Behavioral Change Experiment Paper

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PSY2230: Stress, Resilience, and Behavioral Change

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Part 1: Behavioral Change Experiment

One Key Area of Change

I have always had a challenge, for as long as I can remember, establishing a regular sleep pattern, from making it to bed at a consistent time, to falling asleep quickly, to staying asleep through the night, to waking up on time. Irregular sleep patterns have always contributed to challenges while I was (hypothetically) awake and functioning. These tendencies have not shifted except to find new ways for me to have interrupted sleep and foggy, ill-tempered waking hours far too often. On occasion, I have managed an improvement over a period of days or even weeks, but permanence has thus far escaped me.

To conduct a personal behavioral modification experiment over three days addressing all of these issues at once seemed a fool's errand. Taking on too many things at once is a recipe for overwhelm, so I decided to just try to go to bed on time for three nights in a row.

Yet Another Fresh Start

Coincidentally, and I wish I had thought to write a book about it, I have often, over the course of my life, used "fresh starts" – literally. When I was 17 or 18 years old, 38 years ago at the time of this writing, I remember inscribing carefully on my calendar, "New Life Starts Here", on a particular day, to try to adjust my outlook and attitude from that point forward. The construction that I have used contains forgiveness for past mistakes, and the idea of pouring new energy and new ideas into dealing with a problem or state of mind for which past solutions, attitudes, or perspectives have not been effective.

Creating and anchoring on a particular day, or day and time, or other temporal construction like a life event can create an experienced differentiation between the time before and the time after the "temporal landmark". Even the impression of a "clean slate", if developed on a convincing enough way, can help disrupt old patterns, and support an intentional reset. (Milkman, 2021).

In practice, I do this with my sleep issue every few weeks. Over the iterations of this "fresh start/blank slate" approach, I have pulled together a whole stack of details and rituals, some of which stick, and some of which don't.

Summary of My Approach

At the beginning of this particular three-day experiment, I endeavored to approach the issue with a renewed sense of purpose, and took some concrete steps I thought were applicable and might be helpful. I re-organized the supplements I take – moving a couple that might keep me awake (multivitamins, for example, containing B vitamins) to the daytime, and shifting a couple that might help me sleep (magnesium) to before bed. I also adjusted the alarm I had set to 8:30pm, roughly 2 hours before I wanted to be in bed and trying to sleep, as a reminder to make chamomile and valerian root tea, and to start trying to wind down. I also considered plugging in my phone across the room rather than next to the bed, but since I use it as my alarm in the morning as well, I didn't do so. That was a mistake, and likely increased friction at the wrong moment (Shah & Oppenheimer, 2008).

Tracking and Observations

My tracking and observations for each of the three days were very similar. Perhaps because the "fresh start" idea was so similar to the way I often go about behavioral changes, my behavior didn't change all that much. Most of my day is laser-focused on trying to stay awake and productive, starting as early as possible and continuing for as long as possible – strong coffee in the morning, a shower and an energy drink around 1pm, and strong tea starting around 4 or 5pm. My pattern during the day is not conducive to sleep.

As a result, even with a new fresh start, I ended up in generally the same place – in bed around 10:30 or 11, wide awake, but without the will or presence of mind to get up, focus, and be truly productive, having already put in a full day. I've gotten rid of most social media, but there is always some way I can find to provide my smartphone the attention and dependence it so desperately craves - headlines, TikTok, and games. By the time I reach the end of the day, even "mindless" is an achievement, but if there is no sleep to be had, there is little that can be done in the moment.

I have been monitoring my sleep (and other fitness markers) through Fitbit for some time. Over the three nights before I started writing this paper, Thursday, Friday, and Saturday, respectively, I managed to sleep 5 hours and 39 minutes, 5 hours and 22 minutes, and 5 hours and 13 minutes,

in that order. The three previous days were not much better, but prior to that, I had managed a run of 16 days wherein I got a full 6 hours and 30 minutes or more for eight of them.

So what happened? Katy Milkman cited evidence in her book (from baseball leagues and trades between them, and the corresponding reset of stats) that if someone is doing well and is given a "fresh start", their performance tends to decline, and if someone is not doing as well, the "fresh start" does more of what we hope it would - performance tends to improve (Milkman, 2021). Aside from the three days directly prior to the experiment, I was having one of my best sleep periods in recent memory – eight out of sixteen days reaching six and a half hours per night. The "fresh start" might anecdotally have helped break my streak.

Part II: What Shall We Try Next?

My Second Priority: Activity Beyond the Woodcut

As we have related during class meetings, I try as hard as I possibly can to get to the woodlot in Ashland twice a week for several hours of splitting wood, no matter the weather, no matter how tired I am, no matter what other commitments I have. Over the course of the past 15 months, representing 128 woodcut days, I have missed the woodcut perhaps 15 times – one out of eight days, or put another way, 4 out of every 32 hours. It has done me a world of good, physically and mentally, for reasons we have discussed. However, I have not managed to do anything else that counts as exercise of any kind.

My goal for the last six months or so is to get into a routine of spending 45 minutes on three days per week on my rowing machine. I have, in the past, spent a lot of time working this machine, and it did me almost as much good physically as the wood splitting has. It is far more focused on cardio, while also being very low impact, and a full body workout.

