Lucky Artists
Christopher Prodoehl

Abstract. Imagine that a painter, by applying paint to canvas with a brush or wedge, creates a valuable new work. How responsible is she for her new work’s value? I argue that, given the nature of intentional action and the way aesthetic properties are realized by nonaesthetic properties, luck has a lot to do with it. The painter, then, is less praiseworthy than we might think for her work’s value. I go on to challenge this argument by developing an account of a novel type of control that artists exercise over their bodily activity, which I call receptive control. Receptive control is different from intentional control. When artists exercise receptive control, they influence bodily activity via distinctively non-practical uses of attention and imagination. By combining receptive and intentional control of bodily activity, artists can reduce the role that luck plays in explaining the value of their work.

Imagine that a painter creates a new work with a brush or wedge in more or less the usual way, applying paint to canvas. She paints a few circles here and there in primary colors. And imagine the finished work is valuable, by virtue of having some aesthetic properties: the work is balanced and playful. How responsible is the artist for the value of her new work?

There is a simple argument for the claim that she is fully responsible. Plausibly, the painting’s aesthetic properties—its balance and playfulness—are realized by its nonaesthetic properties—its simple circles in primary colors. The painting’s nonaesthetic properties are the direct result of the painter’s actions. Provided some further reasonable conditions on intention or foresight are met, e.g., the artist intended to create those nonaesthetic properties, and intended, in doing so, to realize those aesthetic properties, then surely she is responsible for her painting’s having them. And since the painting is valuable by virtue of having those aesthetic properties, the artist is responsible for the value of her work. She is rightly praised for it. What could be the problem?

I will argue that things are not so simple. In sections 1–3, I argue that, given the nature of intentional action, and the distinctive way aesthetic properties are realized by nonaesthetic properties, luck partly explains why the work has the value it does. This implies, as I explain, that the artist is less responsible—so less praiseworthy—for the value of her work than the simple argument above suggests.

After making this argument, I set about rejecting it. In section 4, by focusing on the case of musical performance, I begin an account of a novel type of control that artists exercise in their creative activity, over their bodily activity, which is different from intentional control. I call it receptive control. When artists exercise receptive control, very roughly, they control bodily activity through distinctively non-practical uses of attention and imagination. This type of control, I argue in section 5, can help explain the sense in which artists can be praised (or blamed) for the value that their works have, even if it does not eliminate luck entirely from
the explanation. I conclude by discussing how this type of control can be exercised in contexts other than musical performance.

1 Agency and Luck

Consider any old action, such as crossing the street. Someone intends to cross the street and then does. In this case, the person has an intention with some content, and that content can be given linguistic representation: “cross the street.” There is also a fully determinate sequence of physical movements that realize the intention. For any action, even though some particular, determinate sequence of movements realizes the intention, there are several such sequences that could have done so. The person crossing the street performed just one of them, however. Does anything about her intention explain why?—why she crossed this way rather than that way? What kind of control, in other words, does she exercise over the fully determinate behavior that realizes her intention?

According to Neil Levy, the answer is very little. Levy defends what he calls “the delegation view” of agency, according to which “agency is concerned with action types, where the type is individuated by the agent’s intentions, and not with the details of their implementation.”¹ In more detail:

Agents steal from the poor box, help old ladies across the street and buy coffee. In performing actions of these types, they might bring it about that a range of lower-level matters get settled: in buying coffee, I bring it about that my arm moves thus and so [...]. But that is not something I do intentionally; that is to say, it is not something that features in the content of my intentions. I leave low-level details like that up to the subpersonal mechanisms involved in arm flexion and reaching behavior. On this view, agency is identified with the performance of action types because agents are indifferent to, and lack control over, these details. ²

The claim that agents do not control low-level settlements is part of an argument that those settlements are a matter of luck. “Luck,” Levy says, “is a function of three factors: chanciness, significance and absence of control.”³ Say I was lucky to catch a flight to my brother’s wedding: I was late to the airport because of traffic, but my flight was also delayed. My catching the flight was lucky, then, and for three reasons. (a) My catching the flight was chancy.⁴ (b) My catching the flight was significant. It mattered (at least to me) whether I caught the flight.⁵ (c) I had no control over the traffic or the time at which the plane was to take off. Things just happened to work out.

² (Levy 2013, 389); italics in the original, bold added.
³ (Levy 2013, 394).
⁴ Where “to say that an event is chancy is to say that though it occurred in the actual world, it failed to occur in a large proportion of nearby possible worlds, where a world counts as nearby in modal space if it differs in only trivial respects from the actual world” (Levy 2013, 394-5).
⁵ In Levy’s view, something “has significance if it matters for an agent” (Levy 2013, 395).
Levy suggests that the low-level settlings that realize action types are lucky in just this sense. They are chancy, significant, and not under agents’ control. But if something happens by luck, then it isn’t an exercise of agency. Low-level settlings, therefore, aren’t exercises of agency; they are not something agents do intentionally. When I cross the street, it is lucky I do so this particular way rather than that. What I do intentionally is determined by the content of my intention—“cross the street”—implementing which was delegated to subpersonal mechanisms of bodily control. And this constrains ascriptions of responsibility. I am responsible for crossing the street. I can be praised for crossing the street if that merits praise, for example. But I cannot be praised for crossing the street in that fully determinate way if that (too) is something that merits praise.

