

Piled Higher and Deeper *by Jorge Cham*

www.phdcomics.com



DO YOU OFTEN FEEL DEPRESSED, AND UNABLE TO GET MOTIVATED ABOUT ANYTHING EXCEPT CHECKING YOUR EMAIL?



DO YOU SUFFER FROM FREQUENT ANXIETY ATTACKS OVER THE LACK OF MEANING IN YOUR LIFE?



DO YOU EXPERIENCE FREQUENT HEAD-ACHES TRYING TO COUNT HOW MANY YEARS YOU'VE BEEN IN SCHOOL?



JORGE CHAM © 2002

THEN YOU ARE AMONG THE MILLIONS OF YOUNG ADULTS THAT SUFFER FROM "POST-BACHELOR DISORDER", OTHERWISE KNOWN AS "GRAD SCHOOL".

NOW THERE IS A CURE.

The following is a paid advertising. The views expressed here do not necessarily reflect the views of this comic strip. www.phdcomics.com

title: "Post-Bachelors Disorder" - originally published 9/30/2002

HOW TO BE A SUCCESSFUL GRADUATE STUDENT

IT WAS THE BEST OF TIMES,
IT WAS THE WORST OF TIMES

ONE EX-STUDENT'S INSIGHT ON HOW TO GET THROUGH
GRADUATE SCHOOL AND FIND A JOB

(and get the most out of)

EDWIN GERBER

OCT. 18, 2006

THE TAKE HOME

Ask, and it shall be given you;

seek, and ye shall find;

knock, and it shall be opened unto you.

i.e. *Take charge of Your* education and research

TAKE ADVANTAGE OF COLUMBIA!

- Much of your graduate work will be done alone. Grad school is about establishing your independence, but . . .
- you are in a top-flight institution with so many resources
 - ◆ faculty
 - ◆ your fellow students
 - ◆ research scientists, staff, postdocs, . . .

THE GRAD SCHOOL STRESS CURVE (OUTLINE)



