June 8, 2020 newsletter.

Dear Grey House team and esteemed colleagues,

96 days into our rather-tiresome-yet-whacky team-building adventure. Our successive stages of adjustment have been tracked in this newsletter. This week's newsletter theme is passing the summer time, without letting our brains go completely off to sleep.

Summer's Here!



Meanwhile, here is the all the news I have that's fit to print since 1 June:

FIRST THE HAPPY NEWS!

Team zoom get together 8pm EST Tuesday 9 June! To join ask for zoom link.

The paper reporting the (un)reliability of task fMRI data appeared, and got loads of fan mail, and not overmuch hate mail!

Elliott, M, Knodt, A. et al. (2020). What is the test-retest reliability of common task-fMRI measures? New empirical evidence and a meta-analysis. <u>Psychological Science https://journals.sagepub.com/eprint/AIVJTSZ7IFTQD7GB3DC3/full</u> Charming news story here: <u>https://today.duke.edu/2020/06/studies-brain-activity-aren%E2%80%99t-useful-scientists-thought</u>

Avshalom and Susan submitted his K07 application to NIA! Good luck Av!

Jamie Murphy and Helen Fisher's E-Risk paper was accepted, FANTASTIC! Externalising the threat from within: A new 'direction' for researching associations between suicide and psychosis. <u>Development & Psychopathology</u>

Aaron's neighborhood methylation paper appeared on 1st June. Association of childhood neighborhood disadvantage with DNA methylation. *JAMA Network Open.* <u>https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2766579</u> The paper was accompanied by a terrific invited commentary, which you can find here: <u>https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2766575?resultClick=1</u>

Whew! The E-Risk team completed our 4-page response to the reviews of our E-Risk proposal. We got scores of 4, a 5, and 4 6's, on a scale from 0-6, where 6 is best. The team really pulled together and wrote a smashing rebuttal to the critiques. Now, we wait, fingers crossed, till 2 July.

Tim Matthews's E-Risk paper was accepted, HURRAH! A longitudinal twin study of victimisation and loneliness from childhood to young adulthood. <u>Development &</u> <u>Psychopathology.</u>

Antony's new KCL-approved laptop arrived at last!!!! You may remember that Antony was unable to access the drives at KCL, because his laptop in the flat was not KCL-purchased. Not a good situation for the team DATA MANAGER! First week of April, KCL promised to deliver a new laptop to the flat, and lo and behold it finally arrived first week of June. Antony says, with his characteristic understatement: *Emailing from new laptop, it's very speedy!*



Peter Tanksley's baby daughter Darwin arrived this week, good wishes Peter!

HAPPY BIRTHDAY!!!! Honalee, 4 June! Av and I popped in and snapped a photo.



HAPPY BIRTHDAYS	JUNE	
Jasmin		14-Jun
Aaron		25-Jun

NEXT, THE UNHAPPY NEWS:

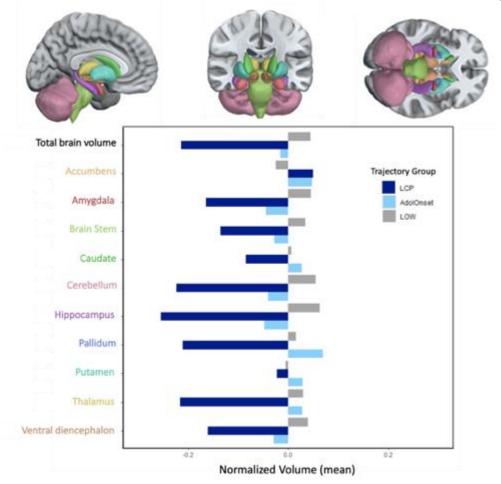
From Jasmin: Unfortunately, we just learnt that daycare is closed for 14 days now because one of Clara's daycare teachers tested positive for Covid. None of us show any symptoms. But,. Clara is practicing her bedside manner, just in case.



Bad news from *The Scientist*. To deal with the financial strain brought about by the pandemic, many universities are reducing their workforces. According to a list kept by *The Chronicle of Higher Education*, at least 48,086 employees (faculty and other staff) across 190 US institutions have been affected by a COVID-19–related layoff, contract non-renewal, or unpaid furlough. Some institutions have permanently closed, but these tended to be in financial difficulty before the pandemic. The pattern typical of leading research universities is that they had a budget surplus going into this year, which together with the CARES ACT is assuring a decent fiscal position for now. But higher-education workforce cuts are on the cards at all universities for next year.

