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KINDNESS UNDER CORONAVIRUS

COVID-19 lockdowns could lead to a more respectful research culture. **By Gemma Derrick**

On 14 March, Spanish Prime Minister Pedro Sánchez announced a state of alarm (*Estado de alarma*) and a nationwide COVID-19 lockdown.

This closed schools and led to some of Europe's most severe social-distancing rules, punishable by fines and enforced by a constant on-street presence of police and the army, often using drones. Similar restrictions had already been seen in China and Italy, and in the following weeks other European countries – including the United Kingdom – as well as the United States and my native Australia all followed suit.

Spain is where I found myself, a higher-education researcher, on lockdown day – weeks into a five-month research visit

to the country's national research council. I was away from home and my job at Lancaster University, UK, unable to go outside, and juggling the homeschooling of my five-year-old son in central Madrid for an unknown amount of time.

But alongside fear, I immediately witnessed an outpouring of kindness from colleagues and from the scientific community. My work focuses on building a kinder, gentler, more inclusive research culture by modifying one of its harshest processes, peer review. I know all too well how science can be an ultra-competitive, Machiavellian environment that can be unforgiving to individuals who are in need of guidance or generosity. However, in the light of COVID-19, both individual researchers and

research organizations are showing that there is a way of doing what we do that is not driven by ambition and ego.

Might a disease that forces us apart through social distancing make us closer in the long run? Here is a list of things I have experienced that make me think that kindness in research is possible:

- The online platforms I use for work (Microsoft Teams, Zoom, Skype and, more than ever, Twitter) are full of messages of support and unity from colleagues across the world, and with cheerful puppy pictures and virtual coffee breaks that are better attended than the physical variety.

- A once narrow, competitive drive to collect data for our individual research ambitions has been replaced by dialogue about whether now, with everyone's minds otherwise occupied, is really the best time to be collecting data? This goes beyond concerns about data reliability and reproducibility, towards a type of empathy and foresight that is the bedrock of research kindness.

- Deadlines for grant proposals have been relaxed and postponed. And normally overly bureaucratic procedures, such as lodging requests for no-cost extensions on grants to accommodate interrupted research schedules, have been met with promises that such extensions will be given, no questions asked.

- An e-mail from my university's ethics committee demanding changes to my application within a strict time frame was followed up, after my out-of-office message, with a "don't worry about your ethics application, stay safe", allowing a blessed moment of relief.

- As flexible-working requests have been granted and home working enforced, expectations about outputs have been replaced with empathy and understanding, an acknowledgement of caring responsibilities or sickness, and anxiety about our careers, families, friends and the world.

- On 24 March, the 2021 UK Research Excellence Framework, the system for assessing research quality and a great source of stress to university academics, was postponed until further notice. This is explicitly to accommodate the disruption universities face as the result of COVID-19. The announcement was met with widespread relief across the sector.

- Commercial entities in academia, such as journals and publishing houses, are forgoing paywalls and making their entire content on COVID-19 open access, a move that until now was subject to implementing a highly complex arrangement such as the open-access movement Plan S. In many cases, this lowering of

the paywall applies beyond papers related to COVID-19, providing essential reading material to relieve the inevitable boredom and the anxiety of being locked in our houses, proving that if there is a will, there is a way.

• Finally, automated messages from journals chasing peer reviews have been eliminated and extensions offered. This crisis has highlighted how automated computerized actions are inhuman during a time when researchers are constrained by new methods of working and teaching, illustrating the need for general humanity in our research behaviour.

In my view, kindness in research culture is possible beyond COVID-19 – and efforts to make the research world a nicer place to work were happening long before the coronavirus crisis. In January 2018, *Nature* reported on a ‘Kindness in Science’ workshop held at the University of Auckland, New Zealand (see *Nature* 553, 367–369; 2018). And in September last year, the UK charitable research funder Wellcome launched a “reimagine research” campaign. A summit on the topic, due to be held in London on 18 March, was postponed until later in 2020 because of COVID-19.

For change to happen, it’s important to recognize why previous calls for a culture shift were heeded but rarely put into practice. Why was this? A reluctance to change,

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lack of reward and recognition, personal ambition? Perhaps it goes into the ‘too hard’ basket because of institutionalized practices (human, managerial and technological) that are, by nature, resistant to change.