To facilitate argument to come, let me formulate the last few points more precisely. Consider one implication of the claim that low-level settlings are lucky for agents. For some action, across a range of possible performances of that action, holding the agent’s mental state fixed, different low-level settlings will realize it. Consequently, across that range of possible performances, some of the action’s direct results will be the same, and some will not. Think back to my action of crossing the street. Holding my mental state fixed, across a range of possible performances of that action, I will have moved myself a certain distance, and from one location to another, and put space between me and the fight that was breaking out on my side of the street, etc. Call these the invariant direct results of my action. These do not depend on the low-level settlings that realize my action. By contrast, and still holding my mental state fixed, only in some cases do I kick a dime to the opposite curb, step exactly twice on the white painted crosswalk bars, etc. Call these the variant direct results of my act. These do depend on the low-level settlings that realize my action.

The point about low-level settlings, luck, and responsibility can be expressed in these terms:

\[(\text{Lucky Variants})\] Variant direct results are lucky for agents; agents are not responsible for them.

Note this does not claim that agents are responsible for the invariant direct results of their actions. It’s not just by virtue of a result’s being invariant that an agent is responsible for it. To ascribe responsibility for an invariant, we need to know more. We need to know something about the agent’s mental state and its relation to the invariant—e.g., whether the invariant was intended or not. For my purposes, though, I do not need to settle these issues.

2 Aesthetic and Nonaesthetic Properties

When we make aesthetic judgments about a work of art, we use a variety of terms. We might say a piece of music is, for example, tense, serene, mournful, or frantic. These are terms of positive aesthetic evaluation, even if none of them

---

6 “Lower-level settlings are lucky for agents, and for this reason they cannot be the locus of agency” (Levy 2013, 394).
amount to a final verdict about the aesthetic value of a work. And it is a fairly old thought in aesthetics that there is some important, though elusive, difference between applying these terms of aesthetic evaluation and applying terms of moral or ethical evaluation.

Compare judging, on one hand, that what someone said is virtuously honest, and judging, on the other, that some passage of music is serene. To make the first judgment we examine what the utterance shares with other instances of virtuous honesty: what was said was really on the speaker’s mind; maybe there was some reason to deceive the speaker rightly ignored. To make the second judgment, the aesthetic judgment, we examine the passage of music itself as the particular passage it is, rather than as an instance of a type. To find a passage of music serene, we don’t reflect on the marks of serenity in music, and then, finding sufficiently many such marks in the present passage, infer that, yes, this passage is serene. We don’t even really compare it to other serene passages to justify our judgment. Aesthetic evaluation displays a kind of *particularity* that ethical or moral evaluation does not (except to moral particularists, of course).

Frank Sibley tries to make this difference more precise. He points out that when we ascribe an aesthetic property to an object, it is always because of some other properties the object has. If something is graceful, for example, this is “because of some properties” the thing has, which are such that, were the properties changed the thing would no longer be graceful. Sibley suggests that in aesthetics—perhaps by contrast with ethics—the realizing properties are always fully determinate. So, where ‘P’ is a determinable aesthetic property (such as ‘graceful’):

a thing is P (and valued for being so) in virtue of some determinate property, Q, because of which it possesses the (determinable) merit-property, P. A thing is graceful in virtue of being curved in exactly the way it is, not just in virtue of being curved. A slightly different curve might not be graceful, and so on.

There is no saying about some line that it is curved and therefore or just because of that it is graceful. If the curve is graceful it is because of the fully determinate way in which it is curved.

It is implicit in Sibley’s discussion that, ultimately, works of art have aesthetic properties like gracefulness by virtue of determinate nonaesthetic properties, like the determinate way in which a particular line is curved. This does not imply that all of a work’s aesthetic properties depend so directly on nonaesthetic ones.

---

7 See (Zangwill 1995) for the distinction between making verdictive judgments about aesthetic value and ascribing aesthetic properties, which contribute positively to aesthetic value.
8 As Frank Sibley puts it, “it has been variously described: for instance, that to moral and other assessments, general rules and principles are essential, but to aesthetic assessments irrelevant; that for many things, but not in aesthetic matters, there are general criteria of merit; and hence that, in supporting other assessments, but not aesthetic ones, reasons can be given which mention or employ these criteria” (Sibley 1974, 1).
work might be balanced by virtue of being first serene and then frenzied and then serene again. The work has some aesthetic property, that is, by virtue of the latter two, which are also aesthetic properties. Ultimately, of course, the work’s aesthetic properties will have their ground in some nonaesthetic ones, and this is what I am focused on.

The principle Sibley has in mind here comes in various strengths. Given too strong a formulation, though, it becomes implausible. Consider one such overly-strong formulation:

\[ \text{(Determinate) For any work, every aesthetic difference-maker is a fully determinate nonaesthetic property.} \]

This can’t be right. It’s not that a graceful curve would fail to be graceful were someone to make an absolutely miniscule—but still perceptible—change to it. Aesthetic properties aren’t that finicky. Still, their difference-makers are relatively low-level. There is not a world of difference between a graceful curve and a clumsy one. That is, as I want to put it:

\[ \text{(Details) For any work, every aesthetic difference-maker is a nonaesthetic detail.} \]

By “nonaesthetic details” I will mean roughly this: either fully determinate nonaesthetic properties, or determinable nonaesthetic properties with respect to which there are very few determinates. An example of the latter is not the determinable property “curved,” with respect to which there are so many determinates, but rather something like the (determinable) property “curved in a way that increases and then decreases in width three times and tapers off at both ends and tends slight to the right but not so much that its end forms a right angle with its beginning,” with respect to which there are relatively few determinates.

