Hello Grey House team members and our valued quaran-teammates! We are now 417 optimistic days into our uplifting team-building adventure! Let's toast our vaccination status!

Oops, this photo is a toast for Stephanie's PhD, but I think you get the idea.

Calendar of upcoming Grey House events:

April:
19: last day of classes, hurrah!
21: Max Elliott's PhD dissertation oral defense THIS WEEK!
23: David Corcoran birthday THIS WEEK!
24: Kyle Bourassa birthday THIS WEEK!
25: Line Rasmussen birthday THIS WEEK!
27: Ahmad Hariri birthday

May
1: Masked Ball goodbye lunch for Line, Aaron, and Max at the Macon Farm
5: Avshalom's birthday
14: Avshalom, and maybe Temi, fly to Israel
29: Susan Harward's birthday
31: Line and Jens move to Copenhagen

June:
4: Honalee's birthday
12: Avshalom's K07 training grant submission due at NIA
14: Jasmin's birthday
25: Aaron's birthday
30: Neuroimaging renewal and DunedinPoAm4x applications due at NIA

July:
Aaron and Jessalee move to South Carolina
Max and Emily move to Massachusetts.

If you have events coming up, and would like to share them, do let me know. Temi

Avshalom, Temi, Line, Kyle, and Stephanie, back at Grey House!

Now that teaching has ended, instead of spending teaching Mondays at Grey house, Avshalom and I will be spending Tuesdays and Wednesdays, or Wednesdays and Thursdays, starting next week. Exact schedule to be announced in a few days. It may work best to schedule meeting times for days we are in the office for team members who want to meet face-to-face. Times for those who prefer zoom for now may move to a different day.

FIRST THE HAPPY NEWS:

Announcing, ta da!!!!!!! Our Stephanie Langevin passed her PhD defense this morning with flying colours! Congratulations to you cher Stephanie!

Madeline Meier gave a media briefing on cannabis last Friday with AAAS SciLine. She addressed short- and long-term effects of cannabis on cognition, mental health, and physical health, discussing published findings from Dunedin and elsewhere. The link is here: at https://www.sciline.org/health-medicine/cannabis/

Jasmin gave a successful talk at the Wisconsin Center for Demography of Health and Aging, they house a social genomics cluster:

https://cdha.wisc.edu/research/initiative-on-social-genomics/#:~:text=The%20Initiative%20in%20Social%20Genomics,Social%20Genomics%20in%20the%20world.

NIEHS has a website summarizing some of the statements from the National Academy of Sciences workshop on environment and mental health that Aaron helped run last month. You'll see brief notes from the directors of NIMH, NIEHS, and NIDA about the importance of studying this topic and how they will think about funding.

Note that one study was specifically called out as "the best known" evidence on the topic, which is our 2019 JAMA Psychiatry paper on lead and mental health.

https://factor.niehs.nih.gov/2021/3/feature/3-feature-mental-health/index.htm?utm_source=Division+on+Earth+and+Life+Studies&utm_campaign=edc4026847-EMAIL_CAMPAIGN_2019_08_06_06_18_COPY_01&utm_medium=email&utm_term=0_3c0b1ad5c8-edc4026847-278807929&mc_cid=edc4026847&mc_eid=e5daea53ac

Environment and mental health — intimately connected, much to learn (Environmental Factor, March 2021)

A National Academies workshop explored ways that the environment may present mental health risks or promote resilience.

factor.niehs.nih.gov

Temi did a fun 20-min podcast to announce her talk in the Kings College London, Inst of Psychiatry research festival on 27 April. It's being promoted by Mental Elf, a UK NGO that disseminates information about mental health to the public. There is a 20-min podcast link below, and also a tweet if you care to help send it. The topic is: What surprises we got by following 1000 people's mental health for decades. Soon there will be a blog as well, by professional mental health blogger, Dona Matthews. Very exciting!

