

## Teaching and Learning in Wittgenstein's Philosophic Method

Jeff Stickney

*OISE/ University of Toronto*

### INTRODUCTION

Ludwig Wittgenstein's depiction of pedagogical scenes are increasingly prominent in his later writing and in the secondary literature surrounding it.<sup>1</sup> This essay offers a synoptic view of the role teaching and learning examples play in Wittgenstein's later philosophic method, seeing them as a "pedagogical way of doing philosophy."<sup>2</sup> For the philosopher of education, I pose the challenge of not fetishizing the scenes of instruction. "A poet's words can pierce us," Wittgenstein reminds us, because of "the way in which, comfortable to this use, we let our thoughts roam up and down in the familiar surroundings of the words."<sup>3</sup> His preoccupation with "teach," "learn," "train," "education," and "pupil" draws us in when reading these scenes, partly obscuring their philosophical significance.

Wittgenstein's six-year experience as an elementary teacher may provide a reason for dwelling on pupils and learning; it tells us little, however, about the role this plays in his philosophy.<sup>4</sup> Biographical approaches aim at a second-order, causal explanation, whereas Wittgenstein exhorts us to describe usage "in such a way as to make us recognize those workings: *in despite of* an urge to misunderstand them."<sup>5</sup> His philosophical task was to shift the *pivotal interest* of our investigation: "the axis of reference of our examination must be rotated, but about the fixed point of our real need" (*PI* §108). *Our* need here is to see that simplified learning practices occasion philosophical investigations; they give us a perspicuous view of how pupils come to play, and later contest, certain *language-games* within the complex weave and rapid flow of life.

Attention to *mastery of techniques* shows how "we" acquire embodied forms of practical reason: a stabilizing *habitus* of rule-following behaviors, norms, and certainties. Contextual reading of the especially intriguing teaching cases, alongside Wittgenstein's anthropological cases and thought-experiments, points to how the pupil can also overcome this training. Gradually, the pupil comes to operate within the norm independently, no longer requiring the instructor's direction; the further possibility exists of coming to question some of the rules absorbed in, and the fundamental *bedrock* deposited during, the training (*Z* §310–334, §410–432).<sup>6</sup> Together, these cases show (a) how training constitutes subjects in collective, normative ways of acting, *seeing-as*, and judging (that is, initiation into *forms of life* and *world-pictures*); and (b) the extent to which these shared forms of agreement and judgment are arbitrary and open to renegotiation (*PI* §241–242, *Z* §320). By approaching Wittgenstein's method in this way, we escape a conservative and gain a more liberal reading of agency in his later philosophy. The purpose of both sets of cases is to help free us from deeply ingrained pictures that hold us captive and thus to undertake the ethical work of transforming ourselves (*PI* §115, x).<sup>7</sup>

## TWO PROFILES OF WITTGENSTEIN'S PHILOSOPHICAL METHOD

Wittgenstein's writings consist of hundreds of passages, collections of remarks often lacking a clear sense of thematic unity. Sorting and compiling them into a coherent entity is like assembling the shards of a broken vase — “light dawns gradually over the whole” (*OC* §141) — revealing possible shapes his fragmentary work may take.<sup>8</sup> Reconstruction is too big an undertaking for this essay. Fortunately, there is another way of gaining a composite image. The learning cases give us a profile view, or one side of the face, Wittgenstein presents in his later philosophical works. The other side of the face — the second profile he repeatedly gives us — are the thought-experiments, chimeras, and encounters with aliens, which I will refer to as the “anthropological cases.” Instead of opening a window onto pedagogical scenes, these latter passages transport us to distant lands where we see people but “cannot find ourselves in them” — virtual others we “can't find our feet with” (see, for example, *PI* §223).<sup>9</sup>

In reading the learning cases, we have to locate them, along with the anthropological ones, within Wittgenstein's more general statements on methodology. To gain a *synoptic view* of language-in-use and rule-following behavior, he says, we have to simplify a little. We need to limit what we are looking at within the *hurly burly* and narrow our focus onto very clear, well-crafted, and familiar cases (*Z* §567–569) — cases where the educated reader may instantly provide (recall) the appropriate background, thus reducing the need for explicating minute details in the surroundings that contribute to sense. Telescoping into the teacher-learner situation provides the kind of clarity amid confusion that is useful for explicating complex philosophical issues. Wittgenstein explains this as a way of looking at grammatical problems “of fundamental importance” to philosophy:

