

Licking the Bear

From the days of the Roman empire up through the Middle Ages, it was commonly believed that bear cubs were not fully formed at birth. After they were born, according to Pliny the Elder, the mother bear had to lick them into the shape of bears, starting with only an amorphous mass of flesh and four sets of claws.



Medieval bear, "Licking the cub into shape"

We now know this to be untrue. And I know, from reading articles by 11 grad students, postdocs, and faculty at the IFSC last year, that your papers are NOT shapeless masses, but well-organized, professional articles. However, like the mythical bear cub, most could benefit from a *little* more work, especially in their English. And that is where I can offer help.

I am honored that the Research Commission has invited me to be your in-house editor for the coming month. Please feel free to bring me the articles you are working on for submission to English-language journals (I will usually be in Bloc D, Room 22) or send them to me at karie@fairpoint.net. While our short-term goal will be to polish the English of specific papers, I hope also to provide information that will enable you to write stronger future articles.

In this note I'd like to give you an idea of what we might be looking at in your paper—the types of problems we might address—though every article is different, and we can't cover all the possibilities here. For those of you who do not have an article at a

stage ready for editing, perhaps this survey of possible problems will be a useful checklist for future self-editing.

Part of my job at *Reviews of Modern Physics* was to make sure that each article our referees accepted—on the basis of its science—also fulfilled certain basic requirements of good presentation.

AIMS OF EDITING

Clarity	Does the article tell what was done and by whom in an orderly and accessible manner?
Economy	Is it free of needless repetition, wordiness, verbosity?
Professionalism	Does it follow the conventions of the journal and the field, without embarrassing omissions or excesses?
Authority	Does it inspire the reader's confidence from the opening sentence? Does it engage the reader's interest?
Correct English	Does it read smoothly (also inspiring the reader's confidence)

While we shall be concerned mainly with the last item, elements of all of the above do enter into good writing—in any language. Therefore when I see a problem with one of the other criteria on this list, I will comment on it, as well. An article that fulfills all these criteria has a tremendous advantage with referees.

I am not a physicist, and very often I will not understand what you are talking about, so you may be asking, how can I presume to comment on, say, your clarity or authority? Well, first, I CAN identify unclear English sentences. And second, ignorance can sometimes be an advantage. I can ask you without embarrassment to clarify what you mean, as your colleagues might not be willing to do. If you give me the explanation that you might give to an intelligent non-physicist, together we can usually find a way to say what you want to say in better English.

So, what can you expect if you decide to bring me an article you are working on?

First, in keeping with the long-term goal of improving your scientific writing, I will be marking a hard copy of the paper, making corrections on and between lines, and writing you notes in the margin. We will not be using an editing program. This is not just because I am old-fashioned, though I AM old-fashioned. Editing programs are an efficient tool for getting to the final version when working with multiple authors. They are not so efficient at showing exactly what is different or why it was changed. The common, venerable proofreader's marks show at once that a word has been moved to a different position, that two groups of words have been reversed in order, that punctuation has been added or removed. They communicate more detail than the highlighted areas when Track Changes is used.

Depending on the state of the article you give me, the suggestions you receive will range from only a few minor tweaks—light editing—to a heavier, more invasive set of suggested changes. For example,

A. Sample problems addressed by “Light” editing

Punctuation

Use or misuse of articles like *the* and *an*

Modifiers in the wrong place within a sentence, especially *only* and *also*

Too many modifiers stacked before one noun

Tenses – in particular, confusion of present perfect (*have shown*) and past (*showed*) and mixing of tenses within the same paragraph.

Prepositions - These include several used in comparisons, like *similar to* and *different from*, as well as *replaced by*, *substituted for*, and the multi-purpose preposition *of*.

Idioms – especially those common to scientific writing, like

in recent years

no longer (better than not any longer or not any more)

of interest to and of interest for

as can be seen

Technical problems – Abstracts, figure captions, references. One of these that came up in two IFSC papers last year was reference citations to key

papers without names. Of course, the names appear in your reference list at the end, but for articles that are of central importance to your own work, it is more than just a courtesy to name at least the first author in the text. That person might be your referee.

I am not going to discuss the items on this list here because they are less interesting in the abstract than when you discover them lurking within your own paper. However, I will be pleased to discuss any points of English grammar or style in connection with an editing job. Just speak up if you want further examples and clarification.

Here are a few other problems we might find that, by their nature, are systemic and call for more invasive editing.

B. Problems Requiring “Heavy” Editing

Introductions that do not engage the reader or that try to oversell the work

Wordiness or verbosity – not taking advantage of the economy available in English

Staccato style - Too many short sentences in a row

Heavily Latinate vocabulary – soporific to an English-speaking reader

Lack of clarity or accessibility.. Think of the text as the interface between the equations and your reader. If the text does not make the work more accessible, it is not doing its job.

The changes I will suggest are only suggestions. If you do not find them to be improvements, you are under no obligation to incorporate them into your article. However, at least they will point up areas where you can strengthen your scientific English, and I hope they will also serve you well in future papers. This larger goal is, I believe, what the Research Commission had in mind in engaging an in-house editor. I look forward with pleasure to working with you.

Karie Friedman