How to Succeed in Academia
or ~~Die Trying~~ Have Fun Trying

Lasse H. Pedersen*

New York University, Copenhagen Business School, CEPR, NBER, AQR

people.stern.nyu.edu/lpederse/

** This talk is in the spirit of Robin Hood: Everything is stolen and given to those who need it the most (ph.d. students and junior faculty). I have stolen from many sources, including my professors at Stanford and my colleagues at NYU. I am especially grateful to my advisors Darrell Duffie and Ken Singleton for the advice that they gave me as I prepared for the academic job market a long time ago.*

Three Pillars of Academia

1. Research:
   A. Getting ideas
   B. Executing research
   C. Writing for impact
   D. Publication
   E. Presenting research
   F. Putting research into practice

2. Teaching
   A. Classes
   B. Advising ph.d. students, masters dissertations, bachelors dissertations, etc.

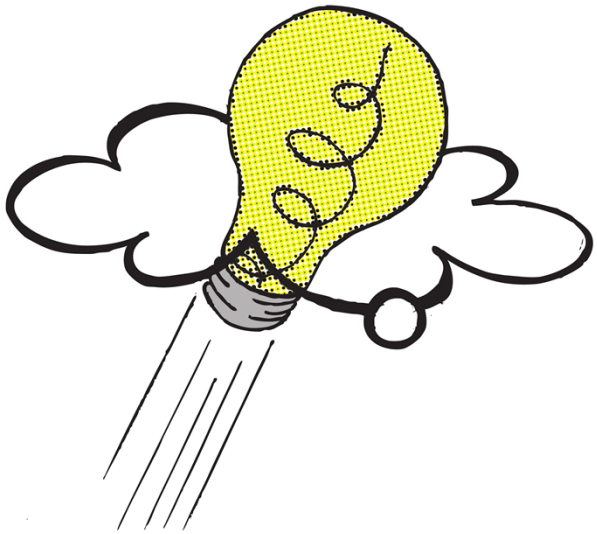
3. Service:
   A. External service: discussions at conferences, refereeing, editor work, tenure letters, organizing conferences, NSF evaluations, board work, etc.
   B. Internal service: organizing seminars, serving on committees, attending meetings, department chair, etc.

Getting Ideas: Focus on the Big Picture

- Go for the big picture
  - Ask what the big issue is?
  - Don't get lost in the details
  - Generalize an idea or find new applications
    - A great idea has many applications

- Go for big ideas
  - It's about the same amount of time to write an unimportant paper as an important one ("Summer's Law")
    - However, don't let this discourage your productivity – sometimes it is difficult to know what is big ex ante
    - It is often by being *active* that you stumble on big ideas, esp. if you always draw the big point from the little example

- Go for useful ideas
  - Ask yourself: "why should we care?"



Getting Ideas: One Paper = One Idea

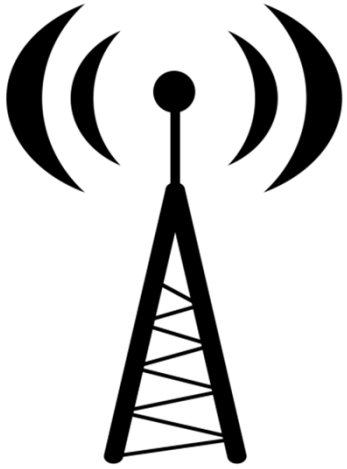
- One paper = one idea !
  - Many little ideas are forgotten
  - Identify the big idea, and keep hammering on it
    - Squeeze out all of its implications – but keep the focus on one issue per paper
    - Test several implications – but, again, keep the focus

- Go for simple ideas
  - People are more likely to apply a simple idea
  - *Value added = output minus input*
    - Of course, you want "high output," i.e., a strong result, but also
    - "Small input," i.e., fewer assumptions, less painful math required to understand/apply the result, etc.
      (but it is good if the result is so deep that it is difficult to *derive* it)

