Gábor Lövei's scientific communication course for students and scientists explores the intricacies involved in publishing primary scientific papers, and has been taught in more than twenty countries. Scientific Writing for the Non-English Speaker is the distillation of Lövei's lecture notes and experience gathered over two decades; it is the coursebook many have been waiting for.

The book's three main sections correspond with the three main stages of a paper's journey from idea to print: planning, writing, and publishing. Within the book's chapters, complex questions such as 'How to write the introduction?' or 'How to submit a manuscript?' are broken down into smaller, more manageable problems that are then discussed in a straightforward, conversational manner, providing an easy and enjoyable reading experience.

This volume stands out from its field by targeting scientists whose first language is not English. While also touching on matters of style and grammar, the book's main goal is to advise on first principles of communication. Scientific Writing for the Non-English Speaker is an excellent resource for any student or scientist wishing to learn more about the scientific publishing process and scientific communication. It will be especially useful to those coming from outside the English-speaking world and looking for a comprehensive guide for publishing their work in English.

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30. The Scientific Style

Never fear big words. Long words name little things. All big things have little names, such as life and death, peace and war, or day, dawn, night, love, home. Learn to use little words in a big way — it is hard to do. But they say what you mean. When you don’t know what you mean, use big words: they often fool little people.

SSC Booknews, 1981, quoted in Day, 1989

The most important principle of the scientific style is simplicity and clarity. New information is not easy to understand. You also recall that complicated coding can stand in the way of decoding (or, to put it another way, understanding). During reading, the reader decodes and interprets the information; interpersonal differences, reading conditions, and the predisposition of the reader will lead to varying interpretations. The bigger these differences are, the higher is the chance of misinterpretation. Note that I am not talking about legitimate interpretational differences here (the writer has no monopoly on the “proper” interpretation of her writing), but misunderstandings.

Readers expect context on the left, new information on the right (Gastel and Day 2016), so organise your sentences to meet this expectation. The subject of a sentence should be followed by a verb as soon as practicable. The beginning of the sentence is the topic position, letting the reader know the topic of the sentence. The end is the stress position, and this is the place for information that requires emphasis. In one sentence, try to communicate one point.

The reader cannot understand new information without context — provided by earlier, known, published information — so begin with old information, and finish with new information, also from sentence to sentence. This way you provide context before asking the reader to consider new information.
Be careful with similes and metaphors. Use them rarely and carefully. Otherwise, unintentionally funny results can emerge, such as this classic: “A virgin forest is a place where the hands of man have never set foot” (Gastel and Day 2016).

Be mindful of sentence structure. Day (1989) mentions a questionnaire, sent to fire-brigade leaders through the UK. The head of a brigade in Hampshire read the question carefully.

Question: How many people do you employ, broken down by sex?

Answer: None. Our problem here is booze.

At appropriate places in this book, I mentioned the tenses to use when composing different sections of a paper. Mostly, you will only use two of them: the simple present and the simple past. There are two main types of statements in a scientific paper: already-known facts, and new discoveries. The former should be mentioned using the simple present tense (and a reference to its discoverer). The latter should appear in the simple past (and is supported by experimental evidence: numbers, tests, figures, tables, etc.). Grammar occasionally requires a different tense, but typically, the grammatical structure of a scientific paper is simple, rarely using other than the above two tenses. As a Kenyan course participant once put it to the class: “Do not use the complicated present”.

Current writing style emphasises the importance of the use of the active voice; the passive should generally be avoided, especially in American English usage. The first person “I” is not wrong — although it is rarely used, because most published work is done by teams. Be mindful, though, of when to use it, and avoid the much-cited ridiculous statement by (as she was then) Mrs Thatcher: “We are a grandmother”. Beware of self-cancelling words, fillers, and what Gastel and Day (2016) call “mumblespeak” (see a list of jargon words and their simple equivalents in Day and Gastel, 2016, Appendix 2).

Jargon fulfils an important function in communication. However, its usefulness is very context-dependent, and mostly limited — this is one of its very functions. The same holds for acronyms. These have become the darlings of complicated bureaucracies (for example, the European Union administration), who seem to revel in them. The use
of acronyms also fulfils some of the functions of jargon. Those who are “in” will understand them, and those who are “out” are, rightly, baffled. Therefore, everyone pretends to understand them. Do not follow their example. If you use an abbreviation, provide a definition or write it out in full at first mention, followed by the abbreviation or acronym in parentheses. Subsequently, you can just use the acronym.

These are only a few pointers. More detailed advice on scientific style can be found in several books (e.g. Clymo, 2014; CBE, 1994; Turabian, 2007). As a final, humorous resource, Day and Gastel (2006) offer the enclosed list of the ten most common mistakes that it is claimed non-native writers make in their use of English. Note that the list commits the errors to be avoided (see Box 17).

**Box 17. Day and Gastel’s (2006) ten most common mistakes that it is claimed non-native writers make in their use of English**

1. Each pronoun should agree with their antecedent.
   
   Here the appropriate use of singular and plural is to be observed: the word “antecedent” is in singular, to the appropriate pronoun would be “its”.

2. Just between you and I, case is important.
   
   This is tricky because there are not so many cases in English, and not all of them are different in the different cases. For example, the most common one, “you” has the same form.

3. Don’t use no double negatives.
   
   Many languages, for example those in the Latin language family, use double negatives. “Non faccio nulla” — in Italian means “I do nothing”, but translated word-by-word, this is “I do not do nothing”. English does not use double negatives, so the correct form is either “I do not do anything”, or better: “I do nothing”.

4. A preposition is a poor word to end a sentence with.
   
   Note, however, the oddity Winston Churchill famously points out: “This is a rule up with which I will not put.”

   Churchill refers to English verbs that, while superficially in the form of a verb with a preposition behind, have acquired a new meaning, and are now inseparable. “To put” is synonymous with “to place”, or “to position”, but “to put up” means “to tolerate”. Here, the “up” is always immediately after the
“put”, and thus the “up” actually can stand at the end of a sentence and still be correct: “This outcome is one with which we cannot put up.”

5. Verbs has to agree with their subject.

In long, complex sentences it is not always obvious what is the appropriate subject to a verb, so this is a frequent mistake — not only by non-native English speakers. Be careful.

6. Remember to never split an infinitive.

This is, actually, a much debated rule, with many famous writers protesting against it. However, in most cases, it would be an error to split the infinitive.

7. When dangling, don’t use participles.

Words with an ending of -ing or -ed are called participles. They can be present (breaking, going, drinking) or past participles (broken, gone, drunk). The participle goes with the noun closest to it, either directly preceding or following it and the words which go with it in the sentence. The antecedent—that is, the noun to which the participle refers—must be clear to the readers in order for them to understand what’s being said. Otherwise, an action may be subscribed to the wrong player. That’s called a “dangling participle,” because it’s left “dangling” without a clear antecedent. Consider the example: “The robber ran from the policeman, still holding the money in his hands.” It is likely that the robber was holding the money — but as the word “policeman” is closest to the participle, readers get the wrong meaning. Correctly, it should be: “The robber, still holding the money in his hands, ran from the policeman.”

8. Join clauses good, like a conjunction should.

A conjunction cannot be used with just one clause. Conjunction joins TWO clauses, usually written as one sentence.

Mistake: That I didn’t know what to do.

Correct: I explained that I didn’t know what to do.

9. Don’t write a run-on sentence it is difficult when you got to punctuate it so it makes sense when the readers read what you wrote.

10. About sentence fragments.

There is no need to comment on points 9 and 10 — they are self-explanatory.