

Advice for PhD Students

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Motivation

- There is a lot of uncertainty about the right way of approaching a PhD.
- This high uncertainty in turn is associated with high levels of anxiety.
- Advice on how to approach a PhD is usually only informally passed on.

This slide deck

- Some very personal advice on how to approach a PhD
- This likely reflects our very idiosyncratic experiences and the specific fields we work in (applied micro and behavioral broadly speaking)

Outline of Talk

- 1 Choosing the Research Topic/Field/Advisor
- 2 The PhD as an apprenticeship
- 3 Learning about your comparative advantage
- 4 Generating ideas
- 5 Mental Health

Choosing Research Questions

- Being passionate about the topic of your research is extremely useful.
- What are good research questions? Entirely subjective question (see Weber, 1919; Andre & Falk, 2021).
- Some useful questions to ask yourself (for applied papers):
 - Does your evidence inform important policy debates?
 - Does your evidence inform theory? Can it help us differentiate between different models?
 - Are the mechanisms operating in your setting portable?
 - Are your outcomes stylized or are they similar to the actual real world behaviors that motivate the question?

Where is your Field Going?

- When evaluating your research ideas relative to the related literature, it is critical that you carefully think about where the field is going both in terms of methods and in terms of content.
- E.g., when you work in labor economics, you should know that people are increasingly interested in understanding mechanisms underlying monopsony power
- E.g., if you work in behavioral economics, you need to know that people are increasingly interested in understanding the role of attention and memory in shaping behavior.
- Similarly, it is useful if you know about methodological trends, e.g. the rise of text analysis tools to analyze unstructured text data in economics.

Field Fixed Effects

- There is substantial variation in not only the competitiveness of different fields of economics, but also the cultures in different fields of economics.
- Choose your fields wisely (field effects can be quite large)
- Which fields are usually regarded as more mature and crowded compared to others?
- We shall not reveal our views on which fields have a particularly toxic culture, but more information available upon request.

Choosing your Advisor

- The right advisor will have *your* interests at heart and try to get the most out of you.
- Talk to several potential faculty members and ask them about their supervision style, what they look for in students, and what their comparative advantage is.
- There are generally two types of advising strategies: Whether or not advisors coauthor a lot with their graduate students.
 - Advantages of coauthoring: Student get hands-on experience, and a solid first paper
 - Disadvantages: Student will likely do all the work, paper not suitable as job market paper, everyone will assume it wasn't the student's idea
- There is no right or wrong approach, but your advisor should have a style that fits your own preferences.

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Seeing the PhD as an apprenticeship

- Economics research is both hard science and art.
- The publication game is more art than science.
- Requires understanding referee's and editor's preferences, which partly reflect a deep understanding of what good research is and also partly reflect current fads.
- Co-authorship with more experienced researchers is an extremely valuable way to learn.
- And you learn best by observing and asking yourself "why do they do it this way?".

The PhD as an apprenticeship: Co-authorship

- Co-authorship is the biggest learning opportunity out there.
- Provides many unforeseen angles and perspectives.
- Absolutely the best part of academic research is being part of a flourishing team.
- Co-authorship is an amazing opportunity for forming and intensifying friendship.
- When choosing co-authors, keep in mind that they should be junior enough for the paper to serve as your potential job market paper.

The PhD as an apprenticeship: Dealing with Feedback

- Most feedback people receive is negative (this is true for people at any stage of their career).
- Incorporating critical feedback is key to writing good papers.
- If multiple people bring up the same point, you'd better take it seriously and address it.
- Sometimes you also have to ignore feedback. Differentiating between useful and not-so-useful feedback is a key skill.
- That is why you should always seek feedback from multiple people and reflect.

The PhD as an apprenticeship: Failure

- Failing is central to the life of any academic.
 - Key not to take failures personally.
- Failing is important as it is key for learning.
- Only if you dare to fail can you gather the relevant experience.
- This experience in turn is key to understanding what successful research questions are.

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Learning about your comparative advantage I

- Learning about your comparative advantage: Given that most of economic research is conducted in teams, division of labor is key to achieving high productivity.
- The key thing to figure out as soon as possible during your PhD is the following: what is your comparative advantage? What are you good at compared to others?

Learning about your comparative advantage II

- Are you relatively good at coming up with ideas, e.g. identifying natural experiments or coming up with ideas for experimental designs?
- Are you relatively good at writing the paper or at writing efficient code? You can only figure this out by experimenting with different tasks.
- Once you've figured out your comparative advantage you can think about teaming up with others that have complementary skills.

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Generating ideas I

- While you should read lots of papers (as understanding the literature is a key skill), these are rarely the source of inspiration for great/new ideas.
- Watch the world through the lens of an economist
- Read news or books
- Read research in other disciplines (psychology, sociology, political science, anthropology, history, etc)
- Talking to people: the single most source of ideas for many people is conversations with others.

Generating ideas II

- Keep a list of ideas
- Pitch your different ideas to fellow economists but also to non-economists
- Ideas many times also come up when you don't try to come up with ideas (e.g. while going for a run) - make sure to write down those ideas and keep track of them.

From idea to paper

- Write down ideas/motivation/design as soon as possible.
- The more concrete you can become the better: this makes you see potential pitfalls of your idea
- Try to kill the idea. If it's easy to kill, referees will do it for you anyway. If you can 'insure' against most pitfalls, then you might have a strong paper.

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Mental Health I

- Mental health is key not only because it is a desirable life goal to have high mental health per se, but also because it directly impacts your productivity.
- Episodes of low mental health have extreme negative productivity consequences.
- So, if you manage to build up high mental health (as a buffer against adverse events), that has huge expected returns in terms of future productivity.

Mental Health II

- How can you improve your mental health?
- Since low mental health is as real biologically as having diabetes, you should engage in activities that have strong biological effects.
 - Sports have been shown to improve mental health and to lower stress.
 - Regular meditation has been shown to be highly effective in improving mental health by restructuring the brain.
 - Fostering friendships
 - Keep and maintain interests outside of your research life

Mental Health III: Meditation

- There is strong scientific evidence that meditation has very positive effects on mental health (100s of well-crafted RCTs)
- Evidence of increased attention and better management of emotions.
- How to meditate? Many good books out there (e.g. The Joy of Living by Mingyur Rinpoche) and also many amazing meditation apps (e.g. Headspace)
- Many short meditations and meditations first thing in the morning (before looking at the mobile) work well for me personally (Chris).

Work Hours I

- There is a basic tradeoff. The more hours you work, the less productive these hours will usually be.
- Why is that?
- Well, because attention is limited, and because the mind needs a break after hard thinking just like your body needs a break after a long run.

Work Hours II

- Quality of work time is harder to measure than quantity of work time.
- As a result many people may not optimally trade-off work hours and the quality of work hours with many people underestimating the effects that long work hours have on the quality of hours.
- Yet, the quality of work hours may actually be more important than the quantity of hours.
- That's why having high quality leisure time in which you don't think about work is key.