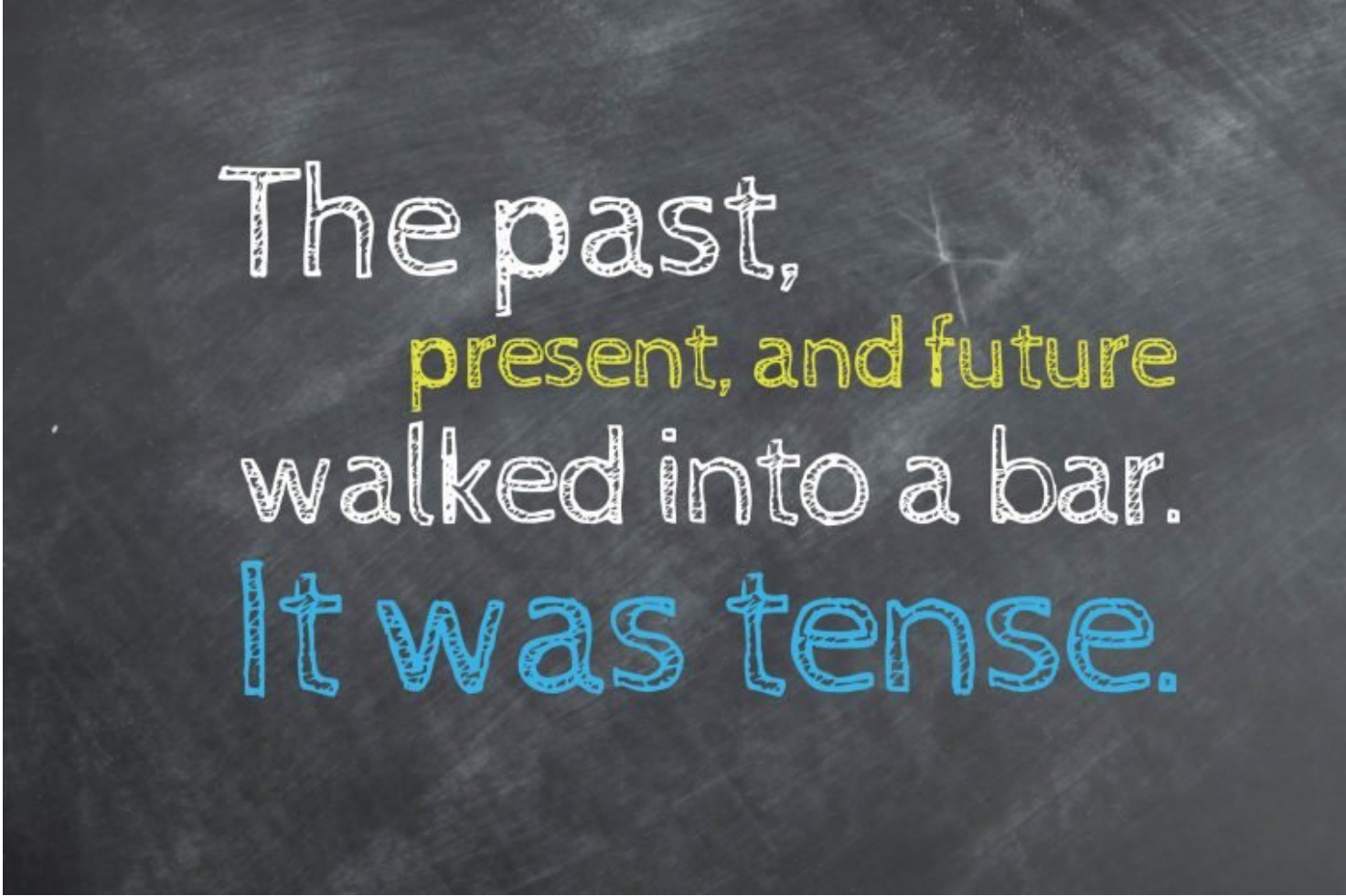# Sentences

The past,
present, and future
walked into a bar.
It was tense.