Science visualizations:

From Christina Carlisi, comparing the volumes of subcortical structures in the brain, across groups in Dunedin whose antisocial behavior follows a trajectory of Life-Course Persistent, Adolescence-Limited, or Low. LCP's volumes look abnormally small.



If you have a great visualization, please send it for future newsletters.

RESEARCH-PROJECT PROGRESS SINCE 1 June:

We have a large number of papers that have been sitting in review for weeks. The entire scientific publishing industry has slowed to a crawl. This can feel dispiriting, so I'm only going to report papers here that have evidence of progress. Chin up!

Max and Avshalom's paper went out for mock reviews this week: Disparities in the pace of biological aging among midlife adults of the same chronological age: Implications for early frailty risk and policy. (mock review)

Christina Carlisi and Essi Viding's paper went out for mock reviews this week: Associations between life-course-persistent antisocial behavior and subcortical brain volume in a population-representative longitudinal birth cohort (mock review)

Maria Gehred's first-year project paper will be ready for submission this week. Long-term neural embedding of adverse childhood experiences: a populationrepresentative birth cohort followed for five decades.

Leah's self-control manuscript was submitted this week: Childhood self-control forecasts the pace of midlife aging and preparedness for old age. *PNAS*, we hope. Fingers crossed for a review!

Kyle got a very welcoming R&R, within a week of submission! Social Distancing as a Health Behavior: County-level Movement in the United States During the COVID-19 Pandemic is Associated with Conventional Health Behaviors. *Annals of Behavioral Medicine, R&R*

Jenny Van Dongen, and Karen Sugden's paper was revised and resubmitted this week. DNA methylation signatures of aggressive behaviour: A meta-analysis of epigenome-wide studies across the lifespan. *Mol Psychiatry R&R*

Willy Pedersen, Tilmann VonSoest, & Temi's Norwegian paper revised, resubmitted this week. Delinquency Abstainers in Adolescence and Educational and Labour Market Outcomes in Midlife: 25-year Longitudinal Study. *Dev Psychology R&R*

Kyle's paper is being revised for resubmission: Intimate partner violence and lower relationship quality are associated with faster biological aging. *Psychology & Aging R&R*

Line's paper revised, resubmitted this week. Association between elevated suPAR, a new biomarker of chronic inflammation, and accelerated aging. J Gero Med R&R

Max and Aaron's paper got a letter from a JAMA editor, asking for covariates. Association of childhood lead exposure with structural brain integrity in midlife.

Jessie Baldwin's paper has been sent for review at JAMA. Population vs. individual prediction of poor health from Adverse Childhood Experiences (ACEs) screening.

Marieke de Bruine's paper was submitted this week. Unraveling the association between peer victimization and systemic inflammation. Brain Behavior & Immunity

Projects underway and making good progress on the march toward mock review: Aaron Reuben and Helen Fisher, air pollution and mental health (E-Risk). Leah Richmond-Rakerd, Barry Milne, Stephanie D'Souza, mental disorder predicts physical disease and mortality (NZ-IDI) Jasmin Wertz, Little p psychiatric history and pace of aging (Dunedin) Leah and Signe Andersen, education disrupts the intergenerational transmission of disadvantage (Danish registers)

Jasmin Wertz, parenting genomics in multiple cohorts (many cohorts) Kyle Bourassa and Line Rasmussen, stressful life events and suPAR (Dunedin) Max Elliott & Line Rasmussen brain and suPAR (Dunedin) Karen Sugden, education and the methylation pace of aging (many cohorts) Geli Ronald and Lizzie, Autism Q and p (Dunedin) Franky Happe and David, Autism Q and midlife health (Dunedin)

This week's newsletter theme is passing the summer time, without letting our brains go completely off to

Sleep. I gave you all a break from having to send me endless photos, but don't get lazy.... we still have some great material here!

