

Fighting the Impostor Syndrome, picking your army, Pareto Optimization and other ways to survive grad school

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@Drew_Lab

*“BUT I AM VERY POORLY TODAY AND FEEL VERY
STUPID AND HATE EVERYBODY AND EVERYTHING. ONE
LIVES ONLY TO MAKE BLUNDERS”*

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CHARLES DARWIN TO CHARLES LYELL IN 1861,
ONE YEAR AFTER ON THE ORIGIN OF SPECIES

I am assailed with my own ignorance and inability. Honesty... For no one else knows my lack of ability the way I do. I am pushing against it all the time. Sometimes, I seem to do a good little piece of work, but when it is done it slides into mediocrity...

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John Steinbeck, June 18 1938 while writing *The Grapes of Wrath*



Unmasking the impostor

The Impostor Syndrome

- * A condition where people are unable to internalize their own success
- * Often feel that they have succeeded because of luck, timing, or other external forces
- * Comes with feelings that everyone else is smarter and that they do not belong where they are

Claire G. Griffin @polargriffin 6s

6 seconds ago

[@Drew_Lab](#) Less now than I used to, but first few years of grad school were classic "fake it til you make it"

Auriel Fournier @RallidaeRule 5s

5 seconds ago

[@Drew_Lab](#) when people express that they disagree with my priorities bc I don't always put science first (sometimes family is 1st)

Stephanie McKellop @McKellogs 1m

1 minute ago

[@Drew_Lab](#) it is interesting(sad) to see how that undermines one's sense of worth, achievement, place when embodying womanhood/color

Ruth Hufbauer @hufbauer 27s

27 seconds ago

[@Drew_Lab](#) I feel like an impostor when giving a talk & there are people who's work I really respect in attendance. What if they find out?!

Nick Caruso @PlethodoNick 1m

1 minute ago

[@Drew_Lab](#) it mostly hits when I'm about to submit paper/grant/do presentation but is probably worse after (if) a paper is accepted

Stephanie McKellop @McKellogs 8s

9 seconds ago

[@Drew_Lab](#) personally, my exp with gender/I.S. shows when I worry I've been chosen to participate only so a group doesn't "look sexist"

When do you feel the Impostor Syndrome?

Terry McGlynn @hormiga 43s

44 seconds ago

[@Drew_Lab](#) Compliments on my science bring the imposter syndrome on. Are people surprised by the scientific discoveries, or that I made them?

P. Sean McDonald @pseanmc 9s

9 seconds ago

[@Drew_Lab](#) typically upon receiving journal rejection letters. Also, ~2 hours after acceptance letter euphoria wears off. Also, waking hours.

Auriel Fournier @RallidaeRule 28s

28 seconds ago

[@Drew_Lab](#) when grants/papers get rejected, when I'm told No you can't do X thing and not given a reason

Auriel Fournier @RallidaeRule 42s

42 seconds ago

[@Drew_Lab](#) when I get dismissed for things outside my control (being female, working on 'something easy')

Charlyn G. Partridge @PipefishRCool 1m

1 minute ago

[@Drew_Lab](#) Way more often than I would like to and especially when I'm feeling behind in everything.

Holly Jones @DocHPJones 50s

51 seconds ago

[@Drew_Lab](#) Whenever I'm around brilliant scientists...which is to say nearly all the time. (yes you can use)

[View conversation](#)

Jen Biddle @subsurface_life 59s

59 seconds ago

[@Drew_Lab](#) when I get reviews back on grant proposals and manuscripts (ok to use)

Amidst Science @AmidstScience 39s

40 seconds ago

[@Drew_Lab](#) When others complain, but really are quite well off. e.g. complaining u have so much good data that now u have to write 9 papers!

Underlying causes

- A culture of brilliance
- Appearance of a meritocracy founded on infallible success
- For people who are from underrepresented groups in science the tacit (or explicit) belief that they are there only b/c of “what box they checked off”

How does the Impostor Syndrome impact you?

- Can manifest itself either aggressively or passively
- Lower grades - lack of participation
- Students do not go after awards, grants etc.

Rob O' Sullivan @Rob0Sullivan 31s

31 seconds ago

@Drew_Lab @PlethodoNick Was asked to interview for a job once and talked them out of it, telling them they had overestimated my experience.

Holly Jones @DocHPJones 51s

52 seconds ago

.@Drew_Lab Holds me back from my full potential. Makes me not apply for positions, nominate myself for awards, etc.

Kevyn Juneau @TheRealKevynJJ 20s

21 seconds ago

@Rob0Sullivan @Drew_Lab @PlethodoNick I was not given a job for similar reason. Search committee said I was too modest & didn't sell myself.

