Gender bias in cover letters (CL) / letters of recommendation (LoR) *plus* Best practices for cover letters and job applications
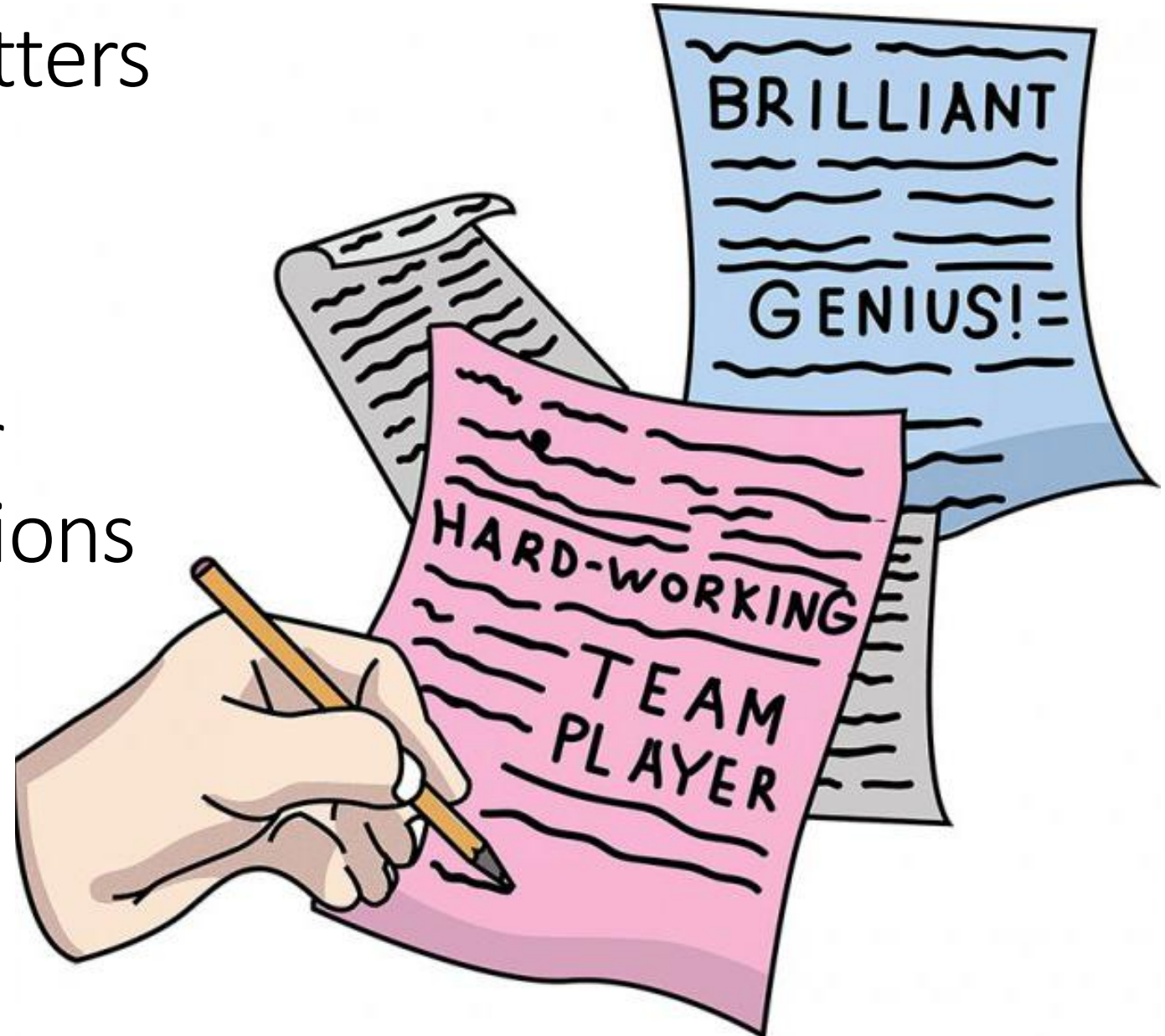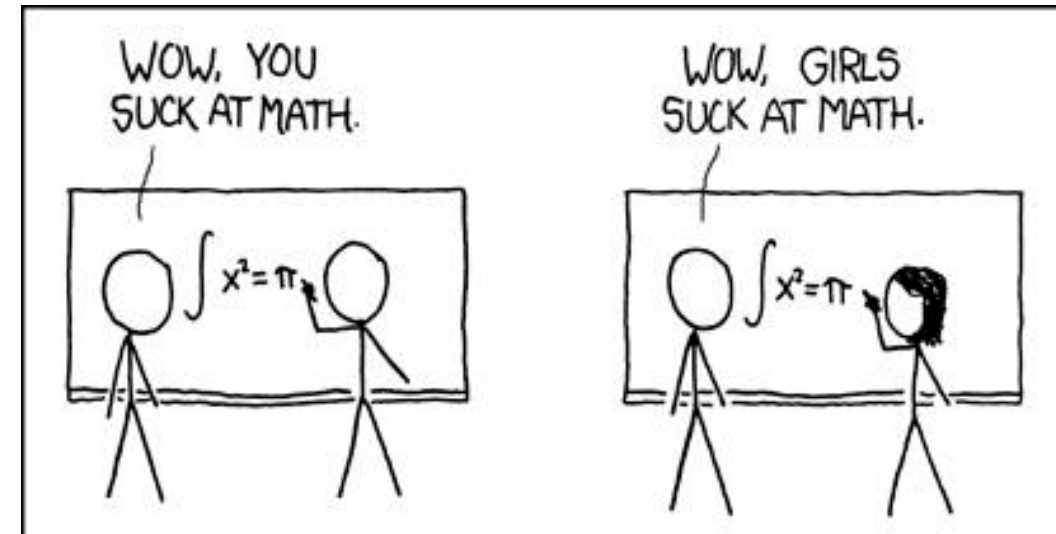
Ava Hoffman,