Behavioral Approaches to Try

Some of these approaches are directly from Milkman's book, others are from papers and interviews, and I found a couple of other sources I liked supporting additional similar ideas.

Temptation Bundling

By pairing an experience one often looks forward to with a behavior that is less enjoyable or takes more willpower to accomplish, the less enjoyable behavior is partially mitigated by the

more enjoyable one. This concept was documented in a controlled study in which the participants were only allowed to listen to a preferred audiobook while attending the gym and exercising.

> "Initially, full and intermediate treatment participants visited the gym 51% and 29% more frequently, respectively, than control participants…" - Milkman et al., 2014

To incorporate this idea, I will look at this as an opportunity to address another issue in my life – the fact that I no longer have time to read. By subscribing to libro.fm and choosing our local bookstore (Bloomsbury Books, on Main Street in downtown Ashland, Oregon), I should be able to help incentivize myself to get on the rower and listen to a book for 45 minutes. I would rarely or never do so otherwise, and between filling some of the gaps in my efforts at literacy and supporting a local bookstore that I already know and love, this may very well help me to accomplish some of my days on the rower, by allowing me to do some good for others while I am working on myself.

Commitment Devices

Voluntarily and personally committing in a particular way can help people stay the course when fulfilling the promises they have made to themselves. This approach relies on raising the cost of failing to follow through, in any way that matters – financial, logistical, reputational, psychological (Bryan et al., 2010). These types of devices have been shown to be most effective when the participants' motivation wavers in one way or another (Rogers et al., 2014).

If I were to apply this approach, I might create appointments on my calendar three times a week, to make sure I keep an hour free to execute my 45 minutes. Whenever those reminders occur, my "job" then becomes to make it to my appointment, just like I make it to all the others – and if I don't, I have failed myself. I could also find an accountability partner and work with them to help me stay on track. This could further incentivize me to remain reliable and a person of my word, so that my reputation with my accountability partner might remain intact.

Environmental Design (User Interface)

Earlier in the course I mentioned my work in user interface design. The concept is fairly simple: the easier something is to accomplish, the less resistance is encountered, the more it will happen (Thaler & Sunstein, 2008). This works on websites, traffic engineering, and in behavioral modification. Aspects of this basic idea that have been studied in detail include:

- Reducing ***psychological*** friction at the moment one starts to try to change behavior makes it easier to begin to pursue a goal, and more likely that one will continue (Dai et al., 2015)
- Making an action easier to take makes it easier to make better decisions, and easier to follow through on a previously designed plan of action (Shah & Oppenheimer, 2008).

This is an approach I know well, and have already implemented. My workout clothes are where they need to be, the rowing machine is set up and ready to go at a moment's notice, the sound system is ready to play music or books. There is no excess friction that will slow me down, should I ever decide to actually use it.

Habit Stacking

Linking a new behavior to an existing and established routine can make it easier to follow through on that new behavior. Habits are formed, partially, by contextual cues that grow stronger and eventually become automatic (Wood & Neal, 2007). By augmenting a regularly executed behavior with the desired new behavior, the new behavior can be cued (Clear, 2018) and a starting point can be defined.

For my situation, this is a difficult one to implement. I have very few stable routines throughout my day upon which to anchor a new one. I have no commute, every day is very different. The most reliable patterned behavior I have is the woodcut twice per week, and those two days are the only days on which I cannot possibly do my rowing.

Key Learning Summary

One especially key concept which has changed the way I look at my own psychological state, as well as that of others, is one of the very first concepts we approached – the idea that stress is a normal physiological reaction that is intended to give us tools and resources to cope with situations we find difficult. The real mind blower was that the belief that stress is fundamentally an unhealth and bad thing is and indicator and a predictor of related health problems, not the stress itself. I believe that many of the symptoms of "disorders" may very well be able to be "re-perspectived" in this way: with the world in its current state, is not depression a normal reaction? How are feelings of depression explained evolutionarily? What about anxiety?

Each of these states of mind, stress, depression, anxiety, when taken to extreme, can be harmful, as anything can be. However, is it a good idea to try to avoid these states of being? Or might it be better to learn to understand what they do, why they happen, and what purpose they might serve to help us?

For example, in a 2017 article, Galecki and Talarowska surface the idea that depression might be an evolutionarily shaped response rather than purely pathological. While acknowledging that depressive disorder as it is currently understood can be a great impairment, they suggest that it is possible that low mood and reduced activity serve to protect a person by conserving energy and support cognitive processing during difficult challenges. Viewing symptoms of depression partly or initially as an adaptation may help us understand the origins and parameters of how depression works and why it occurs.

Surprises

I was surprised at how much of this course felt like going to therapy. I wasn't expecting something quite so experiential, and this course has been different than all of the others I have worked through thus far in that way.

I also feel like there is a metacognitive element to this course that hasn't necessarily been so strong, or present at all, in many of the courses I've experienced over the last four semesters. By learning how we learn, how our brains and existence is hard-wired, we empower ourselves to progress more quickly and effectively, and to protect ourselves from those who would use those same characteristics to their own ends.

This course arrived at the perfect time. I am working on my application to the CPS Non-Profit Management Master's program, we are working on so many things pointed in so many different directions, and we are not generating enough income to make it work yet – stress is one of my constant companions right now. The information about managing stress and working behaviorally to cope is immensely valuable and well-timed.

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