The podcast: https://soundcloud.com/national-elf-service/terrie-moffitt-ioppnfestival
The

tweet: https://twitter.com/Mental_Elf/status/1382669708596543492
https://www.nationalelfservice.net/mental-health/

From Aaron…

I just read an interesting NYtimes article on languishing and why some of us may have struggled to get work done this year.

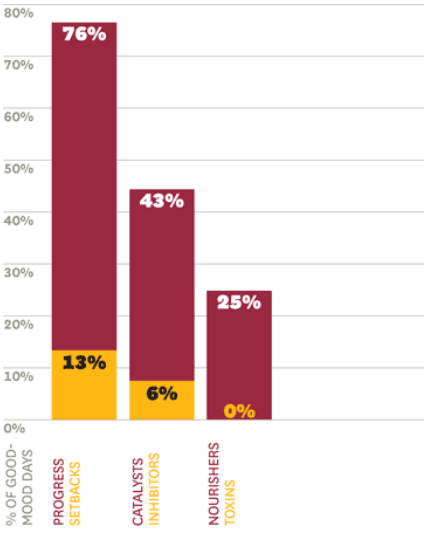
https://www.nytimes.com/2021/04/19/well/mind/covid-mental-health-languishing.html?action=click&module=Editors%20Picks&pgtype=Homepage

That also lead me to this article, on ways managers and work teams can, essentially, help each other avoid languishing, via little forms of support (which they call catalyzing and nourishing) throughout the day that help people make progress, even if it is small.

https://hbr.org/2011/05/the-power-of-small-wins

Small daily progress, according to the authors, generates internal motivation and finding pleasure in work. Among other things, I think our team does this catalyzing and nourishing well!

"What is the best way to drive innovative work inside organizations? Important clues hide in the stories of world-renowned creators. It turns out that ordinary scientists, marketers, programmers, and other unsung knowledge workers, whose jobs require creative productivity every day, have more in common with famous innovators than most managers realize. The workday events that ignite their emotions, fuel their motivation, and trigger their perceptions are fundamentally the same."



what happens on a good work day?

NEXT, THE UN-HAPPY NEWS:

Why vaccinated people should not remain irrationally fearful.

A federal judge and Yale law professor invented a little fable that he has been telling law students.

He tells the students to imagine a god coming forth to offer society a wondrous invention that would improve everyday life in almost every way. It would allow people to spend more time with friends and family, see new places and do jobs they otherwise could not do. But it would also come with a high cost. In exchange for bestowing this invention on society, the god would choose 1,000 young men and women and strike them dead.

He then asks: Would you take the deal? Almost invariably, the students say no. The professor then delivers the fable's lesson: "What's the difference between this and the automobile?"

In truth, automobiles kill many more than 1,000 young Americans each year; the total U.S. death toll hovers at about 40,000 annually. We accept this toll, almost unthinkingly, because vehicle crashes have always been part of our lives. We can't fathom a world without them.

It's a classic example of human irrationality about risk. We often underestimate large, chronic dangers, like car crashes or chemical pollution, and fixate on tiny but salient risks, like plane crashes or shark attacks.

One way for a risk to become salient is for it to be new. That's a core idea behind the professor's class exercise. He asks students to consider whether they would accept the cost of vehicle travel if it did not already exist. That they say no underscores the very different ways we treat new risks and enduring ones.

Covid certainly presents a salient risk: It's a global pandemic that has upended daily life for more than a year. It has changed how we live, where we work, even what we wear on our faces. And its new. And in the news daily.

Fortunately, it is also curable. The vaccines have nearly eliminated death, hospitalization and other serious Covid illness among people who have received shots. The vaccines have also radically reduced the chances that people contract even a mild version of Covid or can pass it on to others.

Yet many vaccinated people continue to obsess over the risks from Covid — because they are so new and salient.

To take just one example, major media outlets trumpeted new government data last week showing that 5,800 fully vaccinated Americans had contracted Covid. That may sound like a big number, but it indicates that a vaccinated person's chances of getting Covid are about one in 11,000. The chances of a getting a version any worse than a common cold are even more remote.

