Troublesome Words, Common Mistakes, Style

Some words, phrases, and punctuation choices are particularly difficult to get right in all contexts, especially if their usage varies with the style of writing. This list provides some cues, in part based on the principle that scientific writing is conservative.

Language conservatism implies using traditional words and grammar to maximize information and to avoid confusion. Some of your audience may be half a century older than you and not have read anything nontechnical in decades, and some may be nonnative speakers of English who have only standard English training. In science, you cannot ignore this audience and aim just at young, American readers who share your cultural background. Avoid jargon, slang, and word usages too recent to be in a good dictionary, or usages marked as colloquial, regional, or slang in dictionaries.

Conservatism should not imply boring. Use active voice, choose interesting word variations, and try to make your prose easy to follow. Do not overcomplicate sentence structures. In technical writing, precise and unambiguous conveyance of factual information is the first consideration. In fiction, essays, poetry, email, and personal letters, these rules matter less.

One of the worst mistakes is to assume that none of this really matters. Poor word choices and incorrect grammar often do not get in the way of understanding what a text is trying to convey, and casual conversations with friends are not consistently grammatical but they still convey information. However, your writing is not just being read, it is being judged, all the time, by people to whom clarity and correctness matter. We have too much to read. If you submit something to me that I am not obligated to read, such as a graduate school application essay, then your struggle is not to make sure I understand you, your struggle is to get me to read the second paragraph. Much of what you write in the real world will be ignored within a few sentences if you are not a clear thinker or in charge of your language.

Hyphenation

• Do not hyphenate prefixes. (semiarid, nonuniform, subaerial) Spell-checking programs are often wrong with these – use a real dictionary. Exception: hyphenate a prefix attached to a proper name. (non-English, pre-Columbian)

• Hyphenate compound adjectives that consist of two nouns or an adjective and a noun used in an adjectival sense, even if the same compound is occasionally used as a noun without a hyphen. (A finite-element model uses the finite element as the smallest space that can be resolved.)

• Do not hyphenate adverb-adjective combinations where the adverb ends in “-ly.”

• Numbers and units used as adjectives are hyphenated, but only if the numbers and units are spelled out. (A three-mile limit, a two-year-old car.) Do not hyphenate digit-symbol combinations.

• The drift of language often moves a two-word concept from open compound (snow bound) to closed compound (snowbound) following a brief period of hyphenation (snow-bound). Use hyphens as little as possible, primarily when leaving one out generates ambiguity. Hyphenation is difficult, use references.
Commas, Dashes, Parentheses.

- Use commas between all items in a series, including the one that includes the conjunction. (We sorted out pebbles, cobbles, and boulders.) This differs from nontechnical English by requiring the last comma, because of the need for technical clarity in complicated lists. (We sorted out silt and clay, sand and gravel, and pebbles and cobbles.) If items in a series require commas, use semicolons for the series. (Our groupings were silt and clay; sand, gravel, and pebbles; and cobbles and boulders.) Avoiding the complexity of that last example would also be desirable.

- Parenthetic phrases are any phrase, such as this phrase, that can be deleted without destroying the outer sentence. Punctuation is needed around the parenthetic phrase at both ends, unless the sentence ends with the parenthetic phrase.

- Parentheses or dashes may be used on a parenthetic phrase (see how parentheses gave the name to the entire concept) if a greater degree of separation from the text of the sentence is desired, such as when the parenthetic phrase has precious little to do with the main sentence as in this example.

- A phrase set off with dashes or parentheses should be deletable, in the sense that the surrounding sentence would still be a good sentence if the phrase were deleted entirely.

- Some transitions, incidentally, require a comma around a single word. Avoid putting these in close proximity, however, because they can really get on a reader’s nerves, as you can tell by now. Additionally, starting a sentence with a one-word transition followed by a comma should be minimized (not eliminated, but minimized).

Other Punctuation

- Do not use contractions in formal, technical writing. They are fine in vernacular and fiction, and widely debated in other contexts.

- The symbol ! is a factorial symbol, used in mathematical contexts. Scientific writing almost never contains exclamation points.

