

# The Optimist

A journal to help you survive the valley of shit



December 2020 EDITION

## EDITORIAL

*Not long ago, we found ourselves at the pub the Optimist asking ourselves: why the hell did we ever decide to pursue a career in science? A few drinks in, we realized that we would not be doing relevant science if it was easy. Moreover, in any other job we would probably be bored. To be able to survive our PhD – in a healthy mental condition – we realized we had to change our mindset. We need to learn how to deal with failure, how to be patient and how to create a healthy work-life balance. In order to bring optimism back for ourselves and our fellow PhD students, we came up with the idea for this interactive journal by PhD students for PhD students. Our goal is to become healthy scientists that are hardworking but relaxed, ambitious but sharing, and confident but humble. We are convinced that the best way to achieve this is by sharing our struggles and by seeing the humor in it. But that is not enough. We believe the efficiency of science can be improved. The scientific method has proven very successful over the last decades. Nothing we write down here will change this. However, we would like to step away from the idea that the current way of doing science is the only way and encourage constructive discussions. Therefore, in every edition we will focus on a topic that merits some thought.*

*The optimist team,  
Matthias, Donya, Joni, Hava & Simone*

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## To be (a perfectionist) or not to be

by, Jean-luc Doumont, PhD

Like most people's, my upbringing was filled with inconsistent messages, some of which took me a long time to sort out. One such lingering internal conflict was perfectionism. At home, nothing I did ever seemed good enough: when I scored 18/20 on an exam (a respectable grade for a Belgian university), my mother would exclaim reproachfully, "So, you made mistakes again, uh?" At school, however, everything I did seemed too much: my classmates insisted that I was working too hard, that I shouldn't be "more Catholic than the Pope", that "perfect is the enemy of good" (as Voltaire put it). As I later found out, many PhD students are tormented by the same dilemma. So... should you be a perfectionist or should you not? In this short article, let me put perfectionism in perspective.

If you ask me, there is nothing wrong per se with working hard to do a good job or, more generally, with striving to be the best you can be in life.

In fact, being a perfectionist has served me well at every stage of my career. After three years in graduate school, I was nowhere near obtaining a PhD: I was still bogged down in a side project, one that my PhD advisor had assigned me early on to "become familiar with the field". After four years, I successfully defended my dissertation. Did I really complete a PhD project in a single year? Of course not. Simply, I had gone above and beyond what my advisor had expect of the side project... which thus became my main project. Were I not a perfectionist, I would similarly not have known the professional success I am currently enjoying: if I got invited to speak on research communication at almost 200 universities worldwide, it's precisely because I chose to pursue excellence relentlessly, because I am, in a sense, "more Catholic than the Pope" in my line of work. Many of you are probably equally proud of the level of excellence they achieved through hard work and dedication.



Why, then, do we keep reading here and there—including in a preview issue of *The Optimist* (June 2019)—that we should *not* be perfectionists? Such a well-meant piece of advice probably targets, not the drive for perfection in itself, but the potential negative consequences of insisting on it. After my mother had clarified that 18/20 was synonymous to making mistakes, she would ask me, “Was that because you did not study hard enough or because you did not think properly during the exam?” In other words, I could choose between pleading guilty one way and pleading guilty the other way, but guilty I was. While it was meant to push me beyond my limits, such negative feedback struck me as destructive, and not something I chose to give my own children.

## ”You can be perfectionistic without the destruction

You can be a perfectionist without the destruction, though: just replace the anticipated shame of falling short by the anticipated pride of a job well done.

One recommendation that bothered me for a long time was that of being satisfied with “just good enough”, an expression that sounds like an apology of mediocrity (and who wants a mediocre life?). It does not need to be, though. Before you take *good enough* as an invitation to do a slapdash job of everything, ask yourself, “good enough... for what?” and recognize that the answer may be different for different people.

In other words, evaluate actions against objectives, on both the short and the longer term: what is it you really want to achieve in your life? (If your answer is *instant gratification*, you may want to rethink your current strategy: a PhD is a long-term endeavor.)

## ”Self-imposed pressure is more likely to be positive stress than negative one

If you decide to invest considerable time and effort in an activity because doing so helps you reach one of your objectives, then your motivation is much more a carrot than a stick. Self-imposed pressure is more likely to be positive stress than negative one. Still, it only works if the objective is truly yours, that is, something *you* want in life, not something you believe you should achieve based on the expectations of others around you. At some point during my PhD, I felt things were not moving forward fast enough, so I decided to start work in the lab at 6:00 in the morning every day. This new schedule took a little while to get used to—starting a habit is always the hardest—but it wasn't that hard, because it was my own choice, not something my PhD advisor was expecting of me. (Also, I'm a morning person; it helped.)



