

# Scientific Writing, HRP 214

- "In science, the credit goes to the man who convinces the world, not to the man to whom the idea first occurs."  
--Sir William Osler

# Scientific Writing, HRP 214

- "Writing is an art. But when it is writing to inform it comes close to being a science as well."
- --Robert Gunning, *The Technique of Clear Writing*

# Scientific Writing, HRP 214

- Lecture One: Introduction
- What makes good writing?
- What does it take to be a good writer?

# Scientific Writing, HRP 214

## ■ What makes good writing?

- 1. Good writing communicates an idea clearly and effectively.
- 2. Good writing is elegant and stylish.

Takes having something to say and clear thinking.

Takes time, revision, and a good editor!

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- What makes a good writer?
  - Inborn talent?
  - Years of English and humanities classes?
  - An artistic nature?
  - The influence of alcohol and drugs?
  - Divine inspiration?

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What makes a good writer (outside of poets, maybe):

- Having something to say.
- Logical and clear thinking.
- A few simple, learnable rules of style (the tools we'll learn in this class).

**Take home message: Clear, effective writing can be learned!**

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How much can you improve your writing in one short quarter?

- A lot!
- In addition to taking this class, other things you can do to become a better writer:
  - Read, pay attention, and imitate.
  - Let go of “academic” writing habits (deprogramming step!)
  - Talk about your research before trying to write about it.
  - Develop a thesaurus habit. Search for the right word rather than settling for any old word.
  - Respect your audience—try not to bore them!
  - Stop waiting for “inspiration.”
  - Accept that writing is hard for everyone.
  - Revise. Nobody gets it perfect on the first try.
  - Learn how to cut ruthlessly. Never become too attached to your words.
  - Find a good editor!

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## Reading list

**\*\*Read, pay attention, and imitate.**

**My favorite sources of good writing...**

- *The New Yorker*
- *The New York Times*
  - *How many read the NY Times Tuesday Science section?*
- *Nature*
- *Science*
- Expect to see examples from these sources throughout this course!



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- Clear writing starts with clear thinking.

# Scientific Writing, HRP 214

Before you start writing, ask:

“What am I trying to say?”

- When you finish writing, ask:

“Have I said it?”

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Once you know what you're trying to say,  
then pay attention to your words!

Today's lesson: Strip your sentences to just  
the words that *tell*.

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- ***The Elements of Style*, William Strunk Jr.** (available online at: <http://www.bartleby.com/141/>):
- “Vigorous writing is concise. A sentence should contain no unnecessary words, a paragraph no unnecessary sentences, for the same reason that a drawing should have no unnecessary lines and a machine no unnecessary parts. This requires not that the writer make all his sentences short, or that he avoid all detail and treat his subjects only in outline, but that every word tell.”

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- “The secret of good writing is to strip every sentence to its cleanest components. Every word that serves no function, every long word that could be a short word, every adverb that carries the same meaning that’s already in the verb, every passive construction that leaves the reader unsure of who is doing what—these are the thousand and one adulterants that weaken the strength of a sentence. And they usually occur in proportion to the education and rank.”
- -- William Zinsser in *On Writing Well*, 1976

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## ■ Famous Example:

- “Such preparations shall be made as will completely obscure all Federal buildings and non-Federal buildings occupied by the Federal government during an air raid for any period of time from visibility by reason of internal or external illumination.”
- (from a government blackout order in 1942)

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- FDR's response:

- “Tell them that in the buildings where they have to keep the work going to put something across the windows.”

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## ■ Example 2:

- “Objective consideration of contemporary phenomena compels the conclusion that success or failure in competitive activities exhibits no tendency to be commensurate with innate capacity, but that a considerable element of the unpredictable must invariably be taken into account.”

*(example by George Orwell; quoted in Sin and Syntax)*



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## ■ Example 2:

- “I returned and saw under the sun, that the race is not to the swift, nor the battle to the strong, neither yet bread to the wise, nor yet riches to men of understanding, nor yet favor to men of skill; but time and chance happeneth to them all.”

*(Ecclesiastes)*

# Help!

- This was the first sentence of a recent scientific article in the *Journal of Clinical Oncology* (Introduction section):
- “Adoptive cell transfer (ACT) immunotherapy is based on the ex vivo selection of tumor-reactive lymphocytes, and their activation and numerical expression before reinfusion to the autologous tumor-bearing host.”
- Aaaccckkkk!!!! That sentence does not make me want to read on...

