

Let's chat about imposter syndrome

(it'll be fun, I promise)

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HiQ

Introduction

This talk is brought to you by ...

A stylized, handwritten signature in black ink. The letters 'H', 'I', and 'O' are written in a cursive, flowing style. The 'H' and 'I' are connected, and the 'O' is a large, rounded loop. A long, horizontal stroke extends from the right side of the 'O'.

Who am I?

- Simon Larsén
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IMPORTANT DISCLAIMER

This talk contains statements that are attributed to research papers

This does *not* mean “this came from a research paper and therefore it is true”

This talk presents my view - with inspiration from others

**Don't assume that anything I say tonight
is objectively true**

What is imposter syndrome?

About the name

- Until a week ago I had only ever heard it called *imposter syndrome*
 - Appears to be the most popular term in social media
 - Also the name of the Wiki page
- Originally coined as *imposter phenomenon* (IP) way back in '78 [1]
 - Appears to be the most popular term in research
- A third term is *perceived fraudulence* [2]
 - The authors argue that the other two popular terms make it sound like a disease or personality disorder, which they do not believe it to be

But what is it?

The term impostor phenomenon is used to designate an internal experience of intellectual phoniness which appears to be particularly prevalent and intense among a select sample of high achieving women [1]

The imposter phenomenon refers to feelings of phoniness experienced by high achievers [3]

Imposter phenomenon is defined as a self-perception of intellectual fraudulence despite achieving objective success and accomplishments [4]

Inward-facing symptoms

Anxiety, self-doubt, fear of failure, and guilt about success undermine their ability to function at their highest level. [5]

In the face of faltering self-confidence, internalization of failures, and over focus on mistakes over the long term, stress and anxiety become constant companions. [6]

Outward-facing symptoms

IP can have wildly different effects on different people. It can for example:

- Motivate *very hard* work to avoid being discovered as an imposter [1] [3] [6]
 - With all the lovely burnout that comes with it!
- Cause one to avoid tasks perceived as difficult or challenging, as there is a chance of failure [3]
- Cause one to express the beliefs and opinions of others as they have no faith in their own [1]

How do you get it? Is it contagious?

Clance & Imes (1978) [1] suggest two paths to IP for the women they studied

1. Having a sibling designated “the clever one” by parents
 - Indoctrination from a young age to undervalue her own skills
 - Difficulty ascribing their accomplishments to themselves
2. Always being told *they* are the clever one, and that they can do everything and anything, but then encounter difficulties in the real world
 - Her parents must have been wrong about her intellect, because things aren't easy!
 - Having to put effort into achieving something while perceiving that others do not can greatly contribute to IP [3]

It's all about perception

Clance & Imes (1978) [1] make it clear that this is all about perception

Women who experience the impostor phenomenon maintain a strong belief that they are not intelligent; in fact, they are convinced that they have fooled anyone who thinks otherwise.

*The clinical symptoms most frequently reported are generalized anxiety, lack of self-confidence, depression, and frustration related to inability to meet **self-imposed** standards of achievement.*

Imposture as a spectrum

There is an idea of *imposture* as a spectrum [7], and with a little bit of imagination one can interpret it like so

- At one extreme are the most pathological liars and deceivers, the *true* imposters
- At the other extreme are those that *feel* like imposters while in reality they are not

**My journey through university,
catching some IP and coming out
alive**

Starting out older

- I was 22 going on 23 years old when I started the computer science program at KTH
- My class mates were a good 4 to 5 years younger than I - practically toddlers!
- I believed that being “much older”, I also had to be “much smarter”
- They had already been programming for years - so I had to catch up!

My class mates



Image source

Me

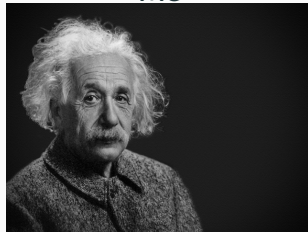


Image source

I worked hard (not to be found out)

... and performed very well

But I perceived my class mates to get by *just as well* with *less work*

And my state of mind wasn't entirely ... stable

A vivid memory of a crisis

Just as I started the master's program I had a course in AI, with a warm-up task to implement a pathfinding algorithm.