A main source of our failure to understand is that we do not *command a clear* view of the use of our words — our grammar is lacking in this sort of perspicuity. A perspicuous representation produces just that understanding which consists in “seeing connexions.” Hence the importance of finding and inventing *intermediate cases*. (*PI* §122)

The discovered and invented *intermediate cases* provide some interstice in the flow of life, pausing to show us grammatical traps at the foundation of knowledge, default positions in our thinking, and category mistakes in the web of concepts that bind us. Throughout Wittgenstein's work, he is either finding cases of learning, likely drawn from his own teaching experience but intelligible to all readers “bound together by science and education” (*OC* §171, §298), or he is fabricating them. The latter include illustratively absurd conditions where the “general facts of nature” do not hold fast, cases where rulers stretch and ink disappears (*RFM* I.5, *PI* II, 226). Here “things appear quite different from what they actually are,” “rule becomes exception and exception rule” — for instance, cheese now grows and shrinks on the scale, making the practice of weighing to fix a price quite meaningless (*PI* §142). These foreign situations show us what is otherwise taken for granted and therefore hidden from us because of its familiarity (*PI* §129). Both sets of *intermediate cases* are the medium of his later philosophy; through them, we come to see the foundations in language for acting and judging as we do. José Medina calls this a

*deflationary* (not a quietist) approach to philosophical problems: one in which we dissolve them through inspection of everyday practices and their contravention.<sup>10</sup> It is also a *decelerating* approach, in that it slows down our investigation by piling up examples until it occurs to us that there is a faulty picture at work in the numerous cases presented. Collectively, they show the *fly the way out of the fly-bottle* (*PI* §309).

At the outset of the *Investigations*, Wittgenstein says that pedagogical examples are provided to show what is otherwise hidden. Stating that our understanding of the workings of language is enshrouded in “a haze which makes clear vision impossible,” he continues:

It disperses the fog to study the phenomena of language in primitive kinds of application in which one can command a clear view of the aim and functioning of the words. A child uses such primitive forms of language when it learns to talk. Here the teaching of language is not explanation, but training. (*PI* §5)

Scenes of children learning language have an expository or heuristic purpose, showing inculcation into normative practices of usage: “The children are brought up to perform *these* actions, to use *these* words as they do, and to react in *this* way to the words of others” (*PI* §6). His argument in the *Investigations* and in *Philosophical Grammar* is that *ostensive definition* remains ambiguous until *ostensive teaching* provides a broader, normative context of use.<sup>11</sup>

Here we might ask whether his pedagogy is normative. Wittgenstein presents models of usage for descriptive instead of prescriptive purposes:

Our clear and simple language-games are not intended to be preparatory studies for a future regularization of language [as though ignoring friction and air resistance, he adds]....The language-games are rather set up as *objects of comparison* which are meant to throw light on the facts of our language by way not only of similarities, but also of dissimilarities. (*PI* §130)

Such examples bring us “*back to the rough ground*” (*PI* §107), preventing philosophy from collapsing into vacuity or dogmatism: “For we can avoid ineptness or emptiness in our assertions only by presenting the model as what it is, as an object of comparison” (*PI* §131). Practical and hypothetical cases prevent philosophy from becoming too prescriptive or idealistic:

We want to establish an order in our knowledge of the use of language: an order with a particular end in view; one out of many possible orders; not *the* order. To this end we shall constantly be giving prominence to distinctions which our ordinary forms of language easily make us overlook. This may make it look as if we saw it as our task to reform language. (*PI* §132)

Both perspicuous inspection of actual cases of language usage and the drawing of distinctions by creating chimerical examples that throw language into greater relief help us to “stop doing philosophy when we want to” (*PI* §133, *Z* §314). It is a pedagogical way of working on our selves. His approach — one form of therapy among many, not *the* method — is intended to alleviate the torment of certain problems that haunt philosophers by showing that these stem from deeply entrenched pictures in our language (*PI* §15, §133). Wittgenstein’s examples show us how pictures are sedimented into the bedrock of our language through early training; they become our initiation into ways of thinking/acting/seeing.

