

Debugging Our Thinking

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(Watts, 2020)

As Hugh Willbourn cogently and compellingly points out in his book, *The Bug in Our Thinking and The Way to Fix It* (Willbourn, 2023), our contemporary habits of thinking are fundamentally flawed. If our thinking were like a digital computer running a program—which it most certainly *ain't* (Hanna, 2024a)—then the programming language itself would have a basic “bug” or formal glitch in it:

Here is an analogy. There is a bug in our thinking software. It is not like a bug in a program. It is like a bug in the language in which all our programs are written. And that language is the language we have to use to debug ourselves. (p. 64)

Willbourn says that the bug in our thinking originally arose as a consequence of the emergence of literacy, writing, and reading during the period running from Homeric poetry to Plato,¹ and that it has been infinitely magnified by the recent emergence of digital technology and so-called artificial intelligence or AI—including of course, the all-too-widely-held yet false analogy that innate human capacity for intelligence is just like a digital computer, only with inherent limitations due to the unfortunate fact of our embodiment, as per the image at the top of this essay. I completely agree with Willbourn’s diagnosis of the problem.

Willbourn also says that the bug in our thinking that flows from literacy, reading, and writing, has three basic elements:

- Written words, and hence their meaning, persist over time.
- Writing allows us to state things with little or no emotional expression.
- Writing encourages us to think abstractions. (p. 28)

The short-&-sweet version of this essentially troublesome triad is:

- Fixed meanings.
- Loss of emotional tonality.
- Abstract thinking. (p. 40)

In turn,

- Abstraction tends to reduce the significance of context.
- Removing emotional tonality tends to reduce subtlety of understanding.
- Fixity of meaning tends to lead to cognitive inertia. (p. 43)

In other words, paradoxically, literacy, writing, and reading tend to make our thinking contextless-&-rigid, affectless-&-robotic, and formalistic-&-rule-mongering at the same time that they make our thinking consistent-&-precise, dispassionate-&-impartial, and generalizable-&-well-structured. These three adverse effects *cognitively capture* us, and in effect *hypnotize* us (p. 61 and ch. 8). Again, I completely agree.

But I also think that the three-part bug in our thinking can be framed within a larger context: *the mechanistic worldview*, especially including what Otto Paans and I have called *mechanical, constrictive thought-shapers* (Hanna and Paans, 2021). And

¹ Similarly, I’ve argued that there’s an essential connection between the emergence of reading and the emergence of philosophy itself (Hanna, 2024b). If that’s correct, then the bug in our thinking is built into philosophy itself, and correspondingly, fixing it will also entail fixing philosophy.

correspondingly, I think that Willbourn's recommendations about fixing the bug in our thinking can all be smoothly accommodated within a larger project I call *life-shaping philosophy*, or LSP for short.

What does LSP look like?² Early Marx's famous philosophical thesis, "[t]he philosophers have only *interpreted* the world in different ways; the point is to *change* it" (Marx, 1964: p. 69), is *half-right* and *half-wrong*. Yes, leaving aside Marx himself and a few other philosophical activists (see, e.g., Hanna, 2020a), philosophers have only ever variously *interpreted* the world. But no, the point *isn't* that philosophers should act upon the world precipitately and unreflectively, as if they were being shot out of a revolutionist's rifle. Instead, the point is that (i) philosophers should critically and reflectively *shape human thinking about the world*, so that (ii) people, not only individually but also social-institutionally, *can freely shape and change their own lives* for the better or even the best, and then finally (iii) all of them, philosophers and non-philosophers alike, *can act freely together* in order to change the world for the better or even the best. This is the basic rationale behind LSP.

