.
23. *La Débâcle* might have the opposite effect on viewers from northern climes.
24. David Hume, *A Treatise of Human Nature*, ed. L. A. Selby-Bigge, 2d ed. (Oxford: Oxford University Press, 1888/1978), bk. I, pt. III, section XIV.
25. Paul A. Boghossian and J. David Velleman, "Colour As a Secondary Quality," *Mind* 98 (1989): 81–103.
26. Wollheim, *Painting As an Art*, and Wollheim, "Correspondence, Projective Properties, and Expression in the Arts," *The Mind and Its Depths* (Cambridge, Mass.: Harvard University Press, 1993), 144–58. Roger Scruton toys with (but essentially rejects) the idea that listeners transfer their own experiences of movement and passion to the music. "Understanding Music," in Scruton, *Art and Imagination* (London: Methuen, 1974), 94–99.
27. Sydney Shoemaker. *The First-Person Perspective and Other Essays* (Cambridge: Cambridge University Press, 1996), 139n.
28. *Ibid.*, 250.
29. Cf. *Ibid.*, 102.
30. Sydney Shoemaker. "Phenomenal Character," 234.
31. Wollheim, *Painting As an Art*, 82, 84; Wollheim, "Correspondence, Projective Properties, and Expression," 151.
32. "We call upon our similarity to other people, in particular the similar functioning of our minds" (Gary Fuller, "Simulation and Psychological Concepts," in *Mental Simulation*, ed. Martin Davies and Tony Stone [Oxford: Blackwell, 1995], 21). See Jane Heal, "Simulation and Cognitive Penetrability," *Mind and Language* 11 (1) (1996): 47; and Alvin Goldman, "Empathy, Mind, and Morals," in *Mental Simulation*, ed. Davies and Stone, 189. Robert Gordon denies that the simulator uses himself as a model. See his "The Simulation Theory: Objections and Misconceptions," *Folk Psychology*, ed. Martin Davies and Tony Stone (Oxford: Blackwell, 1995), 114–20.
33. Gregory Currie, "Imagination and Simulation: Aesthetics Meets Cognitive Science," in *Mental Simulation*, ed. Davies and Stone, 159–60; Susan L. Feagin, *Reading With Feeling* (Ithaca, N.Y.: Cornell University Press, 1996), 84–87; Ian Ravenscroft, "What Is It Like to Be Someone Else?" *Ratio* 2 (11) (1998): 177, 183.
34. Alvin Goldman, "Interpretation Psychologized," in *Folk Psychology*, ed. Davies and Stone, 85.
35. "The output state should be viewed as a pretend or surrogate state, since presumably a simulator doesn't feel the very same affect or emotion as a real agent would" (Goldman, "Empathy, Mind, and Morals," 189).
36. A. N. Meltzoff and A. K. Moore, "Imitation of Facial and Manual Gestures by Human Neonates," *Science* 198 (1977): 75–78; A. N. Meltzoff and A. K. Moore, "Newborn Infants Imitate Adult Facial Gestures," *Child Development* 54(1983): 702–9; Janet Beavin Bavalas, Alex Black, Charles R Lemery, and Jennifer Mullett, "Motor Mimicry as Primitive Empathy," in *Empathy and Its Development*, ed. N. Eisenberg and J. Strayer (Cambridge: Cambridge University Press, 1987), 317–38.