If you do a PhD because research is something you enjoy doing (and I hope you do), then investing time and effort in it will more likely result in a satisfying experience, too. In other words, I see nothing wrong per se with being a perfectionist in activities I enjoy doing, in order to deliver outcomes I am proud of, even if others can't see why the activity would be fun to do or the outcome something to be proud of: happiness is a personal thing. Admittedly, even if you enjoy research as a whole, you might enjoy some activities less than others—why, you might downright hate some of them—but seeing each activity as part of a whole, as contributing to your overall goal, keeps it in perspective and helps you find the motivation for it.

When it comes to deciding when (not) to be a perfectionist, do keep all of your life objectives in mind. In particular, beware of how the time spent on one activity might prevent you from completing other, equally important ones. If you are the type to work long hours, whether because you are striding towards an important target or because you are enjoying what you do, you may want to watch your health (a worthy long-term objective, too). Physically, are you setting enough time aside to eat a balanced diet, sleep sufficiently, and exercise? Emotionally, are you spending enough time with friends, family, and other loved ones? Intellectually, are you taking enough time off to feel refreshed and see things in a new light?

» Happiness is a personal thing

If you worry about how much investment in a project becomes too much, ask yourself this simple question: how easily can you disconnect once you decide to? If you keep obsessing over your work after you call it a day and go home, you are the victim of it, not the master of it. In work as in everything else, don't confuse quantity and quality. Just because I typically put in many more hours than some of my friends, they are quick to accuse me of being a workaholic, yet I remain convinced I have a healthier relationship with work than many of them do. Why? Because I'm making a dream come true, I freely choose how much effort I invest in this pursuit, I mostly enjoy what I am doing—and, especially, I can still switch my full attention to my private life almost instantly at almost any moment. I'm in charge of my life (to a point, of course).

In conclusion, stop trying to decide whether being a perfectionist is a quality to strive for or a bad habit to break; instead, learn to become more aware of why you do what you do.

» Learn to become aware of why you do what you do

Decide whether every activity you contemplate undertaking is both desirable and achievable—desirable in the sense that it serves a worthwhile purpose, achievable in the sense that it brings a positive stress balance, that it is mostly self-elected or enjoyable, not compulsive. If you choose to pursue excellence (and, again, I hope you do) but dislike the negative connotations of the word *perfectionism*, just call it something else. Myself, I like to think of life as *optimization under constraints*, that is, making the most of the time we have.

You might argue that the *valley of shit* this journal helps you survive is precisely this moment of self-doubt when nothing about your PhD seems desirable or achievable any longer. If you ask me, this “mid-PhD crisis” (as I prefer to call it) is really what a PhD is all about.

## DOING A PHD IN THE STONE AGE



A PhD is not primarily about contributing to science or developing technical expertise: many people do so without ever being in graduate school. Instead, a PhD is about managing a long-term research project independently: it is about breaking down... and picking yourself up. In other words, see the *valley of shit* as the most important learning moment of your PhD, and therefore as something desirable and achievable in and of itself. Those who zoom through their PhD years on a smooth ride are missing out on the experience.

If your situation is so dire that you are thinking of quitting, congratulations: you have successfully achieved the first part already. You are where you should be. Now is not the time to quit, though: it is the time to reap the benefits of your hard work—hey, you've come this far already. Pick yourself up, identify your life objectives, select the activities that will get you there: feel the positive stress of striving to be the best you choose to be.

*After engineering studies in Belgium and a PhD in applied physics at Stanford, Jean-luc Doumont decided to devote his life to helping researchers and other professionals improve their communication skills (see [www.principiae.be](http://www.principiae.be)). Since 2006, he has delivered an array of training sessions at VIB on presentations, papers, graphs, and other topics. More sessions are in the planning (pandemic permitting), so stay tuned!*



**Prof Joost Schymkowitz and Frederic Rousseau also known as the Switch Lab duo are a pair we've been meaning to interview since we started this piece. We, like most of you wonder how such a successful dual leadership can exist in what can appear as a selfish and often lonely investigator quest. Not only talented biophysicists but also very down to earth PI's. ... As they say two heads are better than one**

**Q1: Tell us about the history of how you met and how you decided to join forces and be one lab**

We met during the first year as Bachelor students at university in Brussels. Although we were in the same year and degree, we met in a student pub. In the coming years we became friends and decided we wanted to join forces in research, so we started looking for a topic and a place to do a PhD that we both liked. In the end, we picked the lab of Prof Sir Alan Fersht in Cambridge, then a leading figure in the field of protein folding.

