

Scientific Writing from the Reader's Perspective

University of Freiburg, Germany



**UNI
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Agenda



- 1 Motivation: The Reader's Perspective
- 2 Reader Expectation: Sentence Level
- 3 Reader Expectation: Connecting Sentences
- 4 Checklist

→ All materials based on writing workshops by Prof George D Gopen

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A Although Fred beats his dog, he's a nice guy

B Fred's a nice guy, but he beats his dog

... though same content, which sounds more negative?

Around 90% of native speakers perceive one more negative than the other

The Reader

- Readers do not simply read; they **interpret**
- Any piece of prose may “**mean**” in 10 different ways to 10 readers

Goal

- Majority of readers should accurately perceive **what the author had in mind**
- Information is interpreted more easily if it is **placed** where most readers expect to find it

→ Improving the quality of writing actually improves the quality of thought

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Verb as Action



- Express the **action** of a sentence as a verb
- If actions are not to be found in the verbs, then readers have no structural clues where to locate them

Agent	Action	Goal
Subject	Verb	Complement

- There was a modification of the program by the Director
- The Director **modified** the program

- The Dean made a decision to conduct a review of the matter
- The Dean **decided** to review the matter

Agents as Subjects



- Readers expect the beginning of a sentence or clause to reveal “**whose story**” that unit tells
- Put **agent as subject**

Agent	Action	Goal
Subject	Verb	Complement

- **Bees** disperse pollen
- **Pollen** is dispersed by bees

Nominalizations

- Our feeling is that your decision on this issue is necessary
 - The feelings is that a decision on this issue is necessary
- **Better:** We feel that you have to decide this issue

Passive Verbs

- Productivity was analyzed by us
 - Productivity was analyzed
- **Better:** We analyzed productivity

- The trial court's conclusion that the defendants made full disclosure of all relevant information is clearly erroneous
- The **trial court** clearly erred in concluding this.

Subject-Verb Separation



- Anything of length that intervenes between subject and verbs is read as an interruption and therefore as something of **lesser importance**
- Readers expect a grammatical subject to be **followed immediately by the verb**

- Overall, this proposal – **though of minor innovation** – sounds very scientifically
- Overall, however, this proposal is scientifically sound, but there is no innovation

- The trial court's conclusion **that the defendants made full disclosure of all relevant information** is clearly erroneous

Usage of Commas



- The subject of the main clause will appear at the beginning of the sentence unless otherwise indicated
- A sentence that begins with a word like “although” promises that the subject of the main clause will appear immediately following the end of the “although” clause
- **Use comma** to help reader identify the subject

- Overall, however, this proposal is scientifically sound, but there is no innovation

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Topic		Stress
Old, familiar information		New, important information
Agent	Action	Goal
Subject	Verb	Complement

- Readers expect the beginning of a sentence to provide a **connection backwards** to already established material
- In topic position, the reader needs and expects perspective and context provided by linkage (looking backward) and context (looking forward)
- Put at the beginning of your sentence the **old, familiar information** that makes the backwards link in logic or reference

- The spot where the reader looks for old, familiar information
- When old info consistently arrives in the topic position, it helps reader to construct the **logical flow** of the argument
- Focuses attention on a particular strand of the discussion
- If writer fails, readers will have difficulty perceiving both the connection to the previous sentence and the projected role of the new
- To establish backward linking, it is totally fine not to avoid synonyms, but repeat words

Stress Position



Topic		Stress
Old, familiar information		New, important information
Agent	Action	Goal
Subject	Verb	Complement

- Readers naturally emphasize the material that arrives **at the end of a sentence**
- Put in that stress position the information you want your reader to emphasize
- Secondary stress position introduced by semicolon

- We should invest in the MRX plan, even though the risks are **high**
- Even though the risks are high, we should invest **in the MRX plan**

- Sometimes the stress position consists of a **single word**; sometimes it extends to **several lines**

- Stress position can change in size; from a single work to several lines
- Guideline: no parenthesis at the end of the sentence
- When is a sentence too long? → when it has more viable candidates for stress positions than actual stress positions available
- Between topic and stress position is more new stuff, but put only that in the stress position worthy of emphasis

The four most important things to consider are:

1. ...



The four most important things to consider are **the following**:

1. ...

- Topic and stress position enables writer to link sentences, for entire paragraph to form **a coherent whole**
- **Topic Changing:** the key word in the topic position repeats or refers back to a word at the end of the previous sentence
→ in writing narrative or descriptive paragraphs (e.g. outline)
- **Topic Stringing:** the key words in the topic position keep reappearing until that particular topic has been brought to a conclusion
→ in writing argumentative or persuasive (e.g. introduction)

Topic Changing

Old₁ → New₁

Old₂ (=New₁) → New₂

Old₃ (=New₂) → New₃

Topic Stringing

Old₁ → New₁

Old₁ → New₂

Old₁ → New₃

Coherent Paragraphs



Since the Big Data age, a huge variety of variables is available to research. Collecting data for building a model is not the time-consuming aspect of analyzing, instead finding out which variables match the purpose. Fitting models with all variables will result in less intuitive results. Because of too many variables, it often occurs that building a model is costly.



Since the Big Data age, research has access to a huge variety of **variables**. **Collecting variables** is thus not time-consuming any longer, but finding the relevant ones out of **all variables**. **All variables** could be used, but **these models** are less intuitive. **These models** also turn out very costly.

-  Topic Changing
-  Topic Stringing

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Checklist



- 1 Verb representative of action?
- 2 No Verb-Subject separation?
- 3 “Whose story” matching subject?
- 4 Backward links right?
- 5 Stress position fitting new, important stuff?

- 1 Find problems
- 2 Revise draft
- 3 Later: Recognize problems while writing

Further Readings



- 1 Gopen & Swan. The Science of Scientific Writing. American Scientist, 1990.
<https://www.americanscientist.org/issues/issue.aspx?id=877&y=0&no&content=true&page=4&css=print>
- 2 Gopen: The Sense of Structure: Writing from the Reader's Perspective. Pearson Longman, 2004.
- 3 Strunk: The Elements of Style. Harcourt Brace, 1918.
- 4 Williams. Style: Ten Lessons in Clarity and Grace. Pearson Longman, 2002.