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## Ops Notes: Deep Work

A year or so ago HBO came out with a documentary called *Becoming Warren Buffett*. I'm no Buffett acolyte, I think Munger is more impressive of the two... But, in the documentary, there's this great scene where both Bill Gates and Warren are sitting at a table together and are asked by Gates' father to write down on a piece of paper the one thing they each felt attributed most to their success.

Without consulting each other, both wrote down the single word: **FOCUS**.

Author Walter Isaacson reported on Bill Gate's ability to intensely focus on a task in a 2013 article for the Harvard Gazette titled [Dawn of a Revolution](#). Writing about the period when Gates and Allen created the first code for personal computers while students at Harvard, Isaacson noted that:

*For eight weeks, he, Allen, and Davidoff holed up day and night at the Aiken lab making history. Occasionally they would break for dinner at Harvard House of Pizza or at Aku Aku, an ersatz Polynesian restaurant. In the wee hours of the morning, Gates would sometimes fall asleep at the terminal. "He'd be in the middle of a line of code when he'd gradually tilt forward until his nose touched the keyboard," Allen said. "After dozing an hour or two, he'd open his eyes, squint at the screen, blink twice, and resume precisely where he'd left off — a prodigious feat of concentration."*

Bill Braiterman (Gates' roommate) said that "Bill had a monomaniacal quality... He would focus on something and really stick with it."

A look at Warren Buffett's office shows a space that's clear of distractions; no computer, no smartphone, only a desk phone for making outbound calls and then lots of reading materials (10Ks, newspapers, trade magazines, and books).

A personal idol of mine, Bruce Lee, once said: "The successful warrior is the average man, with laser-like focus."

Orison Swett Marden remarked that "One of the secrets of a successful life is to be able to hold all of our energies upon one point, to focus all of the scattered rays of the mind upon one place or thing."

And Josh Waitzken wrote in one of my favorite books *The Art of Learning* that:

*... there are those elite performers who use emotion, observing their moment and then channeling everything into a deeper focus that generates a uniquely flavored creativity.*

So focus is important. The ability to intensely concentrate on a single task for long-stretches of time is kind of like a super power. Those who are able to do it, are able to run circles around those that can't. It's perhaps the single greatest differentiating skillset between those who excel in their fields and those who stay, just, mediocre...

The good news is that one's ability to focus and concentrate on a single task is a skill that can be developed and nurtured and is not something that's an inherent ability.

The bad news is that our society, technology, and environment are set up in ways to prevent and inhibit our ability to perform deep work and concentrate our minds on a single point for stretches of time.

Luckily for us, Cal Newport tackles the above two subjects in his fantastic book *Deep Work: Rules for Focused Success in a Distracted World* and gives us a roadmap for not only *why* deep work is so important but also *how* we can cultivate it.

I just finished the book and can't recommend it enough. It's a short and easy read and has a high useful-information-to-page ratio. I consider it required reading for every knowledge worker, which is what we traders and investors are.

To follow are my notes and quotes from the book along with a few comments from me.

Cal begins by explaining that there are:

*Two Core Abilities for Thriving in the New Economy*

- 1. The ability to quickly master hard things.*
- 2. The ability to produce at an elite level, in terms of both quality and speed.*

And at the core of one's ability to effectively master hard things and produce at an elite level is myelin. Cal writes (emphasis by me):

*Scientists increasingly believe the answer includes myelin—a layer of fatty tissue that grows around neurons, acting like an insulator that allows the cells to fire faster and cleaner. To understand the role of myelin in improvement, keep in mind that skills, be they intellectual or physical, eventually reduce down to brain circuits. **This new science of performance argues that you get better at a skill as you develop more myelin***

***around the relevant neurons, allowing the corresponding circuit to fire more effortlessly and effectively. To be great at something is to be well myelinated.***

*The reason, therefore, why it's important to focus intensely on the task at hand while avoiding distraction is because **this is the only way to isolate the relevant neural circuit enough to trigger useful myelination.** By contrast, if you're trying to learn a complex new skill (say, SQL database management) in a state of low concentration (perhaps you also have your Facebook feed open), **you're firing too many circuits simultaneously and haphazardly to isolate the group of neurons you actually want to strengthen.***

This aligns with what Daniel Coyle talked about in what's also a great book *The Talent Code*. Daniel wrote that:

*Skill is myelin insulation that wraps neural circuits and that grows according to certain signals. The story of skill and talent is the story of myelin...myelin is similar to another evolution-built mechanism you use every day: muscles.*

Which means that:

*Struggle is not optional—it's neurologically required: in order to get your skill circuit to fire optimally, you must by definition fire the circuit suboptimally; you must make mistakes and pay attention to those mistakes; you must slowly teach your circuit. You must also keep firing that circuit—i.e., practicing—in order to keep myelin functioning properly.*

Cal boils down the equation for success to: ***High-Quality Work Produced = (Time Spent) x (Intensity of Focus).***

To excel we need to consistently spend a set time (ideally, 2-4 hours a day of distraction-free focused work) on the 1-2 hard subjects that are most important to our long-term goals and success. For us as traders and investors, that might be: dissecting a company's financials, studying our trade journal and refining our process, or just simply reading books and papers to develop new mental models of how the world works.