How has it impacted you?

Plañetary Moisés @OtherOrbScience 38s

39 seconds ago

@Drew_Lab @HopeJahren Because of Imposter Syndrome: I have decided not to pursue opportunities; I am never ready to publish my papers; etc.

Erin Spencer @etspencer 51s

52 seconds ago

@Drew_Lab When I learned what [#impostersyndrome](#) was, I felt so relieved to put a name to the feeling I've had since starting my research

I remember talking to a patriarch (cousin's grandfather) who said of my cousin "yes, that's nice that he got his degree from Cambridge, in mathematics, but he was not the first in his class. Until he is the first in his class, I am not satisfied."

That still makes me want to knife the old man (god rest his soul). So I think there are certain cultural norms that would in some way limit your ability to express the sense of your own success, which might make one more prone to this syndrome.

- Professor of Economics of Sri Lankan descent



Stephanie McKellop
@McKellogs

@Drew_Lab making those groups often feel that, as some people also think, they didn't "earn" their place, they're just there to fill a quota

11/6/15, 4:14 PM



Stephanie McKellop
@McKellogs

@Drew_Lab I was first introduced to it as affecting especially POC & women due to the intellectual shift after affirmative action

11/6/15, 4:13 PM

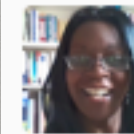
Underrepresented groups



Claire G. Griffin
@polargriffin

@Drew_Lab Absolutely - stereotype threat would only reinforce feelings of inadequacy.

11/6/15, 4:28 PM



Nike
@Mindsightcoach

@Drew_Lab Messages from childhood tell you non-white = 2nd class citizen and female = 2 class so how can you feel enough.

11/8/15, 2:22 AM



Katherine Crocker
@cricketcrocker

@polargriffin @Drew_Lab I was going to say "stereotype threat" too!

11/6/15, 6:58 PM



Stephanie McKellop
@McKellogs

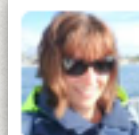
@Drew_Lab I was first introduced to it as affecting especially POC & women due to the intellectual shift after affirmative action

11/6/15, 4:13 PM

I feel impostor syndrome when trying to expand women about gender bias in science. they just come up with excuses why men are in charge or why things are really equal, making me feel like I'm overreacting and that I don't deserve equality. It's horrible when they say things like "our last marine direct was a woman and she was terrible". We aren't having a woman again" Or when they ask me to go on a panel or field trip because they need a token woman. Seriously, they used the word "token".

I'm not a token, I'm a scientist.

Am I not taken seriously because I'm not good enough at science? I want to learn now to explain better what the gender inequality issue is and how it impacts my self esteem as a scientist



abigail mcquatters-g
@anaturalstate

@Drew_Lab 140 char just isn't enough to express how badly this feels

11/7/15, 8:14 AM

UNCOMPENSATED LABOR

- Students from underrepresented groups often take on additional tasks
- Some of these are structural - serving on diversity committees
- Some of these are voluntary - mentoring other students
- This can be positive - near peer mentoring, having a chance to make a difference
- This can also open one up to micro aggressions - being seen as an expert on all things X, only being getting achievements b/c of who they are, lower evaluations, gas lighting etc.

NONE OF THIS IS COMPENSATED BUT ALL COMES IN ADDITION TO REGULAR WORK



Robin Nelson
@rgairnelson

@Drew_Lab @JNRutherford
@amanda_dettmer Good good.
There has be a link btw. folks
asking you to do EVERYTHING
but what you're training in +

11/9/15, 8:33 PM



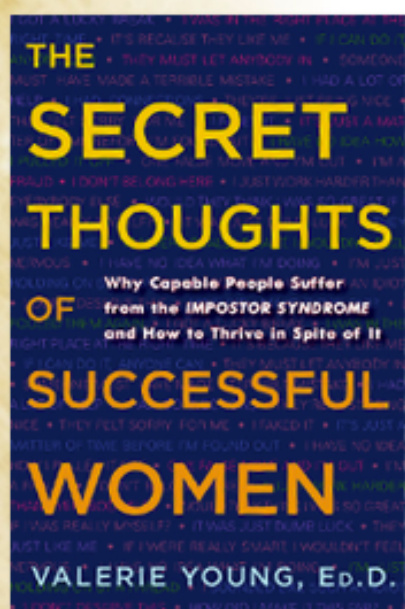
Robin Nelson
@rgairnelson

@Drew_Lab @JNRutherford
@amanda_dettmer and imposter
syndrome. You are literally outside
of the conversation for most
things but care.

