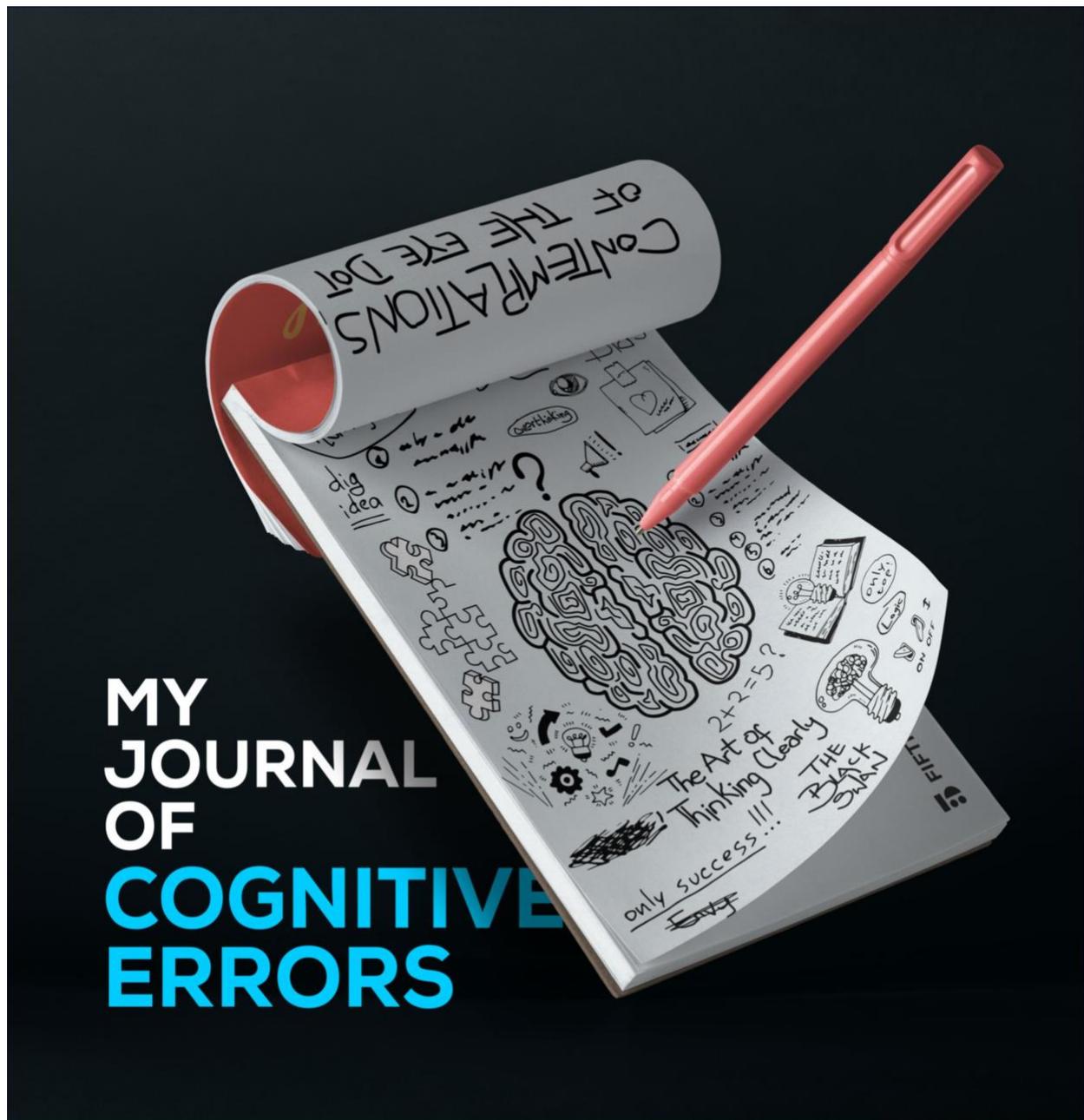


# My journal of cognitive errors: Critical Thinking for the Individual



## MY JOURNAL OF COGNITIVE ERRORS

"Man, know thyself"—Socrates

## ABOUT

I keep a diary in which I record cognitive fallacies. I shall say why in an anecdote, how about that?