- What is the "figure of the paper"?
  - Can the paper's main point be illustrated in a single figure?
  - If so, create this figure and highlight it in the paper, perhaps already in the introduction

Getting Ideas: Be Attuned

- Be attuned to trends in research
  - What are the exciting questions right now?
    - At conferences, what research is being done and discussed?
- Be attuned to the world
  - Be among the first researchers to address an important issue in policy or financial markets
- Overturn conventional wisdom
  - Find out what researchers agree about and show why it is wrong
- Become a world expert on a literature
  - Then the next natural step may come to you
  - But don't spend all your time just reading, just do it (see below)



Getting Ideas: Just Do It

- Don’t just sit and wait for the idea to arrive and don’t just read
  - Try to solve models
  - Play with data
  - This is part of the process, not a waste of time even if it does not always work
  - Read an abstract and think about how you would execute that research
    - It’s probably different from the paper and maybe much better

- Be open minded
  - Do not try to force the data to confirm your theory, surprising results are interesting
  - Don’t try to force the equations to confirm your initial intuition
    - The result may be deeper if the equations surprise you
  - Abandon is an option. Find a new idea. Ingenuity and hard work are rewarded (eventually)

- There is no “right” way to get ideas. Whatever works for you
  - Solving a model and then finding a story for it is often a backwards way to do it
    - But if it works for you, then it’s all about the output

Getting Ideas: Innovate using the Three Research Building Blocks

- Three building blocks of research:

  I. Economic theory
  II. Empirical tests
  III. Empirical methodology

- For each economic question, think about which building block(s) need innovation

- Add a dimension to an important question
  - Provide a clever empirical test of an important theory
  - Provide an economic theory for new empirical findings
  - Provide a new empirical method for a question that has been poorly addressed using existing tools

- The best papers often occur where theory meets empirics (i.e., they relate to both even if they only contribute to one of the dimensions)
  - Theorists should read empirical papers
    - To find empirical results looking for a theoretical explanation
  - Empiricists should follow new theories
    - To find new theories to test

Getting Ideas: Have a Research Agenda

- Write a string of papers in a research area
  - You want to be known as a *leader* in a particular area of research
  - Stand for a point of view!
  - It is difficult to make a lasting impact with many dispersed papers

- Writing the next paper is much easier when you have an agenda
  - Easier to be attuned, easier to get the idea
  - Easier to execute, you may already have the relevant data and/or modeling tools
  - Easier to write the paper, you already know the related literature
  - Easier to avoid doing research that has already been done
  - Easier to know the good co-authors if you are already part of the gang
  - Easier to get into the right conferences if you are already part of the gang

- Once you struck gold
  - Keep being the leader in that area by keep finding big applications
  - Don't just re-write the same paper or get narrower and narrower

Getting Ideas: Go for Impact

- It is more fun to do research with impact, i.e., that is useful and interesting to others

A. Being used by other researchers (e.g., check citations on google scholar)

B. Being taught to students

C. Being used by policy makers or industry practitioners

Executing Research

- Hey, you spend all of graduate school learning theory and empirical methods
  - I can't do justice to research execution in a few slides
  - But execute well! When you think you are done
    - Then go the extra mile

- Give yourself deadlines
  - E.g., commit to submitting to certain conferences or giving talks

- A great paper is often one that
  - Has a result that everyone can understand and apply
  - But not everyone could have derived it (i.e., your execution is impressive)

- Co-authors are crucial to most researchers
  - Makes research more productive and efficient
  - Makes research more fun

- Collaborate and interact throughout the research process
  - Work with good co-authors who you enjoy working with
  - Talk about your research with lots of people to get feedback and ideas
    - Both other researchers and policy makers or practitioners who might face these issues

Writing for Impact: Be Relevant

- Make it clear in the writing how the paper is relevant
  - How is the paper useful?
  - In which situations might we act differently because of the paper?
  - How does the paper change our thinking (and complement the literature)?