More specifically, LSP is a collaborative and interdisciplinary philosophical enterprise that flows naturally from (i) two co-authored books by Michelle Maiese and me, *Embodied Minds in Action* (Hanna and Maiese, 2009) and *The Mind-Body Politic* (Maiese and Hanna, 2019), (ii) three essays co-authored by Otto Paans and me (Hanna and Paans, 2020, 2021, 2022), and (iii) a research topics collection for *Frontiers in Psychology*, co-edited by Maiese, Arran Gare, Joel Kiverstein, Joel Krueger, and me (Maiese et al., 2023). In turn, then, LSP segues into *The Shape of Lives To Come* project, or The SLTC project for short. The name of the project is a play on the title of H.G. Wells's 1933 classic futurological science-fiction novel, *The Shape of Things to Come*, shortly thereafter made into a spectacular 1936 movie produced by Alexander Korda, *Things to Come*. Riffing on the themes of Wells's novel, but also going substantially beyond his mechanistic worldview, what we're principally concerned with in The SLTC project is the present situation and future prospects of people's lives in a thoroughly nonideal natural and social world.

People are not only sapient, sentient, and principled persons—i.e., rational, conscious, and self-conscious free agents (Hanna, 2006, 2018a, 2018b), but *also* they're essentially embodied living organisms, card-carrying members of the biological species *homo sapiens*, and above all they're "human, all-too-human." The general theory of the present situation and future prospects of people's lives in a thoroughly nonideal natural and social world is what, in fewer words, we call *political philosophy of mind* (see also Gallagher, 2013; Slaby and Gallagher 2014; Slaby, 2016a, 2016b; Maiese and Hanna, 2019;

² The next five pages are adapted from (Hanna, 2024c: pp. 4-9).

Hanna, 2020b). So, SLTC is a collaborative and interdisciplinary project in political philosophy of mind.

Political philosophy of mind falls fully within the broad scope of the first three “E”s of the contemporary “4E” approach to human cognition, by affirming that all human mindedness is *embodied*, *embedded*, and *enacted* (see, e.g., Newen, De Bruin, and Gallagher, 2018). More precisely, the “4E”s are: (i) *embodied* (i.e., human minds are inherently realized in living organismic animal bodies), (ii) *embedded* (i.e., human minds are inherently external-context-sensitive or indexical), (iii) *enacted* (i.e., human minds are inherently dynamically and practically implemented), and (iv) *extended* (i.e., human minds inherently possess external vehicles of consciousness and/or intentionality, aka “the extended mind”). We reject the extended-mind component, for reasons explained in (Hanna, 2011). Moreover, although many 4E theorists are *anti-representationalists*, by contrast we affirm a *dual-content cognitive semantics* version of representationalism, based on the categorical distinction between *conceptual content* and *essentially non-conceptual content*, for reasons explained elsewhere (Hanna, 2015: esp. chs. 1-3).

Granting those preliminary assumptions, then the philosophical reasoning lying behind The SLTC project has 15 basic steps, as follows.

1. Human minds are sapient, sentient, necessarily and completely embodied, and identical to the global dynamic and intentional-action-guiding structures of suitably complex living human organisms (*the essential embodiment thesis*). (Hanna and Maiese, 2009; Hanna, 2011).
2. As essentially embodied and inherently dynamic, human minded animals are also inherently enactive and environmentally embedded (*the enactivity-and-embeddedness thesis*) (Hanna and Maiese, 2009).
3. As inherently enactive and environmentally embedded, human minded animals fundamentally engage with the world, other animals, and their own lives, in an inherently and naturally affective way, including desires, emotions, and feelings of all kinds (*the situated affectivity thesis*) (Hanna and Maiese, 2009; Maiese, 2011, 2014).
4. As inherently and naturally affective, human minded animals are, necessarily, sociable social animals (*the sociable sociality thesis*) (Maiese and Hanna, 2019).
5. Social institutions partially but not completely, yet still significantly, and also mostly pre-reflectively, causally determine, form, and irreducibly normatively

guide (henceforth, for short, “shape”) our essentially embodied rational human minded animal lives, for worse or for better (*the social-institutional mind-shaping thesis*) (Maiese and Hanna, 2019: esp. ch. 2).