3 The Luck Argument

\text{Lucky Variants} and \text{Details} support an argument the broad outlines of which are probably clear enough. I will refer to it as the \text{Luck Argument}. I will present it now in full, and argue for its crucial first premise over the course of this section.

For some artist A and her work of art W:

1. W’s nonaesthetic details are \textit{variant direct results} of A’s actions.
2. A isn’t responsible for W’s having those details. (\textit{Lucky Variants})
3. All of W’s aesthetic difference-makers are nonaesthetic details. (\textit{Details})
4. It is lucky that W has its aesthetic properties by way of its details.

(4) is more striking than it may seem at first. We value works of art not for realizing aesthetic properties in one way or another, but for realizing them in the very particular way in which they do. If someone offered to trade you one of
Calder’s circle paintings, which is balanced and graceful, for another one of them, and seemed to think there was nothing at all to the request—“What’s the problem? Both are balanced and playful!”—you would think the person was crazy. Call this this a work’s *artistic value*, and (4) entails that this is lucky for artists.

5. W’s having its artistic value is lucky.

Notice that it doesn’t help to suggest that the artist intended to paint something balanced and playful and, because of her skill, succeeded in doing so. The point of the argument is that, even given such an intention, and given that the nonaesthetic details are variants—more on which just below—then it is still lucky that her work is balanced and playful in the particular way that it is. Which is to say that it is lucky the work has the artistic value it has.

Everything depends on (1), of course. Why think it is true? Don’t artists train themselves so that the details of their actions are invariant, so that they can reliably produce the same kind of marks or sounds or whatever across a range of possible performances of an action? While there is a high degree of reliability, I suggest there is not enough for invariance.

My argument for the suggestion turns on a thought experiment. Suppose some artist wants to copy a graceful circle already on another canvas: just one graceful circle in black oil paint. She wants to create another circle that, from the perspective of artistic value, would be interchangeable with the first. The painting she’s aiming at would pass the test I described above. Someone else says, “I’ll trade you mine for yours; they’re both graceful!,” and you think, “There is no problem here.”

It is plausible, I suggest, that the artist will have a very hard time doing this. Even though she is very skilled, even though she painted the first one herself, it will be difficult, if possible at all, to paint something that has the same artistic value as the first. Some of this will be due to the fact that the two works will be distinct artifacts, and some part of artistic value may reside in the identity of the artifact itself. But another part of this will be due to the fact that the details of the new work will plausibly not match those of the original. This suggests that these details are not invariant direct results. It only “suggests” this because, of course, the artist’s mental state is not held precisely fixed across the acts. However, though the artist’s mental state is not the same for each attempt, we can imagine it is very similar. We can imagine that, in one case, she had the mental image of the circle she wanted to paint, in the other, she had something very close to that mental image, derived from her perception of the circle she already painted. Even specified in this way, the thought experiment supports (1).

The thought experiment also cuts against one way of resisting the Luck Argument. Someone might say, “What if the artist worked from a perfectly clear and distinct mental image of the work she was going to create? Surely it’s not a matter of luck in that case that she created those details, that her work has the artistic value it does.” But if nonaesthetic details are variants when an artist is trying to a copy an original work she already painted, then the same will go, and
plausibly more so, when the artist is working from a clear and distinct mental image. Any such mental image will be less vivid, less filled in than the real painting to be copied. If success in creating the interchangeable painting is a matter of luck, then success in creating the new work will be a matter of luck, too.

The idea motivating this line of thought, though, is closely related to another objection worth considering. It goes like this. If the artist has perfectly clear and distinct mental image of the work she wants to create, then she can reject anything that does not match it. The details may not be invariant, but she is free to keep only those details that match what she has in mind, and this selective act, unlike her productive one, is invariant. In this way, the artist eliminates any luck that was present after she finished her bodily action of applying paint to canvas.

It can’t be denied that artists exercise this kind of selective control. But this is not, I suggest, the kind of responsibility we think artists have for the artistic value of their work. Suppose I program a sophisticated robot to paints shapes on a canvas. I build in randomness constrained in various ways so that the result is interesting to look at, but nonetheless algorithmically produced. I know exactly what painting I’m looking for—I have a perfectly clear and distinct mental image of it. I set the robot to work, sift through the results, and select only what matches my mental image. If the objection is right, then I am responsible for the work in much the way an artist would be were she to have exercised selective control over the results of her artistic acts. I am not responsible for the nonaesthetic details of my painting, but neither is the artist—the details in first case are produced by my robot, and in the second case by the artist’s motor system, which is not subject to her conscious control.

This equivalence doesn’t seem right, however. We praise artists for exerting control over artistic value through the production of the details by virtue of which it has that value, not just the selection of them. Maybe this wrong, and the Luck Argument is best understood as showing as much. Some artists do talk about letting things happen by accident and chance, and then taking that up in their work. But I want to argue we do not need to accept this conclusion. It’s not that we are wrong to praise artists for exerting control over artistic value via their productive artistic activity. It’s that we do not have an adequate concept of control. The theory of intentional action—the intentional control of action—is not sufficient. To remedy the situation, in the next section I begin developing another concept of control.

