

How to Survive & Thrive in Academia: My Personal Take on Promotion & Tenure

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Disclaimer

- ◆ The “advice” in this talk is only from my personal experience/observation
- ◆ Please use your own judgment to see if it applies to you!



About Me

- ◆ BS in (Geo)Physics, Peking University, 1992
- ◆ MS in Atmospheric Sciences, UCLA, 1994
- ◆ MS in Computer Science, UCLA, 1998
- ◆ PhD in Computer Science, UCLA, 2000
- ◆ Research Staff Member, IBM Watson, 2000-2003
- ◆ Assistant Professor, ECE, UT Austin, 2003-2008
- ◆ Associate Professor, ECE, UT Austin, 2008-2013
- ◆ Professor, ECE, UT Austin, 2013-
- ◆ Engineering Foundation Endowed Professor, 2014-

PhD → Professor

- ✗ ~~Pizza hut Driver~~
- ✗ Permanent hair Damage
- ✗ Professorship? hah! Dream on!
 - » A tenure-track position at a major research university often gets hundreds of applicants

Congrats! Your Dream Comes True!

How Do you Like your Job?

- ◆ I have worked in both academia and industry
- ◆ Assistant Professor is one of the most challenging jobs, but still so many PhDs want it 😊
 - › Tenure clock is typically 6 years



So Many Balls to Juggle

- ◆ Teaching, research (publications, funding), student advising (undergrad, grad), services (university and outside – committees, editorial boards, proposal panels), impacts (invited talks/keynotes, advisory boards/consulting)...
- ◆ Faculty role in a research university
 - › C~~X~~O: CEO, CTO, CFO, ...,
- ◆ Still, you need to have
 - › Balance of work/life (?)
 - › Quality time (family/friends)
 - › Body and mind time



Mission Impossible?

Good News:

The majority of tenure-track faculty have made it!

So, you can too!

Tip 1: Start from the END in Mind

- ◆ Know what is expected
 - › Promotion Dossier Guidelines and Checklist
- ◆ What consists of your promotion dossier?
 - › **CV**: Use the template similar to what the promotion package asks; update it periodically and see where to improve
 - › **Teaching** Statement (peer evaluation helpful)
 - › **Research** Statement (5 most significant papers)
 - › **Advising** Statement (both undergrad and grad)
 - › **Service** Statement (outside and inside university)
 - › **Honors** Statement
 - › **Reference** Letters (up to 10 external references)

Tip 1: Start from the END in Mind

- ◆ Different department/colleges may have different “unspoken” rules
- ◆ You need to be very clear about that from the beginning (consult with your mentor/dept. chair)
- ◆ E.g., at UT Engineering, we need to graduate 1 PhD student before tenure (preferable 1.0 sole-advised, not 2 x 0.5 – co-advised)
 - › Thus, you should recruit 1-2 PhD students ASAP
 - › Really nurture them, be nice to them ☺, so that they don't quit

Tip 2: Time Management **4D**

- ◆ We all have just 24 hours a day!
- ◆ You cannot be perfect in everything (well, maybe not even perfect in anything)
- ◆ **Discipline** in time allocation: priority, teaching vs. research vs. others
- ◆ **Do it:** If others cannot do it
- ◆ **Delegate it:** Ask your students for help (paper review, drawing figures, order group meeting food...)
- ◆ **Dump it:** You need to learn how to say NO

Tip 3: Hone your Communication Skills

- ◆ Communication is **VERY** important
- ◆ Keep your department chair, mentor, and senior faculty in your area (your champions) informed, on both good news and bad news
 - › They really want to see you succeed!
- ◆ Networking/communication/collaboration
 - › Nowadays, more collaborative/interdisciplinary research projects (NSF, MURI, Centers, etc.)
 - › For engineering/applied science, industry collaboration & feedbacks are crucial to have real impacts!
 - › **Potential letter writers**: senior faculty in other schools (make sure your work is known to them)
 - › Do good work + give good talks

Tip 4: Research

- ◆ Topic selection: continuing PhD or new direction?
- ◆ It is good if your research happens to be “hot” (well, if you are hired as an assistant professor, most likely you have passed the bar)
- ◆ But “hot” topics come and go → adaptive
- ◆ **Ultimately**, you need to ask yourself: what kind of impacts can you really make?
- ◆ When your tenure case comes up, can you be recognized as “Mr. or Ms. Something”?
- ◆ Independent vs. collaborative
- ◆ Student recruiting, mentoring and management

My Student's Story

- ◆ Really do what “turns” you on
 - › My former PhD student Peng Yu, PhD in 2009
 - › Post-doc at Baylor College of Medicine from 2009 to 2013 (4 Science/Nature/Cell papers)
 - › Now assistant professor in ECE Department, Texas A&M Univ.