Sentences

- Name a few "rules" of grammar that you have been told.

Sentences

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- Most of them are bogus!

- The purpose of grammar is to help you achieve clarity in your writing.

Sentences

- Name a few "rules" of grammar that you have been told.

- Most of them are bogus!

- The purpose of grammar is to help you achieve clarity in your writing.

- That said, there is agreed upon structure – no Yoda speak for example.

Sentences

- Three typical classes of rule violations:

    1) Violations that disrupt meaning

    2) Violations that sound unprofessional

    3) Violations that enhance the writing

Sentences

1) Violations that disrupt meaning

- After thorough washing with Eliminase, epibionts were scraped from the kelp and processed for DNA amplification and sequencing.

Sentences

2) Violations that sound unprofessional

- Mountain building geoscientists focus their data collection on…

- Having been placed in an oven at 575 degrees, we dried the sample for 3 hours.

- Empirical ground motion seismic attenuation data

Sentences

2) Violations that sound unprofessional

- Mountain building geoscientists focus their data collection on…

- Having been placed in an oven at 575 degrees, we dried the sample for 3 hours.

- **Empirical data on seismic attenuation from ground motion studies**

Sentences

3) Violations that enhance the writing

- Rule – infinitive form of a verb (to write, to wash) shouldn't be interrupted by modifying words.

    - "it is important to wash the scraper thoroughly" not "it is important to thoroughly wash the scraper"

Sentences

3) Violations that enhance the writing

- Rule – infinitive form of a verb (to write, to wash) shouldn't be interrupted by modifying words.
    - "it is important to wash the scraper thoroughly" not "it is important to thoroughly wash the scraper"
    - Sometimes it's worth breaking: "to boldly go where no man has gone before" vs "to go boldly where no man has gone before"

Sentences

- Tense – how many are there?

Sentences

- Tense – how many are there? **FREAKING 12!**

    - I wrote, I write, I will write (past, present, future)

    (duration not important)

Sentences

- Tense – how many are there? **FREAKING 12!**

  - I wrote, I write, I will write (past, present, future)

  - I was writing, I am writing, I will be writing (past, present, future progressive)

  (actions ongoing though time)

Sentences

- Tense – how many are there? **FREAKING 12!**

  - I wrote, I write, I will write (past, present, future)

  - I was writing, I am writing, I will be writing (past, present, future progressive)

  - I had written, I have written, I will have written (past, present, future perfect)

  (completed actions)

Sentences

- Tense – how many are there? **FREAKING 12!**

    - I wrote, I write, I will write (past, present, future)

    - I was writing, I am writing, I will be writing (past, present, future progressive)

    - I had written, I have written, I will have written (past, present, future perfect)

    - I had been writing, I have been writing, I will have been writing (past, present, future perfect progressive)

    (combines passage of time with completed)

Sentences

- Tense – how many are there? **FREAKING 12!**

    - I wrote, I write, I will write (past, present, future)

    - I was writing, I am writing, I will be writing (past, present, future progressive)

    - I had written, I have written, I will have written (past, present, future perfect)

    - I had been written, I have been written, I will have been written (past, present, future perfect progressive)

- AVOID TOO MANY TENSE SHIFTS

Sentences

- Tense – how many are there? **FREAKING 12!**

  - I wrote, I write, I will write (past, present, future)

  - I was writing, I am writing, I will be writing (past, present, future progressive)

  - I had written, I have written, I will have written (past, present, future perfect)

  - I had been written, I have been written, I will have been written (past, present, future perfect progressive)

- AVOID TOO MANY TENSE SHIFTS

  - Methods – simple past (mostly)

  - Results – simple past and present – "…stars had greater mass…" and "This difference is significant…"

Sentences

- Tense – how many are there? **FREAKING 12!**

  - I wrote, I write, I will write (past, present, future)