To do so, I will focus on cases of musical performance—in particular musical performance in the Western classical music tradition. This shifts the focus somewhat; the examples so far have been about painting. The reason for the shift is that there is a fairly well-developed literature in the neuroscience of action, and

---

11 Cf. (Krausz 2013): “I usually have a general idea of what the painting will look like. But the materials take on a life of their own. They suggest their own possibilities. The unintended spontaneous movements of my fingers and arms allow brush and pigment to respond as they may” (191).
on musical performance, in particular, and I want to draw on it. I will comment
the way the resulting account applies to other types of activities.

4 Receptive Control

In a master class on György Ligeti’s infamously difficult piano étude *L’escalier
du diable*, the eminent French pianist Pierre-Laurent Aimard says the following
(in English) to the student he’s teaching:

We have to play all these notes, and we of course are always worried about pressing
the right key. [...] When we are 90% here [points to the keyboard] and 10% there
[points to his ears; then he plays a passage from the étude], I think that I play very
good, but I’m afraid I’m the only one. Because this sounds a little dirty, forced, and
not very clear. Now the goal is that, you control here [points to his right ear], let’s say
50 to give, 50 percent to receive, makes [it so] that you [again points to his ear]
control the harmonies and the way all the harmonies climb up the scale. [Aimard
plays the same passage again]. And when you get this control [again points to his
ear], you can get rid of the instrument, you can go out of the key: [it] make[s]
you...feel free. The body can be relaxed until the next note. It’s like in a Chopin
nocturne, but a little faster, little louder.12

Aimard is giving advice familiar from the music lesson: listen more; control the
sound with the ear rather than by thinking about playing all the right notes. The
recommendation, notice, is not about how to play all the right notes more successfully. The suggestion is not that, e.g., by not overthinking and focusing on
playing the right notes you will play them more accurately. The suggestion is
rather about how to achieve a certain quality in the sound, in this case harmonic
clarity, which is difficult to achieve in the Ligeti given how many notes are being
played at the same time. After giving the advice, Laurent’s student makes another
attempt at playing the passage, but Aimard stops him again and corrects him,
telling him he “killed the sound.” Aimard continues: “Well, there are many notes;
therefore, be more free, so control *here* and *there* your harmonies,” pointing to his
forehead and then his ear.

I take Aimard to be distinguishing two different types of control. One type of
control is exercised “at the keyboard.” This is intentional control, I suggest. To
play 90% at the keyboard is to play in a practical state of mind, monitoring
activity to make sure one is *doing* the right thing, playing the right notes. But
there is another type of control, one apparently essential for controlling important
aesthetic properties, such as clarity. This is control by the ear. To play by the ear
is to play in a more receptive state of mind, to listen as much as one plays (“50 to
give, 50 percent to receive”), and yet it is still a type of control—something like,
paradoxically, control by receptivity.

12 From a video on a website created by the Ruhr Piano Festival Foundation, which focuses on
Ligeti’s piano works, and includes score excerpts and discussion with Laurent, who worked
directly with Ligeti on some of these pieces. Aimard’s remarks are in the “Masterclass” section of
the site, in its last subsection: “Motoric and acoustic control.”
One might disagree with this interpretation of Aimard, understanding him simply as referring to the fact that perceptual feedback is important for clear and expressive playing. So understood, there is only one type of control the pianist exercises over her playing—intentional control—and it is informed and aided by listening. The pianist intends to play $p$ (passage $P$ in such-and-such a way), for example, and hearing as she plays that this doesn’t have the sound she wants, she intends to play $p'$, a refinement of $p$, and hearing that that doesn’t have the sound she wants, either, she intends to play $p''$, and so on.

Some consistent explanation might be worked out along these lines, but I suggest it should be resisted. Aimard is trying to get his student to distinguish in experience between things that can be, and often are, in tension or conflict with each other. That’s why Aimard’s suggestion presents such a challenge to the performer, why it’s so common in music lessons. The suggestion is not for the performer to attend more closely to what she’s doing, but to attend more closely in a certain way. It’s not a refinement of the intentional control of motor behavior by being more attentive, but rather a different way of controlling motor behavior with attention. My goal is to give an account of this other way.

The account I will give will consist of a mixture of empirical claim backed by evidence, reasoned empirical speculation, and philosophical psychology. That is, I will report on some literature in the psychology and neuroscience of music performance, I will argue about what is empirically plausible given what that literature says, and I will argue about very general features of mental content—e.g., about what makes content “practical” or not. Even though the account has this empirical content, it would survive without it, at least in its essentials. The empirical content, however, makes the account empirically plausible and concrete, revealing precisely how it responds the problems raised by the Luck Argument.

I will be arguing that artists can control their playing through a complex receptive activity, one that draws on both perception and imagination. I will argue for four claims. First, in performance, artists cultivate and deploy musical imagery—a term I will explain—and they attend to the way their playing sounds, comparing it against that imagery. Second, this recruits motor activity directly, i.e., not by resulting in, or informing the content of, an intention to do anything. Third, the range of possible motor activity so recruited is smaller than that recruited by comparable intentions. Fourth, listening and imagining this way are not practical states of mind. What is imagined and heard is not imagined and heard in a way that is directed toward action, and this is so even though each controls behavior. When a performer controls her playing this way, she exerts what I will call receptive control, rather than intentional control. I will discuss these four claims in order, and I will explain the sense in which the control is “receptive” at the very end of this section.

By exercising receptive control, I will go on to argue, an artist is able to exert more fine-grained control over the results of her productive artistic activity. In doing so, she is able to exert more control, through her productive activity rather
than a process of after-the-fact selection, over the artistic value of her work. Less about that value is lucky.

