

From Doubt to Determination: Building Confidence In Your PhD and Beyond

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Based on Discussions with Friends & Colleagues (Alphabetically):

- 1 Niloofar Aghili
- 2 Amir Akbar Tabatabai
- 3 Daria Akhbari
- 4 Mariecke van den Berg
- 5 Nella van den Brandt
- 6 Sam Buss
- 7 David Cerna
- 8 Petr Cintula
- 9 Lukáš Folwarczny
- 10 Iris van der Giessen
- 11 Zuzana Haniková
- 12 Pavel Hrubeš
- 13 Mahdis Jalali
- 14 Ondra Ježil
- 15 Erfan Khaniki
- 16 Jan Krajíček
- 17 Roman Kuznets
- 18 Timo Lang
- 19 Jip Lensink
- 20 Pouya Manshour
- 21 Robin Martinot
- 22 Elaheh Mohammadi
- 23 Mojtaba Mojtahedi
- 24 Stella Moon
- 25 Nima Motamed
- 26 Pavel Pudlák
- 27 Revantha Ramanayake
- 28 Ruben Ros
- 29 Igor Sedlár
- 30 Július Štuller
- 31 Neil Thapen
- 32 Navid Zare

Aspects of insecurity



Cartoon by Alfredo Martinera

Q: Aspects of PhD life you did not have confidence in

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Everything!

Q: Aspects of PhD life you did not have confidence in

Knowledge:

- I didn't know much about the **topic** and the **literature**.
- **Changing the field** of research. Not following discussions.
- Asking **stupid questions**. Being 'exposed' for knowing too little.
- **Language**.



Aspects of insecurity, cont.

Other fears:

- Comparison.
- Teaching and giving talks.
- Losing my PhD position/Taking a long time to finish.
- Getting a permanent job.

Aspects of insecurity, cont.

Other fears:

- Comparison.
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An example of a first talk:



Unforeseen challenges



"We may not have fully thought this through."

Q: Unforeseen challenges that you did not expect

Misconception	My experience
A PhD student works 8 am-5 pm every day.	Weeks of being stuck, not working.
Supervisors give you options for your topic.	Supervisor: find an interesting topic.
I learn from supervisors how to do research.	Supervisors: do research.
Supervisors: magicians with crystal balls.	They are human.

Isolation:

- **Trump!** Not seeing family for 8 years.
- In older times: **no money** for conferences or books.
- **Moving abroad:** Loneliness.
- There were **no** other students.

Unforeseen challenges, cont.

Overconfidence:

- Not motivated.
- Not working with peers.
- Isolation
- Not asking for help.



Other:

- The burden of a **big project** on your shoulders.
- Receiving **harsh** or **wrong reviews**.
- Your research **overflows** into every aspect of your life.
- Having a **baby**.
-

Overcoming fears



Cartoon by Matthew Diffie

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Q: How did you overcome these fears? Any advice?

Enjoy it!

Enjoy even small and simple things. Celebrate small victories.



"I'll quit when it stops being fun."

Overcoming fear, boosting confidence

Put yourself out there:

- Presenting, teaching, publishing, collaborating.
- Talk to people.
 - Everybody feels this way internally.
 - Don't let your supervisor's world become yours. Talk to other people.
 - After I talked to people in person, the magic broke. These giants are also humans.
- Find hobbies outside of your research.
- Have a core topic for your PhD but also have several side projects.

Overcoming fears, cont.

Don't compare yourself.

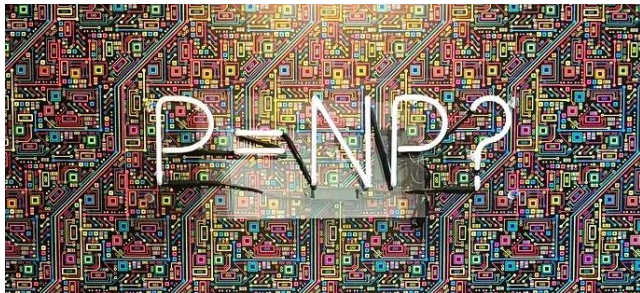
- At the beginning, it feels like **everyone knows everything** while you know very little.
- Research involves **various skills**: inventing, checking, writing, collaborating, presenting; no one excels in all. Know yourself.
- It's **not always fair** who gets recognized and wins the prize.

Overcoming fears, cont.

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Example.



Overcoming fears, cont.

Managing criticism:

- It's **not** always the case that the reviewer is an **expert**.
- Prepare yourself for **rejections**.

Example: the rejection App.

Overcoming fears, cont.

Others:

- The “no confidence, not working” cycle.
- **Start small, aim high.** Petr Vopěnka: Before you catch bigger fish, you must catch smaller



Cartoon by Joe Brown

My Story



Cartoon by Norman Thelwell

My story

- No confidence issues!
- Moved to Prague.
- Attended courses, started a project, and became a PHD student.
- Going downhill: isolation, comparison.
- Hibernation.



Springtime or The Reader 1872, Claude Monet

My story, cont.

- *Groundbreaking (!)* discovery:
I don't have confidence!
- Advice to my younger self: You're not alone!

Useful videos

- [TED talk by Amy Cuddy](#): Your body language may shape who you are
- [Interview with Inna Zakharevich](#), talking about psychological struggles of doing research, about insecurity and possible ways of dealing with it.
- YouTube channel [Math-Life Balance](#) containing non-professional interviews with professional mathematicians.

Let me know about your experience and your strategies :)

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Let me know about your experience and your strategies :)

Thank you for your attention!