

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

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*\*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, my colleagues at NYU and CBS, and 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.*

*The views expressed here are those of the author and not necessarily those of AQR.*

# How to Succeed in Academia: Motivation

- Ph.D. candidates usually come from a background as great students
  
- But transitioning to Ph.D. candidate or junior faculty can be challenging
  - Student → teacher
  - Solving pre-defined problems → open-ended research
  - Lots of classmates → potentially more lonely environment
  
- I will try to give some tips on how to succeed in academia
  
- I hope that at least one of the tips will help you
  - get ideas for papers
  - present more effectively
  - teach
  - have more fun by following your interests and being social

# Overview of the Talk: 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, board work, grants, etc.
- B. Internal service: organizing seminars, serving on committees, attending meetings, department chair, etc.

# Getting Ideas: Be Social and Attuned

## ➤ Be social and talk to people

- Talk to people about your current research, research ideas, and things going on in the world/field
- Colleagues, Ph.D. students, other students, practitioners, friends, ...
- Be genuinely interested in other people's research and ideas
- I have seen people enjoying huge benefits from being social
  - Ideas, collaboration, avoiding conflicts, getting into special issues, etc.
  - Plus, makes academia much more fun



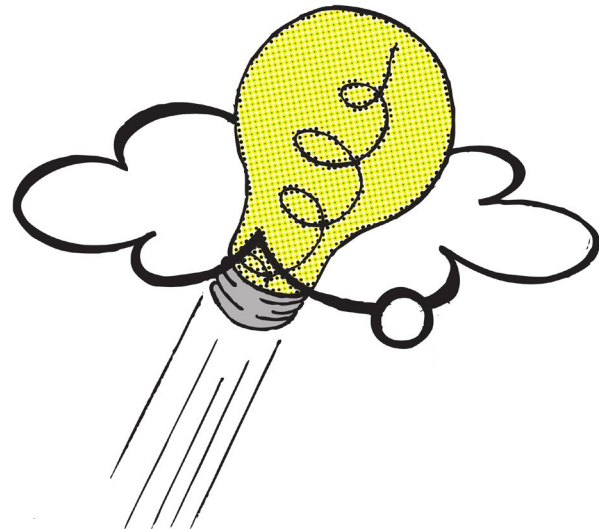
## ➤ Be attuned

- Be attuned to your own interest
  - Research that genuinely interest you is more likely to succeed – and never a waste of time regardless of outcome
- Be attuned to trends in research
  - What are exciting questions right now? At conferences, what research is being done and discussed?
  - Overturn a 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 just read, just do it (see below)
- Be attuned to the world
  - What new things are happening in the world? Then ask:
    - How can I model this phenomenon?
    - How can I analyze this issue empirically?
  - Be among the first researchers to address an important issue in policy or financial markets



# Getting Ideas: Go for Big Ideas

- Go for big ideas
  - Ask what the big issue is?
  - Generalize an idea or find new applications
    - A great idea has many applications
  - 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: 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
  
- So try to think about how your research will be useful



Lasse H. Pedersen

# 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
  - Have fun with it!



# 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: A Method for the Intro

- Well-known method of story telling: “SPAR”
  - *Situation*
  - *Problem*
  - *Action*
  - *Result*
  
- Example of this talk: my first slide (after the title slide):
  - *Situation*: Ph.D. candidates usually come from a background as great students
  - *Problem*: But transitioning to Ph.D. candidate or junior faculty can be challenging
  - *Action*: I will try to give some tips
  - *Result*: Help you write a better paper, teach better, have more fun
  
- Typical structure of intro:
  - First 1-2 paragraphs: situation, problem, action
  - Next paragraph: summary of results
  - Next couple of pages: explain how you get the results
  - Related literature: integrate above, but also cite toward the end
  - End: summarize how you contribute to the literature
  
- Notes:
  - I am not saying that you should put the results in the end
    - they are in the abstract and again in the 2<sup>nd</sup> or 3<sup>rd</sup> paragraph of the intro as seen above
  - First sentence of the intro is especially important: should immediately strike the theme of the paper

# Writing for Impact: A Method for the Intro

## Examples of SPAR

### ➤ Romeo and Juliet

- *Situation:*
- *Problem:*
- *Action:*
- *Result:*



### ➤ Star Wars IV

- *Situation:*
- *Problem:*
- *Action:*
- *Result:*



# Writing for Impact: A Method for the Intro

## Examples of SPAR

### ➤ Romeo and Juliet

- *Situation:* Feuding families
- *Problem:* Forbidden love
- *Action:* Relationship
- *Result:* Death



