

The Writing Process

Advice from
Julianne Dalcanton

The Writing Process is Hard

Why can't I write?

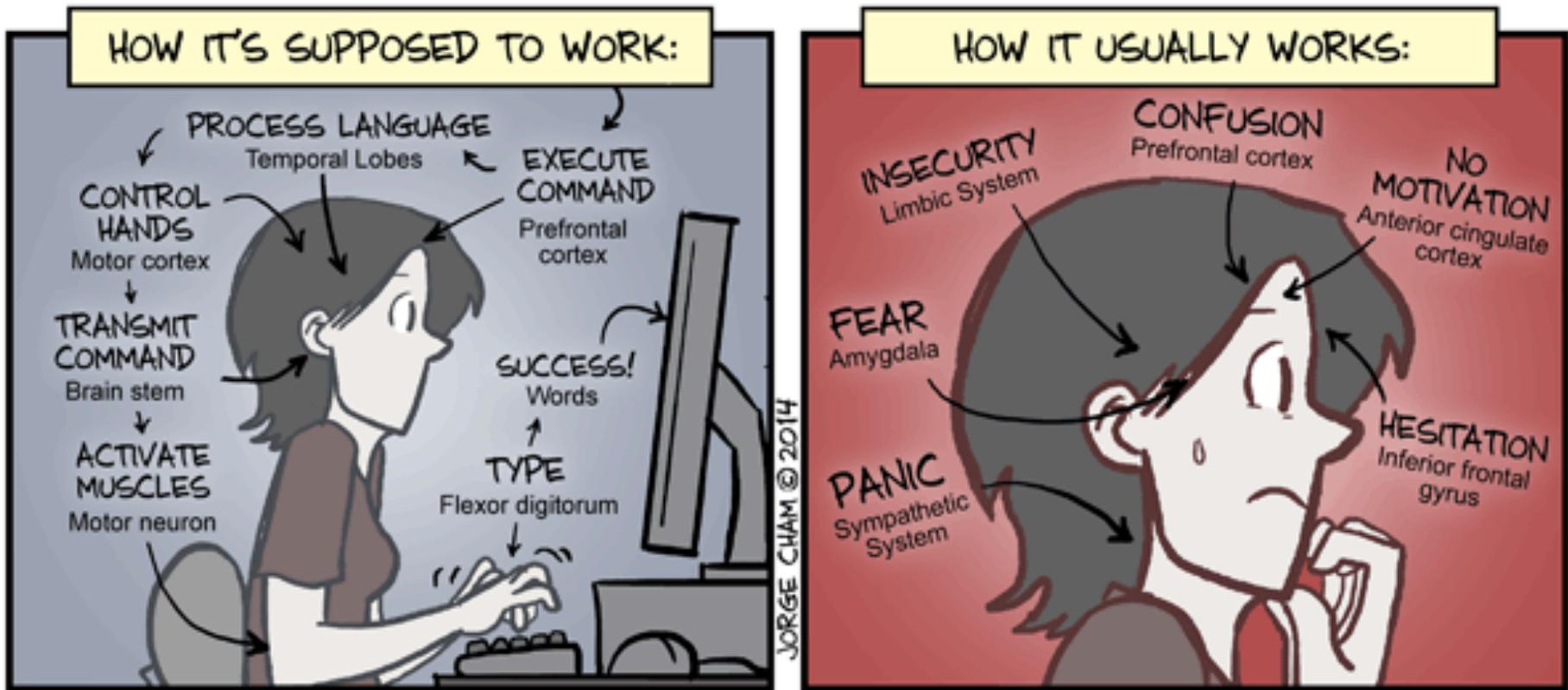


<http://www.phdcomics.com/comics.php?f=1733>

Why Can't I write?

- You're not good at it yet. No one likes to do things they suck at. → NEED TO PRACTICE
- You don't know what to say.
- You don't know how to say what you want to say.
- You *thought* you knew how to say what you want to say, but it's not actually working.
- You are not prioritizing time to write.
- Emotions

THE NEUROBIOLOGY OF WRITING



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Outlines → make writing more efficient

- Partially answers “what do I want to say?”
- Clarifies “work still to be done” and gives you a long lead time to get it done
- Can get high-value input from collaborators at an early stage.
- Reveals structural problems *early*, before investing time writing.

