Writing - Week 8

Global Coherence

Notes on Chapter 5, “The Sense of Style”

- Readers need to know the topic and the goal to understand the text
- Be clear in your own mind about the topic and goal
- The first time you refer to something use “a” and later use “the” (?)
- Structure should reflect the emphasis of the piece. Chronological order is not necessarily the best.
- Negating effectively can be subtle.
- Elegant variation: make sure the second reference is more familiar.
- Introduce the main point early. (laundry example)
- Don’t use synonyms when doing comparisons. Using the same word is clearer.
- Gather comparisons and contrary arguments into a seperate section.
- Conjunctions: don’t overuse or underuse.
- There are about 12 coherence relations.

- Human brain parses sentences in chronological order more easily.
- Higher word count makes the reader think it is more important.
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Additional notes

- Paragraphs exist so that your eyes can take a break.
- Academics use LONG paragraphs. This is not good practice.
- Consistent thread of topic in a paragraph make it easier to follow.
- Zombie nouns (nominalizations): avoid them if you can turn them into verbs. Use them similarly to pronouns to refer to concepts that have already been introduced.
- Structure negation as “You might think blah, but actually blah”
- Pattern of he/she: she for the writer and he for the reader. Flipped a coin to decide which is which even vs odd chapters and told us about it.
    - Other options he/she, alternate pronouns, gender neutral eg. one, they, avoid pronouns all together, event names and genders for the characters.

Global Coherence, à la Williams & Bizup (Ch. 8)

Recall Introductions should:

- Motivate readers by stating a problem they care about
- Frame the rest of your document, by stating key point and key concepts to be developed

Today:

- 2nd point applies to all parts of document! Sections, subsections, paragraphs.
- Key point:

  Begin each unit of writing (section, subsection, etc) with a short, easily grasped segment that states its point and introduces the themes that organize the longer segment, the body. Then, in that body, support, develop, or explain that point and those themes.

Organizing a *document:* some principles

1) Readers need to know where the introduction ends and the body begins, and where each section ends and the next begins.
   Question: how to indicate these?
2) At the end of the introduction, state the document's main point, claim, solution, and the themes to be developed.
3) In the body, use the concepts announced as themes in the introduction, to organize the text as a whole. Repeat the themes regularly.

And keep in mind: the point is to *tell a story*.
See Sword, Ch. 8 (posted online), for ideas / elaboration on creating a story.

Organizing each *section and subsection*

1) Readers look for a short segment that introduces the section or subsection
2) At the end of that introductory segment, readers look for a sentence stating the point of the section, and the concepts to be developed as themes in that section.
3) In the body of the section, readers look for concepts announced as themes, and use them to organize their understanding of that section. Be sure to repeat these themes.
4) Readers must see how everything in a section or whole is relevant to its point.

Why reveal the point ahead of time?

- Readers look for *signals* to help integrate what we are reading with information we already have.
- Writing is clearer & more coherent if you build in those signals deliberately.

Example A (shorter than a typical section)

Thirty sixth-grade students wrote essays that were analyzed to determine the effectiveness of eight weeks of training to distinguish fact from opinion. That ability is an important aspect of making sound arguments of any kind. In an essay written before instruction began, the writers failed almost completely to distinguish fact from opinion. In an essay written after four weeks of instruction, the students visibly attempted to distinguish fact from opinion, but did so inconsistently. They also produced fewer spelling and punctuation errors. In three more essays, they distinguished fact from opinion more consistently, but never achieved the predicted level of performance. In a final essay written six months after instruction ended, they did no better than they did in their pre-instruction essays. Their training had some effect on their writing during the instruction period, but it was inconsistent, and six months after instruction it had no measurable effect.