### ➤ Star Wars IV

- *Situation:* A long time ago in a galaxy far, far away
- *Problem:* Evil empire
- *Action:* Rebel, using the force
- *Result:* Blow up death star





# Writing for Impact: A Method for the Intro

- Merton (1973), Theory of rational option pricing
  - *Situation:*
  - *Problem:*
  - *Action:*
  - *Result:*

## Theory of rational option pricing

Robert C. Merton

Assistant Professor of Finance  
Sloan School of Management  
Massachusetts Institute of Technology

*The long history of the theory of option pricing began in 1900 when the French mathematician Louis Bachelier deduced an option pricing formula based on the assumption that stock prices follow a Brownian motion with zero drift. Since that time, numerous researchers have contributed to the theory. The present paper begins by deducing a set of restrictions on option pricing formulas from the assumption that investors prefer more to less. These restrictions are necessary conditions for a formula to be consistent with a rational pricing theory. Attention is given to the problems created when dividends are paid on the underlying common stock and when the terms of the option contract can be changed explicitly by a change in exercise price or implicitly by a shift in the investment or capital structure policy of the firm. Since the deduced restrictions are not sufficient to uniquely determine an option pricing formula, additional assumptions are introduced to examine and extend the seminal Black-Scholes theory of option pricing. Explicit formulas for pricing both call and put options as well as for warrants and the new "down-and-out" option are derived. The effects of dividends and call provisions on the warrant price are examined. The possibilities for further extension of the theory to the pricing of corporate liabilities are discussed.*

■ The theory of warrant and option pricing has been studied extensively in both the academic and trade literature.<sup>1</sup> The approaches taken range from sophisticated general equilibrium models to ad hoc statistical fits. Because options are specialized and relatively unimportant financial securities, the amount of time and space devoted to the development of a pricing theory might be questioned. One justification is that, since the option is a particularly simple type of contingent-claim asset, a theory of option pricing may lead to a general theory of contingent-claims pricing. Some have argued that all such securities can be expressed as combinations of basic option contracts, and, as such, a theory of option pricing constitutes a

### 1. Introduction

Robert C. Merton received the B.S. in engineering mathematics from Columbia University's School of Engineering and Applied Science (1966), the M.S. in applied mathematics from the California Institute of Technology (1967), and the Ph.D. from the Massachusetts Institute of Technology (1970). Currently he is Assistant Professor of Finance at M.I.T., where he is conducting research in capital theory under uncertainty.

The paper is a substantial revision of sections of Merton [34] and [29]. I am particularly grateful to Myron Scholes for reading an earlier draft and for his comments. I have benefited from discussion with P. A. Samuelson and F. Black. I thank Robert K. Merton for editorial assistance. Any errors remaining are mine. Aid from the National Science Foundation is gratefully acknowledged.

<sup>1</sup> See the bibliography for a substantial, but partial, listing of papers.

RATIONAL OPTION  
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# Writing for Impact: A Method for the Intro

- Merton (1973), Theory of rational option pricing
  - *Situation*: Options studied since Bachelier 1900
  - *Problem*: Lack of unified rational theory
  - *Action*: Derive implications of no arbitrage
  - *Result*: Method for pricing any derivative

## Theory of rational option pricing

Robert C. Merton

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Sloan School of Management  
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# Writing for Impact: A Method for the Intro

## ➤ Shleifer and Vishny (1997), The limits of arbitrage

- *Situation:*
- *Problem:*
- *Action:*
- *Result:*

THE JOURNAL OF FINANCE • VOL. LII, NO. 1 • MARCH 1997

### The Limits of Arbitrage

ANDREI SHLEIFER and ROBERT W. VISHNY\*

#### ABSTRACT

Textbook arbitrage in financial markets requires no capital and entails no risk. In reality, almost all arbitrage requires capital, and is typically risky. Moreover, professional arbitrage is conducted by a relatively small number of highly specialized investors using other people's capital. Such professional arbitrage has a number of interesting implications for security pricing, including the possibility that arbitrage becomes ineffective in extreme circumstances, when prices diverge far from fundamental values. The model also suggests where anomalies in financial markets are likely to appear, and why arbitrage fails to eliminate them.

ONE OF THE FUNDAMENTAL concepts in finance is arbitrage, defined as "the simultaneous purchase and sale of the same, or essentially similar, security in two different markets for advantageously different prices" (Sharpe and Alexander (1990)). Theoretically speaking, such arbitrage requires no capital and entails no risk. When an arbitrageur buys a cheaper security and sells a more expensive one, his net future cash flows are zero for sure, and he gets his profits up front. Arbitrage plays a critical role in the analysis of securities markets, because its effect is to bring prices to fundamental values and to keep markets efficient. For this reason, it is extremely important to understand how well this textbook description of arbitrage approximates reality. This article argues that the textbook description does not describe realistic arbitrage trades, and, moreover, the discrepancies become particularly important when arbitrageurs manage other people's money.

