# Don't Interrupt this Talk! Analyses of Academic Engineering Job Talks

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#### **Gender Gap in ECE Faculty: Many Causes**

Not much studied: The Interview Day

1-hour research seminar



- Questions & Interruptions during Job Talks
- Preliminary work: Analyses of Introductions

#### Research on Interruptions in Conversation

#### Many contexts studied:

- Corporations
- Press briefings
- Parent-child
- Fictional TV
- Doctor-patient
- Supreme Court

#### Groups with different:

- Gender composition
- Knowledge level
- Status
- Size
- Setting
- Topics of discussion
- Interruptions indicate power & dominance
- Gender and status effects
- Many complex effects

# How would you define an Interruption?

- Simultaneous speech more than two syllables before the end of someone's sentence
- Interrupting in midst of incomplete grammatical unit
  - It's raining outside so I am going to leave.
  - It's raining outside ...
  - It's...

Didn't raise your hand; didn't get acknowledged by the speaker

# **Definitions of Interruptions**

#### **Presenter is Presenting:**

Raise your hand, get acknowledged

ACKNOWLEDGED QUESTION

#### Otherwise

INTERRUPTION



# Presenter is Answering a Question:

Wait until the presenter has finished their answer, then ask another question without raising hand

FOLLOW-UP QUESTION

Otherwise (ask another question without letting presenter finish, speech overlap)

INTERRUPTION





# Data Set: Video recordings of job talks

- 140 videos
- 91 men, 49 women
- Seniority:
  - PhD students: 44
  - 1-2 years out: 26
  - 3-4 years out: 28
  - 5-6 years out: 12
  - 7-21 years out: 30

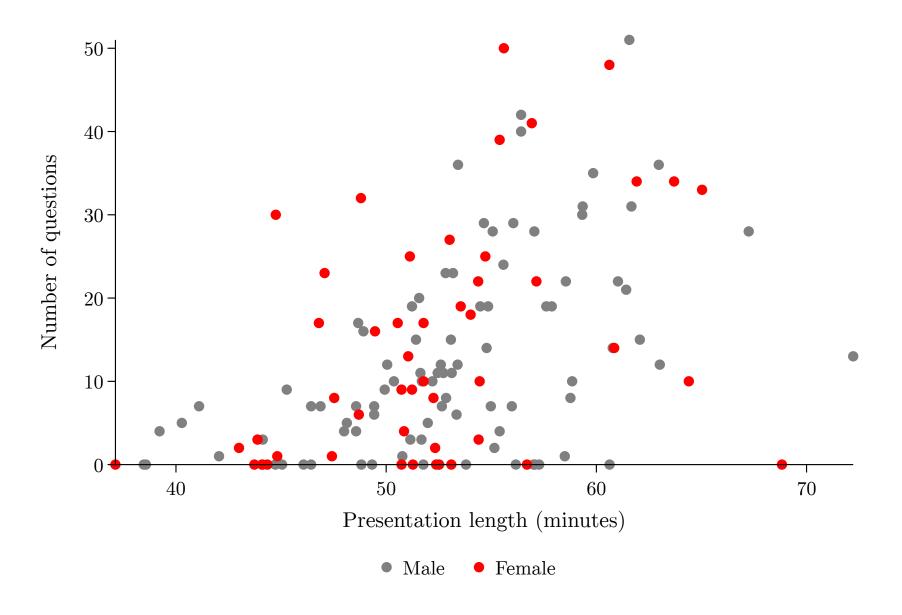
- 2 large public R1 schools
- Multiple departments
  - EE, CS, ME, BioEng
- Use all available **Q** data
- Select approx. 2:1 seniority matched data
- Data analysis from pre-Q&A portion

Question: Is it Bad to get More Questions?