PhD Candidate

Writer of cover letters

Resume agonizer extraordinaire

Ponder with your neighbors:

- What is your favorite word (words) to describe why you are the best candidate?
- How might these words vary when talking about men compared to women?

Bias favoring men in LoR writing has been well documented in science (and elsewhere)

Gender differences in recommendation letters for postdoctoral fellowships in geoscience

Kuheli Dutt[1]*, Danielle L. Pfaff[2], Ariel F. Bernstein[2], Joseph S. Dillard[2] and Caryn J. Block[2]

Gender disparities in the fields of science, technology, engineering and mathematics, including the geosciences, are well documented and widely discussed[1,2]. In the geosciences, despite receiving 40% of doctoral degrees, women hold less than 10% of full professorial positions[3]. A significant leak in the pipeline occurs during postdoctoral years[4], so biases embedded in postdoctoral processes, such as biases in recommendation letters, may be deterrents to careers in geoscience for women. Here we present an analysis of an international data set of 1,224 recommendation letters, submitted by recommenders from 54 countries, for postdoctoral fellowships in the geosciences over the period 2007–2012. We examine the relationship between applicant gender and two outcomes of interest: letter length and letter tone. Our results reveal that female applicants are only half as likely to receive excellent letters versus good letters compared to male applicants. We also find no evidence that male and female recommenders differ in their likelihood to write stronger letters for male applicants over female applicants. Our analysis also

Table 1 | Recommendation letters by gender.