## EXEMPLIFICATION

Here is a section from Rush Rhees's notes on Wittgenstein's *Lecture on Aesthetics*, which describes this twofold exemplification approach:

One thing we always do when discussing a word is to ask how we were taught it...How did we learn "I dreamt so and so"? The interesting point is that we didn't learn it by being shown a dream. If you ask yourself how a child learns "beautiful," "fine," etc., you find it learns them roughly as interjections.... A child generally applies a word like "good" first to food. One thing that is immensely important in teaching is exaggerated gestures and facial expressions. The word is taught as a substitute for a facial expression or gesture. The gestures, tones of voice, etc., in this case are expressions of approval. What *makes* the word an interjection of approval? It is the game it appears in, not the form of words.<sup>12</sup>

After considering the found pedagogical case, he entertains an invented one: "If you came to a foreign tribe, whose language you didn't know at all and wished to know what words corresponded to "good," "fine," etc., what would you look for? You would look for smiles, gestures, food, toys." Wittgenstein then imagines spherical "people" on Mars with sticks coming out of their bodies: alien life forms that could not gesture to us. In such a place we would not know what to look for.<sup>13</sup>

The most celebrated examples come from his rule-following arguments in the *Investigations*, where searching for an interpretation of the rule results in an infinite regression (*PI* §198, §201). He reminds us that we do have arms and natural reactions that allow us to point to objects (a technique we can train dogs to observe, but not cats<sup>14</sup>) — an obvious yet hidden "given" necessary for *ostensive teaching* of patterns to occur:

Now we get the pupil to continue a series (say +2) beyond 1000 — and he writes 1000, 1004, 1008, 1012.

We say to him "Look what you've done!" — He doesn't understand. We say: "You were meant to add *two*: look how you began the series!" — He answers: "Yes, isn't it right? I thought that was how I was *meant* to do it." — Or suppose he pointed to the series and says: "But can't you see...?" — and repeats the old examples and explanations. — In such a case we might say, perhaps: It comes natural to this person to understand our order with our explanations as *we should understand the order*: "Add 2 up to 1000, 4 up to 2000, 6 up to 3000, and so on."

Such a case would present similarities with one in which a person naturally reacted to the gesture of pointing with the hand by looking in the direction of the line from finger-tip to wrist, not from wrist to finger-tip. (*PI* §185)

Wittgenstein jumps from considering the role of patterned behavior and natural reactions within our *form of life* — an element of our natural history and our mastery of techniques — to the anthropological perspective:

Following a rule is analogous to obeying an order. We are trained to do so; we react to an order in a particular way. But what if one person reacts in one way and another in another to the order and the training? Which one is right?

Suppose you came as an explorer into an unknown country with a language quite strange to you. In what circumstances would you say that the people there gave orders, understood them, obeyed them, rebelled against them, and so on?

The common behaviour of mankind is the system of reference by means of which we interpret an unknown language. (*PI* §206)

In *Philosophical Investigations* he creates a thought-experiment about these same people from a strange land, but adds that although they *apparently* speak an articulate language, when we try to learn their language, “we find it impossible to do so. For there is no regular connexion between what they say, the sounds they make, and their actions.” In this extreme case, where action is disconnected from sounds, “there is not enough regularity for us to call it ‘language’” (*PI* §207). He then goes on to explain this unusual teaching situation further, showing the kind of training and *ostensive teaching* we would give someone who lacks our way of *going on*. Here he introduces a distinction between the type of “teaching which is not meant to apply to anything but the examples given” and the type “which ‘points beyond’ them” (*PI* §208). The first type, *ostensive teaching*, points to paradigm examples and cajoles the pupil into internalizing the pattern; here the teacher does not necessarily understand more than what is conveyed to the pupil:

I do it, he does it after me; and I influence him by expression of agreement, rejection, expectation, encouragement. I let him go his way, or hold him back; and so on.

Imagine witnessing such teaching. None of the words would be explained by means of itself; there would be no logical circle. (*PI* §208)

In the course of *ostensive teaching* we must have already provided the stage-setting as to what “regular,” “uniform,” or “the same” mean; drawing analogies presupposes the pupil’s internalization of concepts of identity. Attaching the right names to things requires higher order concepts such as “likeness,” showing the fallacy of mere *ostensive definition*.<sup>15</sup> In *Remarks on the Foundations of Mathematics*, Wittgenstein explains that such training also requires common surroundings and agreements:

But how then does the teacher interpret the rule for the pupil?...

— Well, how but by means of words and training?

