

The Internal Structure of Reading and the Internal Structure of Philosophizing

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"A Philosopher Reading," by a follower of David Teniers the Younger, 1610-1690
(Wikimedia Commons, 2024)

For the purposes of this essay, by "philosophy" I'll mean *Western philosophy*, from ancient Greek philosophy through Hellenistic and Roman philosophy, through medieval European, early modern European, modern European, and post-Kantian European and Anglo-American philosophy, right up to 6am this morning.¹ *Literacy* emerged in Sumeria

¹ Of course, there are also important *non-Western* traditions of philosophy: African, Asian, Indian, Indigenous, Middle Eastern, and so-on. But unfortunately, I'm not qualified to explore these. Nevertheless, it would be extremely interesting to know whether the internal structures of philosophizing I identify in Western philosophy, also hold up in non-Western philosophy, or not—and if not, why not.

roughly 5500 years ago, but the emergence of philosophy in ancient Greece roughly 2500 years ago seems to have been closely bound up with the emergence of the first *alphabetic writing-&-reading system* there in the 8th century BCE (Rayner et al., 2012: ch. 2). Certainly, in the 6th century BCE, the emergence of *logic* with Parmenides, Zeno, Plato, and Aristotle, and the more less simultaneous emergence of *mathematics* with the Pythagoreans and Euclid, as formal sciences, both require not only literacy but also alphabetic writing-&-reading and its specific grammar or syntax and semantics. And logic and mathematics—alongside various forms of naturalistic investigation and speculation (principally cosmological/physical or biological), various forms of religion and spirituality (principally existential/mystical or theological), and various forms of rule-governed conduct and sociality (principally ethical, moral, or political)—are the core ingredients of the emergent discipline of philosophy. But neither logic, nor mathematics, nor philosophy would be possible without the act or process of reading; and since writing presupposes reading—in order to write something, you have to be able to read what you’re writing²—then *reading is really the condition of the possibility of all philosophy*, in the sense that reading is not only necessary but also essential to philosophy. Indeed, *the philosophy of reading is first philosophy* (Hanna, 2023a). Therefore, philosophy isn’t merely “the love of wisdom” (in Greek, *philo + sophia*), it’s *fundamentally the love of wisdom that can be expressed in legible texts and read by oneself and others*.

That all being so, then one would naturally expect there to be important analogies or even isomorphisms between, on the one hand, the internal structure of the act or process of reading, and on the other, the internal structure of philosophizing. And that’s what I want to investigate in this essay.³

Here’s my analysis of reading, quoted (with a few redactions, indicated by inserted material in square brackets or ellipses) from an earlier essay:

For convenience and ease of expression, in what follows ... I’m going to use the terms *legible*, *legibility*, *illegible*, and *illegibility*, respectively, as synonyms for the terms *readable*, *readability*, *unreadable*, and *unreadability*, respectively.

² To be sure, reading also presupposes that legible texts have already been written by someone. But the end or purpose of writing itself is to express, by means of legible texts, information that can be read by oneself or others. So all writing is inherently *reading-centered* or, neologistically put, *lectiocentric*.

³ There’s also a thick, rich, and substantive dimension of *affect*, *embodiment*, and *agency* in reading (Hanna, 2023b), that one would also naturally expect to have a direct bearing on the corresponding affective, embodied, and agential dimension of philosophy. I’ve discussed that dimension of philosophy in (Hanna, 2024).

[Now] I'll propose a set of fairly precise necessary and sufficient conditions for legibility and reading.

[A]ccording to the *Oxford Encyclopedic English Dictionary*, "character" is defined as

a printed or written letter, symbol, or distinctive mark. (Hawkins and Allen, 1991: p. 247)

In view of that, then I'll ... define a *text* as *any sequence of one or more characters*, where a one-character sequence is the lower-bound limiting case, and there's no upper bound on the number of characters. In turn, what I'll call a *text-in-L* is defined as *any sequence of one or more characters belonging to a particular language L*. It's important to note that a language L can contain some characters (hence also some texts) that belong to one or more different languages L₂, L₃, L₄, etc. So, for example, English contains some letters, words, and sentences belonging to other languages, including Greek, Latin, French, German, Italian, etc. Then, I'll provide necessary and sufficient conditions for legibility in two parts, as follows:

1. A text T-in-L is legible if and only if T-in-L satisfies *the perceptibility condition, the syntactic condition, and the semantic condition*, and
2. all and only such texts-in-L have legibility.

