

# Writing a research statement for the academic job market

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## Why are you here?

- You want to write a compelling and effective research statement for academic jobs

## Why am I here?

- I've read and written a number of research statements
- I want you to write a compelling and effective research statement for academic jobs

# Outline of this talk

- Motivation
- The big picture, and some general advice
- Telling a coherent story
- An interlude about Herman Melville
- **Analyzing some statements**
- Questions? (please ask questions throughout!)

Motivation:  
First off, good on you!

You're off to a good start – taking initiative to join a session like this is positively correlated with writing a good statement

## Don't stress out...

Your research statement is unlikely to make or break your application.

- Not as important as CV, letters, or job talk...
- ...but under your near-term control in a way those are not

## ...but don't phone it in, either

View the research statement as the first of many (rather, many many) later occasions when you will need to motivate and describe your research to date and research plans.

- Job talk
- Career grants, other fellowships/awards
- "elevator pitch"
- Promotion package
- Run-of-the-mill grants
- Paper introductions
- ...

## A tangible benefit of writing a thoughtful research statement

High—level thinking about your research statement can help spark new research ideas/directions.

Framing your work as part of a bigger picture can direct your attention toward pieces of the landscape that are still missing.

## Writing your statement: the big picture

So, what am I supposed to do?

Some examples of actual instructions from job ads:

- “brief summary of research”
- “statement of research”
- “research statement”

Not very helpful.



## Big picture: Key parameters

### **Key parameters of research statement:** Typically

- 3-5 pages of prose, plus references
- Figures optional (totally fine to have no figures)
- Generally no formulas, equations, definitions or theorems
- Generally broken down into explicit sections, subsections
- **Motivates** and summarizes past research accomplishments (majority of statement), and looks ahead to future work

## At a more meta level...

### Key notes to hit, no matter your research area:

- Motivate the general area
- Explain and motivate the specific questions you work on
- Explain your progress and why it is significant
- Sketch your future research plans

*“There’s interesting and important research that should be done on these topics, and I’m doing it with excellence”*

Closer to a newspaper/magazine article than a journal article or textbook. Goal is to *inform* rather than to *educate*.

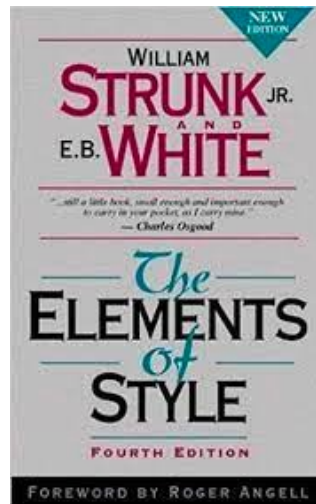
# Big picture: the audience

## Key points to keep in mind about your audience:

- Aim the statement at a *typical faculty member* (someone who is **outside your area**)
  - People in your area likely know more about you and your work already than your statement will tell them
  - People outside your area will only get so much from your statement no matter what
- Prioritize being **simple, clear** and **understandable** over almost everything else

# Grandfatherly advice: Preparation

- Read, read, read (especially literature) and write as much as you can
- Buy this and read it from cover to cover (multiple times):



## General advice: Process

- Start early and work often (conquer dread)
- Small increments, easily accomplishable tasks
  - Mon: Spend ½ hour gathering online research statements
  - Tues: Spend 1 hour reading those statements
  - Wed: Spend 1 hour rereading those statements, jotting notes about what you think they do well (and not so well)
  - Thurs: Spend 1 hour brainstorming high level structure of your statement
  - Fri: Write a two-paragraph skeletal outline
- Vicious cycle of procrastination → virtuous cycle of productivity

## General advice: Process

Enlist your allies: **get feedback** on multiple drafts of your statement from multiple people.

People to ask:

- Your advisor
- Your CS theory / learning theory PhD/postdoc peers, senior peers
- Other academic friends
- Anyone who will read it

If you're writing a statement that is painful/impossible for people to read...that may be a sign to consider rethinking/reworking your statement.

## General advice: Process

Multiple rounds of revision will help you get the details right.