OTHER CURVES



THE ADVISOR



title: "By 'we' you mean..." - originally published 3/1/2004

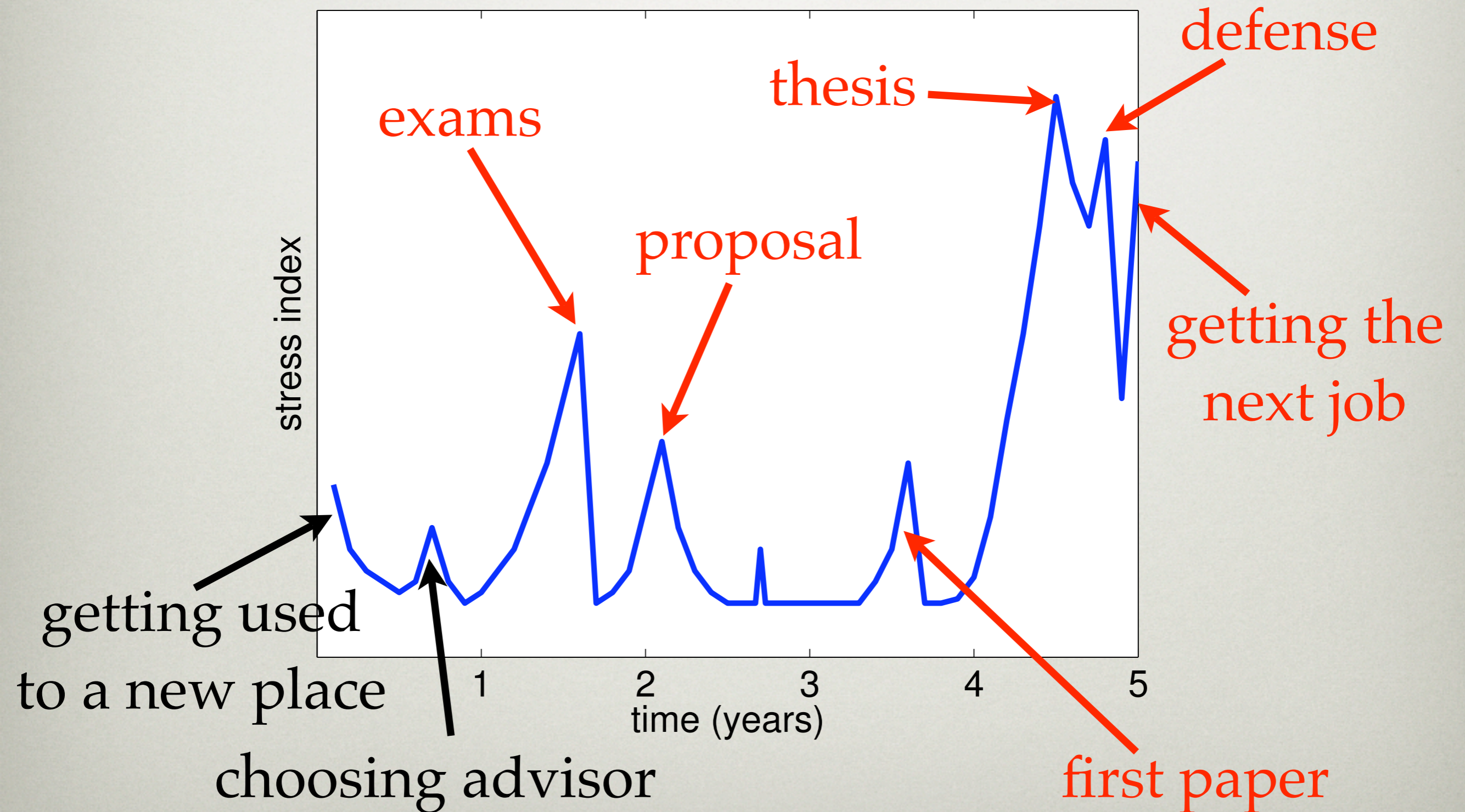
CHOOSING AN ADVISOR

- What do you want to do?
- Communication. (Famous and busy? Younger, but more accessible?)
- Know your needs and limitations
 - If your advisor says nothing, does that mean you're doing well, or doing poorly?
- Tenured?
- Speak to current graduate students!!!!!!!

EXPECTATIONS

- What does your advisor expect of you?
(Ask him/her!!!!!!)
 - ◆ background
 - ◆ teaching / research
- What do you expect from your advisor?
 - ◆ mentoring
 - ◆ hands on / hands off
 - ◆ feedback?

THE STRESS CURVE



GETTING THROUGH THE EXAMS



JORGE CHAM ©THE STANFORD DAILY

title: "Quals" - originally published 1/11/1998

GETTING THROUGH THE EXAMS

- Know the requirements
- Get advice (from professors *and* students)
- Plan courses appropriately
- Practice, practice, practice

TAKE CHARGE OF YOUR EXAMS (THEY'RE NOT ALL BAD)

- Can you shift the topic of your exams to meet the things you are interested in?
- Exam topics can be a spring board for your thesis research
- Do certain professors inspire you? Get them on your committee!

THE PROJECT/PROPOSAL!

TAJEL TRIES TO PICK A THESIS TOPIC...



SUDDENLY...



...THE SKIES OPEN UP! INSPIRATION FLASHES! SHE HAS AN EPIPHANY!



... REALITY CRASHES DOWN...

SORRY, IT'S NOT MY AREA OF EXPERTISE, IT'LL NEVER GET FUNDED AND I THINK IT'S A BORING TOPIC. GO THINK SOME MORE.