- What is the magnitude of the effect?
  - Find a concrete way to illustrate the magnitude of the effect

- Give examples of how the main result can be used

- Be specific
  - Describing a clear example with everyday words is powerful
    - Especially if it creates an image in the reader's mind
  - Being very abstract and using very specialized terms is less memorable
    - It's not about proving that you remember what you learned in grad school
    - It's about explaining what is new and exciting about the paper
  - Don't say "I derive important economic implications"
    - Describe a *specific* implication
    - Describing a specific implication of new research *is* impressive, even if you don't say so

Writing for Impact: Be Clear

- You need to explain your ideas very clearly to have a chance of impact
  - Be precise, write so that readers know exactly what you mean
  - Don't use unscientific words like "very"
    - E.g., say that the t-statistic is 5, not that it is "very large"

- The most important parts of any paper:
  1. The most important part is the **title**
     - What is the essence of the paper in a few words?
     - Be informative. Cute is sometimes good, but too cute is not cute
     - Many papers have titles such as "X, Y, and Z". Boring. Which is more important: X, Y, or Z? The simpler title "X and Y" may be OK, but it is sometimes better to say how X relates to Y
  2. The second most important is the **abstract**
     - Should be 100 words. Up to 120 words might be OK, but much more than that clearly signals that
       - You don't know the essence of the paper, or
       - The paper has many little points, but no one big message that will be remembered.
  3. Third most important is the **introduction**
     - Some people spend weeks on an introduction
  4. The **rest of the paper**: you have to execute the content with excellence and care
     - Most of the readers (who get past the abstract) only look at tables, figures, and propositions
       - Make these self-contained and intuitive
       - clearly convey your central idea using these highlights of your paper

Writing for Impact: Write, Write, Write

- Writing is rewriting
- Write a lot
  - It clarifies your own thoughts even if you don't use all of it
  - Don't spam the world with writing you don't even care about yourself
    - those pieces were about the process
- Consider writing a "mock abstract" when you are thinking about ideas
  - See if the end result of the potential research sounds interesting

Publication: Go for Top Journals

- Top finance journals
  1. Journal of Finance
  2. Review of Financial Studies
  3. Journal of Financial Economics

- In economics, the most prestigious journals are called "general-interest journals":
  1. Econometrica
  2. Journal of Political Economy
  3. Quarterly Journal of Economics
  4. American Economic Review
  5. Review of Economic Studies

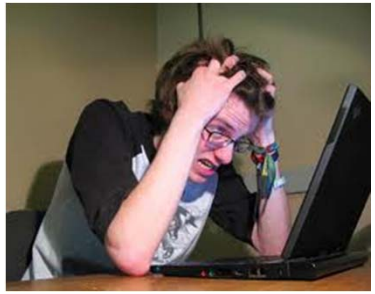
- Some economists view the top finance journals as mere "field journals"
  - Some finance academics therefore prefer the top econ journals
  - Other finance academics prefer the top finance journals
    - More readers interested in finance may increase chance of impact
    - Finance journals comparable rejection rates and citation counts since financial economics is a large field
  - In the end, it is the content of the paper that matters

Publication: Reading a Referee Report

- Acceptance
  - Face it: this will not happen in the first round
  - Happens so gradually that you never know when to celebrate
    - Celebrate when you are happy with your own paper and submit it for the first time

- Revise and resubmit
  - Expect the letter to sound really negative
  - This is great news regardless – go to the next page for more info

- Rejection
  - Try to learn as much as you can from the referee report(s) and letter from the editor, however upsetting they may be
  - What can you do to make the paper better?
  - How can you re-write the paper so they will not get so confused?
  - How can you make it clear that your result is useful?
  - Try your new line of argument on several of your colleagues
    - Can you explain the main result in one sentence?
    - Does your colleague get it right away?
    - Is your colleague persuaded?
    - Does your colleague remember it the next day?