Go away from it (for days), come back, read it afresh. Paragraph by paragraph, sentence by sentence, what is the meaning that emerges from the page (as opposed to the meaning in your mind)?

*“When you say something, make sure you have said it. The chances of your having said it are only fair.”*

- E.B. White, “The Elements of Style”

## General advice: Telling a coherent story

If there's a clear unified theme or narrative tying your research work together: congratulations! Explain it in your statement, and go forth and prosper.

If not – don't worry, you are far from alone.



## General advice: Telling a coherent story

“X is interesting and important, and I’ve done significant work on it”

“Y is interesting and important, and I’ve done significant work on it”

not as compelling as when prefaced by

“The big-picture goal of my research is to investigate Z. Two facets of Z which I have worked on are X and Y.”

It’s worth spending some significant time and thought on figuring out how to present your work as a coherent whole.

(Research statement is not the last time you’ll be doing this...)

*Big-picture thinking* (focus on motivation, larger goals) can make this easier and more compelling.

# Different paths to coherence/unity

**Topical coherence:** Your different projects/papers cluster around a common set of *problems/questions/topics*.



**“I work on  
smoked meat.”**

- This kind of coherence is self-evident
- Too broad a topic = no topic
- Hopefully your reader cares about the topic

# Different paths to coherence/unity

**Coherence of goals:** Your different projects/papers arise from a common *motivation*.

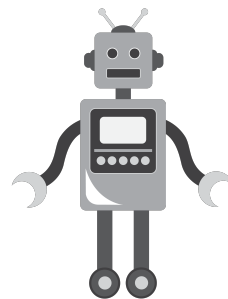


**“The overarching goal of my research is to promote healthy eating.”**

- Makes for a good story
- Potential contrast between lofty goals and more pedestrian accomplishments
- Need to connect the dots

# Different paths to coherence/unity

**Methodological coherence:** Your work is unified by a common set of *underlying techniques*



**“It’s all about pan-frying.”**

- Highlights your skills, versatility, future promise
- Risk of seeming too technical / specialized
- Can work well together with another unifying theme

## No discussion of writing is complete without...



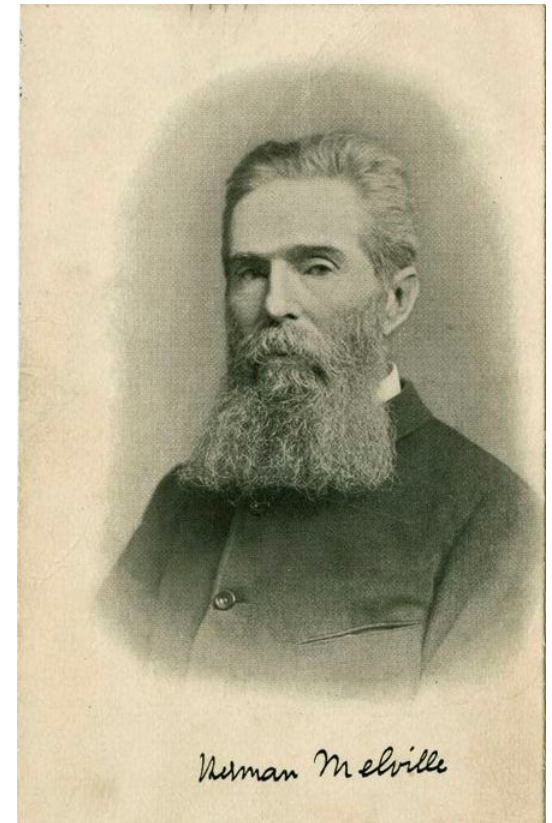
**Herman Melville**

- Major 19<sup>th</sup>-century American author
- Uneven critical and popular success during his lifetime; early popularity waned
- Wrote in many genres: novels, short stories, poetry, essays, letters
- Never (AFAIK) wrote a research statement

# Some aspects of Melville's writing, viewed through the research statement prism

## Ambitious 😊

- *Moby Dick* described as “the most ambitious book ever conceived by an American writer”
- The major work of his later life, *Clarel: A Poem and Pilgrimage in the Holy Land* is one of the longest (perhaps the longest) poem in American literature
- Your research statement is unlikely to excite people unless there is some element of ambition in it.