From the start we had the ambition to one day run a research lab together.

**Q2: How would you describe the experiences that you made during your PhD time?**

Cambridge was an inspirational place in general, and the Center for Protein Engineering in particular was amazing. After all those years of just studying science, it was great to finally be in a lab and doing research. The lab was very international and there was a lot of hard work, but also a lot of partying and fun.

This made us realize the importance of a good lab structure and of having the right support

We already knew that our final goal was to establish our own lab, but we were always looking how things were organised, what we would do differently, what others skills would be needed. We benefitted hugely from a close interaction with a senior researcher in the lab, Dr Laura Itzhaki, compared to other students who had much less input. This made us realise the importance of a good lab structure and of having the right support. On the other hand, Alan took the view that each researcher is independent and can do great things, the possibilities in the lab were primarily limited by your own imagination, which is the best you can hope for.



**Q3: Are there things you are specifically proud of, or things that you would approach differently in hindsight?**

Our PhDs were very prolific, it was a very intense period. Perhaps in hindsight, we should have seen more of England ;-)

**Q4: Which advice(s) or tips would you give us PhDs?**

Your PhD is yours. You have to create it. Your supervisor can provide the framework, even the topic, certainly the infrastructure and funding, but then it is up to you.

Your PhD is yours

VIB, KU Leuven, CBD... this is as good a place to do a PhD as you are likely to find. Make the most of it.

And it pays to have a clear idea of what you want to do in the longer run, so you can work towards it.



## Is there life after a PhD?

In this section, we interview former PhD students about the value of their PhD and which career moves they made later on.



**Irena Zurnic studied biology at the University of Belgrade and then moved on to do a PhD in Dresden, Germany (research group of Dr. Dirk Lindemann). During her PhD, she worked on molecular biology of foamy viruses, a peculiar and non-pathogenic group of retroviruses. After her PhD, she decided that the most straightforward and logical choice was to go for a postdoc, which she pursued at KU Leuven in the group of Dr. Zeger Debyser, working on HIV. She stayed for 3 years at KU Leuven and after that started working as a medical writer at Modis Life Science.**

**What did you enjoy the most during your PhD?**

If I had to pick one aspect, I would say it was the environment- both in the broader context of the PhD program I attended and more specifically within the lab. I was part of the PhD program jointly organized by the TU Dresden and Max Planck Institute for Cell Biology and Genetics (MPI-CBG). One of the main goals of this program was to foster an excellent international academic environment, by attracting world-class scientists

both as permanent research staff and as invited lecturers. It was inspiring to be part of such a diverse environment and be exposed to so many buzzing ideas. Additionally, I enjoyed the lab micro environment a lot. I was lucky to work with friendly and accepting colleagues and I really appreciated that the head of the lab, prof. Dirk Lindemann, was a true mentor. I cherish the guidance that he provided, I think this shaped me into a motivated scientist with strong integrity.

## I realized I had a love-hate attitude towards the academic environment

### Why did you decide to leave academia and go for your current job?

I left the academic path because of the high performance pressure and competition. During my postdoc, I found it difficult to dedicate enough time to my own projects and collaborations and manage to supervise PhD and Master students in parallel. The supervision aspect was both the most rewarding and most exhausting part of my postdoc. I doubted that I could manage juggling all the responsibilities for a longer time without burning out. Also, I realized I had a love-hate attitude towards the academic environment: it often felt uncomfortable to be surrounded by extremely critical and competitive over-achievers and face issues such as academic bullying and scooping. I also thought that my publication record was insufficient to compete with other postdocs

from my field and climb higher up in the academia (e.g., obtain funding for senior postdoc/assistant professor positions). I invested quite some time thinking about what I would prefer to do outside of academia and medical writing ended up among my top preferences. I wanted to do something not so profit-oriented and yet intellectually challenging, where my academic skills would truly make a difference and where I could still keep learning. The main step I took was to profile myself as a writer, shaping my job applications to highlight my writing skills and interests, and the crucial breakthrough was a former colleague recommending me at Modis (my current employer). For those interested in medical writing, I would always recommend trying out some internships at medical writing companies and consulting the resources of the European Medical Writing Association (EMWA).

### What are your main tasks and which skills that you learned during your PhD proved to be useful?

Right now, I work as a publication writer. This means I develop manuscripts based on clinical trial results and focused writing occupies the most of my everyday routine. My main tasks are to locate and read through the relevant information resources, synthesize the information from the literature and the original research and find the best way to present the data to the potential readers. So I make use of my scientific curiosity, the critical and analytical mindset and my academic writing skills on a daily basis. Most medical writers are life science PhD degree holders and we owe our main skill set to our academic training. Being well organized and stress-resilient (as we usually work on multiple projects at a time), knowing how to analyze and interpret data, how to quickly synthesize it and digest it in a clear way for publication are valuable skills that you pick up from academia. The challenge is that both the authors whose work you present and your main audience consist primarily of medical doctors, who may have different expectations compared to the academic research experts.