	Female applicant	Male applicant	Total
Female recommender	67	81	148
Male recommender	295	781	1,076
Total	362	862	1,224

selection processes, as they contribute to the overall perception of a candidate's 'fit' for a position and often provide the first impression of the applicant[12,13]. Further, recommendation letters offer personal information about the candidate, and due to the subjective nature of these letters, the biases of the writer are more likely to surface[11,14,15]. Implicit biases can surface via the way applicants are described in recommendation letters, with women being described as less confident and forceful, and more nurturing and helpful than men[12], and receiving fewer 'standout' adjectives such as superb and brilliant, and more 'grindstone' adjectives such as hardworking and

A Linguistic Comparison of Letters of Recommendation for Male and Female Chemistry and Biochemistry Job Applicants

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Abstract

Letters of recommendation are central to the hiring process. However, gender stereotypes could bias how recommenders describe female compared to male applicants. In the current study, text analysis software was used to examine 886 letters of recommendation written on behalf of 235 male and 42 female applicants for either a chemistry or biochemistry faculty position at a large U.S. research university. Results revealed more similarities than differences in letters written for male and female candidates. However, recommenders used significantly more standout adjectives to describe male as compared to female candidates. Letters containing more standout words also included more ability words and fewer grindstone words. Research is needed to explore how differences in language use affect perceivers' evaluations of female candidates.

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Bias favoring men in LoR writing has been well documented in science (and elsewhere)

These biases may also spill over into your cover letters/resumes (as well as information you give to your recommendation writers!)

Raising awareness of different language used to describe ourselves and/or our female colleagues can be quite successful.

nature geoscience

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First activity

- Write 1-2 sentences about something you are really proud of, that you are likely to include in a cover letter.

- Pair up with a partner and discuss one of their accomplishments. Write 1-2 sentences about your friend as if you were recommending them for a job.

- **Certain words are often associated with male versus female CL / LoR. Here is a tool where you can paste your letter and see those words pulled out.**

    http://slowe.github.io/genderbias/

- Paste your phrases into the online tool to see if there are any words you might want to change (no need to share results with anyone).

Take-homes from the UofA sheet

- Mention research & publications

- Don't cut letters short for women – you are AWESOME!

- Emphasize accomplishments, not effort

- Keep it professional – no one needs to know about personal life

- Stay away from stereotypes

- Be careful raising doubt - "s/he responds well to feedback"
- We all share bias !

Avoid grindstone words if possible. They imply that women succeed more through effort than ability.

Instead of: "I worked very hard and carefully on my dissertation manuscript/senior thesis"

Try: "I performed insightful research for my dissertation manuscript/senior thesis"

Avoid gender stereotypes – research has shown that 'nurturing' words can make someone appear less qualified.

Instead of: "Ava cares about her work and the needs of others around her who need help"

Try: "Ava is knowledgeable, resourceful, and a pleasure to work with"

Avoid gender stereotypes – research has shown that 'nurturing' words can make someone appear less qualified.

Instead of: "I am quite gifted interpersonally: I am easy to get along with and quick to understand social situations"

Try: "I am a gifted leader: my expertise makes scientific collaborations productive and insightful"

Most of us have contributed to this bias!

Me, circa 2011→

To Whom It May Concern:

I was very excited to discover your biology lab assistant opening on conservation genetics and agricultural science, and have been looki have extensive field and laboratory experience, including but not li employment and wet lab research through my university.

I have a ==very strong work ethic and work well alone or in teams==. As conducted independent research on genetic techniques (earning a d curiosity and willingness to contribute to my field. My thesis resear

Female | Male / Neutral?

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From the research:

Female

Stereotypes:
affectionate
caring
compassionate
emotionally
helpful
interpersonal
kind
nurturing
tactful
warm

Grindstone words:
careful
conscientious
dedicated
dependable
diligent
hard-working
meticulous
teacher
training

Stuff about personal life:
avid skier
family
friends
captivating yet self-deprecating stories about
research experiences

Male / Neutral?