11/9/15, 8:33 PM

Overcome the *Impostor Syndrome*

Dr. Valerie Young



Crown Business,
a division of
Random House

Buy the Experience

Make a Difference in Your Life, Community and the World

- Learn about upcoming online classes, webinars, and live workshops
- Learn more about how you can “share the confidence” with other girls and women locally and around the world

What you can do?

- Identify that we all feel this way
- Do not rely on exogenous validation
- Support others when you know they are down
 - Importance of having a community
- Chronicle your successes



Andrea HD
@handreahd

@Drew_Lab Acceptance, humility, persistence. Yup, I know less than I should. Gonna keep on pushing this boulder uphill anyway.

11/8/15, 12:58 PM



Natalie Hofmeister
@NatalieRose3C1

@Drew_Lab when I'm not following (in a paper, discussion, etc.) which happens pretty often! Always good to remember learning is a process

11/6/15, 4:33 PM

Doreen McVeigh @DoreenMcVeigh 35s

36 seconds ago

@Drew_Lab tell jokes or watch comedy--laughter is the best medicine!

How do we deal with it?

Jacquelyn Gill @JacquelynGill 17s

18 seconds ago

@Drew_Lab I talk myself up. I fake it until I make it. I remind myself of my accomplishments. I am stubborn.



Holly Jones
@DocHPJones

.@Drew_Lab Go run/do some yoga or eat fried food/have a beer :) Hug my kids/husband to gain better perspective; I'm no imposter to them.

11/6/15, 4:44 PM

Auriel Fournier @RallidaeRule 3s

3 seconds ago

@Drew_Lab I have a file on my computer of positive things people have said/written about me



Francois Gould
@PaleoGould

@Drew_Lab occasionally I crack, and then my husband reminds me of all I've done.

11/6/15, 4:49 PM

Claire G. Griffin @polargriffin 1m

1 minute ago

@Drew_Lab Getting perspective - reading books like Secret Lives of Successful Women or Whistling Vivaldi helped. Realizing how common it was

XXXX (Science Journalist) So many thoughts, so little time. I sort of find the impostor feeling liberating in some ways, weirdly. Something like: "well, they're going to find out that I'm awful at this sooner or later, might as well just do what I want and try new weird things and be wacky!"

XXXX (Assistant Prof) I am SO in line with XXXX on this - When I got to Princeton I was terrified that everyone would realize that i was the stupidest person in the room... for about a week. then I realized two important things- being the stupidest person in the room means you can learn more than anyone else, and that is super liberating. I also learned that my boss - the female chair of the Geosciences department - still feels the same way...recognizing the feeling, that women/people at every level feel this way makes it way easier to beat back the demons

Set yourself up for success

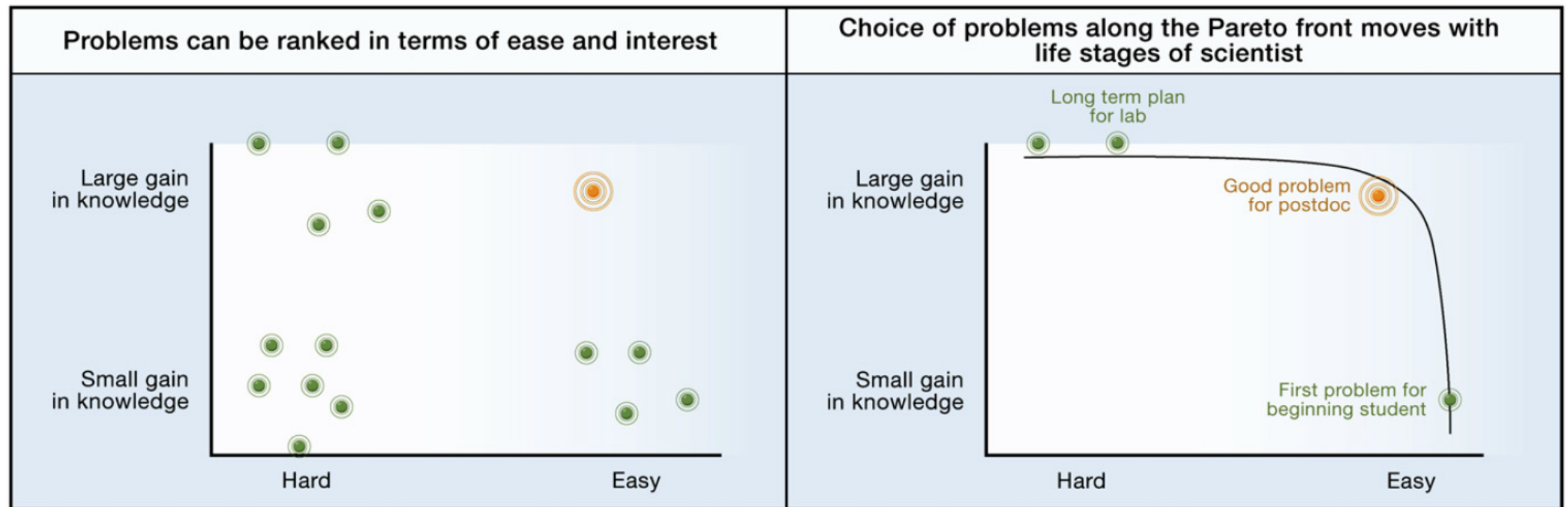


Figure 1. The Feasibility-Interest Diagram for Choosing a Project

Two axes for choosing scientific problems: feasibility and interest.

