## Strengthening sentences

- Clear language helps reader understand logic
- Do not worry about writing strong sentences
  - Write sentences as they come to you
    - (or as translation software spits them out)
  - Strengthen sentences during editing!

#### Language: clear

- say what you mean
- don't say what you don't mean
- avoid ambiguity, which can arise with poorly chosen words
  - jargon
  - pronouns ("this" "that" and "it" drive me crazy!)
    - Never use "This" without an immediate noun; same with "It is"
  - position of modifiers (e.g., make sure "only" modifies the right word)
- keep to the simplest words and sentences that do the job, without too many:
  - Syllables
  - Words
  - Prepositions
  - Semicolons
  - ideas

### Quantify comparisons

- The mass of galaxy A is different than the mass of galaxy B
- Galaxy A is more massive than galaxy B
- Galaxy A is three times more massive than galaxy B

Quantify comparisons when possible

### Language: concise and fluid

#### Concise

- establish importance
- eliminate excessive detail, repetition, and redundancy
- attention to wordiness and run-on sentences
- no lethargic sentences that just don't go anywhere
- Limit clauses: subject/verb/object+1 clause max

#### Fluid / Fluent

- smooth
- not stagnant or discontinuous (transitions!)
- combine related ideas
- use parallel structure
- move from common ground to the unfamiliar/beyond

# Not all mechanical/usage errors bother readers in the same way

Errors that disturb

run-on sentence
affect/effect
its/it's
spelling errors (overleaf identifies spelling & some
grammatical errors! Also use Grammarly/ChatGPT!)

 Errors that distract missing intro comma faulty parallelism unclear pronoun reference (what does "This" refer to) subject-verb disagreement incorrect verb tense

Errors that few notice

different from/than
compare with/to
contractions
split infinitives ("To quickly read"; "quickly" splits)

#### Language: active versus passive

- Do not use: "It is", "there are" (some rare exceptions)
- Your sentences have subjects!
- Action verbs are more descriptive
- Avoid "we" (not at all costs): your subject is science, not the scientists
  - Challenging to have an active voice without "we"
  - Balance needs is difficult

From my 6<sup>th</sup> grade class with Mrs. Bloomgarden, the following verbs are boring and inactive:

Be am is are was were been have has had can could shall should will would may might must doing having seen become look appear do does did and done

## Active versus passive voice

Active: The dog chased the ball.

Passive: The ball was chased by the dog.

# Ineffectual phrases

- Note that
  - Worse: "It should be noted that"
  - If something should be noted, it's in the paper. If something shouldn't be noted, it's not in the paper.
- It is important to realize
  - If an idea is important, do not tell me it's important, explain why it's important
- So-called (sometimes I like this, but it's snarky)

These are all pointless phrases and should be deleted (but we all have our own style, so sometimes it's ok)

## **Emphasis of Important Points**

- Repetition without redundancy
- Short sentences, dashes, colons
  - Sometimes a short sentence stands out
- Dependent clauses, subordination
- Lists items!
  - Bullets (\itemize) can be ok
  - Order as (1), (2), (3) or (a), (b), (c)
    - Parallelism: Discuss items in same order!
- Figures / Tables
  - Also their placement in the text

#### Numbers

- Write out integer numbers <11 (six, ten)</li>
- Write numbers >10 as numbers (11, 888)
- Write out the number if at the beginning of a sentence (but try to avoid that)

## That/which

- That: if the clause is necessary to understand the preceding noun. No comma
  - Brad's sweater that has fancy elbow pads was a birthday gift from his sister.

- Which: if the clause is not necessary. Use a comma.
  - Stacy's truck, which is painted red, has a dent in the back bumper.

# Affect/effect

- Effect: usually a noun
  - Special effects
  - This effect applies to clouds that are forming high mass stars
  - Effect as a verb: someone trying to "effect change"
- Affect: usually a verb
  - The AGN affects the nearby cloud by....
  - Affect as a noun: Affect \sim demeanor

#### Parallel Structure in lists

- Weiyang likes hiking, swimming, and to ride a bicycle
- ⇒Weiyang likes hiking, swimming, and riding a bicycle Or
- ⇒Weiyang likes to hike, (to) swim, and (to) ride a bicycle

Also important in addressing topics: parallel sentence structures for similar ideas

#### **Avoiding Common Errors of Punctuation**

Punctuation marks are the traffic signs and signals placed along the reader's road. They tell him when to slow down and when to stop, and sometimes they warn him of the nature of the road ahead. Traffic engineers do not always agree on what signs should be used and where they should be placed, and neither do writers or editors.

Theodore M. Bernstein, The Careful Writer

# Punctuation rules are designed to have sentences be read one way

- Colon: introduces a formal list, long quotation, equation, or definition.
- Semi-colon: separates complex items in a list
- Semi-colon: a semi-colon either joins two independent clauses (closely linked in thought)
  - Common saying: you can use a semi-colon six times in your life. Do you want this to be one of them?
  - Personally, I like semi-colons, but they are difficult to use.
- Comma: a comma separates details in a sentence.
  - In a complex sentence, if you have two distinct subjects, use a comma before the "and";
  - if subject is the same for both verbs, do not use a comma
- Dash: acts as parenthesis to separate items that cannot be separated by a comma