And if the pupil reacts to it thus and thus; he possesses the rule inwardly.

But *this* is important, namely that this reaction, which is our guarantee of understanding, presupposes as a surrounding particular circumstances, particular forms of life and speech. (*RFM* VII.47)

The teacher may graft onto these natural reactions new patterns that also become spontaneous — that is, part of our *form of life*:

If we teach a human being such-and-such a technique by means of examples — that he then proceeds like *this* and not *that* in a particular new case, or that in this case he gets stuck, and thus that this and not that is the “natural” continuation for him: this of itself is an extremely important fact of nature. (*Z* §355)

Instead of seeing the rule as something we have to articulate or hold in our heads as we act, he shows us how we can form a different, more animalistic picture of rule-following: “When I obey a rule, I do not choose. I obey the rule *blindly*” (*PI* §219; see also *PI* §25, §415; *PII*, 147, 223, 229 and *OC* §475, §358–359). To see this, we must displace the concept of the rule as veritable *rails to infinity* along which our locomotive fixedly moves, an image that leads us to think too narrowly in terms of *logical compulsion* (*PI* §218, 23; *RFMI*.116). Instead, Wittgenstein leaves us with the picture of the human, social-linguistic animal that embodies rules as one would

the steps of a social dance, internalizing the patterns through training and mastery of techniques.<sup>16</sup> Because a music teacher shares an entire cultural background with her pupil, she can adequately judge when the student understands or can expressively play a phrase (*Z* §164), perhaps from observing the student perform an appropriate dance.<sup>17</sup> Instead of grounding rule-governed behavior in reasons, criteria, or justifications, Wittgenstein grounds it in practice:

I cannot describe how (in general) to employ rules, except by *teaching* you, *training* you to employ rules. (*Z* §318)

Any explanation has its foundation in training. (Educators ought to remember this.) (*Z* §419)

#### COMPULSION AND FREEDOM

As members of communities, we are often compelled to go in certain directions; this is a fact of social life and early education. In learning to talk, we also learn how, and even what, to wish: “By nature and by particular training, a particular education, we are disposed to give spontaneous expression to wishes in certain circumstances” (*PI* §441). This acknowledgement does not preclude our renegotiation of these traditional ways of responding, nor does it commit Wittgenstein to conservatism or behaviorism (*PI* §307–309). We can open up our rules for reconsideration, and sometimes form new agreements through a change in action (*PI* §224):

“But am I not compelled, then, to go the way I do in a chain of inference?” Compelled? After all, I can presumably go as I choose! “But if you want to remain in accord with the rules you *must* go this way.” Not at all, I call *this* “accord.” “Then you have changed the meaning of the word ‘accord,’ or the meaning of the rule.” No; — who says what “change” and “remaining the same” mean here? (*RFM* I.113)

His vignettes of teaching give us a view toward early education as a way of *affixing* the terms and techniques of our language, and thus of initiating the young into “our” *form of life*. A common mistake is to assume that Wittgenstein therefore had a rather conservative view: that such inculcation into habitual ways of acting as “we” do ends the matter. When he remarks that “philosophy leaves everything as it is,” this refers to mathematics as well as language, but not to the state-of-the-world as many misread it (*PI* §124, §126). One might wrongly conclude that pupils ought to just follow whatever the teacher says and thus acquire unshakably the bedrock propositions that comprise “our” certainty — the basis for being able to react and go on like “respectable” others do, without seeking underlying reasons for actions or beliefs. “Something must be taught us as a foundation,” he says, but that does not mean that we are consigned to live in captivity with the herd (*OC* §449):

/People are deeply imbedded in philosophical, i.e. grammatical confusions. And to free them from these presupposes pulling them out of the immensely manifold connections they are caught up in.... So you can only succeed in extricating people who live in an instinctive rebellion against // dissatisfaction with // language. Not with those who following all their instincts live within the herd that has created this language as its proper expression.<sup>18</sup>