4.1. Musical Imagery. According to (Bishop et al. 2013), musical imagery is “the conscious experience of music that is not an immediate consequence of its production or perception.”\(^\text{13}\) It is an imaginative representation of music to be performed, as the musician wants it to sound. This can cover a range of imaginable qualities: tempo, dynamics, timbre, as well as artistic, aesthetic, emotional, or expressive qualities. The imagery is often vivid. As Patricia Holmes puts it, interviews with musicians suggest “that there is a ‘perception’ element in auditory imaging that is critical in the playing process.”\(^\text{14}\) She conducted in-depth interviews with two expert musicians preparing a performance. One of the musicians interviewed said, for example: “I will hear in my head how I want the first note to sound and the mood I want to convey.”\(^\text{15}\)

Musical imagery can guide expressive performance even in the absence of auditory feedback, but this is not reason to believe that auditory feedback is inessential for expressive performance.\(^\text{16,17}\) In most cases, in fact, auditory feedback would seem to be useful only in combination with appropriate musical imagery. To make adjustments while playing based on what one hears, one needs to have something one wants to hear, something imagined. Aimard even seems to refer to both together: listening and imagining. When he corrects his student, he tells him to control the sound “here and here”—pointing first to his forehead and then to his ear.\(^\text{18}\)

---

\(^{13}\) (Bishop et al. 2013, 52).

\(^{14}\) (Holmes 2005, 225). Holmes also notes that musical imagery is not only an important part of performance but of learning and memorization.

\(^{15}\) Ibid.

\(^{16}\) (Repp 1999), (Bishop et al. 2014). For example, in (Repp 1999), pianists ranging from advanced amateurs to young professionals each played Chopin's op. 10, no. 3 both with and without auditory feedback. The pianists hadn't played or rehearsed the piece before, which Repp thought would make the performances especially sensitive to the presence or absence of feedback. Experienced pianists then listened to the recordings, and Repp asked them to say whether they thought a performance was done with and without feedback. As Repp says, “the task was quite difficult. The overall percentage of correct judgments was 63.5, which was significantly better than the chance level of 50%,” but not exactly striking (Repp 1999, 432). That is, effect of feedback deprivation is statistically significant but not especially strong.

\(^{17}\) E.g., (Bishop et al. 2013). For example: “Pianists’ success at performing in the motor-only condition is consistent with prior research showing that music learned with auditory feedback can subsequently be performed with technical accuracy in the absence of auditory feedback” (112). The same goes for expressive aspects of performance: “Dynamics and articulation of the chosen interpretation were maintained during both the performance with auditory feedback (auditory-motor condition) and the performance without auditory feedback (motor-only) condition” (Bishop et al. 2013, 111-112). The key phrase in the first passage is “learned with auditory feedback.” More generally, in each of these feedback studies cited (Repp 1999 and Bishop et al. 2013), the instrument used is the piano, for which continuous feedback is arguably less important than it is, for example, for a string instrument.

\(^{18}\) By focusing on musical imagery, I might seem to be leaving out two other important types of relevant imagery: descriptive imagery and motor imagery. Both of these are involved in the imaginative activity that guides performance. Descriptive imagery includes things like “lighter,” “spacious,” “dreamy,” “sparkling,” which performers will use to guide the sound. Motor imagery
4.2. *Recruits Motor Activity Directly.* Suppose a skilled pianist plays a particular passage of music, so that the passage, as played, is rightly described as sparkling—as having that aesthetic property. Plausibly, when asked, the performer will not be able to say what exact bodily movements she performed to make the passage have this quality. This is because the relevant motor activity by virtue of which the passage was played this way was recruited “directly” by her musical imagery and listening; the latter did not result in the formation of conscious intentions to perform particular bodily movements. I will say, a little more precisely, that her musical imagery and listening directly recruited *realizing motor behavior*—fully determinate behavior that, through the body’s interaction with the instrument, realize the music as imagined.

It is important for the plausibility of the case that the performer is skilled. This kind of direct recruitment is motor behavior is possible only for performers who are able to leave some parts of the performance to routinized, automatic motor activity. Only in such conditions is possible to direct conscious attention to musical imagery and auditory feedback in the right way.\(^{19}\)

The psychological concept of *internal models* provides empirical support for this claim. Discussions of motor control and cognition often appeal to internal models to explain how the motor system produces fine-grained behavior that is attuned to the immediate environment, especially in the absence of conscious sensory feedback.\(^{20}\) Internal models are composed of *forward* and *inverse* models. “‘Forward models’ represent the causal relationship between motor commands and their effects on the body and environment. ‘Inverse models’ represent transformations from intended action outcomes (sounds, in the case of music) to typically involves the way a movement will *feel* to perform; it is a kind of kinesthetic imagery. As a cellist that Holmes interviewed says, “you can imagine yourself playing it and you feel what it’s like to play” (Holmes 2005, 227; Holmes underlines words performers emphasized in the interview). But both descriptive and motor imagery are often wrapped up in musical imagery. Even Holmes says, of a guitarist she interviewed, “His use of the word ‘vigorous’ rather than just ‘speed’ suggests that the musical character is an influence on the imaged movements in his memory” (Holmes 2005, 228). I want to set these aside for now, though, mostly to simplify the discussion. My focus is musical imagery in the following sense, or rather this aspect of musical imagery: “the conscious experience of music that is not an immediate consequence of its production or perception” (Bishop et al. 2014, 52).