The perceptibility condition says that *the basic orientable (i.e., intrinsically directional, for example, up-down, back-front, or right-left) spatial shape and structure of T-in-L must be at least minimally perceptually detectable*, i.e., that T-in-L must be *at least partially perceptually detectable*, hence *it's not completely perceptually undetectable*, and thereby T-in-L is *able-to-be-scanned* to at least that minimal extent. For example, if a text is completely blacked out, erased, otherwise completely smudged out or obscured, invisibly small, or so big that its shape cannot be perceived, then it's perceptually undetectable and illegible. But on the other hand, as it were, even if a text T-in-L is right-to-left→left-to-right mirror-reversed and turned upside down ... it's still *able-to-scanned* to the minimal extent that *it's not completely undetectable....*

The syntactic condition says that *T-in-L must be at least minimally well-formed*, i.e., that T-in-L must be *at least partially well-formed*, hence *it's not completely ill-formed*, and thereby T-in-L is *able-to-be-parsed* to at least that minimal extent. For example, even if a text T-in-L is perceptually detectable, it can be completely jumbled, completely misspelled, or completely ungrammatical, or its characters can be completely randomly distributed, and in any of those ways it would be syntactically illegible. Indeed, ciphers or secret codes (as opposed to hidden messages in otherwise legible texts) are designed to *approach* syntactic illegibility, on the working assumption that the more illegible they are, the harder they are to break; so if there are some ciphers that *have never been broken* and all their creators

are dead, or, more thought-experimentally, if there were a cipher created by intelligent non-human aliens that, even in principle, *could never be broken by rational human animals*, then they would be illegible in the syntactic sense. Therefore, a text-in-L's satisfying the perceptibility condition, as such, *is not itself independently sufficient for readability* and thus *it's not itself independently sufficient for being the target of any actual or possible act or process of reading*.

And the semantic condition says that *the conceptual content and/or essentially non-conceptual content of T-in-L must be at least minimally coherent*, i.e., that the conceptual content and/or essentially non-conceptual content of T-in-L must be *at least partially coherent*, hence *not completely incoherent*, and thereby the conceptual content and/or essentially non-conceptual content of T-in-L is *able-to-be comprehended* to at least that minimal extent. For example, even if a text is minimally perceptible and also minimally well-formed, nevertheless it can still violate minimal requirements of conceptual *sortal correctness* and/or essentially non-conceptual *sortal correctness*, or be strictly non-referential, and be semantic *gibberish*, hence be illegible in the semantic sense, like this non-poetical text-in-English, a paradigm case of *sortal incorrectness*, devised by Bertrand Russell (Russell, 1940: p. 166)—

quadruplicity drinks procrastination

or this famous poetical text-in-English, a paradigm case of strict non-referentiality, taken from Lewis Carroll's *Jabberwocky*... —

'Twas brillig, and the slithy toves
Did gyre and gimble in the wabe;
All mimsy were the borogoves,
And the mome raths outgrabe. (Carroll, 1988)

Therefore, that text from *Jabberwocky*'s satisfying the perceptibility condition *together with* the syntactic condition, yet also failing the semantic condition, shows that the first two conditions *are not themselves conjointly sufficient for readability* and thus that *they're not themselves conjointly sufficient for being the target of any actual or possible act or process of reading*. Of course, millions of people, including you, the reader of this very essay, have in some sense or another “read” that text from *Jabberwocky*; but my way of explaining away this apparent inconsistency is just to point out that *Jabberwocky* is indeed *legible* in both the perceptible and syntactic senses (so in two senses, readable), but *illegible* in the semantic sense (so in one sense, unreadable), hence not legible in *all* relevant senses, hence *illegible* by my contextual definition, or conceptual analysis, of legibility. The same point holds, *mutatis mutandis*, for “quadruplicity drinks procrastination” and all other essentially similar texts-in-L: you can “read” it in two senses (the perceptible sense and the syntactic sense), but strictly speaking, it's *illegible* according to the necessary and sufficient conditions of legibility, precisely because it fails the semantic condition.