6. There exists a fundamental distinction between (i) *destructive, deforming* social institutions, that frustrate and warp true human needs, and (ii) *constructive, enabling* social institutions, that satisfy and sustain true human needs (*the two-kinds-of-social-institutions thesis*) (Maiese and Hanna, 2019: esp. chs. 2-3 and 6-8).

7. Enacting salient changes in the structure and complex dynamics of a social institution produces corresponding salient changes in the structure and complex dynamics of the essentially embodied minds of the participants, for worse or for better (*the enactive-transformative thesis*) (Maiese and Hanna, 2019: esp. chs. 2-3 and 6-8).

8. Although destructive, deforming social institutions shape our human minds and our human lives in an inherently bad/oppressive, unhealthy, and enslaving/heteronomous way, nevertheless it’s also really possible to devolve such institutions and also simultaneously to create constructive, enabling social institutions that operate in an inherently good/non-oppressive, healthy, and emancipatory/autonomous way (*the social devolution-social creation thesis*) (Maiese and Hanna, 2019; Hanna, 2018c: esp. parts 2-3).

9. There exists a categorical metaphysical distinction between (i) *the mechanistic worldview*, which says that everything in the world is nothing but either a *formal automaton* (i.e., a Turing-computable and recursive information-processing system) or a *natural automaton* (i.e., a Turing-computable and recursive, entropic, and deterministic or indeterministic causal system), and (ii) *the neo-organicist worldview*, which says (iia) that everything in the world is essentially or fundamentally uncomputable, negentropic, processual, purposive, and self-organizing, (iib) that all mechanical systems are nothing but *systematic abstractions* from organic systems, and (iic) that there’s a basic metaphysical and ontological continuity, running from the Big Bang singularity to uncomputable negentropic, time-asymmetric, non-equilibrium thermodynamic energy flows, to living organisms, to conscious minded animals, to conscious, self-conscious, caring, sensibly cognitive, and intellectually cognitive human minded animals with free will and practical agency—i.e., *rational* human minded animals—and finally to social institutions of all kinds. In turn, the full recognition, understanding, and internalization of the worldshaking dual fact that the mechanistic worldview is *false* and the neo-organicist worldview is *true* is (iii) what we call *the neo-organicist*

turn (Hanna and Paans, 2020, 2021, 2022; Torday, Miller Jr, and Hanna, 2020; Hanna, 2024d).

10. The *theory of thought-shapers* (TTS) applies the categorical metaphysical distinction between (i) *mechanical* (i.e., computable/recursive, entropic, and deterministic or indeterministic) systems, and (ii) *organic* (i.e., uncomputable/non-recursive, processual, negentropic, purposive, and self-organizing) systems, together with the neo-organicist turn, to fundamental issues in the philosophy of mind and cognition, with comprehensive application to the nature of human thinking in philosophy, the formal and natural sciences, the applied arts and fine arts, the applied sciences, the social sciences, morality, and sociopolitics (Hanna and Paans, 2021). (By *thought-shapers*, we mean any or all of the following kinds of essentially non-conceptual, non-discursive, non-propositional, *representational mental frames*: allegories, analogies, blueprints, catechisms, diagrams, displays, icons, images, lay-outs, metaphors, mnemonics, models, outlines, parables, pictures, scenarios, schemata, sketches, spreadsheets, stereotypes, symbols, tableaux, and templates.³ Otherwise put, thought-shapers are *essentially non-conceptual contents* that can shape our thoughts *either* in bad, false, and wrong ways, *or* in good, true, and right ways.)

11. Correspondingly, TTS says that all human thinking is really possible only insofar as it's shaped by either (i) *mechanical, constrictive* thought-shapers in bad, false, and wrong ways, or (ii) *organic, generative* thought-shapers in good, true, and right ways (Hanna and Paans, 2021).

12. Since language is a fundamental and indeed universal social institution, and since all human thinking proceeds by means of language, then the theory of thought-shapers falls directly under the mind-body politic; and if the mind-body politic is true, then both mind-shaping inside social institutions and also thought-shaping in individuals and groups, alike, are forms of human life-shaping.