I HAD A THESIS TOPIC



JORGE CHAM ©THE STANFORD DAILY

title: "Thesis topic - Epiphany" - originally published 10/9/1998

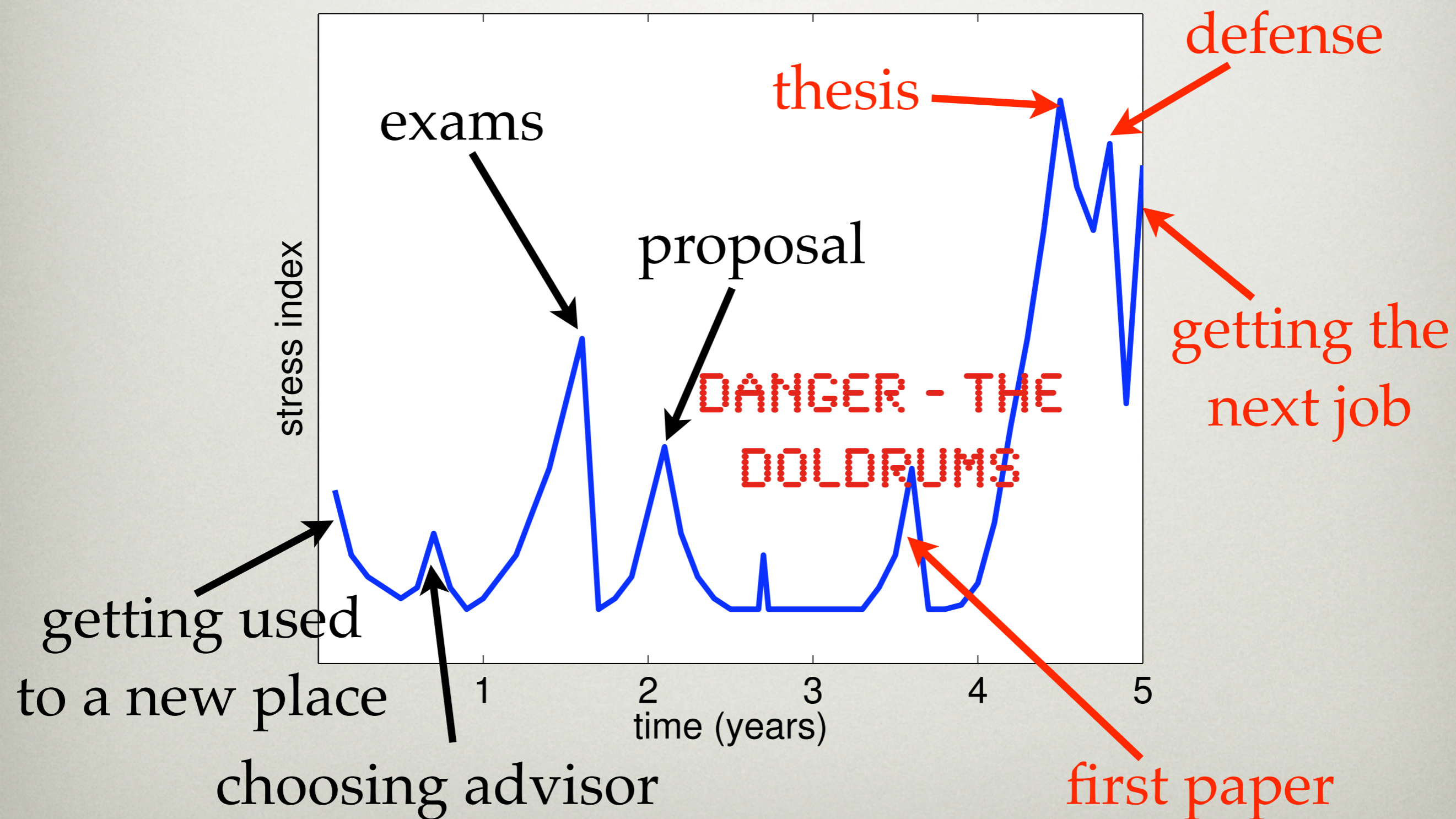
SELECTING A PROJECT

- Does this topic excite you?
- Pick the low fruit!
- Avoid delusions of grandeur
- It's a thesis, not your life
- Get advice!
- Does this topic *really* excite you?