Image source

The automatic grader just kept rejecting my solution.

A vivid memory of a crisis

I lost my shit



Image source

It was just a silly mistake

After several days I realized I'd just put an extra newline in the output such that the *very picky* automatic grader didn't accept the solution.

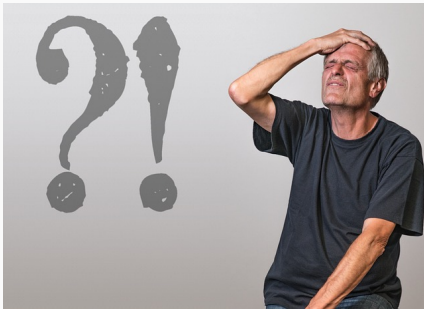


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When you internalize failure more strongly than success

I remember the ice cream I dropped - not the 100s I successfully ate

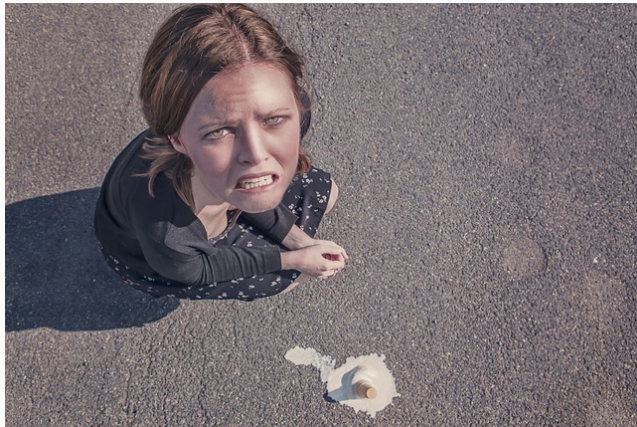


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A completely accurate analogy

Phasmophobia - a game about ghosts



Image source

Sanity level - your resilience to ghostly intervention



Image source

- Each player has a sanity level
- Decreases when spooky stuff happens
- Lower sanity \Rightarrow more spooky stuff
 - Feedback loop!
- Very low sanity \Rightarrow triggers a *hunt*
 - And the ghost tries to kill you
- Great fun :)

Resiliency to imposter syndrome

I think of IP much like sanity in Phasmophobia

Everyone is susceptible and life events lower or raise your resilience

- Has “the clever one” sibling: -50 resilience
- Successfully eats ice cream: $+1$ resilience
- Drops ice cream: -5 resilience
- Does a talk on IP and almost no one shows up: -10 resilience

Lower resilience \Rightarrow more IP symptoms \Rightarrow lowers resilience

IP is not something you “have”

IP is not something you “have” or “don’t have”

The people we say *have* IP are at the lower extreme of resilience

[...] IP is not a matter of having it or not. Rather, one can experience some or all of the aspects of IP to a greater or lesser extent. So we should think of IP as a spectrum phenomenon and recognize that many individuals fall somewhere on the spectrum. We can think of those who identify most strongly with the diagnostic statements as the paradigm instances of IPPs. [8]

Let's talk about superstars

“Everyone in the trainee program has imposter syndrome”

“Everyone in the trainee program has imposter syndrome”

“No they don’t, they just think they do”

Note: Poorly paraphrased from memory

Self-imposed expectations

The trainees have high, self-imposed expectations on their abilities

They are not *actually* expected to be able to do everything out of the gate

But does *self-imposed* mean that external factors have nothing to do with it?

Self-imposed expectations usually originate from external factors

The ultimate Trainee Program for tomorrow's superstars in development!

superstar

someone who is dazzlingly skilled in any field

<https://www.wordnik.com/words/superstar>

IP symptoms are not necessarily irrational

There is a general notion that sufferers of IP are irrational high achievers . . .