Ability traits:
able
accomplished
analytical
brilliant
discerning
capable
fair
inquisitive
insightful
Intellectual
knowledgeable
logical
objective
resourceful
skilled
smart
successful
talented

Standout adjectives:
excellent
outstanding
superb
unique
unparalleled

Others:
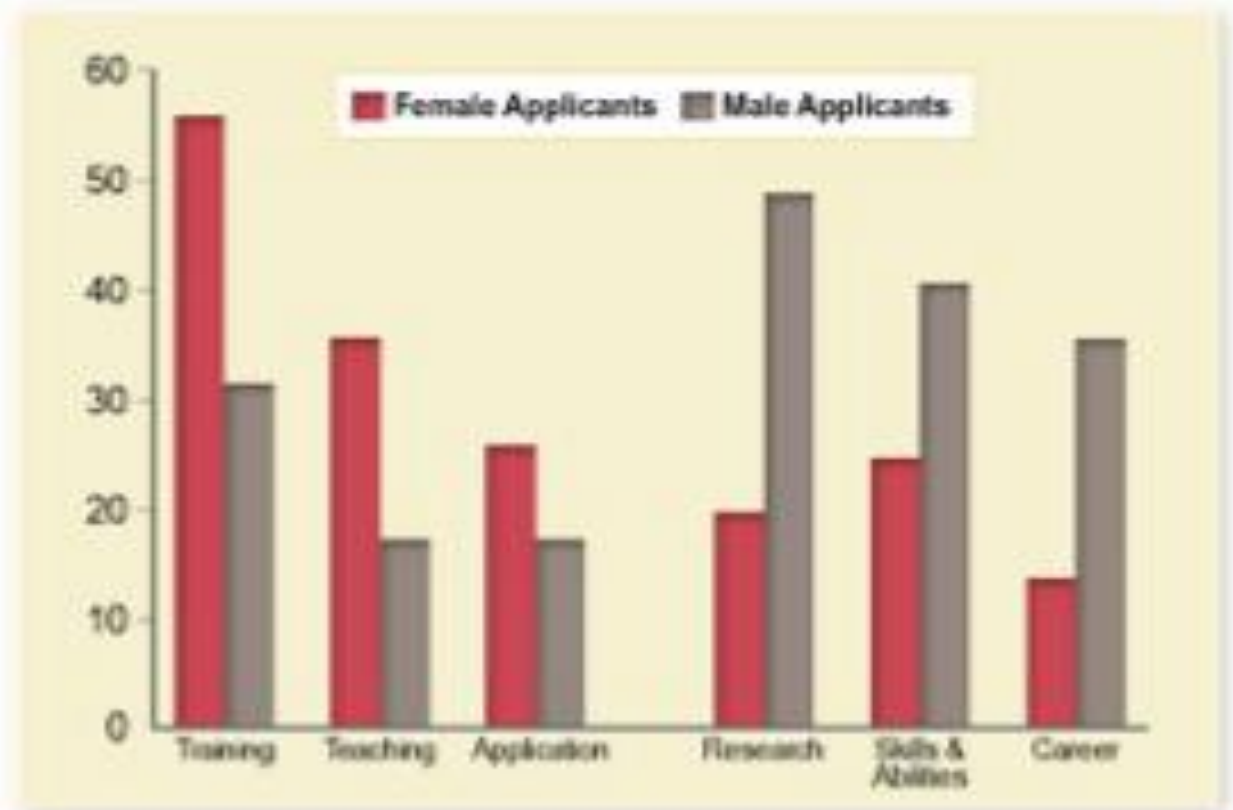Research
Publication(s)
Career

Agentic adjectives:
ambitious
certain
confident
dominant
independent

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What makes a good manager?

Male (71%):
Self-confident
Desire responsibility
Industrious
Assertive
Consistent
Logical
Firm
Aggressive
Steady
Skilled in business matters
Vigorous
Emotionally stable
Forceful
Analytic ability
Direct
Frank

Female (10%):
Curious
Helpful
Intuitive
Creative
Understanding
Neat
Aware of others' feelings
Vulgar (less)

Dr. Bian Welle. Director of People Analytics, Google:
www.gv.com/lib/unconscious-bias-at-work

Female Applicants   Male Applicants

Training Teaching Application Research Skills & Abilities Career

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Table 2 | Summary of coding scheme.