Example B

In this study, thirty sixth-grade students were taught to distinguish fact from opinion. They did so successfully during the instruction period, but the effect was inconsistent and less than predicted, and six months after instruction ended, the instruction had no measurable effect. In an essay written before instruction began, the writers failed almost completely to distinguish fact from opinion. In an essay written after four weeks of instruction, the students visibly attempted to distinguish fact from opinion, but did so inconsistently. In three more essays, they distinguished fact from opinion more consistently, but never achieved the predicted level of performance. In a final essay written six months after instruction ended, they did no better than they did in their pre-instruction essay. We thus conclude that short-term training to distinguish fact from opinion has no consistent or long-term effect.

Organizing each *paragraph*

To write coherent longer paragraphs:

- Begin with one or two short, easily grasped sentences that frame what follows.
- State the point of the paragraph in the last sentence of its introduction. (If introduction is 1 sentence, this is its point by default.)
- Toward the end of that point sentence, name the key themes that thread through what follows.

But...

➢ This advice is optional — many coherent paragraphs don't follow this template.

➢ However, most do open with a sentence that *frames* what follows: it introduces key themes & perhaps states a point.

Organizing each *sentence*

How does the above principle apply at the level of sentences?

- Put subject / topic early in sentence.
- Old before new.
- In more complex sentences, start with a clause that expresses the point of the sentence.

General principle of clarity

Readers are more likely to judge as clear any unit of writing that opens with a short segment that they can easily grasp and that frames the longer and more complex segment that follows.

This applies to all units of text:

- *Whole document*: start with introduction that states point of document and its key themes & concepts.
- *Sections*: start with 1+ paragraphs that introduce key themes & concepts.
- *Paragraphs*: introductory sentence to introduce its key concepts
- *Sentences*: put subject / topic early on. In more complex sentences, start with a clause that expresses the point of the sentence.

In addition, for Math & Science

Readers are more likely to judge as clear any unit of writing that opens with a short segment that they can easily grasp and that frames the longer and more complex segment that follows.

This applies to how we introduce ideas:

- Start with *specific*, *easily-grasped* *examples*.
- Then introduce your general theory.

The role of examples

Suppose you want to teach the “cat” concept to a very young child. Do you explain that a cat is a relatively small, primarily carnivorous mammal with retractile claws, a distinctive sonic output, etc.?

I’ll bet not.

You probably show the kid a lot of different cats, saying “kitty” each time, until it gets the idea.

To put it more generally, generalizations are best made by abstraction from experience.

— Ralph P. Boas, “Can We Make Mathematics Intelligible?” (1981)

Summary of principles of clarity & coherence

See document posted online.

Question: Do you always have to follow these principles?

Exercise

- Read “Deep Learning: And Introduction for Applied Mathematicians”, by Hingham & Hingham.
- Break into groups and analyze global structure.
- Group 1: Sections 1 (Intro) & 8 (Conclusion)
  - How is introduction structured? Does it follow these principles, and if so, how? (Engage reader, state problem, state solution, outline argument in text to follow.)
  - How is conclusion structured? How does it parallel introduction, what does it add in addition?
- Groups 2-4: Sections 2,3,4 respectively
  - How does your section adhere to (or not) these principles?
  - Identify specific clauses, sentences or paragraphs to illustrate the above
- ~ 10-15 minutes discussing in a group, then 1 person will report back to class.

Homework

- Read Hingham, Chapter 3, “Mathematical Writing”
  - Make notes on principles to follow. Be prepared to share notes with class.
  - Due by next class (April 8)
- Edit your research report, following editing rubric (*to be posted shortly*)
  - Edit your own work. (within 1 week)
    - ✓ Send your comments to Miranda
    - ✓ Update your text as you see fit.
    - ✓ Then send to Miranda and to your editing partners (see below.)
    - ✓ Due by April 7 *at the very latest*.
  - Edit your partner’s work. (Within 2 weeks)
    - ✓ You each have 2 partners, link posted to website.
    - ✓ Send comments to your partners, and to Miranda.
    - ✓ Due by April 14.
- Share thoughts on topics you’d like to see covered, via email. (optional).