But they are not zero. And they will not be zero anytime in the foreseeable future. Victory over Covid will not involve its elimination. Victory will instead mean turning it into the sort of danger that plane crashes or shark attacks present — too small to be worth reordering our lives.

That is what the vaccines do. If you're vaccinated, Covid presents a minuscule risk to you, and you present a minuscule Covid risk to anyone else. A car trip is a bigger threat, to you and others. About 100 Americans are likely to die in car crashes today. The new federal data suggests that either zero or one vaccinated person will die today from Covid.

It's true that experts believe vaccinated people should still sometimes wear a mask, partly because it's a modest inconvenience and it is the decent thing to do when most people still aren't vaccinated.

Coming to grips with the comforting realities of post-vaccination life is going to take some time for most of us. It's only natural that so many vaccinated people continue to harbor irrational fears. Yet slowly recognizing that irrationality will be a vital part of overcoming Covid.

"We're not going to get to a place of zero risk," Jennifer Nuzzo, a Johns Hopkins epidemiologist, told me during a virtual Times event last week. "I don't think that's the right metric for feeling like things are normal."

After Nuzzo made that point, Dr. Ashish Jha of Brown University told us about his own struggle to return to normal. He has been fully vaccinated for almost two months, he said, and only recently decided to meet a vaccinated friend for a drink, outdoors, unmasked. "It was hard — psychologically hard — for me," Jha said.

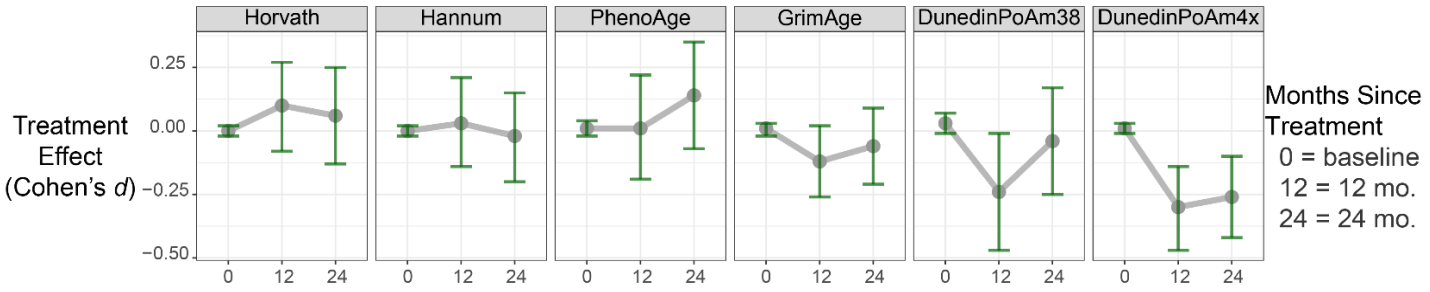
"But we've got to do it."

And how did it feel in the end, I asked, to get together with his friend?

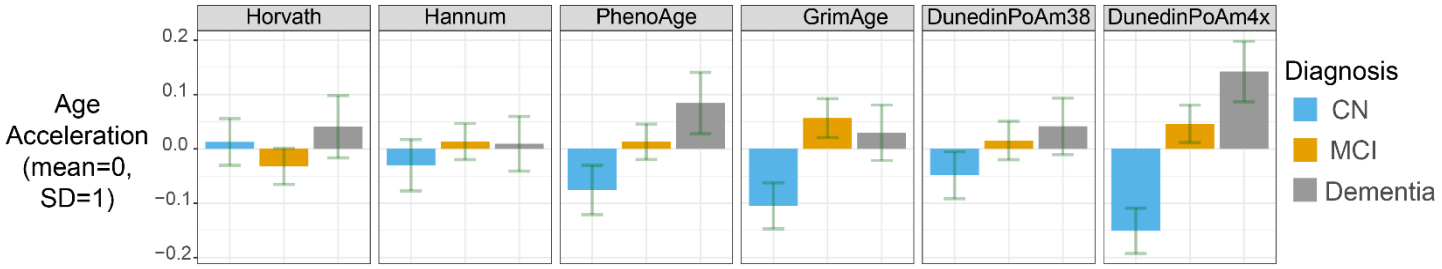
"It was awesome," Jha said.