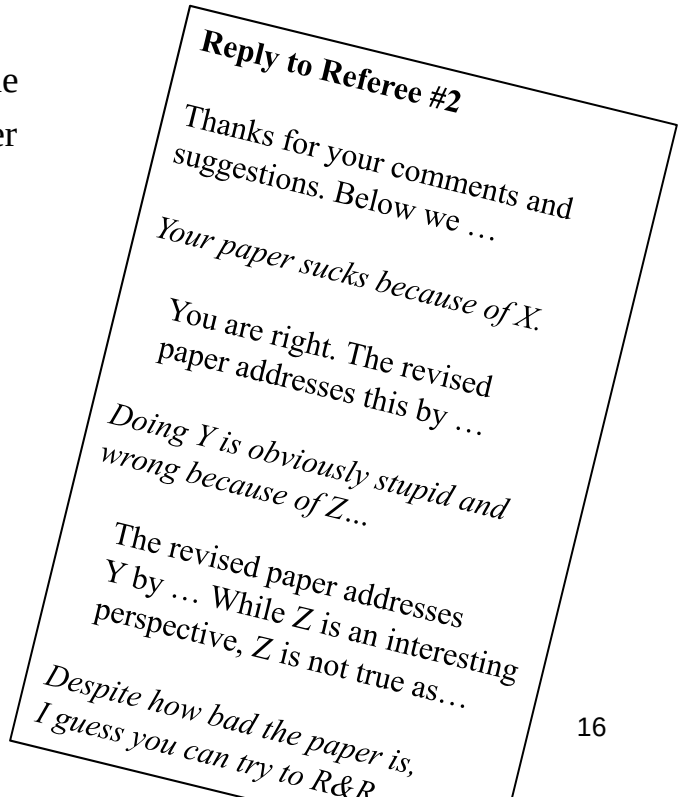
Publication: Replying to a Referee Report

- Once you get an R&R, you have odds in your favor
  - You can use a ton of energy to address all of the referee's comments
  - The referee only has a few hours to "fight" you

- Structure of a reply
  - Thank the referee for the comments and suggestions and explain the structure of the reply
  - Make sure to reply to *every* comment
    - E.g., repeat the referee's comments in italics and then say what you did about it
  - Actually implement what you claim to do in the paper
  - Make it easy for the referee to check how you implemented the changes, e.g. by referring to page numbers in the revised paper
  - Not every part of the reply needs to go into the paper
    - You can have tables and figures in the reply

- Try to view the referee's suggestions positively

- Know that revising a paper can be a huge amount of work



Publication: Myths about Publication

- "I am just so unlucky"
  - Luck does play a role
  - If you get unlucky at one top journal, you still have two more, plus the top econ journals
  - If you get rejected at all of the top journals with all of your papers, maybe it is not just bad luck

- "The referee does not understand anything and is a jerk"
  - Maybe, but he/she was nice enough to take the time to look at your paper
  - What did you do to confuse the referee?

- "If you are not at a top school, you can't publish in the top journals"
  - Not true, check any issue of a top journal
  - Referees and editors may subconsciously use statistical discrimination
    - If an author always wrote great papers in the past, this sends a signal
    - If a paper has already been vetted during many seminars and conferences, this sends a signal
    - You must try to build a reputation
    - However, publication in a top journal is a very tough process for anyone
  - If a paper with an interesting idea gets rejected, it is often because it is so badly written that the editor/referee fear that its execution will be sub-standard even after several costly rounds of revision

Presenting Research: Present as Often as Possible

- Presenting research is very important!
- Marketing works, also in research
- Chance to
  - Clarify your own thoughts
  - Get input, possibly new ideas to make the paper better and for future papers
  - Meet new people
  - Build a reputation

Presenting Research: Structure of a Research Seminar

- Motivation
  - What is the research question and why should we care
- Main results
  - Make sure it is perfectly clear what the marginal contribution is
  - Give intuition and rules of thumb about how to apply the results
  - Give real-world examples and make clear why research is relevant
- Related literature
  - Can be integrated in the above or separate
  - Should be brief – and all about your contribution and how it relates to the literature
- Overview of the rest of the talk
- Main content
  - When a model or empirical method is first presented, you must carefully explain every symbol
  - Later in talk, after you have derived the main results, people are tired of math. At that point show illustrative examples, graphs, intuition, and other results that are easy to digest. Show the audience that the model they have just learned about is useful
  - Give intuition for your results
- Conclusion