# Some aspects of Melville's writing, viewed through the research statement prism

## Structured 😊

- *Moby Dick*: 200 000-word book, broken down into 135 chapters plus introductory sections on etymology and whaling in literature, epilogue
  - *Pierre: Or, the Ambiguities*: 500-page novel, structured as 26 books, 2-6 subsections within each book
  - *Clarel*: 18 000 line poem, structured as four parts, 30-45 cantos per part
  - *The Encantadas*: short novella / long short story, structured as 10 “sketches”
- 
- Structure (sections, headings, bold phrases) helps keep your reader on track.



## Some aspects of Melville's writing, viewed through the research statement prism

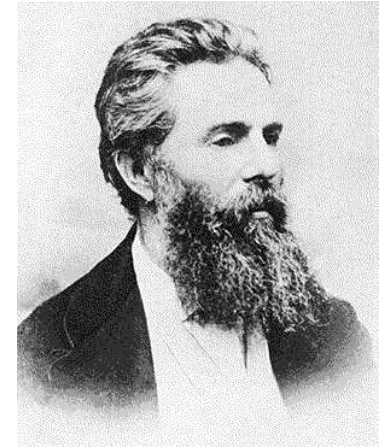
Widely read 😊 (Melville, not his writing 😞)

- the Bible, Shakespeare, Milton, all had major impact on his writing
- *Moby Dick* opens with 75 whale-related quotations from a dizzying range of sources
- Almost every page of *Moby Dick* was influenced by Shakespeare
- Good reading begets good writing.





# Some aspects of Melville's writing, viewed through the research statement prism



## Lengthy and Digressive ☹️

- Main narrative arc of *Moby Dick*: Narrator signs up for whaling voyage; turns out the captain is on monomaniacal quest to slay the White Whale
  - Chapter 54: "The Town-Ho's Story"
  - Chapter 71: "The Jeroboam's Story"
  - Chapter 32: "Cetology"
  - Chapter 57: "Of Whales in Paint; in Teeth; in Wood; in Sheet-Iron; in Stone; in Mountains; in Stars"
  - Chapter 59: "Squid"
  - Chapter 79: "The Prairie"
  - Chapter 82: "The Honor and Glory of Whaling"
  - Chapter 83: "Jonah Historically Regarded"
  - Chapter 92: "Ambergris"
  - Chapter 104: "The Fossil Whale"
  - And many more
- Other lengthy works of his are not widely read, to put it mildly
  - *Clarel*, Lewis Mumford, 1924, NYPL
- There's no hard and fast length limit, but readers may not get to the end of a long research statement

# Some aspects of Melville's writing

## Complex sentence structure ☹️



- First chapter of *The Confidence-Man: His Masquerade* has 15 paragraphs. Seven are one long sentence, four are two long sentences.
- Paragraph four, Chapter 1: “As if it had been a theatre-bill, crowds were gathered about the announcement, and among them certain chevaliers, whose eyes, it was plain, were on the capitals, or, at least, earnestly seeking sight of them from behind intervening coats; but as for their fingers, they were enveloped in some myth; though, during a chance interval, one of these chevaliers somewhat showed his hand in purchasing from another chevalier, ex-officio a peddler of money-belts, one of his popular safe-guards, while another peddler, who was still another versatile chevalier, hawked, in the thick of the throng, the lives of Measan, the bandit of Ohio, Murrel, the pirate of the Mississippi, and the brothers Harpe, the Thugs of the Green River country, in Kentucky—creatures, with others of the sort, one and all exterminated at the time, and for the most part, like the hunted generations of wolves in the same regions, leaving comparatively few successors; which would seem cause for unalloyed gratulation, and is such to all except those who think that in new countries, where the wolves are killed off, the foxes increase.”
- Don't do this

## From Melville to some modern greats: Analyzing specific research statements

- **Thank you** to the people who generously provided their statements!
- Good vibes only
- Many different ways to write a strong research statement. We'll see some (not all) of them in the following.

Questions?

Thank you!