37. Robert Gordon, "The Simulation Theory," 113. Gordon continues: "Other imitative mechanisms would seem to play an important role in ascribing content to the other's expressive behavior. One such mechanism is mimicry of perceptual orientation, especially gaze mimicry. . . ." So, by mimicking another's gaze, I learn what the content of her perceptual experience is. This is ascertaining the other's mental state on the basis of its cause, the circumstances—looking in a certain direction in a certain situation—which give rise to it. It is thus importantly different from the mimicry of a person's bodily postures, etc., which figures in our attribution to her of the mental states those postures express.
38. If the simulator's and simulatee's causal processes do run in opposite directions, we won't have an instance of (process) simulation.
39. Cf. Paul Ekman, "Facial Expressions: New Findings, New Questions," *Psychological Science* 3 (1992): 34–38; Paul Ekman and R. J. Davidson, "Voluntary Smiling Changes Regional Brain Activity," *Psychological Science* 4 (1993): 42–45; and Pamela K. Adelman and R. B. Zajonc, "Facial Efference and the Experience of Emotion," *Annual Review of Psychology* 40 (1989): 249–80. See Stephen Darwall, "Empathy, Sympathy, Care," *Philosophical Studies* 89 (1989): 265.
40. Both Gordon and Goldman have suggested approximately this: Gordon, "Folk Psychology As Simulation," in *Folk Psychology*, ed. Davies and Stone, 64–66; Goldman, "Interpretation Psychologized," 82. See also Stephen Stich and Shaun Nichols, "Folk Psychology: Simulation or Tacit Theory," in *Folk Psychology*, ed. Davies and Stone, 129–32.
41. The table tennis example is much like that of ascertaining the number of windows in one's house by counting them in imagination. As Stich and Nichols observe, the latter is not an instance of off-line (process) simulation. See Stich and Nichols, "Folk Psychology," 140.
42. Ravenscroft, "What Is It Like."
43. Shaun Nichols, et al., "Varieties of Off-Line Simulation," in *Theories of Theories of Mind*, ed. Peter Carruthers and Peter K. Smith, (Cambridge: Cambridge University Press, 1996), 61.
44. Hume, *A Treatise of Human Nature*, bk. I, pt. III. section XIII; bk. I, pt. III. section VIII; bk. I, pt. III. section II, section VI.
45. I am here developing a suggestion made by Jane Heal. See Jane Heal, "How to Think About Thinking," in *Mental Simulation*, ed. Davies and Stone, 33–52.
46. David Hills suggested putting it this way. If I experience only in imagination the feeling I attribute to her, then "this" refers not to what I actually feel but to what I imagine feeling, what I feel in imagination.
47. "Empathy," like the German "Einfühlung," which it translates, was originally used to characterize experiences of inanimate objects, as well as experiences of other people. See Theodor Lipps, "Einfühlung, Inner Nachahmung, und Organempfindungen," *Archiv für die Gesamte Psychologie* 2 (1903): 185–204; Vernon Lee, "Empathy," in Lee, *The Beautiful* (Cambridge: Cambridge University Press, 1913).
48. This point is nicely illustrated in a children's book, Forrest Wilson, *What It Feels Like to Be a Building* (Washington, D.C.: Preservation Press, 1988). "Everyone can understand buildings. . . . Buildings feel the same stresses and strains that people do. For this reason you can put yourself in a building's place. When you feel what it feels like to be a building, you can talk to buildings and they will talk to you in building body language. . . . PUSH or PULL or SQUASH SQUEEZE DROOP TUG BEND or BRACE, that's what it feels like to be a building!"
49. See Kendall L. Walton, *Mimesis As Make-Believe: On the Foundations of the Representational Arts* (Cambridge, Mass.: Harvard University Press, 1990), 172, 334. Jerrold Levinson sketches some examples which are nicely understood in this manner. See Levinson, "Film Music and Narrative Agency," in *Post-Theory: Reconstructing Film*

Studies, ed. David Bordwell and Noël Carroll (Madison: University of Wisconsin Press, 1996), 248–82, at 260–63. .

50. To avoid quantification over fictional characters, put it this way: I don't, in imagination, identify a person and experience him/her as being nervous.
51. "How, then, does emotional contagion work? A central mechanism seems to be mimicry" (Darwall, "Empathy, Sympathy, Care," 265).
52. Cf. Davies, *Musical Meaning*; Peter Kivy, *The Corded Shell: Reflections on Musical Expression* (Princeton: Princeton University Press, 1980); Ridley, *Music, Value and the Passions*.
53. Carl Schachter, "Rhythm and Linear Analysis: A Preliminary Study," in *The Music Forum, Vol. IV*, ed. Felix Salzer (New York: Columbia University Press, 1976), 330–34.
54. R. K. Elliott proposed that we sometimes hear music as if it is an expression of emotion, but a "mode of expression sui generis" (R. K. Elliott, "Aesthetic Theory and the Experience of Art," in *Aesthetics*, ed. Harold Osborne [Oxford: Oxford University Press, 1972], 152. Cf. also Malcolm Budd, *Music and the Emotions* [Boston: Routledge and Kegan Paul, 1985], 134; and Jerrold Levinson, "Film Music.") This awkward suggestion is attractive only on the assumption, which I reject, that it must be by presenting behavioral manifestations of emotion that music expresses them.