THE PROPOSAL

- Know the literature
 - What has been done? Is this new?
 - Is this interesting? Is it publishable?
 - Where does it fit in big picture?
- What do you reasonably expect to happen?
- Can this be completed in c. 3 years?
- Does the technology exist? Funding?

RETURNING TO THE STRESS CURVE



THE DOLDRUMS

Living with P.Q.S.



Brought to you by:



the National Council for
Graduate Student Mental
Health

What is PQS?

"Post-Quals Slump", or PQS, affects 99% of all grad students. It is the #1 cause of delayed graduation dates and contributes to the Ph. D. degree drop-rate.

What are the symptoms of PQS?

Symptoms include:

- Inability to maintain interest in research area
- Advisor Avoidance
- Increased web-surfing
- Healthy sleeping pattern
- Cynicism towards Academia

How long does PQS last?

PQS is incurable. With proper treatment, its main symptoms may last up to 5 years.

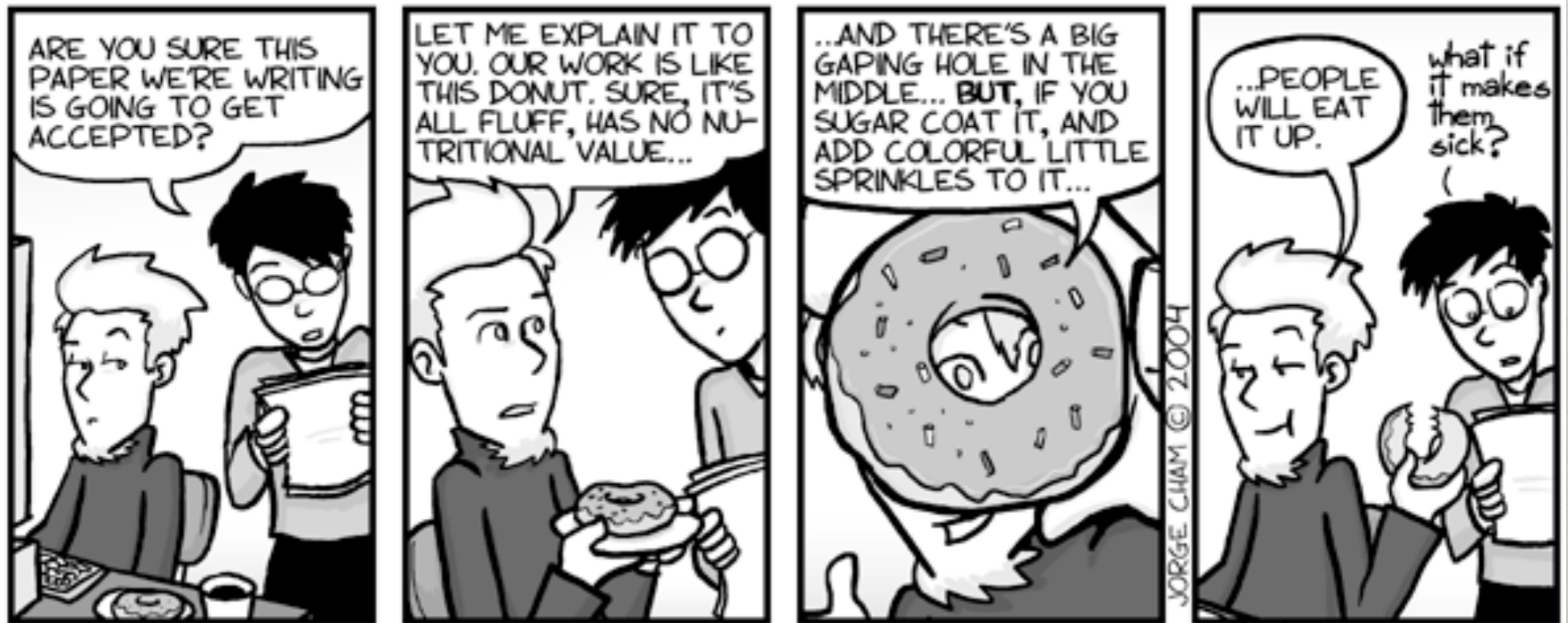
How do I treat PQS?