	Overall tone	Individual comments
Excellent	Reflected the applicant's potential as a top-notch scientist; stated that the applicant was superior to other students; and/or praised the applicant for conducting novel or groundbreaking research, and/or being a scientific leader and role model	Examples: 'scientific leader'; 'brilliant scientist'; 'one of the best students I've ever had'; 'trailblazer'; and 'role model'. Also, references to accomplishments, such as publications, conference presentations, and awards/honours
Good	Provided clear praise and portrayed the applicant as a solid scientist doing good/very good work, yet were less likely to declare the applicant as comparatively superior to others or praise the applicant's potential to become a scientific leader or role model	Examples: 'highly intelligent'; 'very productive'; 'thorough understanding of the subject matter'; 'very knowledgeable'; and 'very good skill set'. Also, comments that serve as an acknowledgement of the applicant's knowledge/familiarity with the subject matter, for example, 's/he worked on X project'; 's/he has taken courses in Y subject'
Doubtful	Questioned the applicant's calibre as a scientist, and expressed uncertainty that the applicant would become a successful scientist	Examples: 'I haven't worked directly with him/her'; 'I haven't seen any leadership skills'; 'I don't think s/he will make a top-notch scientist'; 'I don't know him/her very well'.

Table 4 | Letter tone by applicant gender.

	Excellent	Good	Doubtful	Total
Female applicant	53 (15%)	302 (83%)	7 (2%)	362
Male applicant	203 (24%)	635 (73%)	24 (3%)	862
				1,224

Dutt et al. 2016

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Follow-up activity

- Re-write your sentences with what you now know.

- Did your sentences change? How?

- Did the online gender bias tool give you different results?

- What type of language do you know you need to avoid?

- http://slowe.github.io/genderbias/

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- "Excel resume / CV" – keep tabs on all your accomplishments. Specific examples look great in cover letters.

Item	Date	Category	Skills
Sigma Xi Grant	Oct-14	Grants	Grant writing, scientific writing, budget writing
Summit Plant Labs	Oct-14	Collab	Negotiation, willingness to collaborate
Peer review for Journal Of Ecology	Jan-15	Review	Scientific writing, critical reading skill, analysis of intellectual merit and impact
Tutor for Life 102	Aug-15	Teaching	Leadership, researching topics, communication of difficult material, thorough understanding of subjects
Senior thesis	Oct-15	Research	Experimental skills, literature review, coding skills in Excel/R, laboratory management

- Your dream job may have specific language associated with that career path. **Use words directly from the job posting in your cover letter or resume/CV**.
- There are TONS of free templates for resumes/CVs out there. Find an elegant one!
- Model your resume or CV after someone you look up to.

Optional homework

- Have your mentor or colleague proofread your resume/CV to make sure you have the right amount of detail. Make sure you aren't downplaying any of your accomplishments.

- **Make your website!** (Github, Weebly, Wix, Google.. Tons of free hosting out there)

- Glassdoor worksheets →

PART 1: *Find & Include Keywords*

Many companies will have an applicant tracking system scan your resume to make sure you're a decent fit before having a human spend time looking at it. Scan the job description for skills, qualities, and other keywords that keep popping up. Write the most predominant ones in the left column. Then, write a bullet describing your experience that incorporates that keyword.

Keyword in Job Description	Applying it to My Experience

WORKSHEET: Cover Letter Building Blocks

Use the prompts below to generate all the important information for your cover letter. Once you fill these out, piecing together your cover letter using the template above should be a breeze!

What drew you to this job?	Why are you excited about the company?
What are they looking for? (Pull this from the job description.)	What experiences / accomplishments demonstrate that you have those things?
If hired, how would you contribute to the company?	In one sentence, why are you the best fit for the job?

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HOW TO GET A JOB: A JOB SEEKER'S TOOL!