

# What to do when the ~~write~~ right words won't come out

[linkedin.com/pulse/what-do-when-right-words-wont-come-out-jun-cowan](https://www.linkedin.com/pulse/what-do-when-right-words-wont-come-out-jun-cowan)



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## **Jun Cowan**

Deposit-scale structural geology consultant | Leapfrog software conceptual founder |  
Analysed over 600 drilled deposits

### **An affair to remember**

I have a confession to make.

I've been cheating.

I've been creating an illusion—pulling wool over everyone's eyes for a very long time and no one knows about it.

I have built this illusion for nearly 20 years through a clandestine relationship with a married woman. But it's high time I 'fessed up publicly because this mystery woman reminded me that our relationship has, in fact, outlasted my own marriage!



## Why I hire a technical copyeditor

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Ask yourself: Why do you write?

I'm not sure about you, but I want to communicate my ideas to my audience as clearly and succinctly as I possibly can. I want my words to be understood by my audience and not confuse them. I want what I write to be beneficial to them, so that's why I hire Rhonda because she clarifies my message.

The main reason I initially hired Rhonda is simple—I was not a confident writer. I was raised in Japan in a bilingual Japanese- and English-speaking family and thus I wasn't competent with either language. I moved to Sydney when I was a teenager and I promptly failed high school English, which prevented me from applying to some of the top-rated universities in Australia.

Despite my lack of confidence with writing, even as an adult with a PhD in my chosen profession of geology, I've always had really interesting questions and ideas that I've wanted to write about. But my lack of writing skills hampered me.

## Lessons from my early writing experiences

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Before I started working with Rhonda, I'd published a couple of technical journal papers based on my PhD research. I put a lot of time and effort into these manuscripts, and I was excited when they were published because my ideas were completely different from the accepted narrative. It's been more than 20 years since my papers were published, yet my ideas have effectively been ignored. I believe that the main reason for this is that my papers were read by perhaps a handful of academics, and they probably missed or misunderstood the punchline hidden in my jungle of words.

If scientific papers are not understood, or worse, not read properly due to lack of readability, then the ideas locked within them simply don't see the light of day. Well, perhaps they might be discovered someday, well after you've been pushing up daisies, but what's the fun in that? I realised after this experience that I had to do something drastically different with my writing. I decided to force myself to write publicly, and follow the *3 Rules* that I had formulated.

## Rule 1: Write in your own voice

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When was the last time you read a technical paper published in a refereed journal and devoured every word from start to finish?

If you're like me, that'd be a very rare experience. For most papers, I skim read rather than read every word. If I do find myself enjoying reading every word, then there's something profoundly different about these papers, which usually comes down to one simple thing—readability.

Academic technical writing during the late 20th century has evolved into a type of signalling competition between jargon addicts. You get the impression that authors are trying really hard to *not* communicate the important message to the reader. The excessive use of jargon, and long strung-out sentences drown those important messages in an ocean of words. I'm not the only one who thinks this. Professor Inger Mewburn, the Director of Research Training at the Australian National University [expressed a similar thought in her blog post](#):

‘Academic writing, as a genre, is ritualised, peculiar, archaic and does almost as much to hide knowledge as it does to share it. Mastering academic writing is just as much about signalling you are the member of an ‘in-group’ as it is about conveying ideas’

So, for me, overly complex sentences and excessive use of jargon was out, irrespective of the final publication mode—whether it's an article for a blog post like this, or a conference or journal paper. I try to be conversational. I simply write as if I'm talking to you in person. Yes, I actually sound like the way I write. Isn't that a radical concept—to actually write the way you speak, in plain language?!

Many academics may disagree with this approach, but there are some who use plain language *and* get published in high-profile refereed journals. A recent review article on folding by Nabavi and Fossen (2021) is a great example of a writing style that's simple and easily understandable. Perhaps it's significant that the first language of the two authors isn't English?

## Rule 2: Make it emotionally relatable

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Logic does not persuade, but emotional connection does.

If left to my default mode, I would always write like Mr Spock from *Star Trek*—entirely focused on logic—but this only reaches a minority of the audience and that’s not enough to persuade the community. The rest are only convinced if they can connect emotionally to what I’m writing about—this could be something as silly as Tom Cruise’s crooked teeth, which is fine for a blog post, but not something I can normally do in journal articles. However, I still try to insert some little detail that would interest my readers. In a journal paper this might be some unusual historical background that most readers may not be aware of, thus placing the entire paper into a completely different context.

## Rule 3: Make it readable

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All my writings address scientific issues, so I must be accurate in what I say, but not so technically prescriptive that the text detracts from the main message I’m trying to convey. This is where the skills of a technical editor like Rhonda becomes invaluable.