Experimental treatments such as Advisor-Pressure (AP), Spousal-Income-Frustration (SIF), Lack-of-Savings-Realization (LSR) and "cocktails" of these have known to cause a remission of the disease long enough to at least defend a thesis. More severe treatments are required to actually finish writing the thesis

DOLDRUMS

- Take charge - don't expect your advisor to pull you out
- Get involved - reading groups, conferences, seminars
- Set short term goals
- Set a regular schedule
- Seek advice: students / postdocs / faculty

PUBLISHING YOUR FIRST PAPER



www.phdcomics.com

title: "Our work is like this donut" - originally published 4/5/2004

PUBLISHING YOUR FIRST PAPER

- Know the expectations from the journal
- work with your advisor
- many will read only the abstract, intro, and conclusions
- brevity is the soul of wit
- document your work - reproducibility
- what is the main message in your paper

ACADEMESE

DECIPHERING ACADEMESE

YES, ACADEMIC LANGUAGE CAN BE OBTUSE, ABSTRUSE AND DOWNRIGHT DAEDAL. FOR YOUR CONVENIENCE, WE PRESENT A SHORT THESAURUS OF COMMON ACADEMIC PHRASES

"To the best of the author's knowledge..."

=

"WE WERE TOO LAZY TO DO A REAL LITERATURE SEARCH."

"Results were found through direct experimentation."

=

"WE PLAYED AROUND WITH IT UNTIL IT WORKED."

"The data agreed quite well with the predicted model."

=

"IF YOU TURN THE PAGE UPSIDE DOWN AND SQUINT, IT DOESN'T LOOK TOO DIFFERENT."

"It should be noted that..."

=

"OK, SO MY EXPERIMENTS WEREN'T PERFECT. ARE YOU HAPPY NOW??"

"These results suggest that..."

=

"IF WE TAKE A HUGE LEAP IN REASONING, WE CAN GET MORE MILEAGE OUT OF OUR DATA..."

"Future work will focus on..."

=

"YES, WE KNOW THERE IS A BIG FLAW, BUT WE PROMISE WE'LL GET TO IT SOMEDAY."

"...remains an open question."

=

"WE HAVE NO CLUE EITHER."

NUTS AND BOLTS

- LaTeX
 - Steep learning curve - ask someone for help when starting up!
 - Very powerful, great for equations
- Word
 - Easier to pick up
 - not as flexible / stable
- In either case, find a template!