13. All our essentially embodied rational human thoughts, affects, and intentional actions are shaped by items in the thoroughly nonideal natural and social world that exists beyond and outside our human minded animal bodies, especially including (i) the Earth, i.e., its global topology, causal dynamics, and universally-interconnected organic ecosystems (aka *eco-shaping*), (ii) social institutions (aka

³ This list isn't intended to be complete: on the contrary, it's open-ended. Moreover, allegories, catechisms, and parables differ slightly from the other items on the list (Hanna and Paans, 2021: section 1).

mind-shaping), and (iii) the essentially non-conceptual cognitive semantics of thought-shapers (aka *thought-shaping*), for worse or for better.

14. Unfortunately, as things currently are, this all-pervasive life-shaping is all-too-often for the worse.

15. But *if* the generalized life-shaping thesis is true, then it's *also* the case that enacting salient positive changes in social institutions and thought-shapers will radically transform our rational human minded animal lives for the better, or even the best.

The last three steps in the 15-step argument correspond directly to *three life-shaping theses*:

The generalized life-shaping thesis: All our essentially embodied rational human thoughts, affects, and intentional actions are shaped by items in the thoroughly nonideal natural and social world that exists beyond and outside our minded animal bodies, especially including eco-shaping, mind-shaping, and thought-shaping, for worse or for better.

The negative life-shaping thesis: Unfortunately, as things currently are, this all-pervasive life-shaping is all-too-often for the worse.

The positive life-shaping thesis: But *if* the generalized life-shaping thesis is true, then it's *also* the case that enacting salient positive changes in social institutions and thought-shapers will radically transform our rational human minded animal lives for the better, or even the best.

Indeed, it's precisely the positive life-shaping thesis that directly connects The SLTC project with the themes of Wells's futurological novel—even though, ironically enough, and unfortunately, Wells himself was committed to the mechanistic worldview. So as proponents of the neo-organicist turn, we've learned from Wells's mistakes.

Willbourn's book is exceptionally accessibly and clearly written—a marvel of non-professional-academic, or *real*, philosophy. Moreover, he and I share essentially the same critique of the professional academy in general, and of professional academic philosophy in particular (see, e.g., Hanna, 2022):

Orthodoxy creates blindspots because it is necessarily constituted by fixed ideas in a changing world. Academics are a particularly error-prone type of expert as they tend to

know too much about their own specialty, not enough about the whole field, and even less about the limitations of how their field connected to the real world. (p. 62)

[A]cademia is in a sad state of decay, drowning in its own protocols without the courage to step back from the dross and irrelevance created by its over-expansion and by the erasure of critical debate by careerist expediency. Many good minds have been caught up in misguided tolerance of under-achievement. Many are reduced to the policing the trivia of protocol and steer clear of judgment. All this and more was already problematic long before the arrival of woke politics. There is still much good work but the rise of banality is remorseless. More charitably we could say that academic is rather like politics: people go into it with the best of intentions but the system undermines them. (p. 164)

Above all and perhaps most importantly, Willbourn concludes his book with a short list of six rules-of-thumb for fixing the bug in our thinking:

ONE

Don't mistake abstractions for understanding.

TWO

Beware of hypnotic abstractions.

THREE

Discernment.

FOUR

Proportion.

FIVE

Principles.

SIX

Make up your own mind. (pp. 175-178)

These rules-of-thumb jointly constitute a way of making our thinking context-sensitive-&-flexible, caring-driven-&-wholehearted, and principled-&-rule-guided—or in a word, *creative*—while also avoiding mechanizing it. Not only that, but also in my opinion, each of these rules-of-thumb can be fully elaborated and effectively enacted within the larger framework of The SLTC project. So I'll conclude by strongly recommending that you buy, read, and share Wellbourn's eminently readable and shareable book; and if it grabs you and others, then also work your way through the other books and essays I cited above. And then think, feel, and act accordingly. To debug our thinking is to *re-shape* and *re-vivify* our thinking.

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