Assuming all of that so far, I'm now in a position to provide precise necessary and sufficient conditions for the act or process of reading. In the following contextual definition, or conceptual analysis, by *person* I mean *rational human minded animal*: namely, a living human organism that's capable of (i) consciousness, (ii) self-consciousness, (iii) caring (i.e., desire, emotion, and feeling—the affects), (iv) sensible cognition, (v) intellectual cognition, (vi) volition, (vii) object-directed and act-directed intentionality more generally, and (viii) free agency. Then, I'll provide necessary and sufficient conditions for reading in two parts, as follows:

1. A person P reads a text T-in-L if and only if P consciously or self-consciously at least minimally scans, at least minimally parses, and also at least minimally comprehends T-in-L, and
2. all and only such acts or processes are reading.

It's important to note that, consistently with this contextual definition, or conceptual analysis, of reading, a person P can read a text T-in-L either *aloud* or *silently to themselves*. It's also important to note that neither scanning, nor parsing, nor comprehending, need be *self-consciously* or *reflectively* performed: this can be done in a more-or-less or even altogether *pre-reflectively* or *unself-consciously conscious* way; indeed, we typically “look right through” what we're reading in order to go directly to the *meaning* (whether sense, reference, or speech-act uptake) of what we're reading, and altogether overlook the scanning, parsing, and comprehending dimensions of the act or process of reading itself. In order to bring those dimensions back into view, all you have to do is to repeat any text-in-L—for example, a sentence or word—out loud a few times (say, ten times) until it sounds strangely *bereft* of meaning; that strange *absence-of-meaning* has then become vividly manifest to you precisely because the perceptibility and syntax of that particular text-in-L have been temporarily self-consciously detached from what you've been previously been pre-reflectively and unself-consciously yet still consciously comprehending.

And it's also important to note that the point I made above about “readers” of *Jabberwocky* and “quadruplicity drinks procrastination” goes, *mutatis mutandis*, for my contextual definition, or conceptual analysis, of reading: of course, millions of people, including you, the reader of this very essay, are in some sense or another “readers” of that text from *Jabberwocky*; and no doubt a few thousand people have read “quadruplicity drinks procrastination”; but my way of explaining away this apparent inconsistency too, is just to point out that *Jabberwocky* and “quadruplicity drinks procrastination” can indeed be *read* in both the perceptible and syntactic senses (so in two senses, that's reading), but *cannot be read* in the semantic sense (so in one sense, that's *not* reading), hence it's not reading in *all* the relevant senses, hence it's *not reading* by my contextual definition, or conceptual analysis, of reading. (Hanna, 2023c: pp. 8 and 11-15)

My three-stage analysis of reading—as a complex act or process necessarily involving the ordered sub-operations of scanning, parsing, and comprehending—is generally confirmed by recent and contemporary empirical work in the cognitive psychology of reading (Rayner et al., 2012: chs. 4-9). So for the purposes of argument, let's grant my analysis of the internal structure of reading. In studying beginning reading and the stages of reading development, contemporary cognitive psychologists of reading have also found it convenient to bundle the sub-operations of scanning and parsing into a single conjoint sub-operation they call *decoding*, as contrasted with the sub-operation of *comprehension* (Rayner et al., 2012: chs. 10-11). Phenomenologically considered, I do think that scanning can be fairly easily distinguished from parsing. For example, I've never learned or studied Japanese, so obviously I cannot read it. But by virtue of having watched quite a few Japanese movies with English subtitles, in which many and various Japanese texts are visually displayed, I can now at least minimally scan Japanese, but neither parse it nor comprehend it. Nevertheless, it's not only theoretically convenient, but also philosophically illuminating, to treat *scanning + parsing*, i.e., *decoding*, as a single operational unity, as per contemporary cognitive psychology of reading development.