- Periods and commas at the end of a quote are inside quotation marks, but outside of parentheses. This is the American standard and it often feels strange.

- A quotation longer than four lines should be offset (indented on both left and right sides). If you are using double spacing, single space such displayed quotations. A displayed quotation is not marked with quotation marks.

Troublesome words

- Avoid strings of prepositional phrases. (Water evaporating from a puddle under a tree in the sunshine of an afternoon may be difficult to trace.)

- If you end a sentence with a preposition, make sure the object can be understood.

- “Very” is almost unusable, for the same reason that exclamation points are not used – make your results earth-shattering, not your prose.
• Maintain the same tense between subject and predicate. A safe bet in scientific writing is to always use past tense.

• Pay attention to spelling and correct word choices. Spell checkers are useful; they are not yet sufficiently capable to notice an incorrectly spelled word comes out as the wrong English word or where a poorly chosen real English word leads to gibberish. Many technical terms are not in spell-check lists. A spell checker does not replace a dictionary in which you can check meaning. (A dictionary might be online, not a traditional paper book, but it is more than a spell checker.)

• Alot is not a word.

• “Must of been” and “must a been” are transcribed pronunciations of “must have been.”

• “It’s” is a contraction for “it is” (and remember that we avoid contractions). “Its” is the possessive form of “it” and has no apostrophe.

• The word ‘earth’ is capitalized when referring to our planet, and it is not capitalized when referring to soil, turf, and so on. When referring to our planet, Earth is never plural – we have only one.

• Reduce the number of sentences that start with “The,” “This,” “That.” Try to reduce to zero the number of sentences that start with “There are” or “There is.”

• Do not start a phrase or sentence with “it is interesting to note that” or similar constructions. If you think it is interesting, make it interesting rather than bludgeoning a reader with your opinions.

• “Data” is the plural of “datum.” Treat it as plural when applying a verb to it: “the data were gathered,” “the data show no bias.”

• Many phrases derived from Latin are listed in the dictionary as words that have been absorbed into English and should not be italicized: in situ, per se, et cetera, ad nauseum. Most of these two-word phrases are considered a single object, despite the space, and should never be hyphenated even when used as adjectives.

• “Etc.” is short for “et cetera” and it means “and so on,” but avoid using it, as it indicates a lack of precision and is seldom appropriate in formal, technical writing. If you do use it, the period is required because it is an abbreviation. A common misspelling is “ect” derived from how many people pronounce the word.

• “E.g.” is short for “for example,” “i.e.” is short for “that is.” Use the abbreviations only in parenthetic phrases, always separated from the text by a comma. “For example” should not be used as a cheap dodge for “there may be more but I have not found them.”

• Avoid being an ostentatious sesquipedalian.

• Define acronyms on first use, using parentheses. John Wesley Powell was the first director of the United States Geological Survey (USGS), and from this point on you may refer to the USGS because you have defined the acronym.
• Be gender neutral. References to ‘man’ or ‘mankind’ do not represent all of humanity equally. Do not be shocked or surprised by the ubiquity of such references in anything more than about 25 years old. Do not reject or dismiss older work that uses that style – it was the norm at the time.

• Be sure that the subject can really perform the action of the verb.

• Some of the more hilarious mistakes (for a reader) are when “it” seems to replace different objects for the reader than for the writer.

Numbers

• In science, spell out whole numbers of size ten or less, use digits for larger numbers. Make exceptions for consistency when numbers refer to the same type of object within a paragraph. (I have 14 students in one class and 3 in the other.)

• Writers outside of science spell out numbers up to 100, and you may encounter an editor with that preference, so be flexible. This is an accepted difference between science writing, where numbers are ubiquitous, and other writing in which numbers are less prominent. Hyphenate the spelled out form of most numbers from twenty-one to ninety-nine.

• Hyphenate most fractions that are spelled out and used in an adjectival sense. (This semester is one-fifth over already.)

References


T. A. Lavin, 1993. Common mistakes. (A handout by the first TA of this class.)