\(^{19}\) One might wonder: how can auditory feedback recruit motor behavior to realize music as imagined? What the performer *hears* is the way the music *is*, not the way she *wants it to be*. How, then, can the musician’s hearing the music the way it *is* (when that’s not how she wants it to be), recruit motor activity to realize the way she (in fact) wants the music to be? There is no real problem here. The discrepancy makes musical imagery salient, and this is what recruits the relevant realizing motor activity.

\(^{20}\) “Internal models represent sensorimotor associations between motor commands that issue from the brain and the sensory experience of bodily states and events in the immediate environment” (Keller 2014, 273).
the motor commands that produce them."\textsuperscript{21} The latter—inverse models—are what bear most directly on cases of musical performance.

All behavior makes use of inverse models. In everything we do, some of our motor behavior is produced according to a representation of the expected sensory outcomes of the intended action. In the case of music, as Keller says in the passage above, the intended outcome is sound with some particular qualities. Given that representation of the expected outcome, our motor system works backwards, computing the relevant motor activity required to produce it. Plausibly, it is this process that expert musicians draw on when they influence performance by listening to their playing cultivating musical imagery and listening.

Evidence for inverse models, and for their relevance for explaining aspects of musical experience more broadly, derives from fMRI-based studies. In expert musicians, and consistent with explanations in terms of inverse models, there are strong associations between, on one hand, neural activation in brain areas associated with experiences of hearing music and, on the other, neural activation in brain areas associated with motor activity, i.e., those brain areas associated with performing music. As (Haslinger et al. 2005) put it, "[m]usical training involves a strong functional association between motor performance and somatosensory and auditory feedback."\textsuperscript{22} They refer to these as "transmodal auditory and sensorimotor activations."\textsuperscript{23}

This pattern of activation is a particular case of a more general functional network in the brain that is thought to underlie the capacity for imitation and learning movements by observation—i.e., the ability to observe movements performed by someone else, from a third-person perspective, and then translate those movements into first-personal motor activity. What this means, for present purposes, is that expert pianists, for example, will show activation in areas of the auditory cortex when observing musical behavior, and they will show activation in the motor cortex when listening to musical performance.\textsuperscript{24} And these activations are not just latent activity in motor areas, but include the activation of learned behavioral sequences.\textsuperscript{25}

Furthermore, brain areas that are active during auditory perception are also active during auditory imagining.\textsuperscript{26} (Haslinger et al. 2005) even cite auditory imagining as possibly part of the explanation for the brain activations they

---

\textsuperscript{21} Ibid.

\textsuperscript{22} (Haslinger et al. 2005, 282).

\textsuperscript{23} (Haslinger et al. 2005, 283).

\textsuperscript{24} (Haslinger et al. 2005, 287).

\textsuperscript{25} See (Pfordresher et al. 2011). Also (Maes et al. 2014), noting in summary: "These findings provide support for the idea that an action becomes automatically activated (or, primed) as a result of the mere perception of the auditory consequences normally associated with that action" (Maes et al. 2014, 1).

\textsuperscript{26} "Substantial evidence suggests that auditory imagery engages cognitive processes similar to those engaged by auditory perception" (Brown and Palmer 2013, 2).
observed in expert musicians. This would suggest that engaging the auditory imagination would be enough to activate the transmodal sensorimotor network that Haslinger et al. identify, indicating that the auditory imagination is itself a part of that network.

4.3. More Narrowly than Intentions. When a performer cultivates musical imagery and, together with auditory feedback, uses it to influence her playing, her receptive mental activity recruits a narrower range of realizing motor activity than relevant, related intentions would. For purposes of illustration—not argument—first imagine a case in which a performer has only an intention to play $p$ (again, some passage $P$ in some particular way), whatever the content of this intention comes to. Then imagine a case in which, in addition to the intention, the performer cultivates musical imagery of the passage, which, together with auditory feedback, she will use to control her performance. Both the intention alone, and the intention together with musical imagery will recruit realizing motor activity, by which she will play the passage. My claim is that in the second case, when the performer exercises receptive control, there are fewer possibilities. Fewer sequences of realizing motor activity will be recruited, across a range of performances of the same act.

The point is more precisely expressed in terms of the distinction I drew above between variant and invariant results of an action. With receptive control, as compared to intentional control, there are more invariant results, so fewer variants. For example, given an exercise of intentional control, it might be invariant that a performer plays a certain sequence of notes, but variant that she plays them with a certain dynamic profile. With the addition of receptive control, however, the latter might also be invariant. That is, holding the performer’s mental state constant, playing the notes and with that particular dynamic profile is not something that will vary across the range of possible performances of the passage.

Why believe this claim? It is speculative, but I have some argument to offer in support of it. In the previous section I described a connection between, on one hand, music as imagined, and, on the other, motor activity required to realize that imagined music. I said that the former activates the latter. The evidence does not say just how tight the connections between the two are. However, given that those connections are of the same general kind as those that underlie learning by observation, they should be relatively tight—more so, at least, than the connections between intentions and realizing motor activity.

Consider that when we observe a bodily movement, we are able to imitate it in a very accurate way. Plausibly, then, activating behavior this way recruits a relatively narrow range of realizing motor activity. The same would not be true

\[27\] “Additionally, these auditory activations and also the greater activation differences in nonauditory cortical areas when contrasting observation of piano playing without sound to observation of a resting hand and of finger–thumb opposition movements without sound could partly be due to musical (auditory) imagination in our musicians. Aside from the temporal (auditory) cortices, the lateral frontal, mesial frontal (SMA) [supplementary motor area], and parietal areas are activated during the auditory imagination of music” (Haslinger et al. 2005, 287).
were we given only a linguistic description of the movement to be imitated. Having the relevant movement described in words, and then acting under that description, will likely produce something reasonably different from the original; it would be striking if it were otherwise. Plausibly, then, activating motor behavior this way—acting under a description—recruits a relatively wide range of realizing motor activity. It recruits a wider such range than would acting on a description supplemented by observation.