What do I mean by “structural problems”?

Are you....

Explaining things in the wrong order?

Explaining too much at the same time?

Missing information?

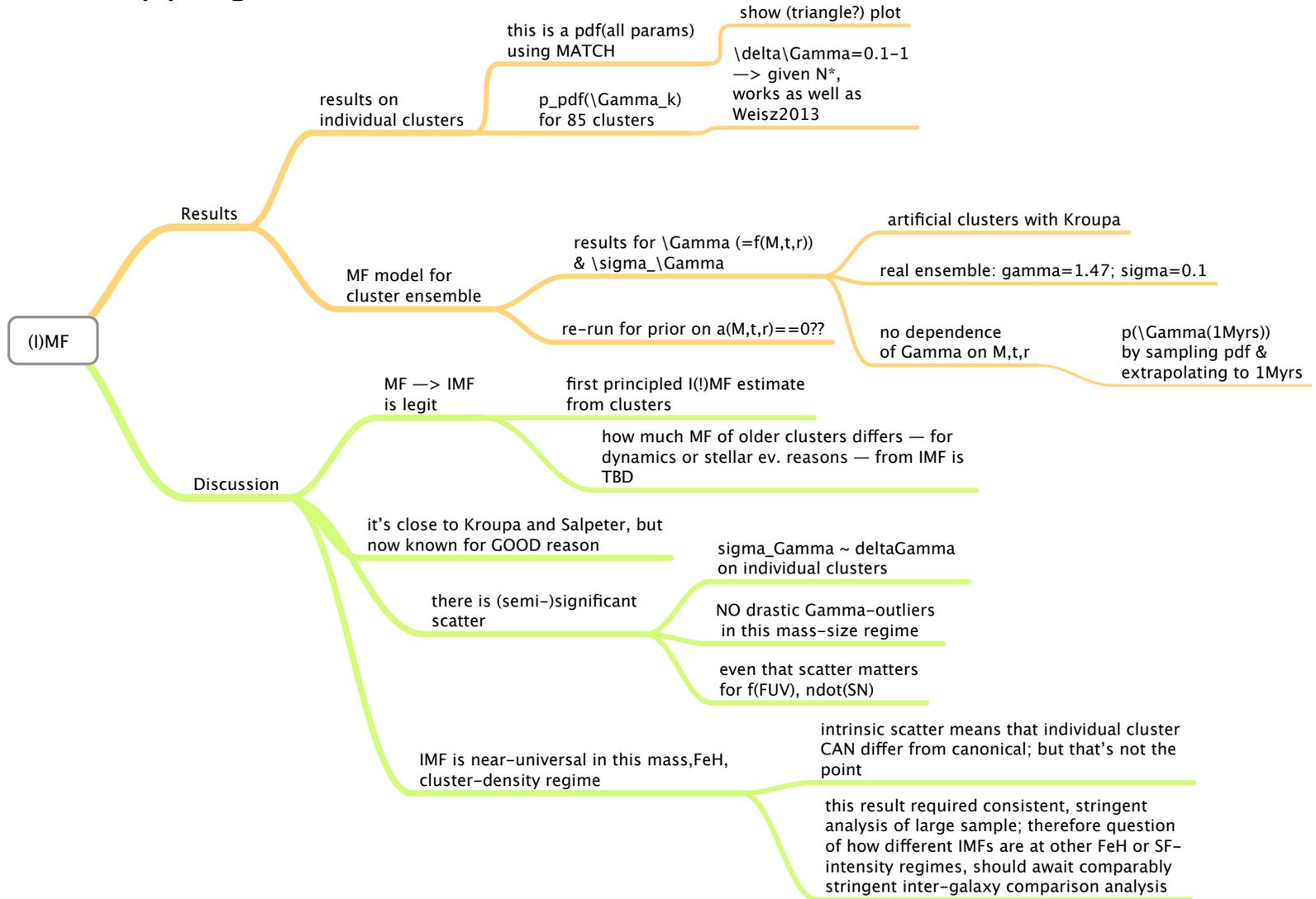
Motivation unconvincing?

Line of argument confusing?

Structural Problems

- You can't just tweak words and sentences to fix these.
- You have to move or cur entire paragraphs and sections.
- Easy to fix EARLY before text is written.