The increased competitiveness and pressure towards research and university excellence (highlighted during the February 2020 strikes by UK academics) drive a culture in which the mental health of researchers is compromised and discriminatory behaviours are overlooked, and then embedded in research practice.

The COVID-19 pandemic has shown that with the right impetus, change can happen. There are still many elements of research culture that are in need of change, such as gender and racial disparities, bias and the need for more opportunities to foster the careers of young researchers, to name a few. In the meantime, we could use the momentum of COVID-19 to firmly embed kindness into research practice, extending greater goodwill beyond this temporary situation.

Gemma Derrick is a senior lecturer in higher education at Lancaster University, UK.

SEEKING SOLACE IN SCIENCE FUN

Videos, podcasts and light reading can help to lift the mood. **By Atma Ivancevic**

“**F**ind your passion” is, I think, one of the most overused and unhelpful clichés spouted on university campuses. The idea that everyone has a fixed set of interests is harmful, because it encourages us to drop subjects that don’t instantly bedazzle us. It creates the illusion that the perfect project will always be enjoyable. In reality, every scientific venture comes with its own set of challenges. And choosing a PhD or postdoctoral project is influenced as much by factors such as location and availability as by topic.

Although PhD work can spark passion, it has a dark side. *Nature’s* November 2019 survey of more than 6,000 graduate students found that although most respondents were satisfied with their decision to pursue a PhD, more than one-third had sought help for anxiety or depression caused by their PhD studies (see *Nature* 575, 406–406; 2019). The fact that students keep enrolling in PhD programmes, despite the documented experiences of past students, perhaps points towards a love of science and discovery that doesn’t always make its presence felt in the day-to-day work of a PhD student.

Scientists everywhere have faced unprecedented challenges in the past few weeks as laboratories shut down and employees shifted to working from home. For some of us, these changes occurred within the space of a week, meaning that all experiments and cell lines had to be thrown out or frozen down at only a few days’ notice. Having worked from home for two weeks now, I’ve realized that life as a remote scientist is full of Zoom lab meetings, Zoom hacking sessions, Zoom catch-ups and occasional Zoom happy hours (complete with ‘quarantinis’). As a computational biologist with no children or teaching obligations, the transition to working from home should theoretically have been easy. As a human with increasing worries and a limited attention span, the current situation is, at best, distracting.

Personally, I’ve stopped counting how many ‘productive’ hours I have in a day. Instead, I’ve found it helpful to stay up to date with aspects of science that interest me, even if my current topic or task is not going smoothly. I find the reminder that I’m still ‘into’ science, which I often get from outside

my day-to-day work, a reassurance during these uncertain times. Here are some of the resources I use whenever I need a science pick-me-up.

YouTube

Learning scientific concepts through video can be entertaining, informative and sometimes hilarious. Here are some of my favourite channels.

Simone Giertz (go.nature.com/2kr4vbn). Formerly known as the Queen of Shitty Robots, Giertz has made videos that showcase the delight of making useless things, as well as not-so-useless things such as a Tesla turned pick-up truck – Truckla.

A capella science (go.nature.com/2xve6bf). Combining deep science with sweet harmony, Tim Blais creates musical summaries of a huge range of science topics including, but not limited to, evolutionary developmental biology, quarks and exoplanets.

True Facts by zefrank1 (go.nature.com/3awxzm). As an Australian in the United States studying mammals, I often get asked about kangaroos and koalas. I always recommend his marsupials explanation (go.nature.com/2vuyun).

Podcasts

Currently, my go-to science podcasts are Buffs Talk Science and Science Vs.

Layperson-friendly reading

I often read summaries (across all fields, not just genetics) by Ed Yong (*The Atlantic*) and Carl Zimmer (*The New York Times*) before pursuing the underlying publications.

Science is meant to be fun. Taking a break to program with pictures or revel in an interesting discovery about barnacle sex can make the self-isolation of working from home more bearable. Whether that means experiencing Eminem-inspired physics a capella or discovering a new podcast, we could all use some light-hearted science right now.

Atma Ivancevic is a bioinformatics postdoc at the University of Colorado Boulder. She studies ancient retroviruses: genetic parasites that invaded our ancestors millions of years ago and still have a role in modern diseases.