Even the simplest realistic arbitrages are more complex than the textbook definition suggests. Consider the simple case of two Bund futures contracts to deliver DM250,000 in face value of German bonds at time  $T$ , one traded in London on LIFFE and the other in Frankfurt on DTB. Suppose for the moment, counter factually, that these contracts are exactly the same. Suppose finally that at some point in time  $t$  the first contract sells for DM240,000 and the second for DM245,000. An arbitrageur in this situation would sell a futures contract in Frankfurt and buy one in London, recognizing that at time  $T$  he is perfectly hedged. To do so, at time  $t$ , he would have to put up some good faith money, namely DM3,000 in London and DM3,500 in Frankfurt, leading to a

\* Shleifer is from Harvard University and Vishny is from The University of Chicago. Nancy Zimmerman and Gabe Sunshine have helped us to understand arbitrage. We thank Yacine Ait-Sahalia, Douglas Diamond, Oliver Hart, Steve Kaplan, Raghu Rajan, Jesús Saa-Requejo, Luigi Zingales, Jeff Zwiebel, and especially Matthew Ellman, Gustavo Nombela, René Stulz, and an anonymous referee for helpful comments.

# Writing for Impact: A Method for the Intro

- Shleifer and Vishny (1997), The limits of arbitrage
  - *Situation*: Arbitrage is a fundamental concept in finance
  - *Problem*: Real world arbitrage trades are risky
  - *Action*: Analyze “performance based” arbitrage
  - *Result*: Market not efficient + specific predictions

THE JOURNAL OF FINANCE • VOL. LII, NO. 1 • MARCH 1997

## The Limits of Arbitrage

ANDREI SHLEIFER and ROBERT W. VISHNY\*

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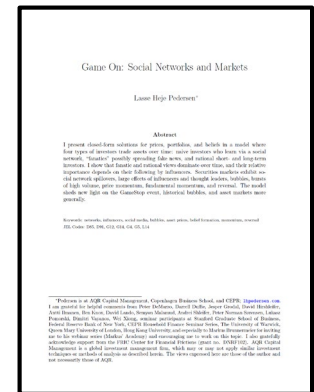
## ➤ Pedersen, Fitzgibbons, Pomorski (2021), Responsible investing: The ESG-efficient frontier

- *Situation:*
- *Problem:*
- *Action:*
- *Result:*



## ➤ Pedersen (2021), Game on: social networks and markets

- *Situation:*
- *Problem:*
- *Action:*
- *Result:*



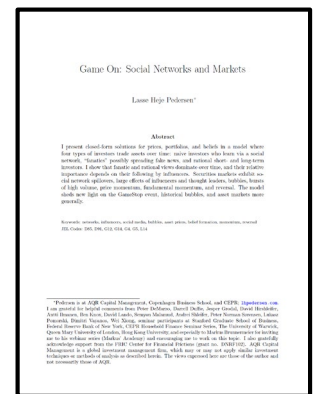
## ➤ Jensen, Kelly, Pedersen (2021), Is there a replication crisis in finance?

- *Situation:*
- *Problem:*
- *Action:*
- *Result:*



# Writing for Impact: A Method for the Intro

- Pedersen, Fitzgibbons, Pomorski (2021), Responsible investing: The ESG-efficient frontier
  - *Situation:* Trillions of dollars seek to incorporate ESG considerations
  - *Problem:* Little guidance on how to do it and whether it improves/hurts returns
  - *Action:* Analyze optimal ESG investing and its costs and benefits
  - *Result:* ESG efficient frontier, ESG-adjusted CAPM
- Pedersen (2021), Game on: social networks and markets
  - *Situation:* Traders have talked since 17<sup>th</sup> century; now via social media
  - *Problem:* ...but how does communication affect markets?
  - *Action:* Analyze asset prices when traders learn via network
  - *Result:* Influencers, thought leaders, momentum, value, bubbles, turnover, volatility
- Jensen, Kelly, Pedersen (2021), Is there a replication crisis in finance?
  - *Situation:* Replication crises in many fields of research
  - *Problem:* ...now also finance
  - *Action:* Analyze internal and external validity in unified factor model
  - *Result:* Replication rates, effect of publication bias → no crisis



