Rule 3: Stick to the context-content-conclusion (C-C-C) scheme

The vast majority of popular (i.e., memorable and re-tellable) stories have a structure with a discernible beginning, a well-defined body, and an end. The beginning sets up the context for the story, while the body (content) advances the story towards an ending in which the problems find their conclusions. This structure reduces the chance that the reader will wonder "Why was I told that?" (if the context is missing) or "So what?" (if the conclusion is missing).

There are many ways of telling a story. Mostly, they differ in how well they serve a patient reader versus an impatient one [6]. The impatient reader needs to be engaged quickly; this can be accomplished by presenting the most exciting content first (e.g., as seen in news articles). The C-C-C scheme that we advocate serves a more patient reader who is willing to spend the time to get oriented with the context. A consequent disadvantage of C-C-C is that it may not optimally engage the impatient reader. This disadvantage is mitigated by the fact that the structure of scientific articles, specifically the primacy of the title and abstract, already forces the content to be revealed quickly. Thus, a reader who proceeds to the introduction is likely engaged enough to have the patience to absorb the context. Furthermore, one hazard of excessive "content first" story structures in science is that you may generate skepticism in the reader because they may be missing an important piece of context that makes your claim more credible. For these reasons, we advocate C-C-C as a "default" scientific story structure.

The C-C-C scheme defines the structure of the paper on multiple scales. At the whole-paper scale, the introduction sets the context, the results are the content, and the discussion brings home the conclusion. Applying C-C-C at the paragraph scale, the first sentence defines the topic or context, the body hosts the novel content put forth for the reader's consideration, and the last sentence provides the conclusion to be remembered.

Deviating from the C-C-C structure often leads to papers that are hard to read, but writers often do so because of their own autobiographical context. During our everyday lives as scientists, we spend a majority of our time producing content and a minority amidst a flurry of other activities. We run experiments, develop the exposition of available literature, and combine thoughts using the magic of human cognition. It is natural to want to record these efforts on paper and structure a paper chronologically. But for our readers, most details of our activities are extraneous. They do not care about the chronological path by which you reached a result; they just care about the ultimate claim and the logic supporting it (see Rule 7). Thus, all our work must be reformatted to provide a context that makes our material meaningful and a conclusion that helps the reader to understand and remember it.

Rule 4: Optimize your logical flow by avoiding zig-zag and using parallelism

Avoiding zig-zag. Only the central idea of the paper should be touched upon multiple times. Otherwise, each subject should be covered in only one place in order to minimize the number of subject changes. Related sentences or paragraphs should be strung together rather than interrupted by unrelated material. Ideas that are similar, such as two reasons why we should believe something, should come one immediately after the other.

Using parallelism. Similarly, across consecutive paragraphs or sentences, parallel messages should be communicated with parallel form. Parallelism makes it easier to read the text because the reader is familiar with the structure. For example, if we have three independent reasons why we prefer one interpretation of a result over another, it is helpful to communicate them with the same syntax so that this syntax becomes transparent to the reader, which allows them to focus on the content. There is nothing wrong with using the same word multiple times in a sentence or paragraph. Resist the temptation to use a different word to refer to the