A technical editor is not just someone who corrects the sentences or the spelling and grammar, although she does those things too. Her main job is to make my writing clear, consistent, and as brief as necessary without losing meaning. She advocates for the reader, and tries to achieve a ‘plain language’ document (e.g. by removing word clutter, such as redundant, filler, and vague words). There’s way more than this, of course; for a specific list of what she can do for your document, check out her ‘triage’ list of editing tasks: [https://cybertext.com.au/editing\\_levels.html](https://cybertext.com.au/editing_levels.html). See also the *Resources* section of this article, below, for more information.

## Plain language will help YOU, as it helped me

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Never in my wildest dreams as a young university student did I imagine my future self as a writer. Never did I think that people would actually read what I wrote and give me positive feedback about it. After all, my low confidence in my writing skills was a major reason why I moved away from the academic career that I’d pursued in my 20s. I had no problem with the science—I just couldn’t write clearly.

My personal ‘Pulitzer moment’ occurred in 2016 when I wrote a LinkedIn article (that Rhonda edited) imagining how the prize-winning physicist and scientist Richard Feynman would have solved geological problems. Not one, but two professional writers got in touch with me and told me how much they enjoyed reading my article. One was a ghost writer who has a New York Times best seller as one of his career achievements. It was at this moment I realised that perhaps I, a village boy from the mountains of Japan with poor English skills, can actually do what I thought was impossible—improve on that one skill that I had zero confidence in.

I'm lucky to have had an excellent teacher along the way—Rhonda, who didn't teach me directly, but through her comments and track changes in Microsoft Word taught me by *showing* how it's done. Over the years her edits have slowly and positively influenced my writing ability. She has unknowingly helped me to become a confident writer, and for that, my years with Rhonda is an 'affair' that I'll always remember.

## References

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Cowan, E.J., 1991. The large-scale architecture of the fluvial Westwater Canyon Member, Morrison Formation (Jurassic), San Juan Basin, New Mexico, In: The three-dimensional facies architecture of terrigenous clastic sediments, and its implications for hydrocarbon discovery and recovery (edited by Miall, A. D. and Tyler, N.). SEPM (Society of Sedimentary Geologists) Concepts in Sedimentology and Paleontology 3, 80-93.

Cowan, E.J., 1999. Magnetic fabric constraints on the initial geometry of the Sudbury Igneous Complex: a folded sheet or a basin-shaped igneous body? , Tectonophysics 307, 135-162.

Nabavi, S.T. and Fossen, H., 2021. Fold geometry and folding – a review. Earth-Science Reviews. <https://doi.org/10.1016/j.earscirev.2021.103812>

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*Jun Cowan is a structural geological consultant, specialising in the interpretation of mineral deposits at the deposit-scale. He is the conceptual founder of Leapfrog Software, which is now being used by many international mining and mineral exploration companies—a software that resulted from private R&D collaboration undertaken by a joint venture between SRK Consulting Australasia (where Jun worked) and New Zealand company, ARANZ. Out of his home in Fremantle, Western Australia, he consults to mineral industry clients around the world and enjoys sharing his crazy ideas with his clients and online colleagues. This and other articles, mainly focused on geological subjects, are available from [\*\*LinkedIn\*\*](#).*

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## Resources

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Are *you* ready to have an 'affair' with a copyeditor?

Below are valuable websites where you can find out more about professional editors near you. What's been extremely valuable for me is that Rhonda is experienced in working with geological texts [Rhonda here: I am NOT a geologist], so I'd recommend that you look for professional editors who are experienced in your field of expertise, or at the very least, familiar with technical and/or scientific material. An editor who specialises in romantic fiction is only useful if you've written romantic fiction!

## Editors available for hire

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Most major English-speaking countries have professional editors' associations that list members for hire, often with their expertise/genre, location etc. and a facility to filter on various aspects, such as subject matter (e.g. you don't want a fiction editor if you're looking for someone to edit a medical journal article). Some of these associations also publish pay rates and other information to guide those looking to hire an editor.