On December 19, 2018, I had a tête a tête with a senior and soon-to-be mentor/friend about my interest in polymathy and my current obsession: writing. Within the two and half hours we interacted, the achiever in me was quickened and my quest of knowledge acquisition began. From him I not only acquired books, I acquired the culture of reading— especially nonfiction and expository books. I could only go so far when I realized that I possessed a lot of foundational flaws. Thus, with much encouragement and direction from him, I began to retool myself; I picked up Carol Dweck's *Mindset* first. Subsequently, I took a course on *Learning how to learn*<sup>1</sup>. From thenceforth, I started to pay attention to the fundamentals: *How to Read a book*,<sup>2</sup> *How to Write well*,<sup>3</sup> *How to think*<sup>4</sup>...and even *How to Sleep*.<sup>5</sup>

For the purpose of this story, I shall focus on how I am *learning* to think—I say 'learning' because this is a lifelong venture. About a year ago, a professor offerered my classmates and I great insight: "...most of you read a lot, and that's good; but it is better to read, and think a lot." This formed a major contemplation to me. Not until I, in the quest to improve my writing, read Zinsser did I hit an epiphany. He wrote, "If you force yourself to think clearly you will write clearly. It's as simple as that. The hard part isn't the writing; the hard part is the thinking."<sup>6</sup> In the same book, he cited some books to improve thinking and in my search for those books, I stumbled upon Rolf Dobelli's *The Art of Thinking Clearly*. To cut this tall story from its torso, I began to keep a journal of cognitive fallacies.

This story, in all its veracity, does not [exactly] answer the 'why-i-keep-a-diary-of-cognitive-fallacies' question. And anybody like me, drawn away by my

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<sup>1</sup> *Learning how to Learn* is a MOOC offered by McChester University and pioneered by Professor Barbara Oakley.

<sup>2</sup> I learnt this by reading the classic, *How to Read a Book* by Mortimer J Adler and Charles Van Doren.

<sup>3</sup> *On Writing Well* by William Zinsser is, in my opinion, the best beginner's guide to writing good nonfiction.

<sup>4</sup> There are few books I've gotten on the subject but I began with *The Art of Thinking Clearly* by Rolf Dobelli & *Reasoning* by Michael Scriven.

<sup>5</sup> Matt Walker's *Why we Sleep* will certainly debunk all the fallacies that most people have held about sleep.

<sup>6</sup>Zinsser, *Writing to Learn*, 53.

anecdote, has lost sight of the question and has obtained satisfaction from my unsatisfactory answer. This is what Dobbeli dubs *the story bias*<sup>7</sup>— the prioritization of entertaining side issues and backstories over relevant facts. This is a cognitive error that explains how the media [sometimes] befogs our sense of clear thinking; a car is driving through a bridge at the same time the bridge collapses. What we hear/read on the news (how unlucky the driver was, his biography...) is nowhere near what is valid in helping to analyze the situation— what caused the accident? how it can it be prevented next time?

Anyways, since stories attract me and abstract details repel me,<sup>8</sup> I am prone to having cognitive loopholes that could be consequential to decision making. Thus I keep a journal to, at best, groom my critical thinking<sup>9</sup>—and weed out biases.

“The effective executive has to start out with what is “right” rather than what is acceptable...”<sup>10</sup> -Peter F. Drucker

*“If 50 million people say something foolish, it is still foolish.” -W. Somerset Maugham*

Shall I point out another cognitive loophole? This one is popularly known as the herd instinct (or social proof)<sup>11</sup> and suggests that the veracity of a certain idea is validated by how many people follow it. For instance, upon interrogating passersby on the streets about the best toothpaste product, one will soon find out that their judgement of ‘best’ is based on ‘most popular product.’

Of what application to leadership/management, then, is knowing about/actively uprooting one’s cognitive fallacies? To answer this, we should consider that all individuals are, at least, leaders/managers of one—themselves. As Drucker alludes in his iconic article, *Managing oneself*, this is where management begins. Shouldn't it make sense that a lapse in critical thinking—or availability thereof — in the individual affects (by extension) an organization?

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<sup>7</sup> Dobbeli, *The Art of Thinking Clearly*, 14.

<sup>8</sup> Ibid.

<sup>9</sup> Wikipedia.org has defined critical thinking as “thinking about one's thinking in a manner designed to organize and clarify, raise the efficiency of, and recognize errors and biases in one's own thinking.” This is the primary meaning used in the context of this essay.