Presenting Research: Make Good Slides

- Clear slides
  - Make simple and clear slides, which are easy to read
  - Reduce the wording and number of symbols to a minimum
    - *Unlike* these slides, which are also written as a reference (i.e., do as I say, not as I do)
  - Have titles that clearly describe the main point of each slide

- Use pictures/graphs instead of words/math whenever possible (again, unlike these slides)

- Number of slides:
  - For a talk of an hour and a half, prepare around 20-26 slides
  - Have some extra slides in case you have more time, but
    - Never give the impression that what you are presenting is a time filler
    - Try to avoid having to take (too many) real-time decisions concerning what to present.
  - Stopping a little early is fine, but try not to be more than 10 minutes early
  - Never go over time

Presenting Research: Be Clear and Enthusiastic

- The two most important things in a talk are

  1. That you are articulate and clear so people get everything

  2. That you show your enthusiasm
     - Give your energy!
     - This gets the audience fired up
     - If you are not enthusiastic, how can you expect anyone else to be?

- Give "life" to the model and the symbols
  - Create *images* in people's minds
  - Get people to think about the key points and the model and help them get the intuition

- Presenting graphs
  - Before you show a graph, tell the audience the reason for preparing the graph
  - When you show a graph, first go through what are on the axes – otherwise the graph has no meaning
  - Once it is clear what the graph shows, then draw a conclusion

Presenting Research: Make Transitions and References

- Transitions
  - Make transitions after every slide — some short, others longer.
  - Make the transition before you put on the next slide — that way the focus is on you.
  - Look up and engage the audience
  - Say when one subject is done and you are moving to the next subject.
    - For example, say: “I have shown you how the model works. Now we are going to solve the equilibrium.”

- References
  - Make back references. Say, for example, “I told you that in the real-world investors face a margin requirement. The way I capture that in the model is...”
  - Summarize what you have done, keep reiterating the main contribution

Presenting Research: Answer Questions Directly

- Answer questions *directly*
  - First say the answer in one short sentence (e.g., in one word: “yes” or “no”)
  - Then expand on the answer if necessary
  - No “shaggy dog stories”

- Answer questions clearly and convincingly
  - Taking the time to give a single convincing answer is much better than
  - A rushed answer, which ends up being followed by a long confused debate
  - Slowing down is good
    - You have thought much more about the issues. Pausing makes you seem profound
  - Answering before the person finished his question is rude (even if you can guess the question)
    - Also, you seem more profound if you pretend that this is the first time you heard the question

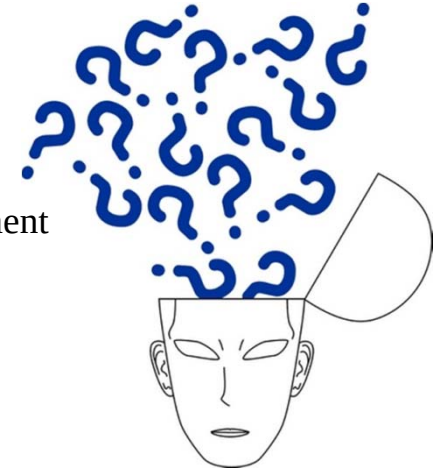
- Answer questions in an inclusive way
  - Be willing to talk about the intuition arising from your results, even if you have to go outside the model

Presenting Research: Draw the Right Questions

- *Draw* the right questions
  - Draw questions about the marginal contribution
  - Perhaps even invite questions, when they are likely to concern your contribution
  - Arguing about your contribution, convincing the audience about it, is a good way to spend time.

