

IT'S HERE THAT I want to come back to the relationship between discipline and attention from the previous chapter. An element of effort and straining exists in the word *attention* itself, which comes from Latin *ad + tendere*, "to stretch toward." This relationship finds one of its most compelling expressions in William James's 1890 *The Principles of Psychology*. Defining attention as the ability to hold something before the mind, James observes that the inclination of attention is toward fleetingness. He quotes the physicist and physician Hermann von Helmholtz, who had experimented on himself with various distractions:

The natural tendency of attention when left to itself is to wander to ever new things; and so soon as the interest of its object is over, so soon as nothing new is to be noticed there, it passes, in spite of our will, to something else. If we wish to keep it upon one and the same object, we must seek constantly to find out something new about the latter, especially if other powerful impressions are attracting us away.¹⁹

If, as I've said, attention is a state of openness that assumes there is something new to be seen, it is also true that this state must resist our tendency to declare our observations finished—to be done

with it. For James as for von Helmholtz, this means that there is no such thing as voluntary sustained attention. Instead, what passes for sustained attention is actually a series of successive efforts to bring attention back to the same thing, considering it again and again with unwavering consistency. Furthermore, if attention attaches to what is new, we must be finding ever newer angles on the object of our sustained attention—no small task. James thus makes explicit the role of will in attention:

Though the spontaneous drift of thought is all the other way, the attention must be kept strained on that one object until at last it grows, so as to maintain itself before the kind with ease. This strain of attention is the fundamental act of will.²⁰

Nordell closes her piece on the Prejudice Lab with an eloquent example of this constant, effortful return. She writes that the day she left University of Wisconsin–Madison, where the workshop had taken place, she saw two people in her hotel lobby wearing “worn, rumpled clothes, with ragged holes in the knees.” A story about them formed in her mind before she could catch it, wherein they couldn’t possibly be guests of the hotel and must have been friends of the clerk. “It was a tiny story, a minor assumption,” she writes, “but that’s how bias starts: as a flicker—unseen, unchecked—that taps at behaviors, reactions, and thoughts.” The Prejudice Lab had helped train her to catch it, though, and she could catch it again. Her commitment to do so demonstrates the vigilance at the core of sustained attention:

Afterwards, I kept watching for that flutter, like a person with a net in hand waiting for a dragonfly. And I caught it, many times. Maybe this is the beginning of how my own prejudice ends. Watching for it. Catching it and holding it up to the light. Releasing it. Watching for it again.²¹

IF ATTENTION AND will are so closely linked, then we have even more reason to worry about an entire economy and information ecosystem preying on our attention. In a post about ad blockers on the University of Oxford's "Practical Ethics" blog, the technology ethicist James Williams (of Time Well Spent) lays out the stakes:

We experience the externalities of the attention economy in little drips, so we tend to describe them with words of mild bemusement like "annoying" or "distracting." But this is a grave misreading of their nature. In the short term, distractions can keep us from doing the things we want to do. In the longer term, however, they can accumulate and keep us from living the lives we want to live, or, even worse, undermine our capacities for reflection and self-regulation, making it harder, in the words of Harry Frankfurt, to "want what we want to want." Thus there are deep ethical implications lurking here for freedom, wellbeing, and even the integrity of the self.²²

I first learned about James Williams from a recent Stanford master's thesis by Devangi Vivrekar, called "Persuasive Design Techniques in the Attention Economy: User Awareness, Theory, and Ethics." The thesis is mainly about how Vivrekar and her colleagues in the Human-Computer Interaction department designed and experimented with a system called Nudget. In an effort to make the user aware of persuasive design, Nudget used overlays to call out and describe several of the persuasive design elements in the Facebook interface as the user encountered them.²³

But the thesis is also useful simply as a catalog of the many forms of persuasive design—the kinds that behavioral scientists have been studying in advertising since the mid-twentieth century. For

example, Vivrekar lists the strategies identified by researchers Marwell and Schmitt in 1967: "reward, punishment, positive expertise, negative expertise, liking/ingratiating, gifting/pre-giving, debt, aversive stimulation, moral appeal, positive self-feeling, negative self-feeling, positive altercasting, negative altercasting, positive esteem of others, and negative esteem of others." Vivrekar herself has study participants identify instances of persuasive design on the LinkedIn site and compiles a staggering list of 171 persuasive design techniques.²⁴ A few for example:

