

4.2 Narratives- Necessary but Dangerous

An often heard piece of good advice to a new researcher attempting scientific prose is to “tell a Story”. This Story is sometimes referred to as a Take-Home Message, the thing that (it is implied) the reader or audience should remember long after the bothersome details have faded from memory. We can think about the Story in two different ways. In the first way, a Story highlights a point (or set of points) that forms a focus of the work and points the reader towards a clear and easily understood conclusion. This always makes the task of writing much simpler as well. As well as a focus and a structure, a good Story can give the writing a certain vigour and coherence and, if done well, makes the writing compelling and persuasive. It is worth noting that inexperienced researchers (undergraduate students in particular) often write up their research projects as a catalogue of apparently unlinked data, with arguments that have no coherent rationale. This is a consequence of lacking a well thought out Story. The data and analyses may be central to reporting a study, but the Story will link these disparate elements to give them a form needed for proper communication and understanding. Note that it is common to summarise or declare the Story in the title of the document, which is why it can be helpful to work out a draft title to help the writing process.

The second way to think of the Story is as a form of information compression. The human mind takes in information very efficiently in narrative form as it allows us mentally to fill in implied (but not supplied) information. Consider two versions of a statement* :

“The queen died and then the king died”, and

“The queen died and then the king died of grief”.

Only two words different, but while the first is a simple statement of a sequence of events without even a sure link between the affected individuals (apart from social rank), the second version is richer and contains hints of a plot with personal motivation, causation and personal relationships. All from two words. This is the power that narrative has, and why it is so important to scientific writing. It compresses information by drawing on knowledge the reader already possesses (we know many implications of ‘grief’ and ‘dying of grief’) as well as a store of stories we inherit from our culture(s) with its many stories of royalty, grieving and dying that we have imbibed. Narratives are a natural and powerful way to learn, and seem to be

a central and universal feature of human psychology. Their importance is evident in literature, poetry, politics, advertising and many other fields. But there is a dark side that lurks in a narrative: the Narrative Fallacy.

Nature, by and large, does not have narratives; they exist only in our head, linking a chain of causation and ignoring irrelevant things. A good narrative can, however, make people to think that a conclusion is logical and perhaps inevitable: if A and B followed by C then D, then we all know that E happens next. The conclusion of E may not be wrong, but it perhaps is not be as certain as it appears. This is a type of cognitive bias or fallacy – that is, a thing is

true if the Story sounds good. Such biases can fool us badly but, happily, in the scientific method we have thinking tools that prod us question and check and with luck overcome the effects of this and other biases.

To summarise, narratives are a very useful, a superb communication method, but we need to be careful not to take them too seriously.

* based on an oft-quoted example from E.M. Forster *Aspects of the Novel*, 1927.

Author: Julian Quinn

Version 2.1 (Nov 2020)

Thanks to Dr Ali Cimen, Professor Thomas Hugh and Dr Richard Piper for reviewing and critiquing this article.

Royal North Shore Hospital, DIVISION of SURGERY and ANAESTHESIA