Something like the same should carry over to musical performance. A conscious intention to play a passage of music under some description—as having a mournful dynamic profile, for instance—will recruit a relatively wider range of realizing motor activity than would that intention plus musical imagery of that same passage (the music imagined as having a mournful dynamic profile). This is so just as acting on a description of some movement will recruit a relatively wider range of realizing motor activity than would acting on the description supplemented by observation.

The question, of course, is why the latter in each case—the mental imagery—isn’t just another type of intention. Why isn’t observing the behavior, cultivating relevant musical imagery, a different way of intentionally controlling behavior, by way of different kinds of intentions? In the next section, I address these questions.

d. Non-Practically. The picture so far is this. Skilled performers can control fine-grained aspects of their performances by cultivating and entertaining musical imagery, and monitoring their playing as they go—by listening. This, together with relevant intentions, recruits realizing motor, the range of which is narrower than would be recruited by those intentions alone. This is already to explain some large part of the type of control to which Aimard refers when tells his student to control the sound “here and here,” pointing to his forehead and his ear. What Aimard is encouraging his student to do is to engage in this type of control: recruit realizing motor activity via musical imagery; exercise what I am calling receptive control.

What I now want to claim, crucially, is that none of the mental activity that constitutes receptive control is practical. First, listening in the relevant sense is not practical. It is a distinctively non-practical employment of attention. Second, cultivating musical imagery, imagining some passage of music and bringing it to bear on a performance, is not practical either. It is not an intention to play that passage of music as imagined. Musical imagery is not practical content. These two claims, more than any in the last three subsections, finally make explicit the sense in which receptive control is distinct from intentional control. I will discuss them in order, beginning with attention.

It is plausible there is a contrast between practical and non-practical employments of attention. The sensory consequences of our own actions, compared with those actions we did not cause, are typically attenuated.28 This is thought to play a role in how we distinguish self- from other-produced actions.

28 (Jeannerod 2006, 96-7).
But this does not mean that we do not use attention at all during action, that we fail to attend to what’s going on around us. It’s just that we attend to what’s going on in a particular way: in order to guide what we do, and this includes not processing the immediate results of our own actions. And this suggests that, when a performer makes an effort to listen to her playing in the way Aimard suggests—in exercising receptive control—she is making an effort to attend epistemically, rather than practically. She attempts to engage with the results her action as heard, rather than as another element of her skilled behavior, to be attenuated along with the other sensory consequences of her actions.

The performer’s musical imagery is not practical, either; it is not practical content. To begin appreciating the sense in which that’s so, consider a different kind of case. Consider the different ways you might employ the imagination while going for run. You might imagine what will come next, what you will see around the next corner, how far you still have to go, how you will feel at the end of the run, how you will feel running up the hill. Less typically, I expect, you might imagine yourself running, the very movements you would make in the moment if you were a confident runner, say, imagery related to the way you want your present running to appear.

All this imagery, I suggest—your imagining what’s coming next, your imagining the way you want your present running to appear—is distinct from the practical mental activity in which you engage while running. This imagery exists alongside, and distinct from, your intentions and your intentional activity. It may even distract you from effectively exercising your bodily skill: while imagining what is around the next corner, you trip over the uneven concrete in the sidewalk, or you run into someone walking in the opposite direction. In both cases, when you imagine your own running or when you imagine the results of your running, you are not engaged in practical thought, not engaging the world practically—properties of your action are not presented to you “under a practical mode of presentation.” One reason for thinking as much is the conflict into which the two can come.

The same goes, I suggest, for the musical imagery that a performer entertains while she performs. Entertaining it, and thereby bringing it to bear on what she is playing, is not thinking of the music, or of her own activity, under a practical mode of presentation. It is a kind of imagining that is not practical. It is imagining the music as heard, as the performer wants to hear it. Again, musical imagery is not practical content.

This difference is reflected in the type of excellence or virtue that a performer shows in exercising receptive control. The virtue is not one of skill or technique. Rather, having a sense for what one wants to hear, being detached enough from one’s playing that one can hear it—these require a conscious mental effort that is different in kind from the effort exerted to perform the physical act of playing the piece in a skilled way. The former requires, among other things, the capacity to detach oneself from what is happening “at the keyboard,” from the details of implementing a technical skill, to let one’s playing continue on its own, all while
focusing on what one wants to hear and listening to the sounds one is producing. Of course, some might want to call this a case of realizing a musical or an expressive intention; and this doesn’t sound wrong: it would idiomatic to say (usually as a criticism), that a performer is doing well playing all the notes but has no musical intention (nothing she wants to hear). My response is that the form of words is fine, but we should be careful about its meaning. If we want to call this mental state a musical or an expressive intention, then we should recognize that this is not an intention, strictly speaking, where this word picks out a distinctively practical thought or state of mind. Rather, this “musical intention” is an imaginative representation that elicits, shapes, and constrains the motor behavior by which a musician gives her performance. It is a mental state geared toward receptive, rather than intentional, control.