This latter point comes forward vividly when we consider *reading disorders* (Rayner et al., 2012: ch. 12). In view of the reading disorder of *dyslexia*, which is usually defined by psychologists of reading as sub-par performance in scanning-&-parsing (decoding) that can also be combined with competent or even high-level performance in comprehension, we can easily recognize that scanning + parsing (decoding) is distinct from comprehension. By instructive contrast, let's also consider the reading disorder of *hyperlexia*, which is usually defined by psychologists of reading as competent or even high-level performance in scanning + parsing (decoding) accompanied by sub-par performance in comprehension. Again, this clearly and distinctly shows that scanning + parsing (decoding) is distinct from comprehension. Moreover, the related phenomena of *early reading* and *late talking* (aka "Einstein Syndrome"—see, e.g., Sowell, 1997; Smith-Garcia, 2020) are often hyperlexic. Hence comprehension can operate in an effective way (relatively) independently of scanning + parsing (decoding); and scanning + parsing (decoding) can operate in an effective way (relatively) independently of comprehension. Nevertheless competent, high-level, or even highest-level performance in *both* scanning-&-parsing (decoding) *and* comprehension are operatively independent of talking: Albert Einstein himself, who was reportedly a late talker but able to read competently by age 7 and also able to read advanced physics books by age 12, is a paradigmatic example.

With those distinctions in place, I'll now try to map the internal structure of the act or process of reading onto the internal structure of the act or process of philosophizing, in five steps.

First, it seems clear and distinct that scanning + parsing (decoding) corresponds to *logico-mathematical reasoning in philosophizing*, or for short, *philosophical analysis*: roughly speaking, “bottom-up” philosophizing. Paradigmatic examples of philosophical analysis would be the works of Gottlob Frege, early Bertrand Russell, early G.E. Moore, early Ludwig Wittgenstein, and Rudolf Carnap (see, e.g., Hanna, 2021: chs. I-IX).

Second, it also seems clear and distinct that comprehension corresponds to *synoptic understanding in philosophizing*, or for short, *philosophical synthesis*: roughly speaking, “top-down” philosophizing. A paradigmatic example of philosophical synthesis would be the work of Ernst Cassirer (see, e.g., Luft, 2021).

Third, by analogy or isomorphism with *dyslexia*, it’s really possible to have sub-par performance in philosophical analysis when combined with competent, high-level, or even highest-level performance in philosophical synthesis: indeed, this is obviously the case in 20th century *post-structuralist or post-modernist Continental philosophy* (see, e.g., Hanna, 2021: section XVII.5, 2022: section II). A paradigmatic example of the dyslexic condition of 20th century post-structuralist or post-modernist Continental philosophy would be Jacques Derrida’s *Of Grammatology* (Derrida, 1967/1976). It should be particularly noted that I’m neither saying nor suggesting that Derrida *himself* was dyslexic: that would be reverse *ad hominem* reasoning.⁴

Fourth, by analogy or isomorphism with *hyperlexia*, it’s also clearly possible to have competent, high-level, or even highest-level performance in philosophical analysis, when combined with sub-par performance in philosophical synthesis: indeed, this is equally obviously the case in 20th century *post-classical Analytic philosophy* (see, e.g., Hanna, 2021: ch. XVII). A paradigmatic example of the hyperlexic condition of 20th century post-classical Analytic philosophy would be W.V.O. Quine’s *Word and Object* (Quine, 1960; see also Hanna, 2015: ch. 4, 2022: section III). Again, it should be particularly noted that I’m neither saying nor suggesting that Quine *himself* was hyperlexic, which would also be reverse *ad hominem* reasoning.

Fifth, when taken together, the four preceding analogies or isomorphisms between the internal structure of reading and the internal structure of philosophizing collectively strongly suggest

⁴ By “reverse *ad hominem* reasoning,” I mean reasoning fallaciously from logical facts about arguments to personal facts about people who are putting forward those arguments, as opposed to standard *ad hominem* reasoning, which is reasoning fallaciously from personal facts about people who are putting forward arguments to logical facts about their arguments.