They may simply be better at acknowledging that factors outside of their control played a role in their success [8]

It is feasible that one can suffer from IP symptoms *and* be justified in one's belief

[. . .] we must not dismiss the serious negative behavioral and affective aspects of IP—i.e., the pain and anguish that can accompany even a justified lack of confidence in one's talents [8]

This shifts the problem definition

If the IP is *justified* the original problem definition does not apply

It is no longer about the irrational high achiever, but a rational person

We're *kind of* moving the goal posts, so we need to redefine the problem itself



Image source

Two theories of intelligence

Carol Dweck and Mary Murphy describe intelligence as perceived in one of two ways

- Entity theory of intelligence
 - Intelligence is an innate, static trait
 - You're either born intelligent, or you're not
- Incremental theory of intelligence
 - Intelligence is a malleable trait
 - By learning new things you expand your intelligence

The “Genius Culture” problem

A Genius Culture [8] values individual performance above all else

It subscribes to the entity theory of intelligence

The more effort you exert to accomplish something, the less intelligence you possess

Individuals will hide or downplay the amount of effort put in to achieving something

Remember me?

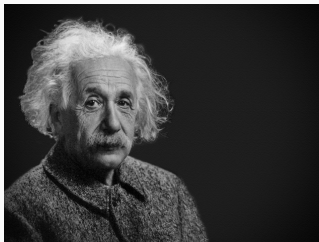


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Your weaknesses - their strengths

When you see someone who is good at something that you are not

... it's easy to compare yourself to them by that quality

But you miss so many important details!



Image source

Summary

Quick recap

- IP is an umbrella term for a collection of symptoms/feelings
- It is not a thing you “have” or “don’t have” - it’s a spectrum
- Anyone can experience IP symptoms
 - You don’t need a specific level of competence to “qualify”
- IP symptoms can arguably be rational
 - And then an environment like a Genius Culture is the actual problem

What can we do?

Here are just some thoughts

- Talk about it!
- Avoid propagating the superstar/rockstar/10Xer ideals
- Be open about the effort you put in to achieve success
 - Effort is not anathema to intelligence

**Thank you for listening, now feel
free to disagree!**

References

- [1] P. R. Clance and S. A. Imes, "The imposter phenomenon in high achieving women: Dynamics and therapeutic intervention." *Psychotherapy: Theory, research & practice*, vol. 15, no. 3, p. 241, 1978.
- [2] J. Kolligian Jr and R. J. Sternberg, "Perceived fraudulence in young adults: Is there an 'imposter syndrome'?" *Journal of personality assessment*, vol. 56, no. 2, pp. 308–326, 1991.
- [3] S. Kumar and C. M. Jagacinski, "Imposters have goals too: The imposter phenomenon and its relationship to achievement goal theory," *Personality and Individual differences*, vol. 40, no. 1, pp. 147–157, 2006.

- [4] S. Maji, "'They overestimate me all the time:' Exploring imposter phenomenon among indian female software engineers," *Metamorphosis*, vol. 20, no. 2, pp. 55–64, 2021.
- [5] P. R. Clance and M. A. O'Toole, "The imposter phenomenon: An internal barrier to empowerment and achievement," in *Treating women's fear of failure: From worry to enlightenment*, Routledge, 1988, pp. 51–64.
- [6] A. Parkman, "The imposter phenomenon in higher education: Incidence and impact." *Journal of Higher Education Theory & Practice*, vol. 16, no. 1, 2016.
- [7] H. K. Gediman, "Imposture, inauthenticity, and feeling fraudulent," *Journal of the American Psychoanalytic Association*, vol. 33, no. 4, pp. 911–935, 1985.

- [8] S. Slank, “Rethinking the imposter phenomenon,” *Ethical Theory and Moral Practice*, vol. 22, no. 1, pp. 205–218, 2019.