# 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* important, even if you don't say so

# 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: Submit your Paper and Go for Top Journals

- Most important step:
  - Submit your paper!
  - Being rejected is *much better* than not submitting
    - Because a rejection comes with information from editors and referees
    - Helps you revise the paper
    - If a paper keeps getting rejected, move to lower-tier journals
      - Getting your paper published gives closure, helps you focus on new projects
      - The paper can have impact regardless of journal if important
  
- Top finance journals
  - Journal of Finance
  - Journal of Financial Economics
  - Review of Financial Studies
  
- In economics, the most prestigious journals are called “general-interest journals”:
  - American Economic Review
  - Econometrica
  - Journal of Political Economy
  - Review of Economic Studies
  - Quarterly Journal of Economics



# 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

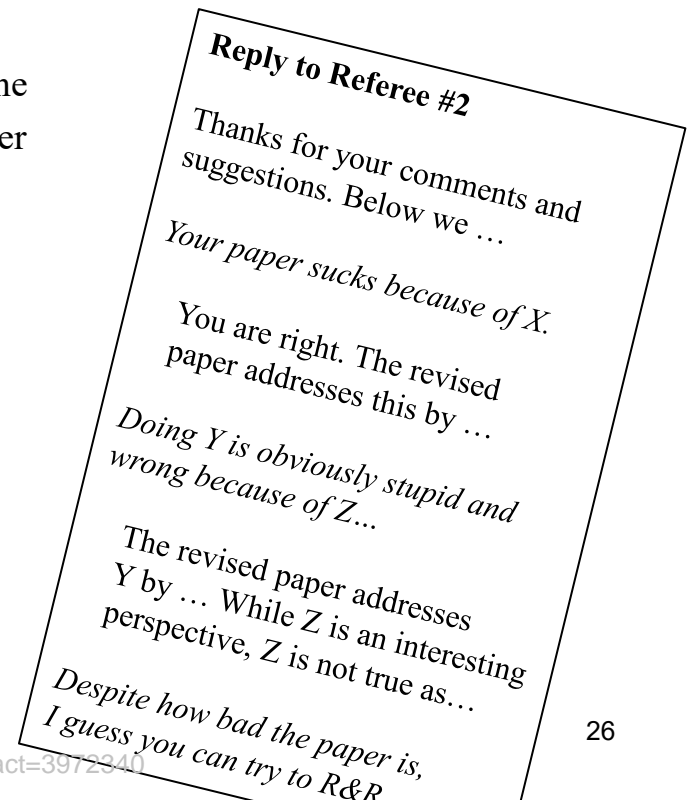
## ➤ Rejection

- 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
    - Repeat the referee’s comments (e.g., 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, why should we care, and what you do
- 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
  - SPAR again: “motivation”+“main results” = “situation-problem-action-result”
- 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
  
- For a talk at conference: You have less time, so
  - you may need to skip the overview of “main results” and dive faster into the “main content”

# 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 22-28 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

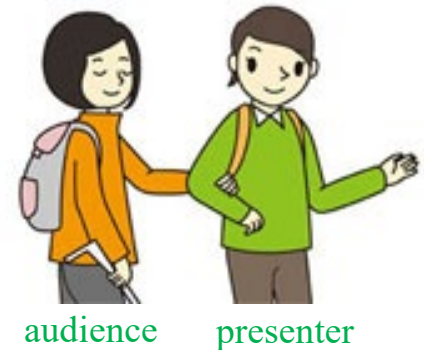
# Presenting Research: Be Clear and Enthusiastic

- 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.”
- Guide the audience so the presentation is a smooth walk



## ➤ References

- Make “back references” and “forward references”
  - For example, “I told you that in the real-world investors face a margin requirement. The way I capture that in the model is...”
  - As another example, see how my discussion of SPAR referred back to the first slide (and I just did it again)
- Summarize what you have done, keep reiterating the main contribution



# Presenting Research: Answer Questions Directly

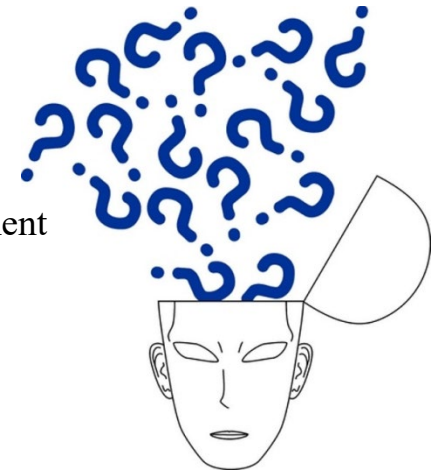
- Answer questions *directly*
  - First say the answer in one short sentence (e.g., in one word: “yes” or “no”)
  - Then expand on the answer if necessary
  - No “shaggy dog stories”
  
