## Write what you mean

### Tony Roberts*

> The only proper attitude is to look upon a successful interpretation, a correct understanding, as a triumph against the odds. We must cease to regard a misinterpretation as a mere unlucky accident. We must treat it as the normal and probable event. *Practical Criticism*, I.A. Richards (1929)

Surely communication cannot be quite as difficult as Richards suggests. Yet consider this simple sentence which a few years ago appeared in the Review section of the *New Scientist* magazine: 'Mostly, I read the books I review on trains'. We know what the writer means: when he gets a book to review, he generally chooses to read them while travelling on a train, probably while commuting. But imagine a reader who does not share the same context as you, I and the writer; such a reader could easily and justifiably interpret the sentence quite differently. The sentence could mean that when the writer gets to review a book about trains, then the writer mostly chooses to read them. If such a simple little sentence can be subject to such different interpretations, then, yes, communication is difficult.

In this simple sentence, the problem lies in the chosen word order. Reorder the words:

*Poor:* Mostly, I read the books I review on trains.
*Good:* Mostly, I read on trains the books that I review.

This reordering is much harder to misinterpret. Carefully reordering words in a sentence will greatly clarify meaning. When revising, read each sentence you write and ask whether you could reorder the words to ensure that the sentence reads what you mean to write [2, Section 4.32].

Higham [2, Section 4.32] gives an example, with a misplaced 'only', where reordering strengthens a sentence and removes ambiguity.

*Poor:* The limit point is only a stationary point when the regularity conditions are satisfied.
*Good:* The limit point is a stationary point only when the regularity conditions are satisfied.

Strunk similarly advises us to keep related words together.

> The position of the words in a sentence is the principal means of showing their relationship. The writer must therefore, so far as possible, bring together the words, and groups of words, that are related in thought, and keep apart those which are not so related. Strunk [5, Section 16]

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Strunk gives the following example.

*Poor:* Cast iron, when treated in a Bessemer converter, is changed into steel.
*Good:* By treatment in a Bessemer converter, cast iron is changed into steel.

## Summary

Much confusion arises when words which relate to the same thing are separated by a significant chunk of the sentence. Consider word and phrase order carefully for each sentence.

## Postscript

Since writing the previous article on typesetting documents for effective comprehension, I became aware that Colin Wheildon [7] recently published an updated report on his research. Those intrigued by typesetting for communication should read the details Colin describes in this recent book.

## References

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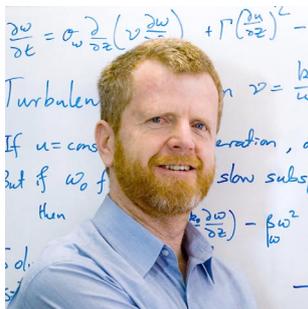
Tony Roberts is the world leader in using and further developing a branch of modern dynamical systems theory, in conjunction with new computer algebra algorithms, to derive mathematical models of complex systems. After a couple of decades of writing poorly, both Higham's sensible book on writing and Roberts' role as electronic editor for the Australian Mathematical Society impelled him to not only incorporate writing skills into both undergraduate and postgraduate programs, but to encourage colleagues to use simple rules to improve their own writing.