On either Nietzsche's or Wittgenstein's philosophical view, we must acquire a firm foundation from which to later free ourselves (*self-overcoming*); in itself, this would be a rather illiberal position, akin to accepting training and indoctrination as *the* mode of instruction. Medina concludes, however, that Wittgenstein had a more liberal position, and he points to the anthropological cases to round out our picture

of the freedom we have to not merely accept the pictures given us by authority figures.<sup>19</sup> Many of the learning and anthropological cases show us that our practices lack a firm foundation and that they are arbitrary in the sense that others could also be used sensibly in their place. Wittgenstein shows us unusual wood sellers whose practices conflict with ours (in selling by area, height, or need, for example), not in order to show that their methods of selling wood are senseless; rather, they appear “logically insane” to us, Medina explains, because we have no way of accommodating them within our background set of practices and sensibilities. Wittgenstein asks, “What should we say if we found [such] people who made judgments contrary to our logical propositions?”<sup>20</sup>

Oddly, learning mathematics provides the example of how we internalize arbitrary but useful techniques. “Mathematics,” he says, “is *normative*” (*RFM* VII.61), drawing the interlocutor’s response: “‘But are you saying, Wittgenstein, that all this is arbitrary?’ — I don’t know. Certainly as children we are punished if we don’t do it in the right way.”<sup>21</sup> Concerning the learner’s “discovery” that 13 follows 12 in our number system, Wittgenstein exclaims, “That’s our technique — we *fix*, we teach, our technique that way. If there is a discovery — it is that this is a valuable thing to do.”<sup>22</sup> We are limited in changing this practice (by eliminating the number 13, for instance) due to its utility to those who share a similar training and education. Wittgenstein offers the pragmatic reminder that is too often lost on those who would invent new language-games (including educational reformers): “The new meaning must be such that we who have had a certain training will find it useful in certain ways.”<sup>23</sup> Wittgenstein points to how people are inculcated into apparently *groundless* (*language-game* and *form of life* relative) systems of interlocking propositions or *world-pictures*: *weltbilds* such as Earth’s sphericity, rooted in our language as a basis for unreflective action (*OC* §94–95, §146–147, §162, §262). Initiate training is thus connected to the enterprise of embedding “certainties” (*bedrock* or *hinge* propositions) that precede “knowledge” acquisition and that determine for us ranges of reasonable action and doubt (for example, allegorically, his presentation of “the pupil who questions too much” and cannot learn [see *OC* §310–334]).

By focusing our attention on concept acquisition, training toward mastery of techniques, and collective *seeing-as*, Wittgenstein was able to confront “deep disquietudes” — problematic entrenchments — in our language (*PI II*, 195). He shows how we absorb these *world-pictures* in our early training, acquiring bedrock notions such as the Aquinas, intuitionist model of mathematical reasoning (which makes calculation “a kind of composition”), or questions of Cartesianism in our standard model of “calculating in the head” (*PI* §232–235). He dispels such gripping images as the empiricist model of perception (*OC* §90) — or the picture of our separation from nature, as though civilization were enclosed in cellophane.<sup>24</sup> We do not initially choose these pictures, nor are we necessarily satisfied with them. We inherit them, he says, and they become the basis for determining the *true and false* in our lives (*OC* §94).

Let me conclude this synopsis (*ostensive teaching*) of the role of teaching and learning for Wittgenstein by pointing to his remark regarding another captivating image: the awakening of consciousness in higher animals and “man” (sic), traditionally depicted as the epiphany for these beings. Here Wittgenstein illustrates the need for a perspicuous grasp of learning — what brings us habitually to think this way — if we are to free ourselves from such “bewitching” pictures (*PI* §109):

What this language primarily describes is a picture. What is to be done with the picture, how it is to be used, is still obscure. Quite clearly, however, it must be explored if we want to understand the sense of what we are saying. But the picture seems to spare us this work: it already points to a particular use. This is how it takes us in (*PI II*, 195).

---

1. See, for example, Josè Medina, *The Unity of Wittgenstein's Philosophy: Necessity, Intelligibility, and Normativity* (Albany: SUNY Press, 2002); Meredith Williams, *Wittgenstein, Mind and Meaning: Toward a Social Conception of Mind* (London and New York: Routledge, 1999); and Michael Luntley, *Wittgenstein: Meaning and Judgement* (Oxford: Blackwell, 2003), 175. Against R.S. Peters's misreading of Wittgenstein, which offers another enthralling picture, see James Marshall, “Wittgenstein and Foucault: Resolving Philosophical Puzzles,” in *Philosophy and Education: Accepting Wittgenstein's Challenge*, ed. James Marshall and Paul Smeyers (Dordrecht, Netherlands: Kluwer, 1995).