- Answer questions clearly and convincingly
  - Taking the time to give a single convincing answer is much better than
  - 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

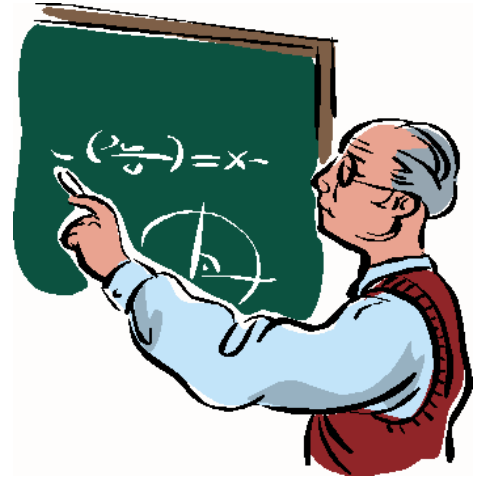
- For every slide:
  - Be clear in your mind about what the key points are
  - Know how you will transition to the next slide
  
- Practice especially carefully the introduction
  - the motivation, contribution, and related literature
  - Important to get a good start
  
- If you talk uninterrupted through 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

- Teach well
  - Teaching is the basis of educational institutions
  - Students deserve a good education
  - Teaching can be very rewarding:
    - makes you think again about the fundamental ideas
    - chance to directly help other people
  - It is a part of the job throughout your academic career so have fun with it!
  
- You need to be efficient with your teaching to excel in research
  - Invest in getting it right early on
  - Efficient does not mean sloppy
    - E.g., having a disastrous teaching semester that you need to later correct is not efficient
    - Can create a vicious cycle
  
- 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
  - Motivate the students by
    - Giving real-world examples
    - Showing that you care



# 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)
    - Are the main results important enough for publication in this journal?
  - Then the few key points needed to make the paper publishable
  - List of other (optional) specific comments or suggestions
- 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

See: Berk, Harvey, Hirshleifer (2017), How to Write an Effective Referee Report and Improve the Scientific Review Process, <https://www.aeaweb.org/articles?id=10.1257%2Fjep.31.1.231>

## 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 mainly *a service to the audience*, not primarily 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

- Possibly review the paper (briefly – this is not be main point):
  - Find a new way to explain the paper that makes everything much clearer than the authors did
  - Make clear what the main results are (to “tee up” your comments of these points)
  - Only review the paper if it adds value to audience – don’t just repeat what the author said
  
- Make comments, especially about the main results
  - Are the results right? Robust? Driven by reasonable assumptions? Quantitatively important? Related to other papers?
  - What are the implications for the real world? How do we act differently because of the paper?
  - Highlight strengths and suggest improvements for weaknesses
  
- Try to add some value
  - Solve a different version of the model
    - See if the results can be derived more simply
    - Can the model be extended in an interesting way?
    - 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 than 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
  - Too much of this is not cool
  - A bit 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

# Responding to a Discussion of Your Paper at a Conference

- Many researchers respond point-by-point (don't!):
  - They make a list of all the discussant's points during the discussion, and then respond to each of them
  - E.g., they say: “Your 1<sup>st</sup> comment X, I disagree because...; your 2<sup>nd</sup> point, I can accommodate by doing bla; your 3<sup>rd</sup> point bla bla, ..., your last point bla bla bla.”
  - Do not respond like this
    - The audience does not listen to such a long list of minor, rushed, and detailed comments
      - Boring. Plus, you seem defensive and nitpicking
      - What do you gain when no one listens?
      - Uses too much time
      - Leaves no time for real back-and-forth that engages the audience
    - Since the discussion is not a referee report, you should not respond as in a reply to a referee report
- A better way to respond:
  - Thank the discussant and say that you will use these comments to improve the paper
    - But don't respond to all the little comments and suggestions
    - The audience knows that you can do it, they know that not all discussant comments are right, and, importantly, most comments do not threaten your main contribution anyway
  - If the discussant made a comment that challenges your main contribution, you should respond
    - Being clear, respectful, and focused on this single issue is persuasive
  - If the discussant did not make a comment that challenges your main contribution
    - Consider leaving all the remaining time for further discussion with the audience, or
    - Say something interesting related to the discussion that emphasizes your main contribution
  - Leave the audience with an understanding that
    - your main contribution stands, you are smart, and you are receptive of input



## Conclusion: Understand How an Academic is Valued

- 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 and Have Fun

- 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 social
  - Be generous to others, especially your co-authors
- Remember that being a professor is a great job