# And here's the final sentence from the same article...

- “Current studies in our laboratory are focused on the logistical aspects of generating autologous-cell based patient treatments, the genetic modification of lymphocytes with T-cell receptor genes and cytokine genes to change their specificity or improve their persistence, and the administration of antigen specific vaccines to augment the function of transferred cells.”
- This is academic writing at its finest: boring, unreadable, written to *obscure* rather than to inform!!

## Another example: A sentence from *Photochemistry and Photobiology*...

- “These findings imply that the rates of ascorbate radical production and its recycling via dehydroascorbate reductatse to replenish the ascorbate pool are equivalent at the lower irradiance, but not equivalent at higher irradiance with the rate of ascorbate radical production exceeding its recycling back to ascorbate.”

## Another example: A sentence from *Photochemistry and Photobiology*...

- “These findings imply that the rates of ascorbate radical **production** and its **recycling** via dehydroascorbate reductatse to replenish the ascorbate pool are equivalent at the lower irradiance, but not equivalent at higher irradiance with the rate of ascorbate radical **production** exceeding its recycling back to ascorbate.”

After much work on my part, I translated this too...

- “These findings imply that, at low irradiation, ascorbate radicals are produced and recycled at the same rate, but at high irradiation, ascorbate radicals are produced faster than they can be recycled back to ascorbate.”

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Today's introduction to writing well:

Words:

- 1. Reduce dead weight words and phrases
- 2. Cut, cut, cut; learn to part with your words
- 3. Be specific

Sentences:

- 4. Follow: subject + verb + object (SVO)
- 5. Use strong verbs and avoid turning verbs into nouns
- 6. Eliminate negatives; use positive constructions instead

# Scientific Writing, HRP 214

## Words

- 1. Reduce dead weight words and phrases
  - Get rid of jargon and repetition

“*Verbose* is not a synonym for *literary*.” --(Sin  
and Syntax)



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## Examples:

**“I would like to assert that the author should be considered to be a buffoon.”**



**“The author is a buffoon.”**

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## Examples:

“The expected prevalence of mental retardation, based on the assumption of a normal distribution of intelligence in the population, is stated to be theoretically about 2.5%.”

# Scientific Writing, HRP 214

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# Scientific Writing, HRP 214

## Examples:

“The expected prevalence of mental retardation, based on the assumption of a normal distribution of intelligence in the population, is stated to be theoretically about 2.5%.



“The expected prevalence of mental retardation, if intelligence is normally distributed, is 2.5%.”

# Principles of Effective Writing

## Examples:

“To control infection with *Mycobacterium tuberculosis* (M. tb), a robust cell-mediated immune response is necessary, and deficiency in this response predisposes an individual towards active TB.”



“Deficiency in T-cell-mediated immune response predisposes an individual to active TB.”

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## Examples:

~~“This paper provides a review of the basic tenets of cancer biology study design, using as examples studies that illustrate the methodologic challenges or that demonstrate successful solutions to the difficulties inherent in biological research.”~~ and

“This paper reviews cancer biology study design, using examples that illustrate specific challenges and solutions.”

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## Examples:

**is associated with**

~~“As it is well known, I~~ Increased athletic activity ~~has been related to a~~  
~~profile of lower cardiovascular risk, lower blood pressure levels,~~  
~~and improved muscular and cardio-respiratory performance.”~~  
**fitness.**

“Increased athletic activity is associated with lower cardiovascular risk, lower blood pressure, and improved fitness.”

Or just:

“Increased athletic activity is associated with improved cardiovascular health.”

Or, use verbs:

Increased athletic activity reduces cardiovascular risk and improves cardiovascular performance.

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Hunt down and cast out all unneeded words that might slow your reader.



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**Very, really, quite, basically,  
generally**

These words seldom add anything useful. Try the sentence without them and see if it improves.

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## **Watch out for the verb “to be”**

Often “there are” is extra weight.

- There are many students who like writing.
  - Many students like writing.