2. Michael Peters and James Marshall, *Wittgenstein: Philosophy, Postmodernism, Pedagogy* (Westport, Conn.: Bergin and Garvey, 1999), 174–175. See also C.J.B. Macmillan, “How Not to Learn: Reflections On Wittgenstein and Learning,” in *Philosophy and Education*, ed. Marshall and Smeyers, 169.

3. Ludwig Wittgenstein, *Zettel*, trans. G.E.M. Anscombe (Oxford: Basil Blackwell, 1967), §155. This work will be cited as *Z* in the text for all subsequent references.

4. See Beth Savickey, *Wittgenstein's Art of Investigation* (London and New York: Routledge, 1999).

5. Ludwig Wittgenstein, *Philosophical Investigations*, 3d ed., trans. G.E.M. Anscombe (Oxford: Basil Blackwell, 1968), §109. This work will be cited in the text as *PI* §, for references to section numbers in part one, and *PI II*, p., for references to page numbers in part two.

6. See also Ludwig Wittgenstein, *On Certainty*, trans. Denis Paul and G.E.M. Anscombe (Oxford: Basil Blackwell, 1969), §130. This work will be cited as *OC* in the text for all subsequent references.

7. Ludwig Wittgenstein, *Remarks on the Foundation of Mathematics*, trans. Denis Paul and G.E.M. Anscombe (Oxford: Basil Blackwell, 1956), IV.53. This work will be cited as *RFM* in the text for all subsequent references. See also Ludwig Wittgenstein, *Culture and Value*, ed. G.H. von Wright with Heikki Nyman, trans. Peter Winch (Oxford: Basil Blackwell, 1980), 16e. The connection with Michel Foucault is implicit, drawn from James Tully, “Wittgenstein and Political Philosophy: Understanding Practices of Critical Reflection,” and David Owen, “Genealogy as Perspicuous Representation,” both in *The Grammar of Politics: Wittgenstein and Political Philosophy*, ed. Cressida Heyes (Ithaca and London: Cornell University Press, 2003).

8. The original paper contained at the heading a *dual-aspect image*, Rubin's vase, in which two opposing white human profiles frame a black vase, demonstrating how foreground and background objects may exchange places in our perception as we see alternate aspects. Wittgenstein contrasted such *aspect dawning* (for example, Jastrow's “duck-rabbit” picture) with *continuous seeing of an aspect*, as in habitually seeing a fork as cutlery or in word recognition (*PI II*, p. 194).

9. See also Ludwig Wittgenstein, *Remarks on the Philosophy of Psychology*, vol. 2, ed. G.E.M. Anscombe, trans. G.H. von Wright (Oxford: Basil Blackwell, 1980), §30, §700.

10. Medina, *Unity of Wittgenstein's Philosophy*, 193.

11. *Ibid.*, 169–170.

12. Ludwig Wittgenstein, *Lectures and Conversations on Aesthetics, Psychology and Religious Beliefs*, ed. Cyril Barret (Berkeley: University of California Press, 1966), §5.

13. *Ibid.*, §6.

14. Ludwig Wittgenstein, *Preliminary Studies for the "Philosophical Investigations": Generally Known as the Blue and Brown Books* (Oxford: Basil Blackwell, 1958), 79–80; and Wittgenstein, *Culture and Value*, 67e.
15. Medina, *Unity of Wittgenstein's Philosophy*, 164.
16. Charles Taylor, "To Follow a Rule," in *Philosophical Arguments* (Cambridge: Harvard University Press, 1995).
17. See also Wittgenstein, *Culture and Value*, 69–70e.
18. Ludwig Wittgenstein, "Philosophy," in *Philosophical Occasions (1912–1951)*, ed. James C. Klagge and Alfred Norman (Indianapolis: Hackett, 1993), 185.
19. Medina, *Unity of Wittgenstein's Philosophy*, 154.
20. See Ludwig Wittgenstein, *Wittgenstein's Lectures on the Foundation of Mathematics, Cambridge, 1939*, ed. Cora Diamond (Ithaca, N.Y.: Cornell University Press, 1976), 202, cited in Medina, *Unity of Wittgenstein's Philosophy*, 144. See also *RFM*, I.149.
21. Wittgenstein, *Lectures on the Foundation of Mathematics*, XIX, 182–183.
22. *Ibid.*, VIII, 83.
23. *Ibid.*, VI, 66.
24. Wittgenstein, *Culture and Value*, 50e.