Following on from Jasmin's photo of white asparagus in our last newsletter, Karmel Choi (now at Harvard) sent this GWAS, detecting genes that determine if you can smell asparagus pee. <u>https://www.bmj.com/content/355/bmj.i6071</u>

Building the perfect squirrel-proof bird feeder, a delightful video: https://youtu.be/hFZFjoX2cGg

COVID19 Playlist, for pandemic theme listening, from my oncologist friend: https://www.deezer.com/playlist/7475570024?utm_source=deezer&utm_content=playlist-7475570024&utm_term=467736131_1591469448&utm_medium=web

Science Sam gives great tips on using twitter to promote your research. Such as, use hashtags to reach fresh audiences, put data in your content, repackage science info in trending formats, don't just state the topic - state the finding, don't just write to your pals (e.g., "our paper is out!" may be fun for you, but it's not science news). More here:

https://media.nature.com/original/magazine-assets/d41586-020-01356-y/d41586-020-01356-y.pdf

This is an ultra-relaxing and absolutely enchanting Beethoven animation, sent by Ros in New Zealand.



The prize for the Goose-naming contest went to Aidan, Renate, Erin, and Scott.

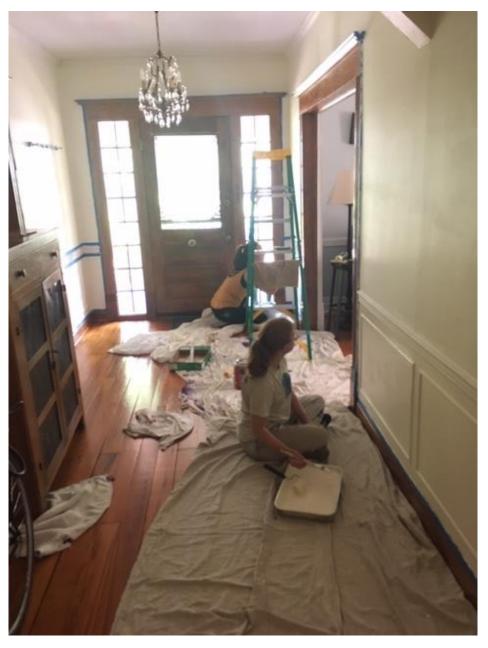


Prize dinner before, during......after





At Aaron's and Jessalee's house, there is lots of DIY going on to pass the hot summer time and keep the brain moving!



Building a bottle tree? The upside-down bottles attract the haints, and trap them, protecting you and yours from infection and also bad luck. Sent by my clever cousin, the one who brings us EZ Bee Honey for Grey House.





Haircut at last! Short for summer, and safe too.

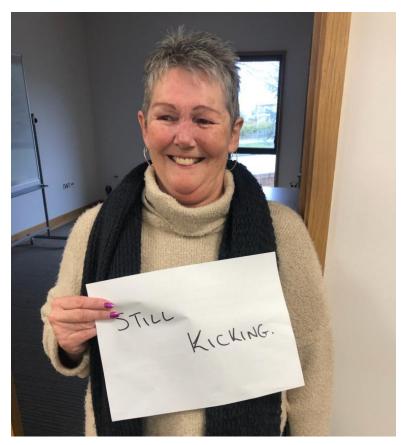
Black bear spotted in Durham's Croasdaile neighborhood near Honalee's house! Summer is the time when teenager bears are cruelly pushed away by their moms, and must journey looking for new territory, food and girlfriends. **Good luck young bear!**



First-birthday party in lock-down for Chloe's son Alexander in London.



Michelle McCann, Dunedin Unit manager, survives cancer treatment. She's always been a tough nut!



Parting shots:

New monthly budget: Gas \$0, Entertainment \$0, Clothes \$0, Travel \$0, Groceries \$2,799.

Coronavirus has turned us all into pet dogs. We wander around the house looking for food. We get told "No" if we get too close to strangers and we get really excited about going for walks and car rides.

Not to brag, but I haven't been late to anything in over 6 weeks.

You know those car commercials where there's only one vehicle on the road - doesn't seem so unrealistic these days ...

The spread of Covid-19 is based on two things: 1. How dense the population is, and 2. How dense the population is.

People keep asking: "Is coronavirus REALLY all that serious?" Listen y'all, the churches and casinos are closed. When heaven and hell agree on the same thing it's probably pretty serious.

When this quarantine lock-down is over, let's not tell some people.