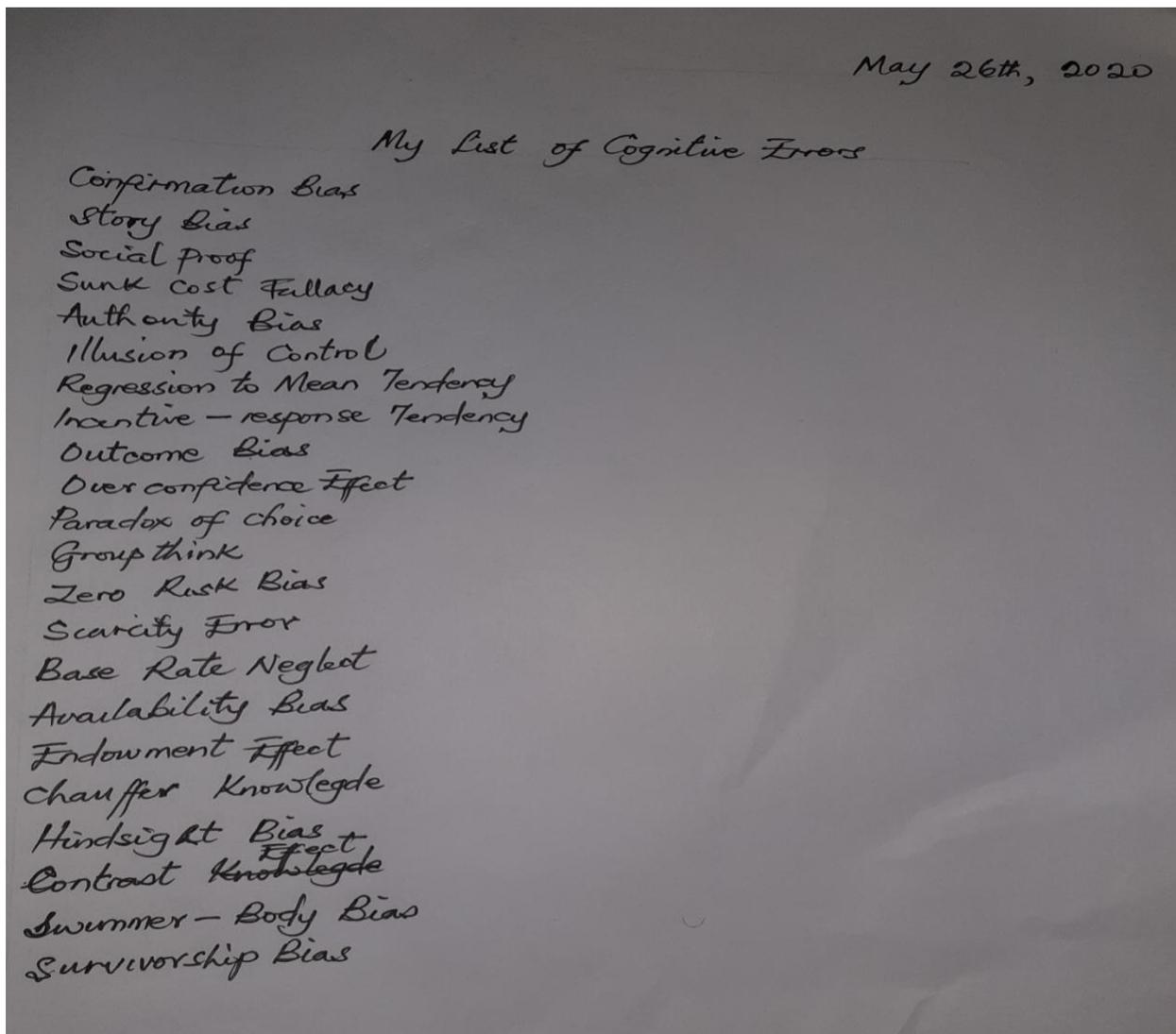
<sup>10</sup> Drucker, Peter. *The effective decision*.

<sup>11</sup> Dobbeli, *The Art of Thinking Clearly*, 19.

## SO WHAT'S IN MY JOURNAL?

In my opinion, critical thinking is not just—as the sculptor of *il penseur* (which has for many years symbolized critical thinking) had alluded<sup>12</sup> — deep thinking, it is clear thinking. And the failure to think clearly arises from a routine deviation from logic; this is not surprising because mythology preceded philosophy as a tool in making decisions—and indeed, in explaining the world. To curb these deviations, my journal contains:

### A list of cognitive lapses



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<sup>12</sup> In the explanation of his sculpture, Rodin said, "What makes my Thinker think is that he thinks not only with his brain, with his knitted brow, his distended nostrils and compressed lips, but with every muscle of his arms, back, and legs, with his clenched fist and gripping toes." This suggests deep thinking.

As I learnt from Rolf, what I do is simple—and surprisingly effective in the long run. When the occasion avails itself, I write out a list (as shown above) of thinking errors that I've discovered either by reading or by interaction. Upon having to make a decision or carry out a major action, I examine my list and ask myself, “Am I yielding to this bias?” I do this for each of them. Of course, I could not be a hundred percent efficient—not ninety, and certainly not up to fifty—but I guarantee that the seemingly minute increase in my capacity for critical thinking is better than mindless—or foggy—thinking altogether.