# Dead weight phrases

- in the event that
- in the nature of
- it has been estimated that
- it seems that
- the point I am trying to make
- what I mean to say is
- it may be argued that

# Dead weight phrases

- for the most part
- for the purpose of
- in a manner of speaking
- in a very real sense
- in my opinion
- in the case of
- in the final analysis

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## Clunky phrase

## Equivalent

- |                             |       |
|-----------------------------|-------|
| ■ A majority of             | most  |
| ■ A number of               | many  |
| ■ Are of the same opinion   | agree |
| ■ At the present moment     | now   |
| ■ By means of               | by    |
| ■ Less frequently occurring | rare  |

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## Clunky phrase

- All three of the
- Fewer in number
- Give rise to
- In all cases
- In a position to
- In close proximity to
- In order to

## Equivalent

the three  
fewer  
cause  
always  
can  
near  
to

# Scientific Writing, HRP 214

Beware of clunky words that sneak in:

## Beware of

- Assistance
- Utilize
- Numerous
- Facilitate
- Individual
- Remainder
- Initial
- Implement
- Sufficient

## Use instead

help  
use  
many  
ease  
man or woman  
rest  
first  
do  
enough

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## Beware of

- Attempt
- Referred to as
- With the possible exception of
- Due to the fact that
- He totally lacked the ability to
- Until such time as
- For the purpose of

## Use instead

try  
called  
except  
because  
he couldn't  
until  
for



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## Beware of

- Investigate
- Optimum
- Indicate
- Initiate
- Currently
- Facilitate
- Endeavor
- Ascertain

## Use instead

study  
best  
show  
start  
now  
help  
try  
find out

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## Wordy

3 am in the morning  
absolutely spectacular  
a person who is honest  
a total of 14 birds  
biography of her life  
circle around  
close proximity  
completely unanimous  
consensus of opinion  
cooperate together  
each and every  
end result  
he is a man who

## To the point

3 am  
spectacular  
an honest person  
14 birds  
biography  
circle  
proximity  
unanimous  
consensus  
cooperate  
each  
result  
he

# Scientific Writing, HRP 214

## Wordy

in spite of the fact that

in the event that

new innovations

one and the same

period of four days

personally, I think/feel

personal opinion

refer back

repeat again

revert back

shorter/longer in length

had been previously found

## Pointed

although

if

innovations

the same

four days

I think/feel

opinion

refer

repeat

revert

shorter/longer

had been found

# Scientific Writing, HRP 214

## Wordy

small/large in size  
square/round/rectangular in shape  
surrounded on all sides  
surrounding circumstances  
the future to come  
there is no doubt but that  
usual/habitual custom  
unexpected surprise

## Pointed

small/large  
square/round/rectangular  
surrounded  
circumstances  
the future  
no doubt  
custom  
surprise

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Constantly be on the lookout for extraneous words that crop up like weeds....

Ask yourself, is this word or phrase necessary?

What happens if I take it out?

Most of the time, you'll find you don't need it!

# Scientific Writing, HRP 214

- 2. Cut, cut, cut; learn to part with your words

# Scientific Writing, HRP 214

**DON'T BE AFRAID TO CUT**

# Scientific Writing, HRP 214

- Be vigilant and ruthless
- After investing much effort to put words on a page, we often find it hard to part with them.

But fight their seductive pull...

- Try the sentence without the extra words and see how it's better—conveys the same idea with more power



# Scientific Writing, HRP 214

- Parting with your words...

# Scientific Writing, HRP 214

## Example:

“Brain injury incidence shows two peak periods in almost all reports: rates are the highest in young people and the elderly.”

More punch→

“Brain injury incidence peaks in the young and the elderly.”

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- 3. Be specific

# Scientific Writing, HRP 214

- “Prefer the specific to the general, the definite to the vague, the concrete to the abstract.” --*Strunk and White*

- **“Some words and phrases are blobs.”**  
--*Zinsser*

- Vague: A period of unfavorable weather set in.
  - Specific: It rained every day for a week.
- Vague: He showed satisfaction as he took possession of his well earned reward.
  - Specific: He grinned as he pocketed the coin.

(from *Strunk and White*)

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Use specific nouns and specific verbs and specific details....

Vague nouns:

Problem, situation, approach, method,  
reaction, component, technique, solution,  
challenge, difficulty

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## Vague:

In proportion as the manners, customs, and amusements of a nation are cruel and barbarous, the regulations of its penal code will be severe.

## Specific:

In proportion as men delight in battles, bullfights, and combats of gladiators, will they punish by hanging, burning, and the rack.

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## Sentences

- 4. Follow: subject + verb + *object*  
(*active voice!*)

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We will talk more about this in future classes. For now, just beat the following into your head...

“Subject verb object”

“Subject verb object”

“Subject verb object”

“Subject verb object”

or just...

“Subject verb”



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The active voice vs. the passive voice.

We'll see this again and again and again...