FINISHING THE THESIS



title: "I am a writing god!" - originally published 1/29/2003

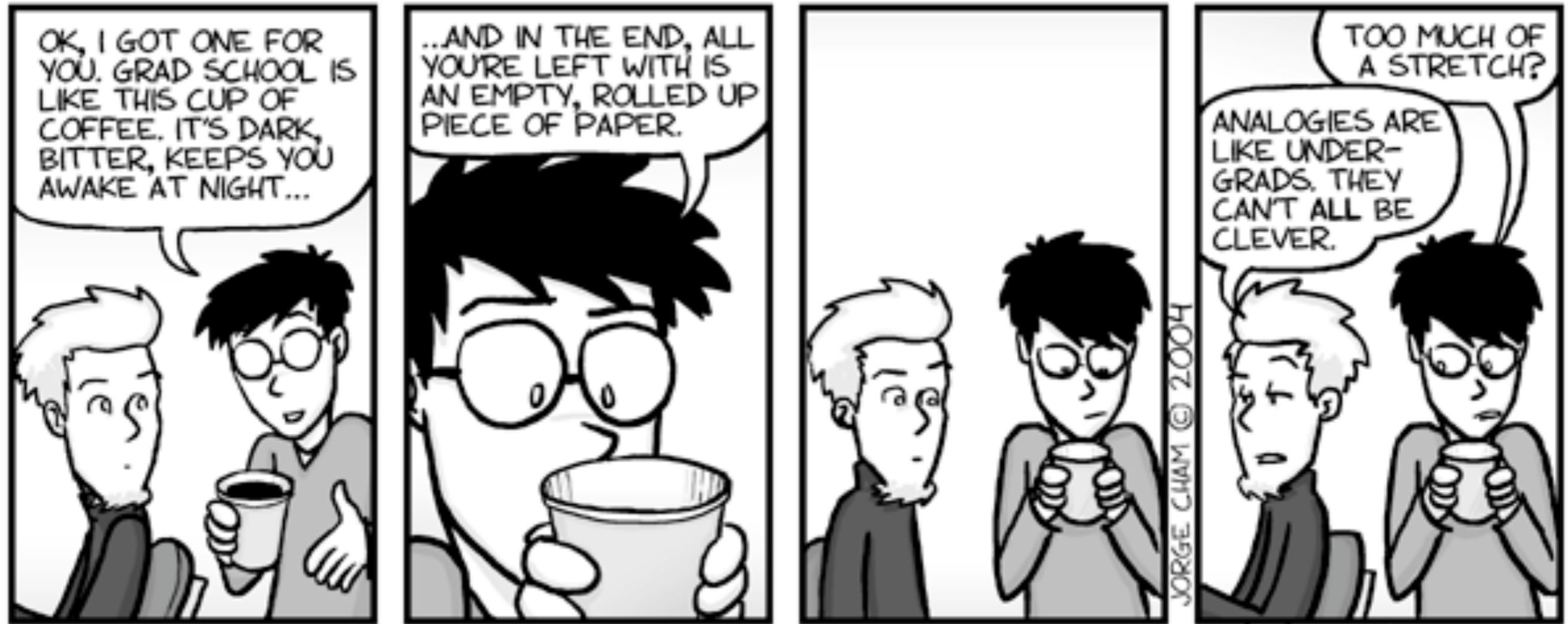
FINISHING THE THESIS

- Publish your research early:
one paper=one chapter
- Remember: No one will read your thesis . . . but make sure it won't embarrass you in case they do!
- For unpublished work:
one chapter = one paper

FINISHING THE THESIS

- In the end, you need to get it done
- Writing groups
- Get away from distractions
- Keep perspective

TOUGH TIMES



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title: "Our work is like this donut" - originally published 4/7/2004