This brings us, finally, to the reason that I call the control “receptive.” The musical imagery is present to the artist’s mind as received—it is music, whether imagined or perceived, as heard, even bodily movement, whether imagined or perceived, as felt. Entertaining this kind of imagery and bringing it to bear on performance is a way of being receptive, engaging our capacity to be affected by things, rather than a way of being active, engaging our capacity to change the way they are.

5 The Luck Argument Revisited

How does this concept of receptive control help with the Luck Argument? That argument, remember, was as follows—for any artist A and work W:

1. W’s nonaesthetic details are variant direct results of A’s actions.
2. A isn’t responsible for W’s having those details. (Lucky Variants)
3. All of W’s aesthetic difference makers are nonaesthetic details. (Details)
4/5. It is lucky that W has its aesthetic properties by way of its details, so it is lucky W has the artistic value it has.

The argument introduces a gap between the artist and the aesthetic difference-makers in her work. The difference-makers are the details, but the details are a matter of luck.

Generally speaking, the concept of receptive control allows us to reject (1). In a piano performance, the dynamic profile of a particular passage is among the nonaesthetic details; it is among the aesthetic difference-makers for the performance: part of what makes the performance lively is that dynamic profile. As I have argued, by exercising receptive control in addition to intentional

---

29 This is related to the point above, from (Jeannerod 2006), about the way sensory consequences of our actions are attenuated.
control, the pianist can make this dynamic profile might be an invariant result of her actions.

Or imagine a painting like one of Calder’s circle paintings: simple circles on the canvas in primary colors. Each circle is imperfectly circular, each circle slightly imperfect in its own way. The imperfectly circular shape of each circle is among the nonaesthetic details; it is an aesthetic-difference makers: part of what makes the painting playful are those various imperfect shapes. By exercising receptive control in addition to intentional control, the painter can make these shapes—or some of them—invariant results of her actions, just as the pianist makes that particular dynamic profile an invariant. Therefore, it is not true that, for any artist A and her work W, W’s nonaesthetic details are variant direct results of A’s actions. (1) is not true.

This entitles to conclude that, at least with respect to those particular nonaesthetic details, the artist doesn’t fail to be responsible, so praiseworthy, for them—as I said in section 1, we need to know more to ascribe responsibility for some invariant. Did the artist intend to create the invariant? Maybe also: did she intend, in creating it, to realize this particular aesthetic property? But it is easy enough to imagine these conditions satisfied in various particular cases. If so, then the concept of receptive control allows us to ascribe responsibility for some her work’s artistic value, to praise for it.

This is not to recover all of it, though. Receptive control narrows the gap, but does not close it. It shows that not all details are lucky, but not that all details aren’t lucky. It may very well be that even for artists who exercise receptive control skillfully, along with intentional control, some of the details, so some of the artistic value, are lucky. It may be that all artists who manage to creative artistically valuable work are lucky artists.

6 Conclusion

The Luck Argument, and the concept of receptive control, will apply only to those art forms in which a work gets its nonaesthetic details directly from the artist’s bodily movements. This leaves some practices out. It is not obvious, for example, that the Luck Argument applies to art forms like poems and novels. Is there room for luck in the process of selecting a word or phrase for a line in a poem, as there is in the process of applying paint to a canvas? Still, there is a lot to which the discussion will apply: painting and sculpture, any kind of performing art, like dance, film, and theater (and music)—assuming, as I have been, that performances can have aesthetic properties, such as being forceful or nuanced or lively, and by virtue of nonaesthetic details, such as particular bowings, phrasings, touch, dynamics, utterances, posture, or gesture.

There is also a lot more to be said about the concept of receptive control. How is it exercised in contexts other than musical performance? Consider the following passage from John Berger, in which he describes the process of drawing from life:
[L]ines on the paper are traces left behind by the artist’s gaze, which is ceaselessly leaving, going out, interrogating the strangeness, the enigma, of what is before the eyes, however ordinary and everyday this may be. The sum total of the lines on the paper narrate a sort of optical emigration by which the artist, following his own gaze, settles on the person or tree or animal or mountain being drawn.\textsuperscript{30}

In my view, Berger emphasizes receptive control here, even if in this case the control relies on perception more strongly than imagination. The lines on the paper are “left behind” by the artist’s gaze rather than being “put there”—I would add: intentionally—by the artist. The lines are an effect of the artist’s attending in the way she does. More elaborately, in my terms: the artist’s gaze recruits realizing motor activity, the result of which are the details on the page.

Berger also introduces a metaphor that I suggest is useful for understanding the distinction between intentional and receptive control. That is the metaphor of a trace. Berger says that the lines on the paper are “traces left behind by the artist’s gaze.” The same could be said of the fine-grained details of the musician’s performance: her dynamics, tempi, timbre, and so on. These are traces of the performer’s musical imagery and the way she is able to deploy that imagery and listen to her own sound as she plays. This difference between being “left behind” and being “put there” seems to me at the bottom of the difference between the kinds of control I have been trying to distinguish. When artists exercise receptive control, they work to leave something behind in their material. They seek to leave a trace of their imagining, their looking and listening. Of course, they seek to put things in the work, too. They realize intentions they have for their work or their performances. But the capacity to put falls short of the details that realize aesthetic properties. To affect these finer-grained aspects of the work, the artist needs to cultivate her capacity deliberately to leave behind—as I would put it, to exercise receptive control.

\textsuperscript{30}(Berger 2008, 47); passage cited in (Maycock et al. 2009).
References