That is why you should really enjoy the writing process and be willing to change the style of your writing if necessary.

### What would you give as advice to PhD students?

Be your own support group- try and enjoy the PhD journey as much as possible. I am saying this because my biggest regret was that I suffered from an imposter syndrome and loss of confidence during my academic career. I think it is so important to keep that first day enthusiasm with which you start the PhD.

## Keep that first day enthusiasm

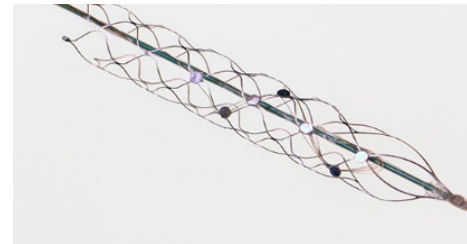
As everyone who has ever done or is doing a PhD will tell you, scientific progress means frustration galore. So, it is important to be persistent, hard-working, and maintain your resilience as much as possible. It is best to approach difficulties objectively, not letting failed experiments discourage you and to keep on searching



# News you may have missed

We all know how depressing reading the news can get, especially if you are already having a tough time at work. But do not despair! We've navigated through all that negativity to come up with a selection of articles that are guaranteed to lift your spirits!

## New brain-computer interface (BCI) shows promising results in humans



A novel technology for bridging the gap between brain and machine has just shown successful results in a human trial featuring two subjects with advanced amyotrophic lateral sclerosis (ALS) (1). The probe (named Stentrode) was funded by the US Defense

Advanced Projects Agency (DARPA) and can be implanted intravenously in proximity to the primary motor cortex with a minimally invasive procedure. After a short period of machine-learning-assisted training, the participants were able to control a Windows 10 operating system, which allowed them to conduct daily tasks, such as texting, online banking or online shopping.

## Tiny Atlantic island takes giant leap towards protecting world's oceans

The volcanic archipelago of Tristan de Cunha in the South Atlantic just formally announced the protected status of all the surrounding wildlife (2). As one of the UK overseas territories, this collection of islands hosts a staggering number of species of fish and birds (e.g. Rockhopper penguins on the right) which will now be safe from destructive activities such as deep-sea mining and bottom-trawling fishing. Including a grand total of 700'000 square km (comparable to the area of France), this region has now become the 4<sup>th</sup> largest marine protected area of its kind.



## Don't get panicky about the luring deadlines

Don't get panicky about the luring deadlines and the fact that you MUST publish before you can defend your thesis, but try to focus more on what you can do to help your project progress further, what makes sense to do next and why. There is always a path forward (even if it means changing projects, believe me, I've been there).

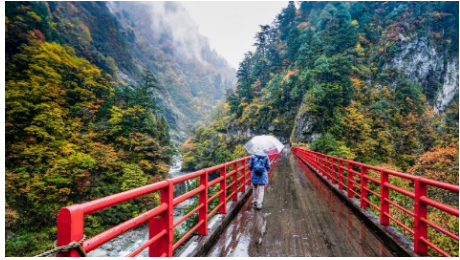
This will help you keep a healthy perspective on the scientific career, keep your research integrity and help you catch the best ideas for your own projects. It is of course good to keep an open eye on alternative career options, but I think it is best if you can do that from a standpoint of a successful and happy scientist rather than a disappointed one.

## There is always a path forward



# Carrot cake with lime buttercream frosting

## Japan set to target zero emissions by 2050 in policy shift



The recently appointed prime minister of Japan, Yoshihide Suga, announced an environmental policy shift, which now aims to reach carbon neutrality by 2050 (3). The third largest economy and fifth biggest carbon emitter in the world has now set targets which are in line with the European Union and more

than 60 other countries worldwide to offset the damage caused by global warming. The announcement is due to be followed by a more detailed plan on how to guarantee a smooth transition from an economy that is still heavily reliant on coal plants, to a greener and more energy-efficient one.