Australia/NZ: IPEd (Institute of Professional Editors): <https://www.iped-editors.org/>;  
Find and editor: <https://www.iped-editors.org/find-an-editor/>; pay rates:  
<https://www.iped-editors.org/about-editing/editors-pay-rates/>

US/world: ACES: The Society for Editing: <https://aceseditors.org/>; Editors for hire:  
<https://aceseditors.org/resources/for-hire>

Canada: Editors Canada: <https://www.editors.ca/>; Online Directory of Editors:  
<https://www.editors.ca/ode/search>; various editing skills:  
<https://www.editors.ca/hire/definitions-editorial-skills>; also  
<https://www.editors.ca/local-groups/toronto/find-work-or-find-editor/what-editors-charge>

UK/world: CIEP (Chartered institute of Editing and Proofreading):  
<https://www.ciep.uk/>; directory of editors: <https://www.ciep.uk/directory>; suggested  
minimum rates: <https://www.ciep.uk/resources/suggested-minimum-rates/>

US/world: EFA (Editorial Freelancers Association): <https://www.the-efa.org/>; hire a  
freelancer: <https://www.the-efa.org/hiring/>; 2020 rates survey: <https://www.the-efa.org/rates/>

## About Rhonda Bracey

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Rhonda Bracey ([Rhonda.Bracey@cybertext.com.au](mailto:Rhonda.Bracey@cybertext.com.au)) is a member of IPEd and ACES. She has spoken on technical writing and editing and Microsoft Word at conferences and webinars in Australia, New Zealand, Canada, and the US since 2002. Her [website](#) details her services. She also writes a blog (<https://cybertext.wordpress.com/>) that attracts more than a million viewers each year and contains tips and tricks relating to writing, editing, and Microsoft Word.

Just to give you a flavour of the level of service you can get from a technical editor, I asked Rhonda to edit some passages from two papers I'd written long before I started working with her. I have captured her corrections, as is. As the author, I can choose to accept or reject her editorial suggestions.

The first passage is from Cowan (1991) and the last two are from Cowan (1999).

## Original

Cliff exposures of the Westwater Canyon Member serve as an excellent example for illustrating the control of overbank fines as effective barriers to pore-fluid flow. It is apparent that on the member scale, the preservation of overbank-fine deposits between sheet-like sandstone bodies has controlled the pore-fluid flow, notwithstanding the internal complexity of the sheet-sandstone architecture as revealed by the detailed lateral profiles. The sheet sandstones, with very little internal grain-size variation, acted as fluid conduits, and the thicknesses of conduits or compartments were solely dependent upon the preservation of overbank fines between the interpreted channelbelt sandstone bodies. The review of published examples of fluvial-body dimensions indicates a consistency of sandbody thicknesses, namely in the 1- to 12-m range, and the thicknesses of the Westwater sheets fit in this range (Fig. 17). The pore-fluid flow, therefore, will be largely confined within this thickness for sandy fluvial systems. Increases in this thickness range will be the result of amalgamation of the unit sandstone sheets by erosion of capping overbank fines, whereas a decrease is likely to be associated with increasing heterogeneity of grain size within the sandstone channelbelt bodies (as in deposits resulting from mixed-load fluvial systems).

(195 words)

## Edited (with Track Changes)

Cliff exposures of the Westwater Canyon Member cliff exposures are serve as an excellent example that for illustrating the control of overbank fines as effective barriers to pore-fluid flow. From this example, it appears is apparent that on the member scale, the preservation of overbank-fine deposits between sheet-like sandstone bodies has controlled the pore-fluid flow, notwithstanding despite the internal complexity of the sheet-sandstone architecture, as revealed by the detailed lateral profiles. The sheet sandstones, which have with very little internal grain-size variation, have acted as fluid conduits, with and the thicknesses of conduits or compartments were solely dependent upon the preservation of overbank fines between the interpreted channelbelt sandstone bodies. The review of published examples of fluvial-body dimensions indicates a consistency of sandbody thicknesses, namely (in the 1- to 12- m range), and the thicknesses of the Westwater sheets fit in this range (Fig. 17). Therefore, the pore-fluid flow, therefore, for sandy fluvial systems will be largely be confined within this thickness for sandy fluvial systems. If the unit sandstone sheets are amalgamated as a result of the erosion of capping overbank fines, this thickness range will be greater. Increases in this thickness range will be the result of amalgamation of the unit sandstone sheets by erosion of capping overbank fines. Conversely, whereas a decrease in thickness is likely to be associated with increasing heterogeneity of grain size within the sandstone channelbelt bodies (as such as in deposits resulting from mixed-load fluvial systems).