Yu Bioinformatics Lab @ TAMU

Tip 4: Quality, NOT Quantity

- ◆ **Publish or perish** at the right place!
 - › Focus on the impact and quality
 - › NOT (just) the quantity
- ◆ Remember you will need to single out 5 most important publications and send them to your reference (some of them you may not know and they will read your papers!)
- ◆ It is also true for services and funding: quality, not (just) quantity

Tip 5: Take it Easy

- ◆ “Tenure clock, so much pressure!!!”
- ◆ Relax... Remember most people have made it!
- ◆ You can make it too!
- ◆ Do what you are supposed to do and **don't worry**
- ◆ For example of funding, rejection is the norm
 - › E.g., NSF success rate may be 10% or so
 - › You just have to keep trying, other sources, etc. (lots of luck involved)
- ◆ Tenure is NOT everything
- ◆ Balance work and life

Work and Life

Picture taken 12/25/03



“Daddy, don’t worry. I can show you some **bright** ideas!”

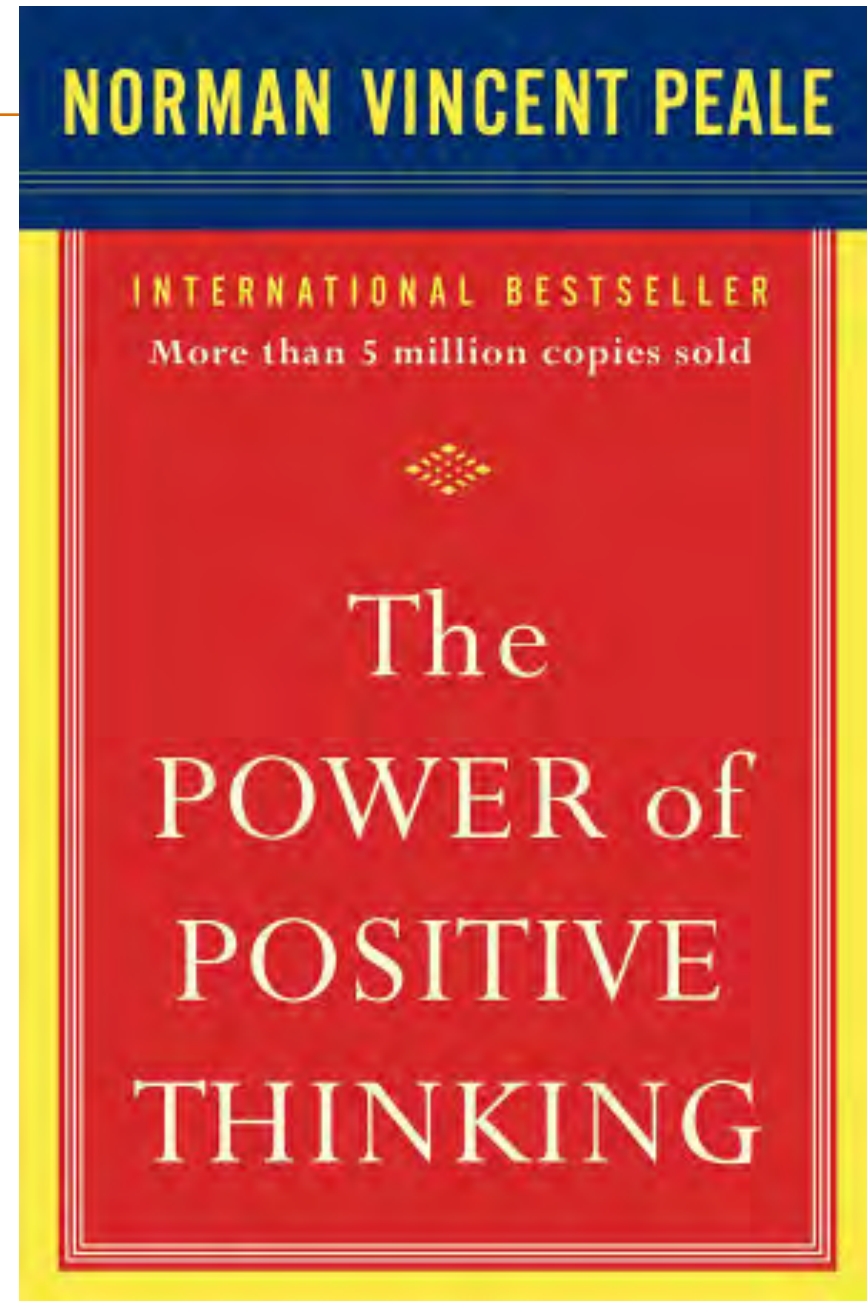


“Double patterning!!!”