### **A Heuristic Logbook**

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May 27, 2020

Dear Asterisk,

I fell primarily for the confirmation bias today. I was arguing in defence of a particular theological stance against one who's supposedly more knowledgeable about theology than I. I shall spare you the details of the argument but I lost. More painful than losing the debate was having to admit that I lost. I finally admitted, anyways, but I was ashamed. I was ashamed that after all these years of reckoning myself to be an objective person, I'm not (overconfidence effect).<sup>13</sup> Moreover even though there were sound premises I raised that I couldn't validate, I think I might just have yielded to my opponent because he was supposedly “more knowledgeable” than I—this is a form of the authority bias<sup>14</sup>.

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Interestingly, the mindfulness inherent in logging these errors (with their explanations and personal anecdotes) also help me build a capacity for critical thinking. Consider, for instance, the journal entry above and the one I shall excerpt below:

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June 04, 2020

Dear Asterisk,

While writing my essay on cognitive biases, I took a 15-minute break to log on WhatsApp. TeeJay's status had a picture about a cognitive error that marketers gladly exploit consumers with: the decoy strategy. Well, the simple explanation of this one is that consumers change their

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<sup>13</sup> Dobelli, *The Art of Thinking Clearly*, 43.

<sup>14</sup> *Ibid.*, 30.

preference between two options when presented with a third option – the “decoy” – that is priced to make one of the other options much more attractive. Thus we, consumers, spend more. So glad to have busted them marketers! LOL!

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## WHAT'S IN IT FOR THE 21ST CENTURY EXECUTIVE?

*“... to make the important decisions is the specific executive task. Only an executive makes such decisions.”<sup>15</sup>*

Since the executive's main task is to make the important decisions, it suffices that he must be wary of lapses in critical thinking; in Drucker's words, he must seek to be “sound rather than clever.”<sup>16</sup> I opine that Peter Drucker himself is a paradigm for critical thinking in a executive/leader. This is not only evidenced in his effectiveness with the various organizations, hospitals and governments he consulted for in his lifetime but in his writings. For instance, in his article *The Effective Decision* in which he laid a solid foundation on what is to constitute the decision making process, he explains the susceptibility of the executive to a number of biases—and the dangers of the same. For one, treating a new occurrence as an example of an old problem, and thus applying the rules that solve the latter is an outcome of incomplete definition of the problem<sup>17</sup> —a catastrophe originating from the *availability bias* (the tendency to create a picture of the world using the examples that most readily come to mind). I am wont to point out two more:

- **Groupthink | Authority Bias:** When he posited that “everyone can make the wrong decision...in fact, everyone will sometimes make a wrong decision”<sup>18</sup> he did not exempt the top-tier members of the organization. And yet by virtue of their positions, we tend to ascribe infallibility to these ones. Further, much more hazard is done to the organization if executives, in the bid to abscond resistance—or maybe out of sheer laziness —subscribe to *groupthink* (a cognitive fallacy characterized by forced manufacture of consent, and conformity to group decisions).

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<sup>15</sup>Drucker, Peter. *The effective decision*.

<sup>16</sup> Ibid.

<sup>17</sup> Ibid.

<sup>18</sup> Ibid.

- **Base rate Neglect:** There is a general tendency to neglect probability in making decisions. But Drucker has shown that the effective decision is one that considers probability no matter how miniscule (the example of the American automobile industry is apt.)<sup>19</sup> The utilization of base rates has a lot of benefits; speed and the avoidance of gullible investments are two that stand out. Say an executive was to make a decision of approving and funding an IT project after reading his team's 500-paged proposal (that contains its costs, time taken to execute, benefits, among others). In lieu of [painstakingly] reading these pages to check for consistency and all the other factors he needs to decide whether the project would be successful or not, he could look and make his judgements based on the average performances of similar projects in his company and still arrive at a plausible conclusion.

The question of whether the 21st century executive is prepared to think critically is one that I can only fairly attempt. And my answer: Yes and No. No, because the radical explosion in information—especially in the form of opinions — is making it increasingly difficult to make a sound decision without yielding to external biases — social media influencers, supposed “knowledge experts” and google. Yes, because something can be done; only that the executive must see the onus as lying on him— to groom his critical thinking, and thus to exhibit objective and sound judgement. Therefore, acknowledging his thinking loopholes and gradually weeding them out of his daily decisions is a good place to begin.