Mind Mapping



<http://mindnode.com>

Has free trial. Paid version lets you drag & drop nodes.

Prioritizing Time to Write

- ~ 200 words per paragraph,
- 1000 words = 5 paragraphs

How long will it take to generate a first draft ?

At a rate of 5 paragraphs per week (1 paragraph per day)

<u>#Pages</u>	<u>#Words</u>	<u>#Paragraphs</u>	<u>#weeks for 1st draft</u>
~5	5,000	25	~ 1 months
~10	10,000	50	~2-3 months
~15	15,000	75	~3-4 months

FACT: If writing is hard for you, you will always avoid it, and it will never get done, and you will always feel bad.

Schedule it so it happens

At what time of day & at what location are you:

Most effective at writing? Least likely to be interrupted? Least likely to freak out*?

*Julianne wrote her thesis from 7pm-2am, after drinking a glass of wine, because she was too wound up otherwise

Schedule it so it happens.

Schedule no more than a 1 hour chunk, and don't aim to write more than ~200 words*.

*If you do write more, great! Ride that train! But don't set a goal that sets you up to feel bad.

When you stop writing...

...*always* have a plan for what you want to write in the next session*.

*And write it down in bold-face/color in the document. Future You will thank you.

What is the First Draft?

- Not a complete draft
- Not a polished draft
- Not a perfect draft

- Get your thoughts down
- Do not stop to plot or calculate. Use “##TBD##” and move on

“The first draft of anything is shit”

– Ernest Hemingway

The Editing Process

“So-and-so is such a good writer”

No.

“So-and-so is such a good *editor*”

Why is editing your own work hard?

It is hard to sense a reader's confusion, when you know what you meant.

- The best solution is time. Always edit on a different day.
- Read it in a different way than you wrote it (Print out, out loud, in a different location)
- Get someone else to read it

Why is Editing Your Own Work Hard?

- It is hard to undo work you struggled over.
- It is hard to face errors you have made.
- However, you are a scientist.
- Evaluating, correcting, and improving are *fundamental* to science.

Why is accepting editing from others hard?

As scientists, we know that we learn to do anything by making mistakes, having experts point them out, and then fixing the mistake.

- But when it comes to writing this can be emotionally charged – because the “text” is merged with “your ideas & thoughts” - it can be challenging to avoid taking criticism seriously.
- We don’t like to be criticized.
- We *really* don’t like to be criticized when we worked hard and struggled.

If you cannot accept & learn from critique, you will not improve.

REMEMBER: It's not personal

An edit is a signal that something *in the text* is not working as intended. This is a *completely impersonal fact*.

A thorough edit from a collaborator is *an investment in you*.

It is a message that they believe you can fix problems, and that they want the work you care about to be the best it can be.

Accepting Edits

When you ignore a collaborator's edit?

You are in denial.

- There was something wrong with the text and they tried to help.
- But you essentially said “No. It’s perfect. You read it wrong.”
- You may not agree with their fix, but you cannot ignore that the text was not working.
Try to understand what problem they’re fixing.

Proposal vs Papers

- Both are about the “Story”
- Both Require awareness & management of “readers expectations”
- DIFFERENCE: tone, goal, structure

Paper

- 1) the reader is already sold.
They read the abstract
and chose to keep going
- 2) The reader would like to
be convinced of your
results

Proposals

- 1) the reader has no choice but to read
it. They are probably sick of reading
by the time they get to yours
- 2) The reader is looking for reasons not
to be swayed.

Proposals & the Narrative

- At least 2/3 of proposal ideas quality as “Good to do”
- This isn’t enough : telescope time & \$\$\$ are always more limited than the supply of good ideas.
- You need to move from:
“Good to do” to “Must be done”
- This requires a really strong story, backed by a really strong argument, explained with impeccable clarity.

I. Crafting a strong story.

1. Topic X is important and interesting.
2. But.
3. This is how we will address “But.”

A proposal is best viewed as an argument that leaves the reader believing that #1 & #2 are true and that #3 is the best way forward.

Your goal with #3: Put words in the reviewer’s mouth that they can parrot back to the committee.

The Narrative – For a proposal this usually centers around a question →
“the problem”

You have devised a program that will show that :

Molecular cores in the Monoceros molecular cloud have a power-law mass distribution with a slope similar to the IMF.