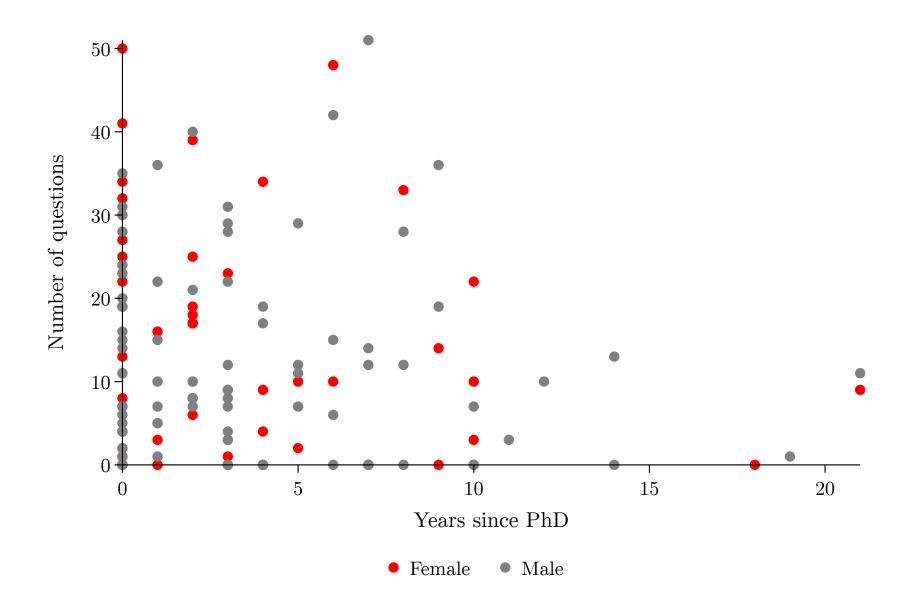
# **Sample Data**

Female, PhD+4	Start	End	Duration
Presenting	0:01:22	0:11:25	10:03
Question (Acknowledged)	0:11:26	0:11:33	00:07
Answer	0:11:34	0:11:46	00:12
Presenting	0:11:47	0:15:40	03:53
Question (Interruption)	0:15:41	0:15:44	00:03
Answer	0:15:45	0:15:51	00:06
Question (Follow-up)	0:15:51	0:15:54	00:03
Answer	0:15:55	0:16:09	00:14

# Number of Questions vs. Length of Talk



#### **Number of Questions vs. Years since PhD**



#### **Descriptive Statistics (excluding BioEng)**

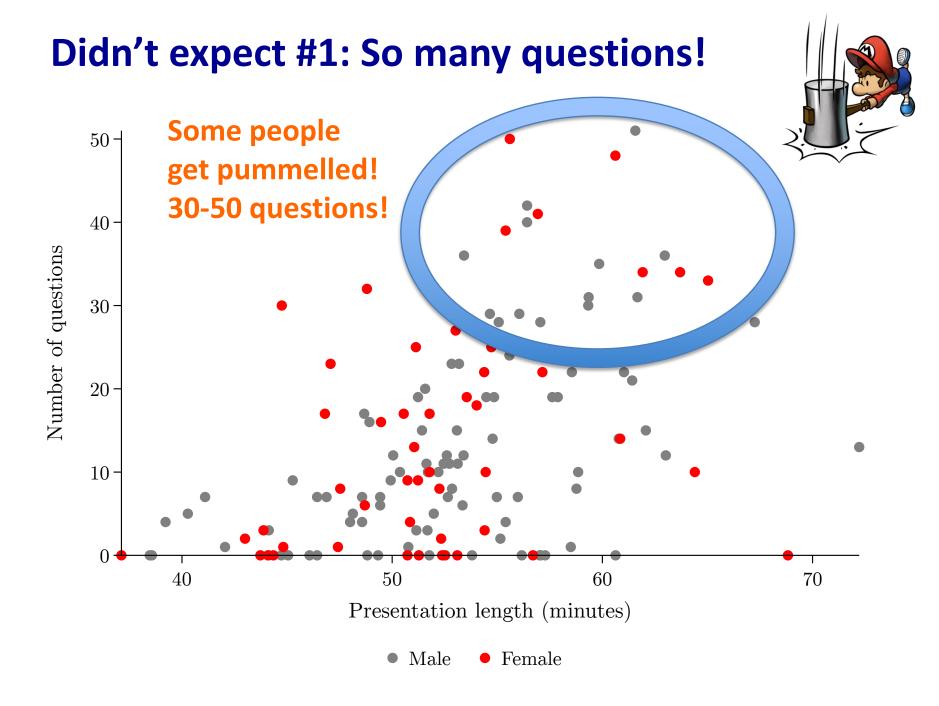
Dependent Variables	Men	Women
Interruptions	3.77	4.95
Ack. Questions	5.49	5.39
Follow-ups	4.83	6.66
Total Questions	14.1	17
N talks	78	41