## THE UPSIDE

*“...while the effective decision itself is based on the highest level of conceptual understanding, the action commitment should be as close as possible to the capacities of the people who have to carry it out.”<sup>20</sup>*

Thankfully, cognitive errors also have their upsides; some of them have been the backbone of a good many effective —and I daresay, outstanding — leaderships. Perhaps, the subtlety arises from discerning the exceptions from the rule (by this I mean, to tell apart its upside in motion). Consider: Drucker warns that the action commitment in decisions should be as close as possible to the capacities of the people who have to carry it out.<sup>21</sup> He also alludes to the consequences of the authority bias. But we see an audacious flouting of these principles in the *Reality*

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<sup>19</sup> Drucker, Peter. *The effective decision*.

<sup>20</sup> Ibid.

<sup>21</sup> Ibid.

*Distortion field*,<sup>22</sup> a character trait identified in Steve Jobs, Elon Musk, Elizabeth Holmes and Bill Clinton.

Moreover, the social proof proves as useful, today, as it was in early uncivilized species in discerning danger. For instance, if everyone is exiting an office building, it would be arrant stupidity to refuse to do same—at least, after asking why—for fear of being gullible to the *herd instinct*.

### **A FEW RECOMMENDATIONS (THREE OR FOUR)**

One, against the confirmation bias (the tendency to interpret new information so that it becomes compatible with our existing theories, beliefs and convictions)<sup>23</sup>—which is popularly known as “the mother of all cognitive errors” and “the father of all fallacies” —no safer solace can we find than in the words of our management guru who said: “There is only one safeguard against becoming the prisoner of an incomplete definition: check it again and again against all the observable facts, and throw out a definition the moment it fails to encompass any of them. Effective decision makers always test for signs that something is atypical or something unusual is happening”<sup>24</sup>

Second, although news stories have their resourcefulness, I recommend not looking to them to understand the world. Instead, read solid magazine articles that give fresh perspectives the goings-on in the world. Also read books—especially history and psychology. Interact with people, like wise. In Dobelli's words, “better to deep than broad in keeping up with news events.”<sup>25</sup> This will assist to build a better sense of judgement and filter truth from fables, in this information age of media, search engines, social media posts, influencers, websites, analytics, statistics, “knowledge experts”...

Thirdly, to curb the groupthink and the authority bias which, in my opinion, is a twin threat that holds the highest susceptibility for executives in an organization, each executive must understand that “It is a waste of time to worry about what will be acceptable and what the decision maker should or should not say so as not to evoke resistance.”<sup>26</sup> And hence, there should always be a devil's advocate in making corporate decisions. He might be disliked—even detested—but he

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<sup>22</sup> “Reality distortion field.” The RDF was first used by Andy Hertzfeld to describe Apple CEO, Steve Jobs' ability to convince his coworkers that whatever impossible task he had at hand was possible.

<sup>23</sup> Dobelli, *The Art of Thinking Clearly*, 26

<sup>24</sup> Drucker, Peter. *The effective decision*.

<sup>25</sup> TED, “Four reasons you should stop watching the news | Rolf Dobelli.”

<sup>26</sup> Drucker, Peter. *The effective decision*.

possesses the spare keys to the organization's effectiveness, say everyone else loses theirs.

Finally, the executive of the 21st century must learn and utilize basic probability. Our wise man once wrote: "Mathematicians are born, but everyone can learn trigonometry."<sup>27</sup> I could not agree more.

**This journal entry from when I decided to participate in the Peter Drucker challenge bears my concluding thoughts:**

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May 9, 2020

Dear Asterisk,

...I have decided to write a management essay on "Leadership and Critical Thinking." Subtly, the outcome bias,<sup>28</sup> that most people who write the Drucker challenge are well-achieved people who've led large groups, has crept into my mind. But I refuse to yield. Because I've had little experience leading a large group, I'm approaching it from a different perspective—the perspective of leading myself. Remember that Drucker said that *a person can perform only from strength[?] One cannot build performance on weaknesses, let alone on something one cannot do at all.*<sup>29</sup> He also suggested that one positions himself where his strengths can produce maximum results.<sup>30</sup> With this as primary motivation, I shall courageously pen my opinions; I hope these scrambled thoughts would serve as food for thought—something worth ruminating over...

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<sup>27</sup> Drucker, *Managing one's self*, 7.

<sup>28</sup> Dobelli, *The Art of Thinking Clearly*, 55.

<sup>29</sup> Drucker, *Managing one's self*, 7.

<sup>30</sup> Drucker, *Managing one's self*, 8.

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