A problem that keeps most people from doing this type of work though, is that it's hard! Like, really really hard...

Our brains consume an inordinate amount of our caloric intake. Thinking requires lots of energy. Therefore, our brains are wired to want to stick to more shallow and less energy-intensive work. Shallow work obviously being the opposite of deep work; such as answering emails, skimming the news, sitting in meetings, using social media etc...

Cal calls this evolutionary tendency the “Principle of Least Resistance: without feedback, we tend toward the easiest behavior of the moment”.

And here’s where our environment and technology come into play and can really screw with us.

To preserve energy, our brains are naturally habit forming — think back to the myelin, our minds adapt to our thought habits in order to cement neural pathways and improve energy efficiency. Technology though, like Twitter and Facebook and even email (think notifications), is built to distract us and capture our attention. Literally, billions of dollars have been poured in R&D in order to find more effective ways to steal our focus and keep our minds wallowing in the shallows. And the more effective they are at doing this the more our minds become easily distracted and the tougher it is to get deep work done. Here’s Cal again:

*Once your brain has become accustomed to on-demand distraction, Nass discovered, it’s hard to shake the addiction even when you want to concentrate. To put this more concretely: If every moment of potential boredom in your life—say, having to wait five minutes in line or sit alone in a restaurant until a friend arrives—is relieved with a quick glance at your smartphone, then your brain has likely been rewired to a point where, like the “mental wrecks” in Nass’s research, it’s not ready for deep work—even if you regularly schedule time to practice this concentration.*

I hope you’re as unsettled by this fact as I am. This is even more reason to read Cal’s book and put his suggestions for combatting our modern day Call of the Sirens to the mind-numbing trap of shallow thinking.

To do this, Cal gives us four primary rules:

**Rule #1: Work Deeply**

**Rule #2: Embrace Boredom**

**Rule #3: Quit Social Media**

**Rule #4: Drain the Shallows**

Starting with Rule #1, Cal provides us with four general styles for carrying out deep work. These are:

1. **Monastic:** Have a space that’s removed from everyday distractions where you can go and work for weeks at a time. Bill Gates would do “Think Weeks” where he’d go and spend two weeks alone in a cabin in the woods, with no internet and connectivity to the outer world. (This is what I did for the last two years when I left DC and went to live in a secluded cabin in the Shenandoah mountains of Virginia. It was great.)
2. **Bimodal:** Schedule a few days regularly to remove yourself and work like a monastic, where you’re solely focused on your work.

3. **Rhythmic:** Consistently schedule 2-4 hours everyday, always around the same time, where you can work without distraction and focus on deep work. This means no email, phone, social media, news etc... during this time. (This is the method that I'm using now. I prefer early mornings 6:30-9/10:30 where I can work by myself and focus solely on a single important task).
4. **Journalistic:** This is for those with busy and unpredictable schedules (ie, parents). This is just where you make the commitment to spend X amount of hours each day doing deep work and you take the hours when you can get them.

Cal stresses the importance of ritual and consistency, two things that are key to developing strong mental habits — “Great minds think like artists but work like accountants”. He writes:

*The key to developing a deep work habit is to move beyond good intentions and add routines and rituals to your working life designed to minimize the amount of your limited willpower necessary to transition into and maintain a state of unbroken concentration. If you suddenly decide, for example, in the middle of a distracted afternoon spent Web browsing, to switch your attention to a cognitively demanding task, you'll draw heavily from your finite willpower to wrest your attention away from the online shininess. Such attempts will therefore frequently fail. On the other hand, if you deployed smart routines and rituals—perhaps a set time and quiet location used for your deep tasks each afternoon—you'd require much less willpower to start and keep going. In the long run, you'd therefore succeed with these deep efforts far more often.*

Cal suggests accounting for every minute of your work. I keep a legal pad at my desk and use my computer timer to work in 60-minute focused intervals. After each interval, I can either get up and grab something to drink (usually coffee or tea) or I can just head right into another interval. Importantly, you shouldn't check email or Twitter or take part in any shallow activities during this time.

Above all, Cal notes that it's vital to plan ahead for these deep work suggestions because distractions are like a cancer and the pull to shallow work is strong and ever-present. So consistency and maintaining a space devoted solely for deep work is key.

Once you've established a preferred style and a consistent and ritual deep workspace, you need to develop four disciplines. These are:

- ❖ **Focus on ONLY the most important work:** Cal writes “Focus on the Wildly Important. As the authors of *The 4 Disciplines of Execution* explain, “The more you try to do, the less you actually accomplish.” They elaborate that execution should be aimed at a small number of “wildly important goals.” This simplicity will help focus an organization's energy to a sufficient intensity to ignite real results.” This is akin to Buffett's [“5/25 rule”](#) where you ruthlessly whittle down what your goals are and the key steps you need to

take to get there. For trading and investing this would be: doing deep research, studying your process, stretching the limits of your knowledge through difficult study and so on... Only you know what exactly you want, so think hard — and be honest with yourself — about what things you need to focus on to get there.