Q: What is the story?

Possible stories:

- “How do stars form?”
- “What is the substructure within molecular clouds?”
- “Is the substructure within molecular clouds driven by compressive or solenoidal forcing?”
- “What is the origin of the IMF?”

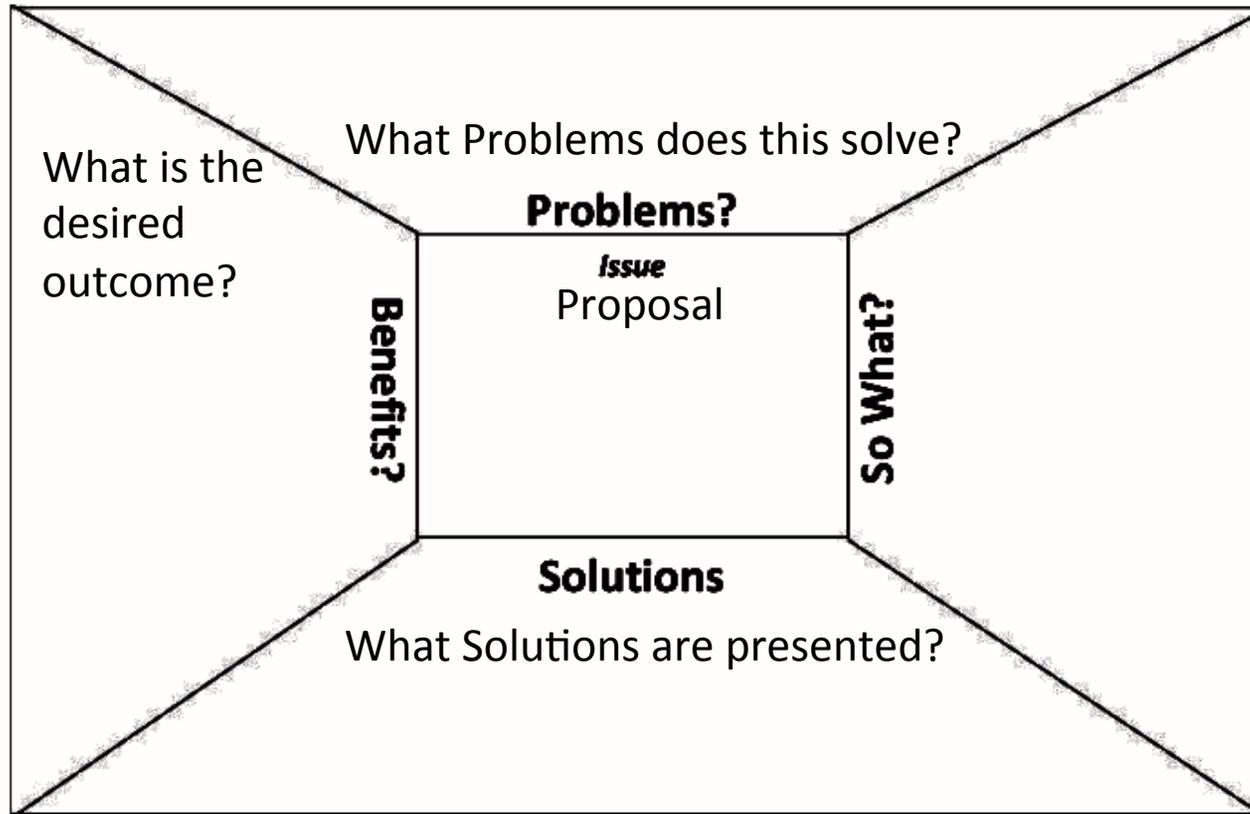
Your section 1 would be completely different depending on your choice of story !!

Only include information crucial to the narrative

- You should *minimize and/or leave out* selling points that distract from your story.
- The reader (reviewer) may believe that *anything you mention* is part of your main story.
- They will then mark you down for not fully justifying something you considered to be a minor aside.

“COMPASS Message Box”

Audience: _____



<http://compassblogs.org/blog/2013/06/20/getting-to-the-so-what-of-your-science/>
<https://www.scribd.com/doc/139351833/The-COMPASS-Message-Box>