## Edited (Final view)

The Westwater Canyon Member cliff exposures are an excellent example that illustrates the control of overbank fines as effective barriers to pore-fluid flow. From this example, it appears that the preservation of overbank-fine deposits between sheet-like sandstone bodies has controlled the pore-fluid flow, despite the internal complexity of the sheet-sandstone architecture, as revealed by the detailed lateral profiles. The sheet sandstones, which have very little internal grain-size variation, have acted as fluid conduits, with the thickness of conduits or compartments solely dependent on the preservation of overbank fines between the interpreted channelbelt sandstone bodies. The review of published examples of fluvial-body dimensions indicates a consistency of sandbody thicknesses (1–12 m range), and the thicknesses of the Westwater sheets fit in this range (Fig. 17). Therefore, the pore-fluid flow for sandy fluvial systems will largely be confined within this thickness. If the unit sandstone sheets are amalgamated as a result of the erosion of capping overbank fines, this thickness range will be greater. Conversely, a decrease in thickness is likely to be associated with increasing heterogeneity of grain size within the sandstone channelbelt bodies (such as in deposits resulting from mixed-load fluvial systems).

(193 words)

**Rhonda Bracey**  
Does this need to be capitalised?

**Rhonda Bracey**  
I'm not sure of the hyphen here – do you mean the deposits are 'overbank fine' (use the hyphen) or is it that the fine deposits are overbank (no hyphen)? (whatever overbank means in this context).

**Rhonda Bracey**  
Does this need to be hyphenated or two words?

I won't flag this again – if you change it here, search for ALL instances like this and amend accordingly.

**Rhonda Bracey**  
Check hyphenation – you use fluid-body here as a compound adjective qualifying the noun 'dimensions', but a few words later you use 'sandbody' as an adjective, but it's not hyphenated.

**Rhonda Bracey**  
See previous comment

## Original

The SIC samples were found to exhibit a wide range of susceptibility values that indicate a range of ferrimagnetic contribution ( $K_{ferri}$ ) from 0% to nearly 100%. The relationship of Fig. 2 was used as a guide to investigate whether there is a perceptible difference between the magnetic fabric orientations obtained from predominantly ferrimagnetic carriers (in this case predominantly magnetite), or samples lacking in ferrimagnetic carriers (in this case inferred to be dominated by paramagnetic mineralogy of amphibole, ilmenite, chlorite and biotite). Magnetic fabrics from two neighbouring sample sites from the north-eastern quadrant of the SIC (Fig. 1a) that contrast in susceptibilities are almost identical in magnetic lineation and foliation orientations (Fig. 3). The similarities observed in magnetic fabrics of neighbouring sites clearly establishes that the magnetic fabric *directions* are independent of the magnetic mineralogy.

(135 words)

## Edited (with Track Changes)

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## Edited (Final view)

A wide range of susceptibility values were found in the SIC samples, indicating a range of ferrimagnetic contributions ( $K_{ferri}$ ) from 0% to nearly 100%. The relationship in Fig. 2 guided the investigation as to whether perceptible differences exist between the magnetic fabric orientations obtained from predominantly ferrimagnetic carriers (predominantly magnetite in this case) and from samples lacking in ferrimagnetic carriers (inferred to be dominated by paramagnetic mineralogy of amphibole, ilmenite, chlorite, and biotite). Magnetic fabrics from two neighbouring sample sites in the north-eastern quadrant of the SIC (Fig. 1a), which contrast in susceptibilities, were almost identical in magnetic lineation and foliation orientation (Fig. 3). These similarities clearly establish that magnetic fabric *directions* do not depend on the magnetic mineralogy.

(119 words)

R8

**Rhonda Bracey**

There are two 'ranges' in this sentence. Does this range refer to the susceptibility values or the ferromagnetic contributions? Consider changing one 'range' to another term – 'broad spectrum'

## Original

The magnetic fabric modelling of the SIC in the North and East Ranges (Fig. 15) is consistent with low levels of tectonic strain superposed on initially dipping SIC contacts. There are no known folding mechanisms that will yield the present fold-like geometry of the North Lobe without substantially altering the contact-orthogonal magnetic lineation fabric preserved in the granophyre. Fold origin for the North Lobe is also inconsistent with the orientation of the tectonic lineation recorded in the Onaping Formation. This rules out any emplacement models for the SIC, including the impact-melt model (Grieve et al., 1991), that require the consolidated SIC to have folded into the present basinal geometry from a horizontal sheet. Instead, it is likely that the SIC intruded along a basin-shaped interface that was established as a result of the impact event (Cowan et al., 1999). The initially basin-shaped SIC was subsequently deformed to varying levels by the regional strains associated with the South Range shear zone (Fig. 1b).