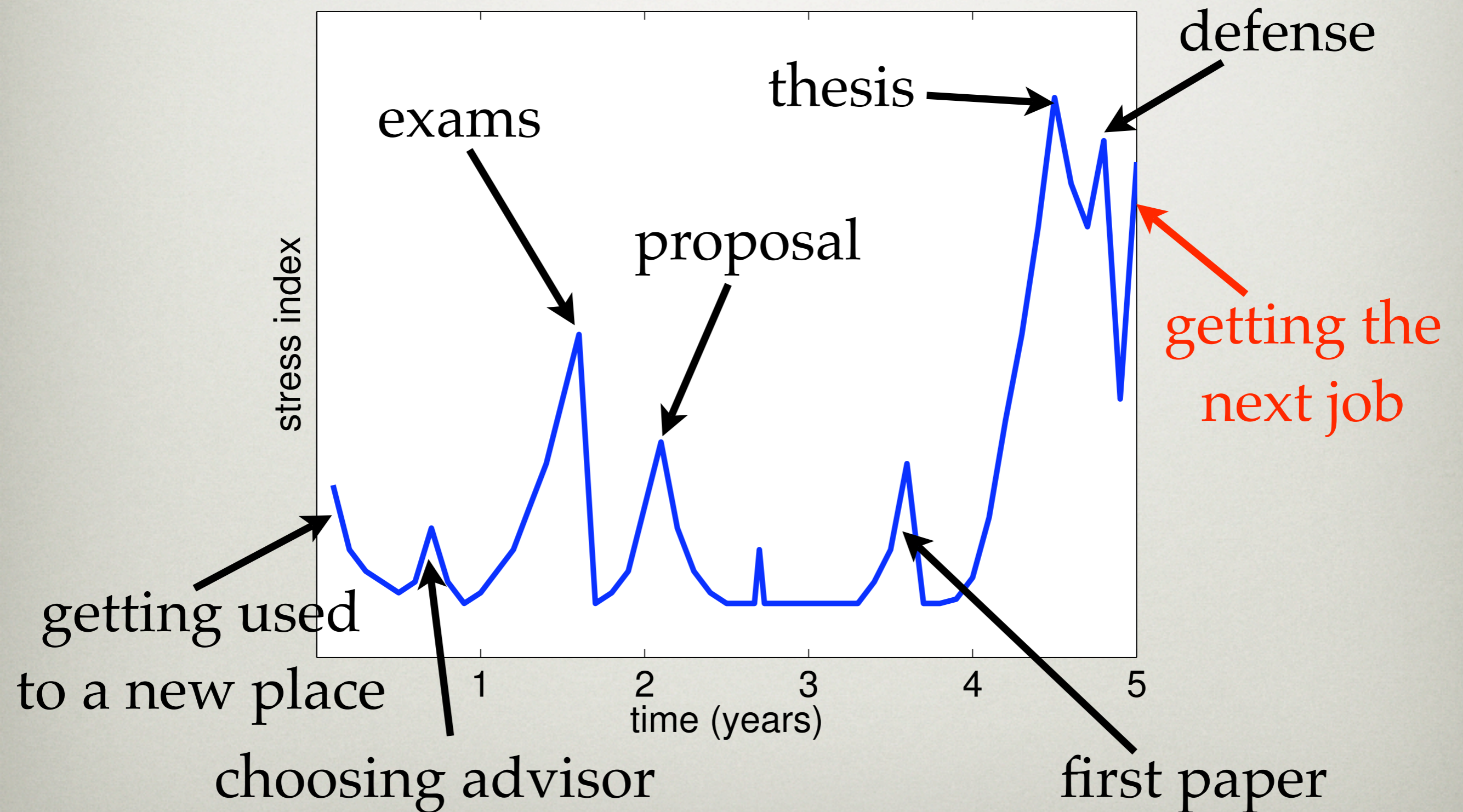
STRESS MANAGEMENT

- Balance your work load
- Law of diminishing returns
- Balance your life
 - volunteering: <http://www.columbia.edu/cu/ci/>
 - arts passport: http://www.cuarts.com/nyc_arts/passport_to_new_york.html
 - jazz: Bill's Place, Small's
 - escape: Henshead (Central Park)

KNOW WHEN TO GET HELP

- Graduate school can be isolating
- Self-doubt - you've studied this stuff so long, it all seems obvious. But that's because you've looked at it so much.
- you have more options than you think
- Depression will cloud your perspective, prevent you from working effectively
- http://www.health.columbia.edu/docs/about_us/cps.html

ALMOST DONE!!



GETTING A JOB



phd.stanford.edu

title: "Faculty Job Search" - originally published 4/3/2002

GETTING A JOB

- Industry
- Academic
- National Labs
- Postdocs
- Fellowships- general (NSF / DOE) and specific to your field

POSTDOCS

- mathematics
 - support from teaching funds
 - fixed schedule, deadlines, decisions
- applied programs
 - research funding
 - more informal, contact people directly
- Fellowships

IN CONCLUSION

- Take charge of your research!
 - Talk with profs / students / postdocs!
 - Try your best to keep balanced.
 - Graduate!!!!
-
- Thanks to my advisors and mentors,
Geoff Vallis and Lorenzo Polvani

SIGNS YOU'RE CLOSE TO GRADUATING

PHD.STANFORD.EDU
JORGE CHAM © THE STANFORD DAILY



title: "Signs you're close to graduating" - originally published 3/8/2002