Concision

The principle of concision is straightforward: your reader's time is precious, so don't waste it with unnecessary words.

Sentence Concision

1. Delete words that mean little or nothing.[1]

Have a look at the following sentence, and cross out the words that you think add little or no meaning:

✗ Fundamentally, this paper describes a general method for transferring specific fragments of DNA from individual strips of agarose gel to corresponding strips of cellulose nitrate.

Check how your edited version compares with the original sentence from a seminal article in biology:

✓ This paper describes a method for transferring fragments of DNA from strips of agarose gel to strips of cellulose nitrate.[2]

The original does not have the words "fundamentally," "general," "specific," "individual," or "corresponding." Notice how these words are all adjectives or adverbs. Strong scientific writing relies on nouns and verbs and uses few adjectives and adverbs. Here is a sample of the many words and phrases that are often (but not always) unnecessary:

actual(ly)	basic(ally)	given	virtual(ly)	each and every
certain(ly)	particular(ly)	really	various	first and foremost
practical(ly)	above-mentioned	essential(ly)	different	any and all

Of course, each of these words has meaning. But in the sentence above, the words in question add little or nothing.

2. Delete words implied by other words.[1]

Sometimes writers carelessly add words whose meaning is already implied. There are four such words in this sentence; see if you can spot them:

✗ White-emitting LED lighting technology is the targeted focus of many current development efforts in various countries around the world.

The word "lighting" is redundant because it is common knowledge that LEDs are a form of lighting. A "focus" is by definition "targeted." The reader will assume the "development efforts" are "current," and the "around the world" makes "various countries" redundant. Here is the original, from a Draper-Prize-winning engineer:

✓ White-emitting LED technology is the focus of many development efforts around the world.[3]

3. Replace long phrases with shorter ones.[4]

You can convey the same meaning in many ways; try to use the shortest phrases possible. Compare the inconcise example with the original below from the *Harvard Business Review*. The colors indicate the corresponding long and short ways of saying roughly the same thing.

[1] These principles are abridged from Joseph Williams's *Style: Lessons in Clarity and Grace* (Pearson, 2013, p. 139).
[2] Southern, E. M. (1975). Detection of specific sequences among DNA fragments separated by gel electrophoresis. *Journal of Molecular Biology*, 98(3), 503-517.
[3] Craford, M. G. (2000). Visible light-emitting diodes: past, present, and very bright future. *MRS bulletin*, 25(10), 27-31.
[4] This is an adapted version of Williams's "Replace a phrase with a word."

✗ In the general view of the scientific community on the topic of cognition, there are two ways in which cognitive processes take place in the brain: one relies on the immediate, unmediated impression of a situation, and the other requires deliberate information analysis and processing.

✓ According to cognitive scientists, there are two modes of thinking, intuitive and reflective.[5]

Paragraph Concision

Sentence concision is relatively simple if you keep these three guidelines in mind as you write and edit. Paragraph concision, however, is tricky: even if each sentence is concise on its own, the paragraph as a whole may be highly redundant. Consider this example about spider silk:

✗ Scientists have studied spider silk for decades. They have been especially fascinated by this natural material due to its multifaceted characteristics. The silk's outstanding properties can be tuned for specific functionality in diverse situations. On the one hand, the silks are both biodegradable and biocompatible. On the other, they combine the three remarkable qualities of strength, toughness and robustness. These versatile features make the silks inspirational in engineering applications—namely, in designing biomimetic materials.[6]

This paragraph of six sentences reads reasonably well. Each sentence is somewhat concise, and the cohesion across sentences is strong. But believe it or not, the original was only two sentences and nearly half as many words:

✓ Spider silk has been studied for decades due to its outstanding properties, which can be tuned for specific functionality. In addition to its biodegradability and biocompatibility, many silks combine remarkable strength, toughness and robustness, making them inspirational for biomimetic materials design.[7]

The first version is inconcise because many words appear to add new content but merely repeat existing content. For example, the original states "outstanding properties" once, while the inconcise text has "multifaceted characteristics," "outstanding properties," "remarkable qualities," and "versatile features"—all of which refer to the same thing.

Here is a practical technique to create paragraph concision. Make a list of ideas you want to convey. Using these as building blocks, write your paragraph, and then check that you don't repeat ideas unnecessarily. The spider silk list might have looked like this:

Spider silks...

- have been studied for decades
- can be tuned to specific functionality
- are biodegradable and biocompatible
- combine strength, toughness and robustness
- are inspirational for biomimetic materials design

No idea here is so complex that it needs its own sentence. Thus, as a writer, you would work on constructing a two- or three-sentence paragraph—much like the original above.

Note that good writers constantly aim to balance the principles of concision and cohesion. In short, a bit of repetition—whether of words or ideas—is essential for your text to stick together, but too much repetition creates a long-winded text. Consult the Cohesion handout to learn more.

[5] Kahneman, D., Lovallo, D., & Sibony, O. (2011). Before you make that big decision. *Harvard Business Review*, 89(6), 50-60.
[6] This text was created for this handout based on the original passage from Su & Buhler (2016).
[7] Su, I., & Buehler, M. J. (2016). Spider silk: dynamic mechanics. *Nature Materials*, 15(10), 1054.