  - I was writing, I am writing, I will be writing (past, present, future progressive)

  - I had written, I have written, I will have written (past, present, future perfect)

  - I had been written, I have been written, I will have been written (past, present, future perfect progressive)

- AVOID TOO MANY TENSE SHIFTS

  - Intro – past perfect progressive (indicate study over time) and simple present (indicate current understanding)

  - Discussion – mix

Sentences

- Voice

- active vs passive

- "I felled ten trees" vs "Ten trees were felled"

- Distinguished science gentleman vs Knowledge with no trace of knower

Sentences

- Voice

- active is fine because:

    - It's shorter

    - It's easier to read

    - It's more engaging

    - It's more vivid (forces action packed verbs)

    - It's more honest

Sentences

- Voice

- passive is useful for:

  - Directing attention

  - Obscuring the actor

  - Avoiding a complex subject

Sentences

- Sentence Complexity
- Strategies for keeping complex sentences effective:
    1) Pay attention to simple core
    2) Work with readers expectations and cognitive biases
    3) Limit the complexity

Sentences

1) Pay attention to simple core

   - "Research directed at understanding influence of tree stresses on attack rates by wood-boring insects are extremely important ."

Sentences

2) Work with readers expectations and cognitive biases

    - Keep actions and actors close/clear

"Three results – that wounded trees were attacked by more insects, that this pattern was stronger at sparsely forested sites, and that more insects emerged from trees on the downwind side of the plots – suggest that females use plant volatiles to find hosts"

Sentences

2) Work with readers expectations and cognitive biases

    - Keep actions and actors close/clear

"Three results suggest that females use plant volatiles to find hosts: wounded trees were attacked by more insects, this pattern was stronger at sparsely forested sites, and more insects emerged from trees on the downwind side of the plots."

Sentences

2) Work with readers expectations and cognitive biases

    - *Topic* and **stress** positions

"We used high-performance liquid chromatography to analyze reaction products. We used a Kinetex XB-C18 reverse-phase column for speration and UV absorbance to detect separated compounds. A 10% to 90% water/acetonitrile blend (20 min linear gradient) was the mobile phase. We added 10 uL of 0.1 mM phenylbutazone to each sample to serve as a run-time standard."

Sentences

2) Work with readers expectations and cognitive biases

- *Topic* and **stress** positions

"*We analyzed reaction products* using **high-performance liquid chromatography**. *Separation* was performed on a Kinetex XB-C18 **reverse-phase column** and *detection* was by **UV absorbance**. *The mobile phase* was a water/acetonitrile blend with a 20 min linear **gradient from 10% to 90% acetonitrile**. *To provide a run-time standard*, we spiked each sample with 10 uL of 0.1 mM **phenylbutazone**"

Sentences

3) Limit the complexity

    - Avoid noun strings – "artic troposphere ozone depletion measurements"

Sentences

3) Limit the complexity

    - Avoid a land rush – "Intense bursts of gamma rays that last up to several minutes have been observed during the past three decades and produce an optical afterglow believed to be synchrotron radiation from an expanding ultrarelativistic blast wave whose exact source geometry and emission mechanism is unknown but can be constrained by accurate optical polarization measurements. "

Sentences

3) Limit the complexity

    - Avoid a land rush – "Intense bursts of gamma rays that last up to several minutes have been observed by many astonomers during the past three decades. When an optical afterglow is observed following such gamma-ray bursts (GRBs), they are interpreted to be synchrotron radiation from an expanding ultrarelativistic blast wave. The exact source geometry and emission mechanism for this blast wave remain unknown, but can be constrained by accurate optical polarization measurements. "

Today's workshop

Paragraph markup

- Choose a passage from a methods section and change the voice. Which is longer? Easier to read?
- Choose a long sentence from a methods section (> 35 words).
    - Rewrite as a series of short sentences.
    - Less clear or more clear?