# Scientific Writing, HRP 214

- In passive-voice sentences, the subject is acted upon; the subject doesn't act.
- Passive verb = a form of the verb “to be” + the past participle of the main verb
- The main verb must be a transitive verb (that is, take an object).

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She is loved.

→ Which evokes the question, “Who’s loving her?”

The direct object of the verb.  
She’s not the subject since she’s not the one doing the loving.

Form of “to be”

Past participle of a transitive verb: to love (*direct object*).

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President Kennedy was shot in 1963.

The direct object of the verb. He's not the subject since he's not the one doing the shooting.

Form of "to be"

Past participle of a transitive verb: to shoot (*direct object*).

Active: Oswald shot President Kennedy in 1963.

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In the passive voice,

“The agent is AWOL” –*Sin and Syntax*

e.g. “Mistakes were made.”

∴ Nobody is responsible.

*vs. The President made mistakes...*

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"Cigarette ads were designed to appeal especially to children."

vs.

"We designed the cigarette ads to appeal especially to children."



Responsible party!

# Scientific Writing, HRP 214

- 5. Use strong verbs and avoid turning verbs into nouns

# Scientific Writing, HRP 214

A sentence uses one main verb to convey its central action; without that verb the sentence would collapse.

The verb is the engine that drives the sentence.  
Dull, lifeless verbs slow the sentence down.

*Action verbs reflect the action they were chosen to describe, and help bring the reader into the story.*



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Compare:

“Loud music came from speakers embedded in the walls, and the entire arena moved as the hungry crowd got to its feet.”

With:

“Loud music exploded from speakers embedded in the walls, and the entire arena shook as the hungry crowd leaped to its feet.”

# Scientific Writing, HRP 214

Compare:

“Loud music came from speakers embedded in the walls, and the entire arena moved as the hungry crowd got to its feet.”

With:

“Loud music exploded from speakers embedded in the walls, and the entire arena shook as the hungry crowd leaped to its feet.”

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## Pick the right verb!

The WHO reports that approximately two-thirds of the world's diabetics are found in developing countries, and estimates that the number of diabetics in these countries will double in the next 25 year.



The WHO estimates that two-thirds of the world's diabetics are found in developing countries, and projects that the number of diabetics in these countries will double in the next 25 years.

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Don't kill verbs and adjectives by turning them into nouns.

# Scientific Writing, HRP 214

## Weak verbs

Obtain estimates of

estimate

Has seen an expansion in

has expanded

Provides a methodologic emphasis

emphasizes methodology

Take an assessment of

assess

Formerly  
spunky verbs  
transformed  
into boring  
nouns

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Provide a review of review

Offer confirmation of confirm

Make a decision decide

Shows a peak peaks

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- 6. Eliminate negatives; use positive constructions instead

# Scientific Writing, HRP 214

- He was not often on time
  - He usually came late.
- She did not think that studying writing was a sensible use of one's time.
  - She thought studying writing was a waste of time.



# Scientific Writing, HRP 214

- |                                |            |
|--------------------------------|------------|
| ■ Not honest                   | dishonest  |
| ■ Not important                | trifling   |
| ■ Does not have                | lacks      |
| ■ Did not remember             | forgot     |
| ■ Did not pay attention to     | ignored    |
| ■ Did not have much confidence | distrusted |
| ■ Did not succeed              | failed     |

# Scientific Writing, HRP 214

## Recap:

- 1. Reduce dead weight words and phrases
- 2. Cut, cut, cut; learn to part with your words
- 3. Be specific
- 4. Follow: subject + verb + object (active voice!)
- 5. Use strong verbs and avoid turning verbs into nouns
- 6. Eliminate negatives; use positive constructions instead

# Scientific Writing, HRP 214

- Examples (you'll be doing this for homework!)

# Scientific Writing, HRP 214

Let's dissect this sentence:

- “It should be emphasized that these proportions generally are not the result of significant increases in moderate and severe injuries, but in many instances reflect mildly injured persons not being seen at a hospital.”

# Scientific Writing, HRP 214

**Dead weight!!**

- It should be emphasized that these proportions generally are not the result of significant increases in moderate and severe injuries, but in many instances reflect mildly injured persons not being seen at a hospital.

**Can we use a more informative adjective than a pronoun? What's important about "these" proportions?**

**More dead weight.**

**Ask yourself, what does the sentence lose without this qualifier?**

# Scientific Writing, HRP 214

- It should be emphasized that these proportions generally are not the result of significant increases in moderate and severe injuries, but in many instances reflect mildly injured persons not being seen at a hospital.