(i) that *competent philosophizing*, just like *competent reading*, which displays equal competence in scanning + parsing (decoding) and comprehension alike, *should display equal competence in philosophical analysis and philosophical synthesis alike*, as complementary philosophical sub-activities,

(ii) that *good philosophizing*, just like *high-level performance in reading*, which displays equal high-level performance in scanning + parsing (decoding) and comprehension alike, *should display equal high-level performance in philosophical analysis and philosophical synthesis alike*, as complementary philosophical sub-activities, and

(iii) that *great philosophizing*, just like *highest-level performance in reading*, which displays equal highest-level performance in scanning + parsing (decoding) and comprehension alike, *should display equal highest-level performance in philosophical analysis and philosophical synthesis alike*, as complementary philosophical sub-activities.

If the preceding argument is sound, then competent philosophy, good philosophy, and great philosophy, alike, should be *neither* “Continental,” which is inherently unstable and on a slippery slope towards a disordered *dyslexic* condition of philosophy, *nor* “Analytic,” which is also inherently unstable and on a slippery slope towards a disordered *hyperlexic* condition of philosophy. Instead, competent philosophizing, good philosophizing, and great philosophizing, alike, should all be *dual* or *duplex*—that is, they should all be in a dynamic, vital condition of *bottom-up-&-top-down complementarity*, coherently fusing logico-mathematical reasoning and synoptic understanding, philosophical analysis and philosophical synthesis—just like the properly-functioning complex human capacity for reading.

Paradigmatic examples of great philosophizing in this dynamic, vital dual or duplex condition would be Plato’s philosophy and also Aristotle’s philosophy in the classical ancient Greek, Hellenistic/Roman, and Medieval traditions; and in the early modern, modern, and post-Kantian traditions, Immanuel Kant’s Critical philosophy, especially including the *Critique of Pure Reason* (Kant, 1781/1787/1996; see also Hanna, 2001, 2006) and also later Wittgenstein’s philosophy, especially including the *Philosophical Investigations* (Wittgenstein, 1953; see also Hanna, 2021: chs. XI-XIV). Indeed, there are profound affinities and historical connections between Kant’s Critical philosophy and Wittgenstein’s philosophy, both early *and* late (Hanna, 2017). Therefore, by the criterion of great philosophizing in a dynamic, vital dual or duplex condition, The Big Four in the history of (Western) philosophy would be Plato, Aristotle, Kant, and Wittgenstein.

In the early 00s, by means of a bizarre mixture of postmortem diagnosis and reverse *ad hominem* reasoning, the well-known Finnish Analytic philosopher Jaakko Hintikka claimed that Wittgenstein was dyslexic (Hintikka, 2004). But Hintikka used a tendentious definition of “dyslexia,” focused on “a difficulty of consciously recognizing the rule one is following,” that wouldn’t be accepted by contemporary cognitive psychologists of reading:

[t]he term dyslexia is used to describe individuals who have difficulty reading words accurately and fluently. (Rayner et al., 2012: ch. 12)

And as far as I know, there’s no empirical evidence whatsoever that Wittgenstein had dyslexia in *this* sense: on the contrary, his reading skills were clearly of the highest level (see, e.g., Monk, 1990). So with all due respect to Hintikka, his claim is at best polemical and at worst, well, bullshit (Frankfurt, 1988). I mention it only as an instructively useful example of how *not* to do the philosophy of reading.

Therefore, with those Kantian and Wittgensteinian paradigms as normative guides, contemporary philosophers should resolutely commit themselves to philosophizing in a dynamic, vital dual or duplex condition, modelled on competent, high-level, and highest-level performance in reading, and thereby surpass and transcend Analytic philosophy and Continental philosophy alike. And if, as I proposed at the outset, philosophy is “fundamentally the love of wisdom that can be expressed in legible texts and read by oneself and others,” then this dynamic, vital dual or duplex, post-Analytic, post-Continental mode of philosophizing must also and above all be *futuristic*, by virtue of being aimed not only at contemporary readers, but also and above all at *readers to come* (Hanna, 2021: ch. XVIII, 2023d).⁵

⁵ I’m grateful to Elma Berisha and Scott Heftler for thought-provoking correspondence or conversation on and around the main topics of this essay.

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