Screen #	#	Persuasive Vehicle	Method of Persuasion
1A	1	Notification badges on the horizontal toolbar for "notifications," "messages," and "network"	Makes you want to click and see new notifications (arouses curiosity)
1A	2	Red color of notification badges on the horizontal toolbar	Stands out / catches your attention / indicates urgency in order to redirect your clicks to other people's or companies' pages
1A	3	Number on the notification badges on the horizontal toolbar	Makes it feel like a to-do list and makes you want to get the number to 0 (arouses our "base desire for having order instead of chaos")
1A	4	Intermittent variable notifications	The delivery schedule of notifications is varied and intermittent, which keeps it changing and thus interesting
1A	5	Textual ad at the top: "Ready for a change . . ."	Tries to get you to click on that page by appearing organic and relevant

This detailed vocabulary of persuasion and eagle-eyed attentiveness to its many forms aligns with my interest in "knowing your enemy" when it comes to the attention economy. For example, one

could draw parallels between the Nudget system, which teaches users to see the ways in which they are being persuaded, and the Prejudice Lab, which shows participants how bias guides their behavior.

But as for the results of this accounting, Vivrekar and I come to very different conclusions. Indeed, I found a helpful articulation of my own argument for discipline in a section of hers titled "Counter-Arguments." She writes, "Proponents of the 'agency' side in the agency vs. structure debate claim that instead of focusing on the problem of how to make persuasion more ethical, we should focus on empowering people to have more self control" (that's me!). Vivrekar and the technology ethicists she cites, however, are less than optimistic about this approach:

Portraying the problem as one in which we just need to be more mindful of our interaction with apps can be likened to saying we need to be more mindful of our behavior while interacting with the artificial intelligence algorithms that beat us at chess; equally sophisticated algorithms beat us at the attention game all the time.²⁵

For Vivrekar, persuasion is a given, and the only thing we can do about it is redirect it:

When we remember that hundreds of engineers and designers predict and plan for our every move on these platforms, it seems more justified to shift the focus of the discussion towards ethical persuasion.

This argument takes a few important things for granted. "Ethical persuasion" means persuading the user to do something that is good for them, using "harmonious designs that continuously empower us instead of distracting and frustrating us." Reading this, I can't help but ask: Empower me to do what? Good for me according to whom? And according to what standards? Happiness, productiv-

ity? These are the same standards that Frazier uses when designing Walden Two. The idea that I've already lost the battle of attention doesn't sit right with me, an agential being interested in gaining control of my attention rather than simply having it directed in ways that are deemed better for me.

This solution also takes the attention economy itself for granted—something to be corrected but which is otherwise inevitable. Vivrekar notes that “metrics that align better with user values are not always contrary to the long-term business profits of companies in the attention economy; they actually pose a market opportunity.” She quotes Eric Holmen, the Senior Vice President of Urban Airship, a company on whom “[e]very day, marketers and developers depend on . . . to deliver one billion mobile moments that inspire interest and drive action.” Holmen sees big bucks in authenticity:

‘People increasingly want to spend time well, not spend more of it . . . If it’s our shallowest self which is reflected to us every time we open Facebook, Instagram and YouTube, the best business opportunity around might be to begin to cater for our aspirational selves.’²⁶

But just who is this “our”? What does persuasive design look like when someone else tries to bring out my “aspirational self,” and does it for profit? Help!

Lastly, there is attention itself, which this approach also takes for granted. It assumes not only that our attention will always be captured, but that our attention remains the same throughout. I described in the previous chapter how the attention economy targets our attention as if it were an undifferentiated and interchangeable currency; the “ethical persuasion” approach is no exception. When we think about the different kinds of attention we are actually capable of—the pinnacle being the kind that William James describes, if we only have the discipline—it becomes clear that most forms of

persuasive design (whether nefarious or “empowering”) assume a rather shallow form of attention. We might extrapolate from this to conclude that deeper, hardier, more nuanced forms of attention are less susceptible to appropriation, because discipline and vigilance inhere within them.

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