## Sources

1. Oxley TJ, Yoo PE, Rind GS, et al Motor neuroprosthesis implanted with neurointerventional surgery improves capacity for activities of daily living tasks in severe paralysis: first in-human experience *Journal of NeuroInterventional Surgery* Published Online First: 28 October 2020. doi: 10.1136/neurintsurg-2020-016862
2. McVeigh, K. (2020). 'Tiny Atlantic island takes giant leap towards protecting world's oceans', *The Guardian*, 13 Nov. Available at: <https://www.theguardian.com/environment/2020/nov/13/tiny-atlantic-island-takes-giant-leap-towards-protecting-worlds-oceans> (Accessed: 17 November 2020).
3. Sheldrick, A., Obayashi, Y. (2020). 'Japan set to target zero emissions by 2050 in policy shift', *Reuters*, 23 Oct. Available at: <https://www.reuters.com/article/us-climate-japan-policy-shift/japan-set-to-target-zero-emissions-by-2050-in-policy-shift-idUSKBN2780PC> (Accessed: 17 November 2020).

Preparation time: 15 min | 45 min baking

### Ingredients

For the cake

- 3 eggs
- 250 gr white sugar
- 50 gr brown sugar
- 250 gr flour
- 2 tsp baking powder
- ½ tsp salt
- 1 ½ tsp cinnamon
- 1 ½ tsp nutmeg (or cardamom: optional)
- 1 tsp vanilla sugar
- 400 gr grated carrots
- 150 ml rapeseed oil or other vegetable oil
- Optional: handful of walnuts

For the frosting

- 70 gr butter
- 140 gr cream cheese
- Lime zest from ½ lime
- 300 gr powdered sugar



### Preparation

Cake

- 🥕 Preheat oven on 180 degrees celsius
- 🥕 Mix the egg, white sugar and brown sugar well until fluffy
- 🥕 Add the flour, baking powder, salt, spices and vanilla sugar and mix further
- 🥕 Add grated carrots (hand grate or pre-grated), oil and mix everything together.
- 🥕 Put the cake in the oven for 45 min

Frosting

- 🥕 Mix all frosting ingredients together with a mixer until smooth. (make 1,5 batch frosting if you love frosting and want extra). Taste and add more lime if you like
- 🥕 Optional: top with walnuts

credits to @matildadjerf on instagram

# Fun things to do during lockdown 2.0

## Reading

- For a sensitive reader: **Beekeeper of Aleppo**
- For those who want to understand "Why": **Sapiens**
- For a non fiction book that should be read by both genders to understand gender inequality: **Invisible Women**
- The book for the child within: **The Little Prince**

- For those into spirituality: **Siddhartha**
- For those who want to let out a cry: **Rooftops of Tehran**
- For a Mumbai cookbook with western twists: **Dishoom**
- For the best vegan and vegetarian recipes : **East: 120 Vegetarian and Vegan Recipes from Bangalore to Beijing**



## Movies

- For a blockbuster: **Parasite**
- For a feel-good chick flick: **Bridesmaids**
- For a movie too close to real life: **Contagion**
- For a reality check: **A life on Our Planet**
- To educate yourselves about the cells you use: **The Immortal Life of Henrietta Lacks**
- For a good British action comedy: **Hot Fuzz**
- For a cult classic: **The Breakfast Club**
- For lovers of the matrix : **Cloud Atlas**
- For those interested in American history: **The Trial of Chicago 7**

- For good drama (also if you love chess): **The Queens Gambit**
- For those who need to feel good after a long day of work: **Modern Family**
- For the sci fi fans at heart: **Orphan Black**
- For the 90's babies : **re-watch Friends**
- For an insight to racism : **Dear White People**
- If you are looking to be scared from a true story : **Conversations with a Killer: The Ted Bundy Tapes**
- For a kick in your face to social media reality: **The Social Dilemma**

## Series



## End of the year drink

*Powered by Dennis Pedri*



Very Wrong Negroni

- Get a glass with ice
- Mix equal parts (50cl) of Campari, Cointreau and Gin
- Mix gently and garnish with lemon zest

This variation of the classical negroni will warm you up during the cold winter and keep you awake during long family discussions\*

\*also effective for zoom calls.

*Merry Christmas and a Happy new year to all of you!*

# Thank you

## Main topic

Jean-luc Doumont

## PI interview

Prof. Frederic Rousseau &  
Prof. Joost Schymkowitz

## Is there life after a PhD

Irena Zurnic

## Chef's corner

Credits to *@matildadjerf* on Instagram

## Pictures

Unsplash.com

## Supported by

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Research

## Editing and lay-out

The Optimist team & Liesbeth Aerts



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## We are RECRUITING!

Do you enjoy reading The Optimist and wonder what goes on behind the scenes? Do you have a fervent passion for journalism or would like to take a more active role in academia awareness? We are looking for contributors to expand the team, so get in touch by sending an email to [optimist.phd@outlook.com](mailto:optimist.phd@outlook.com)! Looking forward to meeting you!



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