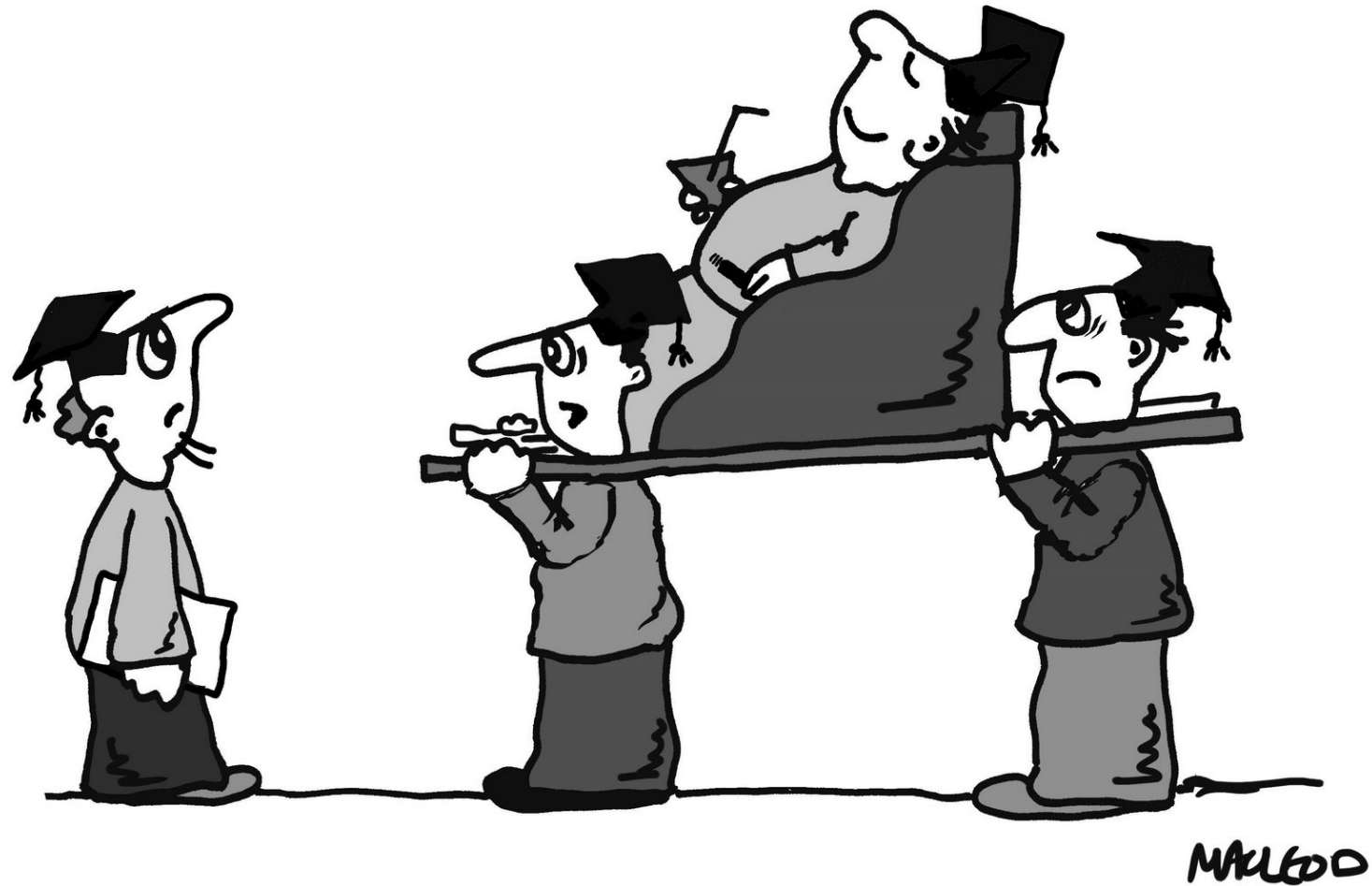
I got 5 BPAs related with double/multiple patterning ☺

Take it Easy

- ◆ My NSF CAREER: 3 attempts, then got it!
- ◆ However, ideas recycled to SRC, etc.
- ◆ Turned out to be GOOD!
- ◆ Best Paper Awards
 - › Sometimes you win
 - › Sometimes you ~~lose~~ learn



Life after Tenure like This?



"He's been pretty much insisting on this ever since he got tenure."

Nope!

Weekly work hours by faculty at top science/engineering departments, by work activity



Source: Link, Swann, and Bozeman, 2008

- * Getting tenure adds 5 hours of bureaucratic nonsense service duties to science professors' weeks (per D. Matthews)
- * Tenured professors still work hard because they enjoy their work!

Take it Easy

- ◆ Even not promoted, it is not the end of the world
- ◆ Cherish your family, friends, ...
- ◆ You could be successful elsewhere
- ◆ It is all about “fit”

◆ David E. Shaw

- › PhD in 1980, Assistant Prof. CS at Columbia
- › Didn't get tenure (as I heard of; not verified)
- › 1986, joined Morgan Stanley
- › 1988, started “D. E. Shaw & Co” (hedge fund)
- › Forbes 2008 estimated his wealth at \$2.5B
- › Founded D. E. Shaw Research in 2001: devote his time on computational biochemistry
- › NAE in 2012, NAS in 2014, ...



Promotion & Tenure

Yes, you can!

Even if you don't make it,
Maybe better opportunities...



Thank you!

Q & A