

Mentoring Talk

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Outline

- I prepared this talk when I won the Jeremy Taylor Mentoring Award from the University of Michigan Biostatistics Department
- Varieties of students, postdocs and young colleagues
- Transfer students
- Mentoring: what I do

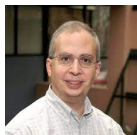
Types I Have Mentored

- My graduate students
- My postdocs
- Other people's students and postdocs
- Younger researchers

Types of Students

- 48 graduated, 20 of them in academics
- Of those, 11 are ASA Fellows 😊
- 5 of them have been or are university department/division heads. 1 was ASA President.
- Obviously, it was me responsible for their success (**not**)
- Smart, motivated students going to universities (20)
- Smart, motivated students going to industry and government (25)

Former Students Who are ASA Fellows



Paul Gallo
Novartis



Len Stefanski
NCSU



Doug Simpson
UIUC



Marie Davidian
NCSU



C.Y. Wang
Hutch



Jeff Morris
Penn



Hua Liang
GWU



Veera B.
UM



Yehua Li
UCR



Bo Li
UIUC



Jeff Maca
Novartis

Types of Postdocs

- 24
- Universities (17)
- Industry (6)

"Transfer Students"

- I have had 3 students who left their initial mentors and switched to me
- #1, #4, #28
- I have had students for whom I was the junior advisor but eventually took over
- #29, #32, #36

My Style as a Mentor

- Before Covid, I never made appointments with students
- I have never had an army of students and postdocs
- My office door was open and they could just walk in
- For me, this was efficient
- If I was away, I answered their emails (snail mails in olden days)
- Questions: answered
- Issues: discussed

Some advice for students and postdocs

- Part of being a mentor is to give some coherent advice to graduate students and postdocs
- I have collected questions over the years that have been asked of them on interviews
- Both for academics and industry/government
- They do a practice talks and practice interviews
- When I am done with them: well-prepared for their interviews
- I do this because somebody had to tell them the ins and outs of interviewing for a statistics position

Some advice for students and postdocs

- My major advice: always ask questions.
 - I have asked too many times "it do you have any questions".
 - I was answered too many times "*No, I have been told everything and it is all clear*".
 - I then said too many times: "*and you believe them?*"
- I also give free advice to my colleagues' students and postdocs
- I hope they appreciate it 😊

My Experience

- I had a wonderful, kind mentor, Shanti Gupta at Purdue
- I and many others greatly admired him
- He tailored what he expected of students to suit their ability

My Experience

- He was always available
- He let me do what I wanted to do (rare)
- When I passed my final defense, he called me *Ray* instead of *Mr. Carroll*, and said "*call me Shanti*"
- I loved and admired him
- What did I say?

Mentoring in my first job

- None 😞

Some advice for students and postdocs

- Seek out useful and caring mentors. They exist!
- Seek out great colleagues to write papers with
- I have been extremely lucky with collaborators
- David Ruppert, Peter Hall, Xihong Lin, Nilanjan Chatterjee, Mitch Gail, Yong Chen, etc.
- It took 3 years before David became the only other assistant professor
- In 10 years, we did 45 good papers, 3 books

Some advice for students and postdocs

- Be productive: write papers. It is hit or miss whether they will be important papers. You will find out afterwards
- The number of papers I have thought were great and got few citations would have gotten me tenure 😊
- Your students will be your legacy
- Be Kind: it is the right thing to do, will make others feel better, you may get some breaks on papers and grants

Some advice for students and postdocs

- Focus on what you can control, like doing research
- Do not fear a few failures: we all have them
- My first 6 papers were rejected! I simply got stubborn.
- 50 years later I still member my first acceptance in a good journal, and the acceptance letter is in our safe deposit box

Some advice for students and postdocs

- I go crazy when young colleagues focus on getting a paper into a traditional *Big Four* journal
- It is like going to a South African game/camera lodge and being unhappy if you do not see the *Big 5* (Lion, Leopard, Rhino, Elephant, Cape Buffalo)
- I tell them that it is a great way to write no papers. I know people who are paralyzed by their need to get an *Annals of Statistics* paper
- Our field has changed: it is not the goal to write such papers

Some advice for students and postdocs

- From Nilanjan Chatterjee: *I believe it is important to choose a career based on what you really enjoy, and not on institutional affiliation or job title*
- I greatly admire Nilanjan. He is a close personal friend and has a brilliant mind

Claim to Fame

- I was Peter Hall's co-author on the first paper he ever got rejected 😊
- He was appalled
- I thought it was funny

Some advice for students and postdocs

- This spring is the 50th anniversary of my Ph.D.
- My young colleagues try to compare themselves to my career, as if 50 years is just yesterday
- Times have changed!
- I am and have always been smart enough never to compare myself to others, e.g., Peter Hall, see below
- It will just make you sad

Peter Hall's *Statistical Science* Interview

- I always liked working with Ray because I felt I could contribute something from the problem-solving side, the theoretical side, whereas he is more an applied person; he is also a professor of nutrition and toxicology.
- I think in working with Ray we bring to the table things that don't overlap, and which complement each other very well, and I think that worked out very well for that reason.

Find Giving Colleagues Willing to Share Glory

- Nilanjan Chatterjee, in an interview with Bhramar Mukherjee, when he won the COPSS Presidents' Award (2011?)
- *I was also lucky to meet my long-term collaborator, Raymond Carroll, whose deep knowledge of diverse areas of statistics and intoxicating energy for working on new problems continue to inspire me!*
- He was lucky?
- The brilliance of the people I have worked with is astonishing

Two Great Buddies



Ruppert



Hall

Finally!

- I was thrilled to have received the Jeremy Taylor Mentorship Award
- Many thanks for inviting me to Stat Cafe (although I actually volunteered!)