THIS WEEK's Science visualization:

1. CALERIE RCT of caloric restriction (N=197)**:** DunedinPoam4x (far right) detected more slowing of aging after treatment than did gen1 and 2 clocks, or our age-38 3-wave measure (Belsky et al in prep).



2. ADNI study of ADRD (N=649): DunedinPoAm4x yielded wider mean differences among groups who are cognitively normal (CN), who had mild cognitive impairment (MCI), and who had medically diagnosed dementia than did gen1 and 2 clocks, or our prior age-38 3-wave measure.



Clever us.

RESEARCH-PROJECT PROGRESS SINCE 12 April:

Max Elliott and Annchen Knodt's new article is now published in Volume 32, Issue 4 of *Psychological Science* "Need for Psychometric Theory in Neuroscience Research and Training: Reply to Kragel et al. (2021) "

Stephanie Lewis and Andrea Danese's paper was accepted by the British Journal of Psychiatry this week: "Unravelling the contribution of complex trauma to psychopathology and cognitive deficits: a cohort study" Congratulations Stephanie!

SSGAC's announcement of the new library of polygenic scores is accepted for publication by Nature Human Behaviour. "Resource Profile and User Guide of the Polygenic Index Repository" [NATHUMBEHAV-200812240B]. This is the guide to using all the fab new polygenic scores we have now in E-Risk and Dunedin. It's also on bioRxiv.

Ongoing….

Kyle Bourassa's paper is accepted by Psychosomatic Medicine: "Financial Stressors During the Great Recession and Subsequent Risk of Early Mortality" **Go Kyle, go!**

Aaron Reuben has been invited to speak at the Lead Poisoning Prevention and Treatment Program at the Montefiore Medical Center in The Bronx, NY, which provides care to lead poisoned children and pregnant women. **Now that's impact!**

Helen Fisher submitted an E-Risk manuscript entitled "Associations between childhood victimization, inflammatory biomarkers and psychotic phenomena in adolescence: a longitudinal cohort study" to **Brain Behavior and Immunity**. Good luck!

Aaron submitted a book chapter on "Environmental toxicities including lead" to the APA Handbook of Neuropsychology, 4th edition.

Line Rasmussen and Kyle Bourassa's paper on Stressful life events and suPAR got an R&R at Brain, Behavior, and Immunity. Good luck revising!

Aaron also submitted 1 abstract to APS 2021 conference & 4 abstracts to ISEE International Society for Environmental Epidemiology 2021. **The APS flashtalk was already accepted!**

ESRC have confirmed that Helen Fisher's E-Risk application will (finally) be reviewed at the July panel… Better late than never!

Amber Beckley submitted a manuscript for mock review: "Twin girls discordant for early pubertal development and subsequent risk of adolescent victimization" in E-Risk.

Jenny van Dongen got an R&R at Nature Communications on her paper "Identical twins carry a persistent epigenetic signature of early genome programming".

Helen Fisher, Temi, and Avshalom submitted their application to the UK MRC for cohort-resource review of the E-Risk Study. We were approved in 2019, but are required to update the approval before applying for further funding. Of course we are.

Maria Gehred submitted a new concept paper: Studying midlife brain structure in the high-need, high-cost Pareto group in Dunedin.

Stephanie Langevin has her first concept paper: Does the heritability of self-control differ in children from high versus low SES families? In Quebec twins and E-Risk.

Jessica Agnew-Blais and Jon Mill have a new concept paper for a project entitled "Epigenome-wide Association Study of ADHD".

Rachel Latham and Helen Fisher have a new concept paper for: "Preliminary investigation of associations between individualised risk at age 12 of future depression and age-18 inflammation in a UK longitudinal cohort study"

Everyone please send me a few lines about what you are doing, research-wise, so I can add to the next newsletter. Thanks everyone! Temi

Have a serene week everyone.

New bluebird housing en route to the Macon Farm.