- Do not draw questions that are not about the contribution
  - If you keep getting irrelevant questions, think about what *you* are doing wrong
    - Are you focusing on your contribution?
    - Did you explain the contribution well? Its relevance?
  - E.g., If you find yourself arguing about what some old paper really did, then you are doing something wrong
  - Don't be provocative/controversial when it is not relevant for your contribution
  - You can defer some questions for discussion after the seminar

Presenting Research: Let Questions Help You



- Remember that people who ask questions *help* you
  - They give you much needed feedback
  - They make the seminar more lively
  - All this is true even if it sometimes does not seem so in the heat of the moment
  - Be happy (really!) when people ask questions and use them positively
- Understand *why* people ask questions
  - Be respectful of the people who ask questions
  - If someone fears losing face because of your reply to a question
    - He may keep talking to convince his colleagues that he isn't wrong/stupid, wasting your time
  - Everyone wins if you can answer in such a way that
    - The person who asks the question looks good while
    - The audience understands that you are right and the contribution stands
- To avoid follow-up questions if someone is getting the seminar off track
  - End the question by looking at another part of the audience and
  - Possibly take another question immediately

Presenting Research: Prepare Your Talk

- For every slide:
  - Be clear in your mind about what the key points are
  - Know how you will transition to the next slide

- Practice especially carefully the introduction
  - the motivation, contribution, and related literature
  - Important to get a good start

- If you talk uninterrupted through a presentation for a one-and-a-half-hour seminar
  - It should take about 45 minutes
    - If it takes much shorter time, you are not explaining enough, and not giving enough life and color
    - If it takes much longer time, you have too much material
  - Some people know their (job) talk by heart, word for word
    - I don't. I prefer to speak freely
    - This is a personal matter, you need to be excited and confident when you present

- Be ready to explain using a blackboard or a blank slide.

Putting Research Into Practice

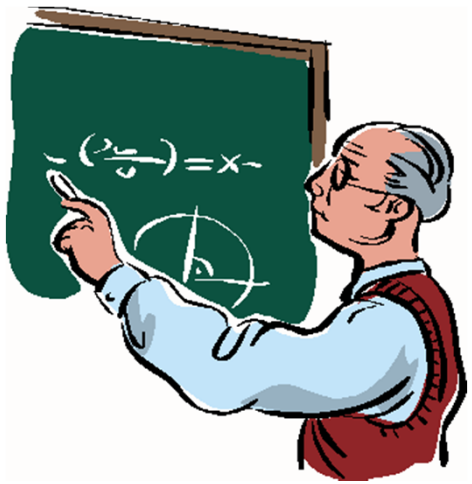
- Early in your career, doing consulting work and other outside activities is too distracting
  - Don't cut down a young tree to get a little wood
  - Wait until it has grown large, then you can just pick the fruits

- Once you have made a research impact, it can be rewarding to put research into practice
  - Working with practitioners and policy makers can give lots of research ideas
    - Practitioners have questions but no time to dig for a deep answer
    - Academics want to dig for answers but often search for questions
  - Requires a transition to a different thought process
  - Remember to make appropriate disclosures in your papers

- Go for projects that are research oriented
  - Gives you new knowledge
  - Allows you to write papers
  - Possibly access to unique data

Teaching

- Teaching is the basis of educational institutions
  - Students deserve a good education
- You need to be efficient with your teaching to excel in research
- Having a disastrous teaching semester that you need to later correct is not efficient
  - Can create a vicious cycle
- Invest in getting it right early on
- The notes on presenting research also apply to teaching, but there is much more
  - I will not attempt to say how to do it here
  - But ask your senior colleagues how to become a great teacher
  - Get their notes/ slides



Service: Writing a Referee Report

- Structure:
  - Some referees start with a brief summary of the paper – mainly relevant if you want to refer back to this in your later points
  - Many referees have an overall assessment in the beginning (or in the end)
    - Key question: Are the main results important enough for publication in this journal?
  - Then an enumerated list of specific comments

- If you recommend rejection
  - Point out clear reasons why the paper is not publishable
  - In principle a few sufficient reasons are enough for rejection, but it is appreciated if you give comments/ suggestions about everything nevertheless
  - Try to give encouragement (remember how you feel when you read a report)
  - Try to give ideas for how the paper could be made better
  - Consider recommending an alternative journal where the paper would fit better (to editor or in report)