#### Gender effect:

- Women get 3 more questions, on average
- Women experience more talks with zero questions
- Conditioned on getting any questions, women get 6 more questions than men, on average
- Slight seniority effect for both men and women
  - More senior people get fewer questions

#### Is it Bad to get More Questions?

- Could be a sign of audience interest
- No outcome information (offers, hires)
- More questions correlated with speaker rushing:
  - "For the sake of time, I'm going to skip this part"
  - "There's not much time left; I will rush through this"
  - "I'm going to skip to the end"
  - "I'm going really quick here because I want to get to the second part of the talk"
  - "We're running out of time so I'm not going into the details"



#### Didn't expect #2: Department gender effect

- More women on faculty 

   fewer questions are asked
  - Both men/women candidates receive fewer questions
- Bigger effect than gender of speaker or seniority

#### Didn't expect #3: Interdisciplinary issue

- 81% of talks in Bioengineering have zero questions
- Unless it's a clarification question, save it for the Q&A
- Only 9% of talks in other departments do
- Culture clash:
  - Candidate can be shocked by unaccustomed aggressiveness
  - Risk for interdisciplinary candidates

#### **Some Thoughts**

- Analysis difficulty: Zero questions because of
  - Departmental effects
  - Candidate is super clear
  - Train wreck



- Possible double effect:
  - Women get more questions
  - Even with same number, women may view questions as more aggressive, unfriendly
- Many people seem to accept that their department has reputation for being mean

# Suggestions of what to do

• Fix the Woman

or

Change the System





Do both

# **Suggestions for Faculty**

- Awareness: Not all candidates are comfortable saying: "Let's hold remaining questions for the end"
- Search committee can agree on host who can step in and say it, if needed
  - Most natural for introducer to say it
  - But any faculty member in audience can step in
- No explicit formula
  - Some questions are good (elicit useful clarifications, convey audience interest, etc.)
  - Holistic decision based on Number/Content/Tone of questions, reaction of candidate, etc.

#### **Discussion**

- Have a departmental discussion about norms of behavior
- People say "We don't want a snowflake"



- Ability to handle aggressive questioning required at age 27?
- Are we really adding that to our criteria?
- Or can a faculty member develop that skill on the job?
- People say "Talk is useless if I don't understand something early on"
  - But everyone else may want to hear the talk
- Agree that audience will be reminded of behavioral norms at start of each talk
  - Especially important if faculty from other departments are present

#### For more information...

M. Blair-Loy, L.E. Rogers, D. Glaser, Y.L.A. Wong, D. Abraham, P.C.Cosman, "Gender in Engineering Departments: Are there Gender Differences in Interruptions of Academic Job Talks?," Social Science, Volume 6, Issue 1, 2017.

#### **Preliminary research: Analyses of Introductions**

85 Introductions transcribed

- Introduced by first name only:
  - 12.1% of women
  - 8.8% of men
  - Not significant
- Presenter refers to introducer by first name:
  - 11.5% of women
  - 30.3% of men
  - Marginally significant

# **Analyses of Introductions**

- Count of positive comments in introduction:
  - Awards
  - Number of citations
  - h-index
  - Media attention
  - Influence of their work
  - Direct compliment
- Positive introduction = more than 1 positive comment
  - Men are four times as likely as women to have a positive introduction

#### **Introductions**

#### • Research awards:

	Listed in CV	Mentioned in Intro
Men	78%	52%
Women	73%	27%

# **Irrelevant or Inappropriate**

- 6 introductions (5 for women) had an inappropriate item:
  - Elizabeth, Dr. Elizabeth ... went to [university] and I can tell you the place is like an awesome place. It's amazing.
     My first girlfriend was from [university].
- Counting irrelevant statements in introduction:
  - Things that wouldn't be found in the CV
  - Women: 40.9 %
  - Men: 14.5 %

#### **Concluding Thoughts**

- Be aware of cultural differences:
  - Departments & disciplines have different cultures
  - Especially an issue for interdisciplinary candidates
- Give strongly positive introductions for all candidates
- Remember:
  - Department is interviewing the candidate
  - Candidate is interviewing the department
- Engineering should have a more friendly, less aggressive culture!