(162 words)

## Edited (with Track Changes)

The magnetic fabric modelling of the SIC in the North and East Ranges (Fig. 15) is consistent with low levels of tectonic strain superposed on initially dipping SIC contacts. ~~There are no~~ No known folding mechanisms that will yield the ~~present~~ fold-like geometry of the North Lobe without substantially altering the contact-orthogonal magnetic lineation fabric preserved in the granophyre. ~~Fold origin for~~ The North Lobe's fold origin is also inconsistent with the orientation of the tectonic lineation recorded in the Onaping Formation. This ~~eliminates rules out any~~ SIC emplacement models, ~~including the impact-melt model (Grieve et al., 1991), for the SIC, including the impact-melt model (Grieve et al., 1991),~~ that require the consolidated SIC to have folded into the present basinal geometry from a horizontal sheet. Instead, it is likely that the SIC intruded along a basin-shaped interface that was established as a result of the impact event (Cowan et al., 1999). The ~~initially~~ original basin-shaped SIC was subsequently deformed to varying levels by the regional strains associated with the South Range shear zone (Fig. 1b).

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(154 words)

**Rhonda Bracey**  
Check which English is required – US spelling would be 'modeling', whereas Australian is 'modelling'

**Rhonda Bracey**  
Spell out in full here and define in the Terms list if used more than once in the document. If only used once, then spell out in full and delete the abbreviation.

**Rhonda Bracey**  
Does this need to be capitalised? Compass directions are not capped, but if these are named ranges, then cap them. Watch for 'Ranges' as well – typically if it's more than one named range, then the 'ranges' part is lower case – e.g. 'Indian Ocean, Atlantic Ocean', but 'Indian and Atlantic oceans'

**Rhonda Bracey**  
Should this be 'superimposed'?

**Rhonda Bracey**  
I don't think you need this word. It wouldn't be future, and it's unlikely to be ancient and you wouldn't be seeing it now. I think it's redundant, but leave it in if it's necessary for the context.

**Rhonda Bracey**  
Check the style guide as to whether this should be in italics, and whether there's a comma after et al. or not. I won't flag this again – if you change it here, search for ALL instances like this and amend accordingly.

**Rhonda Bracey**  
This is a lower case 'l' – if you're using numbered captions, then it likely should be a '1'; if lettered, then either an 'L' or an upper case 'I'. Also, it comes after a mention for Fig 15, so should this be Fig 16?

## Useful websites

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The Comprehensive guide to finding, hiring, and working with an editor:

<https://www.janefriedman.com/comprehensive-guide-to-finding-working-with-editors/>

Reasons for hiring a professional editor:

<https://www.editors.ca/hire/what-can-professional-editor-do-you;>

[https://intelligentediting.com/blog/you-should-hire-an-editor/;](https://intelligentediting.com/blog/you-should-hire-an-editor/)

<https://www.editors.ca/hire/five-good-reasons;>

<https://cybertext.wordpress.com/2018/07/24/how-a-copyeditor-can-help-your-business/>

Catching potentially expensive errors of fact by hiring an editor:

<https://cybertext.wordpress.com/2019/06/30/catching-potentially-expensive-errors-of-fact/>

You cannot get a professional service for free:

<https://cybertext.wordpress.com/2011/08/17/he-wants-accurate-and-cheap-hes-dreaming/>

How long does editing take?:

<https://cybertext.wordpress.com/2011/06/22/how-long-to-edit-a-50-page-software-manual/>

The bewildering list of tasks that copyeditors do!:

<https://cybertext.wordpress.com/2011/05/17/copyediting-from-a-copyeditors-perspective/>

The best way to test an editor's skills before hiring:

[http://stc-techedit.org/corrigo/conversation-starter-how-can-we-better-determine-an-editors-skill-before-hiring/;](http://stc-techedit.org/corrigo/conversation-starter-how-can-we-better-determine-an-editors-skill-before-hiring/) <https://palimpsestediting.com/the-editors-notebook/editors-and-editing-2/how-can-we-better-determine-an-editors-skill-before-hiring>

Preparing your copy for translation: <https://aceseditors.org/news/2020/preparing-your-copy-for-translation-7-tips-for-success>

The excessive use of jargon alienates readers:

<https://www.nature.com/articles/d41586-020-00580-w>

Why academic writing sucks:

<https://thesiswhisperer.com/2020/06/10/why-academic-writing-sucks-and-how-we-can-fix-it/>

## Published by

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Jun Cowan

Deposit-scale structural geology consultant | Leapfrog software conceptual founder |  
Analysed over 600 drilled deposits

This is a bit of a break from my usual geological articles, but something I really feel passionate about—writing. If you are like me and struggle to express yourself in writing, then this is an article for you. [hashtag#geology](#) [hashtag#science](#) [hashtag#mining](#) [hashtag#mineralexploration](#) [hashtag#writing](#) [hashtag#exploration](#) [hashtag#editing](#) [hashtag#communication](#) [hashtag#copyediting](#) [hashtag#PhD](#)