Don’t Interrupt this Talk!

Analyses of Academic Engineering Job Talks

Pamela Cosman, Ph.D.
Department of Electrical & Computer Engineering
UC San Diego

with Prof. Mary Blair-Loy (Sociology) and students:
Gender Gap in ECE Faculty: Many Causes

Not much studied: The Interview Day

1-hour research seminar

Job Talk

• 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 ♀ 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

<table>
<thead>
<tr>
<th>Female, PhD+4</th>
<th>Start</th>
<th>End</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presenting</td>
<td>0:01:22</td>
<td>0:11:25</td>
<td>10:03</td>
</tr>
<tr>
<td>Question (Acknowledged)</td>
<td>0:11:26</td>
<td>0:11:33</td>
<td>00:07</td>
</tr>
<tr>
<td>Answer</td>
<td>0:11:34</td>
<td>0:11:46</td>
<td>00:12</td>
</tr>
<tr>
<td>Presenting</td>
<td>0:11:47</td>
<td>0:15:40</td>
<td>03:53</td>
</tr>
<tr>
<td>Question (Interruption)</td>
<td>0:15:41</td>
<td>0:15:44</td>
<td>00:03</td>
</tr>
<tr>
<td>Answer</td>
<td>0:15:45</td>
<td>0:15:51</td>
<td>00:06</td>
</tr>
<tr>
<td>Question (Follow-up)</td>
<td>0:15:51</td>
<td>0:15:54</td>
<td>00:03</td>
</tr>
<tr>
<td>Answer</td>
<td>0:15:55</td>
<td>0:16:09</td>
<td>00:14</td>
</tr>
</tbody>
</table>
Number of Questions vs. Length of Talk

Presentation length (minutes)

Number of questions

Male
Female

[Graph showing the relationship between number of questions and presentation length for male and female presenters, with data points scattered across the plot.]
Number of Questions vs. Years since PhD

[Graph showing the relationship between number of questions and years since PhD, with data points for both female and male individuals.]

- Number of questions on the y-axis.
- Years since PhD on the x-axis.
- Data points are differentiated by color: red for female and gray for male.
Descriptive Statistics (excluding BioEng)

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interruptions</td>
<td>3.77</td>
<td>4.95</td>
</tr>
<tr>
<td>Ack. Questions</td>
<td>5.49</td>
<td>5.39</td>
</tr>
<tr>
<td>Follow-ups</td>
<td>4.83</td>
<td>6.66</td>
</tr>
<tr>
<td>Total Questions</td>
<td>14.1</td>
<td>17</td>
</tr>
<tr>
<td>N talks</td>
<td>78</td>
<td>41</td>
</tr>
</tbody>
</table>

- 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”
Some people get pummelled! 30-50 questions!

Didn’t expect #1: So many questions!
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
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:**

<table>
<thead>
<tr>
<th></th>
<th>Listed in CV</th>
<th>Mentioned in Intro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>78%</td>
<td>52%</td>
</tr>
<tr>
<td>Women</td>
<td>73%</td>
<td>27%</td>
</tr>
</tbody>
</table>
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!