- ❖ **Act on lead measures:** Peter Drucker wrote “If you can’t measure it, you can’t improve it”. Cal says that “Once you’ve identified a wildly important goal, you need to measure your success. In 4DX, there are two types of metrics for this purpose: lag measures and lead measures. Lag measures describe the thing you’re ultimately trying to improve. For example, if your goal is to increase customer satisfaction in your bakery, then the relevant lag measure is your customer satisfaction scores. As the 4DX authors explain, the problem with lag measures is that they come too late to change your behavior: When you receive them, the performance that drove them is already in the past. Lead measures, on the other hand, measure the new behaviors that will drive success on the lag measures. In the bakery example, a good lead measure might be the number of customers who receive free samples. This is a number you can directly increase by giving out more samples. As you increase this number, your lag measures will likely eventually improve as well.
- ❖ **Keep a scorecard:** “Keep a Compelling Scoreboard. People play differently when they’re keeping score... when attempting to drive your team’s engagement toward your organization’s wildly important goal, it’s important that they have a public place to record and track their lead measures. This scoreboard creates a sense of competition that drives them to focus on these measures, even when other demands vie for their attention. It also provides a reinforcing source of motivation. Once the team notices their success with a lead measure, they become invested in perpetuating this performance.” This can and should be easily applied at the individual level. Keeping score is a useful way to motivate yourself and keep you consistent.
- ❖ **Create a cadence of accountability:** Accountability is everything. Your mind will want to wander and it takes time to develop the ability to focus for long stretches of time. Set regular periods to check in with yourself or your team in order to look back at your recent work and measure your success in completing your goals or lack thereof.

Rule #2: Embrace Boredom. I believe this one is sooo important nowadays. Smartphones are destroying our brains and our ability to just be present with our thoughts. I know I sound like a total old cranky curmudgeon but it’s true and the science now shows how detrimental it is.

Cal gives a number of suggestions for tackling this one, such as doing regular internet sabbaths (ie, taking one day a week to totally unplug) and doing what he calls “productive meditation” where you sit still and focus deeply on your work.

I, myself, plan on trying out the one day a week internet sabbatical. I also intentionally leave my cell phone at home when I go places or just keep it off when I’m out so I can turn it on if I need it. I also disabled notifications for all the apps on my phone so I don’t have alerts for email,

gchat, or Twitter popping up throughout the day. And I moved the more tempting apps (Twitter and gmail) off my home screen. Doing these little things have helped significantly with eliminating the distracting power of tech for me.

Rule #3: Quit Social Media is self-explanatory. Even if this is too extreme for you, then maybe try only using it during scheduled periods and for reduced times. You might find that you enjoy being a bit more disconnected from it all.

Rule #4: Drain the Shallows. This rule basically encompasses all of the above. Cal just reiterates the importance of developing a more balanced deep-to-shallow work ratio.

This is just the gist of *Deep Work*. The book goes into much greater details, often using interesting historical examples, in the how and why to do deep work.

One of these important details, which I'll use to end on, is just how vital doing regular deep work is to our well-being. Cal explores the recent research that suggests "Human beings, it seems, are at their best when immersed deeply in something challenging." That is, our mental health and reported states of contentment and happiness, are significantly improved when we're involved in mentally and/or physically taxing work where we're operating at the edge of our perceived limits. Cal notes that:

*Whether you approach the activity of going deep from the perspective of neuroscience, psychology, or lofty philosophy, these paths all seem to lead back to a connection between depth and meaning. It's as if our species has evolved into one that flourishes in depth and wallows in shallowness, becoming what we might call Homo sapiens deepensis.*

He cites Csikszentmihalyi's work on "flow theory" which concludes that "The best moments usually occur when a person's body or mind is stretched to its limits in a voluntary effort to accomplish something difficult and worthwhile."

Thankfully for us, there are fewer endeavors more difficult and challenging than the game of speculation. But, to do so successfully, requires us to absolutely commit to a practice of consistent focused deep work. We need to constantly be pushing the limits of our concentration and expanding the boundaries of our knowledge. That is the path to success in markets as well as the practice of living a worthwhile life.

I'd love to hear your thoughts and the habits and practices you've found that help you focus. I'm a constant work in progress in this area and I'm always looking for hacks to help me improve and evolve.

*Focus on the task on hand, be not motivated by the outcome; Be not driven by the results,  
enjoy the process of getting there. ~Bhadavad Gita*

*Let your mind become a lens, thanks to the converging rays of attention; let your soul be  
all intent on whatever it is that is established in your mind as a dominant, wholly  
absorbing idea. ~ Antonin-Dalmace Sertillanges*