Discussion of reading 1: Road to tenure
Questions from brainstorming last week

1. What is your day-to-day activities on the job? Who do you interact with? Are there many opportunities for collaboration?

2. What was your path to your current job? Would you do it again?

Questions about interview process

3. What is the extent of your job security?

4. Senior researchers: how do you stay motivated?

5. International: How does your position differ from that in the United States?

6. What are the options for advancement within/outside organization (e.g. lab to university)? Where do you see yourself in 10 years?

7. What aspects are frustrating or rewarding in your job?
New topic: Writing effectively
Importance of writing

“You may be told by well-meaning colleagues that it makes no difference how you write in a grant application. ‘The science will shine through.’ Nothing could be farther from the truth! How you write can make a great deal of difference in the relative fundability of your grant application.”

From page 23 of “The grant application writers workbook”
To ensure that your reviewers understand clearly what you intend to do, you must write with maximal clarity and precision. Every word must be the right word .... Every sentence must be crafted to convey exactly the message that you want to impart ... Every paragraph must flow logically out of the ones that have preceded it, so that the story builds clearly and vividly in the mind of the reviewer. It takes time and effort to write this way.

From page 23 of “The grant application writers workbook”
First step: make sure you know basic punctuation

This section is adapted from Schultz appendix A
Punctuation: commas

Insert commas where appropriate:

1. To obtain good performance of the device requires careful calibration.
2. Storms east of New Zealand are embedded in a stronger more zonal flow than those to the west.
3. However the maximum possible density is…
4. Critics of the war plan now being executed by the U.S. military are…
5. Freddy who has a limp was in an auto accident.

This section is adapted from Schultz appendix A
Basic terminology needed to follow the next few slides

- **Clause:** Group of related words having at least a subject and a verb e.g. “the boy hit the bus”
- **Independent clause:** Can stand alone e.g. “the boy hit the bus”
- **Dependent/subordinate clauses:** Can’t stand alone e.g. “when I get home”
- **Phrase:** Group of related words that do not have both a subject and a verb e.g. “the boy on the bus”
When to use commas

Commas join two independent clauses

Example

• The low-resolution model captured the storm structure, and the high-resolution model captured the gust front.
When to use commas

Commas can be used to separate parenthetical or nonrestrictive modifying phrases from the rest of the sentence

Examples

• The applicability of the approach to nonlinear waves, in which the amplitude is large, is questionable.
When to use commas

Commas can be used to separate items in a list

Examples

• Section 2 summarizes the numerical model, simulation methods, and analysis methods.
When to use commas

To separate introductory words, phrases or clauses from the rest of the sentence

1. Use a comma if you can remove the word, phrase or clause and the sentence still makes sense
2. Optional if 3 words or less, but necessary after “however”, “therefore”, “for example”.

Examples

• For example, the highest building is the Green building.
• Choosing a structure for the wavelet is crucial for success.
• On February 14 many couples give each other flowers.
• On February 14, many couples give each other flowers.
When to use commas

Commas can be used to separate adjectives or adjective phrases (use a comma if the word “and” could be used to separate them)

Examples

• He is a strong, healthy man.

• He stayed at an expensive summer resort.
Summary: when to use commas

1. To join two independent clauses
2. To separate parenthetical or nonrestrictive modifying phrases from the rest of the sentence
3. To separate items in a list
4. To separate introductory words, phrases or clauses from the rest of the sentence
5. To separate adjectives or adjective phrases (use a comma if the word “and” could be used to separate them)
Punctuation: commas

Insert commas where appropriate:

1. To obtain good performance of the device requires careful calibration.
2. Storms east of New Zealand are embedded in a stronger, more zonal flow than those to the west.
3. However, the maximum possible density is…
4. Critics of the war plan now being executed by the U.S. military are… (or an unlikely alternative of “Critics of the war plan, now being executed by the U.S. military, are….”)
5. Freddy, who has a limp, was in an auto accident.
Insert hyphens where appropriate:

1. cause and effect relationship
2. 700, 500, and 300 hPa temperatures
3. widely used algorithm
4. reexamine/re-examine the evidence
5. he was exmilitary/ex-military

This section is adapted from Schultz appendix A
When to use hyphens

1. Compound words *(next slide)*

2. In between numbers not representing a range *(MA 02108-3693)*

3. Splitting up words across a line break
When to use hyphens in compound words

• Spelled-out numbers (“twenty-nine”)

• Phrases connected together as modifiers (“cloud-to-ground lightning”, “lower- and upper-level velocities”)

• Single captial letters joined to nouns (“H-factor”)

• Values and units if they modify a noun (“500-hPa wind” versus “the wind at 500hPa”)

• To clarify meaning when using prefixes (“re-count” versus “recount”)
When not to use hyphens in compound words

- Adverbs ending in -ly do not need to be hyphenated ("widely known equation" versus "well-known equation")

- Do not hyphenate prefixes unless the word is a proper noun, three of the same consonant would appear together, or the prefix is ex- ("reinvestigation", "trans-Atlantic", ‘shell-like’, “ex-hurricane”)
Insert hyphens where appropriate:

1. cause-and-effect relationship
2. 700-, 500-, and 300-hPa temperatures
3. widely used algorithm
4. reexamine the evidence
5. he was ex-military
See Schultz Appendix A for more on commas, hyphens (−), en dashes (–), and em dashes (——)
Reading 2: Background on writing

Schultz, Eloquent science (pdf available at MIT libraries)

Section 4.2: Nonlinear reading
Section 5: Motivation to write
Section 6: Brainstorming
Section 7: Accessible writing
Sections 15.2 an 15.3: Plagiarism

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