Watch out for awkward  
uses of “to be”

“The result of” → Use  
“In many instances” → positives.

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- Shifting proportions in injury severity may reflect stricter hospital admission criteria rather than true increases in moderate and severe injuries.

# Principles of Effective Writing

Really long subject!

“The fear expressed by some teachers that students would not learn statistics well if they were permitted to use canned computer programs has not been realized in our experience. A careful monitoring of achievement levels before and after the introduction of computers in the teaching of our course revealed no appreciable change in students’ performances.”

negatives

wordy

Passive voice



# Principles of Effective Writing

“The fear expressed by some teachers that students would not learn statistics well if they were permitted to use canned computer programs has not been realized in our experience. A careful monitoring of achievement levels before and after the introduction of computers in the teaching of our course revealed no appreciable change in students’ performances.”

Buried predicate  
+ boring verb

“hedge” word

Really long  
subject!

# Principles of Effective Writing



“Many teachers feared that the use of canned computer programs would prevent students from learning statistics. We monitored student achievement levels before and after the introduction of computers in our course and found no detriments in performance.”

# Scientific Writing, HRP 214

On a scrap of paper,

Try dissecting:

Review of each center's progress in recruitment is important to ensure that the cost involved in maintaining each center's participation is worthwhile.

# Scientific Writing, HRP 214

On a scrap of paper,  
Try dissecting:

**SVO?**  
**When's the**  
**verb**  
**coming?**

Review of each center's progress in  
recruitment is important to ensure that the  
cost involved in maintaining each center's  
participation is worthwhile.

**Watch vague descriptors**  
**such as “important” and**  
**“worthwhile”**

**Clunky phrase**

**“to be” is a**  
**weak verb**

# Scientific Writing, HRP 214

One possible rewrite:

Reviewing center recruitment progress ensures cost-effectiveness.

# Scientific Writing, HRP 214

And finally...

This week's Top 5 countdown:

During each class, we'll review 5 common writing mistakes (and sure signs of amateurism!).

If you commit each set to memory, by the end of the quarter you'll have learned how to avoid 45 common mistakes.

# But first...

## A little writing humor...

or “the importance of careful grammar...”

- Spotted in a toilet of a London office:  
TOILET OUT OF ORDER.  
PLEASE USE FLOOR BELOW
- In a Laundromat:  
AUTOMATIC WASHING MACHINES: PLEASE REMOVE ALL  
YOUR CLOTHES WHEN THE LIGHT GOES OUT.
- In a London department store:  
BARGAIN BASEMENT UPSTAIRS.
- In an office:  
WOULD THE PERSON WHO TOOK THE STEPLADDER  
YESTERDAY PLEASE BRING IT BACK OR FURTHER STEPS  
WILL BE TAKEN.

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## Top 5:

1. The word “data” is plural.

- ex: *These data are important.*  
*The data are important.*  
(v. *datum*, singular form)



# Scientific Writing, HRP 214

## Top 5:

### 2. Affect v. effect

- Affect is the verb “to influence”
  - *The class affected her.*
  - As a noun, affect denotes feeling or emotion shown by facial expression or body language, as in “The soldiers seen on television had been carefully chosen for blandness of affect” (Norman Mailer).
- Effect is the noun form of this influence
  - *The class had an effect on her.*
  - As a verb, effect means to bring about or to cause, as in “*to effect a change*”

Example: recent headline...

■ Terrorist Plots ~~Effect~~ the Beauty Industry

Correct:

Terrorist Plots Affect the Beauty Industry

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## Top 5:

### 3. More than v. over

*Do not use over to describe relative amounts.*

- More than = greater than
- Over = physically above
- wrong: *She raised ~~over~~ \$500.*
- right: *She raised more than \$500.*

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## Top 5:

### 4. Compared to v. compared with

- Compare to = to point out *similarities* between different things
- Compare with\*\* (used more often in science) = to point out *differences* between similar things

ex: “*Shall I compare thee to a summer’s day?*”

ex: *Brain tumors are relatively rare compared with more common cancers, such as those of the lung, breast, and prostate.*

# More writing humor...

- In an office:

AFTER TEA BREAK STAFF SHOULD EMPTY THE TEAPOT AND STAND UPSIDE DOWN ON THE DRAINING BOARD.

Outside a secondhand shop:

WE EXCHANGE ANYTHING -- BICYCLES, WASHING MACHINES, ETC. WHY NOT BRING YOUR WIFE ALONG AND GET A WONDERFUL BARGAIN?