- If you recommend revision
  - Try to make all your comments in the first round
    - What does it take for the paper to be publishable?
    - Are you convinced about the main results and, if not, what can the authors do to convince you?
  - Later rounds should preferably only be follow-up on these initial points

Service: Discussing a Paper at a Conference

- If you are asked to give a discussion then either
  - Do it right or
  - Don’t do it

- A discussion is *not* a referee report spoken out loud
  - Don’t talk about the typo on page 17 (you can tell the author separately)
  - A discussion is *a service to the audience*, not to the author and not an evaluation

- Goal of discussion:
  - To illuminate the audience
  - A chance to show a lot of people how smart you are

Discussing a Paper at a Conference: Structure

- Review the paper:
  - Find a new way to explain the paper that makes everything much clearer than the authors did
  - Make clear what the main results are

- Make comments, especially about the main results
  - Are the results right? Robust? Driven by reasonable assumptions? Quantitatively important?
  - What are the implications for the real world? How do we act differently because of the paper?

- Try to add some value
  - Solve a different version of the model
    - See if the results can be derived more simply
    - Do opposite results obtain under different assumptions and, if so, which are more relevant?
  - Replicate the empirical work and make some additional analysis
    - E.g., use a different dataset or method or test other predictions of the theory
  - Compare to different theory or to other empirical results
    - Do the paper's predictions hold up in other places that the authors originally looked?

Discussing a Paper at a Conference: Be Fair

- How tough? What not to do:
  - Don't make any personal attacks
  - Don't make unsubstantiated criticism (e.g., "why would you do that?" – say what the problem is)
  - Don't be naively positive if the paper does not deserve it, the audience wants to learn something

- How tough? What to do:
  - Be fair and objective
  - As long as you talk about the issues, everything is fair game
  - If you think you found a clear error, consider telling the authors in advance. This gives
    - the author a chance to respond and possibly correct it
    - yourself a chance to avoid making a false statement (if it turns out that it is not an error)
    - the audience a chance to learn the final truth
  - Try to also appreciate what is good about the paper
  - Give ideas for how it can be better

- Some discussants talk extensively about their own work
  - This is fine if your expertise is really relevant for this paper and brings a fresh angle
  - Don't be self-serving if it is not relevant

Conclusion: Understand How an Academic is Priced

- Like a professional athlete, most of your accomplishments are measured (lines on the CV):
  1. Publications, citations, papers used in classes, and research presentations
  2. Teaching evaluations
  3. List of service tasks

- The market value of an academic = existing brand value + expected future productivity

- Invest in your human capital:
  A. Invest in your productivity
     - Keep learning
  B. Invest in your brand, i.e., reputation
     - Reputation depends on the measurable items above, especially research impact, but also on other things:
       - Is the person a good colleague?
       - Is the person really smart as inferred from his presentations, discussions, referee reports, etc.?
       - Is the person helpful?
       - Other things people learn from personal experience, etc.
     - The overall reputation underlies tenure letters and tenure decisions

Conclusion: Be Real

Don’t view academia as merely a game – trying to make a *real* difference is more engaging

1. Research can change the world
   - Change how people invest, save, and retire, and the way financial markets work
   - Change monetary policy and possibly financial stability
   - Change macroeconomic policy and possibly economic growth

2. Teaching can make a real difference
   - Affects students’ lives

3. Service
   - Keeps the academic system going
   - You can inspire others

Conclusion: Be Curious

- If your research reflects what you truly think is important and interesting
  - It has the best chance of success, especially in the long run
  - You will accomplish more when you are passionate
  - Others will sense your passion (or cynicism)
  - Even if you don't have huge impact, you learned something interesting to you and had fun

- If you remain an academic, you will be in this "school yard" the rest of your life
  - Do the right thing
  - Be generous to your co-authors

- Remember that being a professor is a great job