How To Choose a Good Scientific Problem

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Take your time

- Graduate students feel pressure to finish quickly
- However take the time to be thoughtful
 - plan
 - pause
 - proceed
- “If you don’t have time to do it right the first time, you don’t have the time to do it wrong the first time”

Find your community

- Communicating is the single best way to overcome this
- Find your voice and use it regardless of the medium
- If nervous about admitting this you can do so anonymously through blogging/tweeting etc.
- #BlackAndSTEM #QueerInSTEM #WomenInSTEM

Appearances are deceiving

- People are often uncomfortable sharing their inner doubts, again communication is really key
- Social media can give false selective impressions both for success and mood



Advocate for yourself

- Don't use words "just" or "only" when describing your work
- Remember you've gotten good things for a reason
- Don't apologize for yourself
- Seek and give support

Sarah Hörst @PlanetDr 12s
13 seconds ago
it'll be ok. No really.

Lauren Sakowski @LaSaks87 26s
27 seconds ago

The quote I had read for my doctoral hooding, "She believed she could, so she did."

Eva Rose @thankascientist 35s
36 seconds ago
@PlanetDr

I second this. It will be OK. Relax. Breathe. Slow down. Forgive yourself.

Sciencegurl @sciencegurlz0 5m
5 minutes ago
Breathe. It is all going to be fine.

Lyndell Bade @lyndellmbade 3s
4 seconds ago
BE BRAVE!

Craken MacCraic @Craken_MacCraic 17s
18 seconds ago

In 5 years time, you'll be advising others who went through the same thing you did now #wibblywobblytimeywhimey

What would you say to yourself

Holly Kindsvater @HollyKindsvater 3s
4 seconds ago

. I try to cultivate the Beginner's Mind. Children don't have #ImposterSyndrome... Also, I just stopped caring what others think!

Kate Horowitz @delight_monger 38s
38 seconds ago

Darling, relax. This life is short, magnificent, and absurd. You may as well enjoy it.

Sarah Hörst @PlanetDr 6s
6 seconds ago

I realized 1 day that 5 yrs ago me would be so impressed by today me and ask how I "got here". Even tho today me feels inadequate

MissMolaMola @missmolamola 47s
48 seconds ago

"look at the path your life has taken! you're driving boats, planning interpretive programs at a museum...what can't you do?"

Tannis McCartney @TMMCC 1m
1 minute ago

"Boldly Go." That, and "build the support network you need."

Kate Hertweck @k8hert 42s
42 seconds ago

I wish I'd learned earlier to empathize with other folks and model supportive behavior to combat I.S.

My T Chondria @MyTChondria 24s

25 seconds ago

You've done great. If you don't move to someone else's version of the next level, you need different goals.

Linda Carson @lccarson 7s

8 seconds ago

From an unattributed sign over my desk: "Stop looking for bananas from people who have no bananas to give you."

Rebecca L.Cunningham @Becca_MO_TX 29s

30 seconds ago

get everything in writing. Enjoy the quiet moments and not worry about what you should be doing

Yai Aou @YaiAou 27s

28 seconds ago

So: **"Hey, spending 16h/day at the lab bc you think you are less efficient than others is NOT a solution."**

Andrea Wishart @pickleswarlz 1m

1 minute ago

Imposter syndrome silences self worth, so don't be flattered into something that isn't in the best interest of YOU.

Yai Aou @YaiAou 2m

2 minutes ago

At the end of my PhD, my grandpa had recently died, & my grandma wrote me in a letter: "life is too short to let work damage you"

Michelle Gumz @MLGumz 12s

12 seconds ago

"stop eating the free cookies /bagels/etc. at seminars, you're metabolism is only getting slower"

My T Chondria @MyTChondria 10s

10 seconds ago

I've actually not experienced imposter syndrome having learned when I was ~ 9, everything is temporary. Contd...

My T Chondria @MyTChondria 55s

56 seconds ago

I had so many people die out of nowhere and picking up the pieces and helping is my job. Everything else is icing.