Notice in health food shop window:

CLOSED DUE TO ILLNESS.

Spotted in a safari park:

ELEPHANTS PLEASE STAY IN YOUR CAR.

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## Top 5:

### 5. That v. which

“That” is the restrictive (defining) pronoun

“Which” is the nonrestrictive (non-defining)  
pronoun

What’s the difference between these two?→

*The vial that contained her DNA was lost.*

*The vial, which contained her DNA, was lost.*

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## Top 5:

That/which

**that**

Example: *Other disorders ~~which~~ have been found to co-occur with diabetes include heart disease and foot problems.*

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## More on that/which

- Key question: Is your clause essential or non-essential?
  - THAT: The essential clause cannot be eliminated without changing the meaning of the sentence.
  - WHICH: The non-essential clause can be eliminated without altering the basic meaning of the sentence (and must be set off by commas).



# Scientific Writing, HRP 214

## More on that/which

- *The lawn mower that is broken is in the garage.*  
(Identifies which\* lawn mower.)
- *The lawn mower, which is broken, is in the garage.* (Adds a fact about the only mower in question).

\* *note use of which as adjective! (v. pronoun)*

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## More on that/which

- “Careful writers, watchful for small conveniences, go *which*-hunting, remove the defining *whiches*, and by doing so improve their work.” —*Strunk and White*

# Scientific Writing, HRP 214

## More on that/which

From physicist Richard Feynman:

- “When we say we are a pile of atoms, we do not mean we are *merely* a pile of atoms because a pile of atoms ~~that~~ which is not repeated from one to the other might well have the possibilities ~~that~~ which you see before you in the mirror.”

# Scientific Writing, HRP 214

## More on that/which

### Another example:

- Stroke incidence data are obtained from sources, which use the ICD (International Code of Diseases) classification systems.

# Scientific Writing, HRP 214

## More on that/which

- *Stroke incidence data are obtained from sources...?*
- Is the clause essential? Is it defining the subject?
- Yes!
- ∴ use “that”

# Scientific Writing, HRP 214

- Stroke incidence data are obtained from sources ~~that~~ ~~which~~ use the ICD (International Code of Diseases) classification systems.

# More writing humor...

- Seen during a conference:  
FOR ANYONE WHO HAS CHILDREN AND DOESN'T KNOW IT,  
THERE IS A DAY CARE ON THE FIRST FLOOR.
- Notice in a farmer's field:  
THE FARMER ALLOWS WALKERS TO CROSS THE FIELD FOR  
FREE, BUT THE BULL CHARGES.
- Message on a leaflet:  
IF YOU CANNOT READ, THIS LEAFLET WILL TELL YOU HOW  
TO GET LESSONS.
- On a repair shop door:  
WE CAN REPAIR ANYTHING. (PLEASE KNOCK HARD ON THE  
DOOR - THE BELL DOESN'T WORK.)

# More writing humor...

- The peacemaking meeting scheduled for today has been cancelled due to a conflict.
- Remember in prayer the many who are sick of our community. Smile at someone who is hard to love. Say "Hell" to someone who doesn't care much About you. (I think they meant hello)
- Don't let worry kill you off – let the Church help.



# More humor...

- This evening at 7 PM there will be a hymn singing in the park across from the Church. Bring a blanket and come prepared to sin. (Do you think they meant sing?)
- The pastor would appreciate it if the ladies of the congregation would lend him their electric girdles for the pancake breakfast next Sunday.
- Low Self Esteem Support Group will meet Thursday at 7 PM. Please use the back door.
- The ladies of the Church have cast off clothing of every kind. They may be seen in the basement on Friday afternoon.

# More humor...

- Next Thursday there will be tryouts for the choir. They need all the help they can get.
- Irving and Jessica were married on October 24 in the church. So ends a friendship that began in their school days.
- Scouts are saving aluminum cans, bottles and other items to be recycled. Proceeds will be used to cripple children.
- Please place your donation in the envelope along with the deceased person you want remembered.

# Scientific Writing, HRP 214

## Preview to next time...

- Next time you read a newspaper, pay attention to the following:
  - 1. How many letters are in an average word?
  - 2. How many words are in an average sentence?
  - 3. How many sentences are in an average paragraph?

# Scientific Writing, HRP 214

## Homework for next time...

### Assignments for next week:

- Read:
  - Read chapters 1-4 Sin and Syntax (pp. 1-87)
  - Read Chapter 6 of Successful Scientific Writing
- Mini-exercise 1