The Curse of Knowledge

From: Steven Pinker, *The Sense of Style*

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Why is so much academic/technical prose so bad?

- **Bamboozlement theory**: bureaucrats/managers insist on opaque prose to “cover their anatomy”; pseudo-intellectuals spout obscure verbiage to hide that they have nothing to say; editors demand ponderous language

- **Curse of knowledge** (< economic theory);
The Curse of Knowledge

…the difficulty of imagining what it’s like for someone else not to know something you know
Psychologists keep discovering related versions

- **Hindsight bias**: tendency to think that an outcome we know, e.g., outcome of a war, should have been obvious to someone who had to make a prediction about it

- **Mindblindness, or lack of theory of mind**: 3-year-old who sees toy being hidden while second child is in another room assumes that the other child will look for the toy in its actual location

- Study by *Kelley and Jacoby*, 1996: experimental volunteers unscrambling anagrams; *Hinds*, 1999: learning cellphone use
How can we lift the curse of knowledge?

Traditional advice, to imagine the reader over our shoulder, is not as effective as you might think, because when you learn something so well that you forget others may not know it, you also forget to check whether they know it.

Be aware of pitfalls it sets in your way, such as overusing jargon, abbreviations, and technical vocabulary.

These cannot be avoided altogether, but curse leads writers to overestimate how standard a term has become.
1. Most jargon can be banished

- Scientist who replaces *murine model* with *rats and mice* will use no more space and be no less scientific.

- Philosopher who replaces Latin *ceteris paribus, inter alia, and simpliciter* with English *other things being equal, among other things, and in and of itself* is no less rigorous.

- Lawyer who replaces *the party of the first part* with a *short form of the name* of one of the parties entering into a contract is no less precise.
2. Add words of explanation to common technical terms

E.g. “Arabidopsis, a flowering mustard plant”

- Writer who explains technical terms can multiply readership by thousandfold at cost of handful of characters
2. Add words of explanation to common technical terms

- copiously use *for example, as in, such as*, because an explanation without an example is little better than no explanation at all

E.g. explanation of rhetorical term *syllepsis*: “the use of a word that relates to, qualifies, or governs two or more other words but has a different meaning in relation to each”

*Got that?*

- Now let’s add: “…such as when Ben Franklin said, “We must all hang together, or assuredly we shall all hang separately”

*Clearer? Maybe not?*

- Sometimes two examples are better than one, to allow reader to triangulate on which aspect of example is relevant to the definition

- So let’s add: “…or when Groucho Marx said, “You can leave in a taxi, and if you can’t get a taxi, you can leave in a huff”
Two ways thoughts can lose concreteness

1. **Chunking**
   - Psychologists believe human memory can only hold *three or four items* at a time.
   - Failure to realize that my chunks may not be the same as your chunks can explain why we baffle our readers with so much shorthand, jargon and alphabet soup.

2. **Functional fixity**: getting fixated on an object’s function, and forgetting its physical makeup.
   - As we become familiar with something, we think about it more in terms of the use we put it to and less in terms of what it looks like and what it is made of.
   - E.g. textbook experiment where people are given a candle, book of matches, and box of thumbtacks, and are asked to attach the candle to the wall so that the wax won’t drip onto the floor.
   - Most people never figure out the solution is to dump the thumbtacks out of the box, tack the box to the wall, and stick the candle onto the box, because they think of the box as a container for the tacks rather than a physical object with handy features like a flat surface and perpendicular sides.
Readers need to see the sights and feel the motions
a 3\textsuperscript{rd} of human brain is devoted to vision

- The set fell off the table.
- The measuring gauge was covered with dust.
- Georgia O’Keeffe called some of her works “equivalents” because their forms were abstracted in a way that gave emotional parallel to the source experience.

- The ivory chess set fell of the table.
- The oil-pressure gauge was covered with dust.
- Georgia O’Keeffe’s landscapes were of angular skyscrapers and neon thoroughfares, but mostly of the bleached bones, desert shadows, and weathered crosses of rural New Mexico.
Professionalese vs concrete equivalents

- Participants were tested under conditions of good to excellent acoustic isolation.

- Management actions at and in the immediate vicinity of airports do little to mitigate the risk of off-airport strikes during departure and approach.

- We believe that the ICTs approach to delivering integrated solutions, combining effective manpower, canine services and cutting-edge technology was a key differentiator in the selection process.

- We tested the students in a quiet room.

- Trapping birds near an airport does little to reduce the number of times a bird will collide with a plane as it takes off or lands.

- They chose our company because we protect buildings with a combination of guards, dogs, and sensors.
Why and how to guard against the curse of knowledge

Reason why it’s hard to avoid the curse of knowledge is that if you are enough of an expert in a topic, you have probably come to think about it in abstract chunks and functional labels that are now second nature to you but unfamiliar to your readers.

- A commitment to the concrete can lead to better reasoning.

- To escape the curse of knowledge, chunking and functional fixity ...
  
  …show a draft to readers who are similar to your intended audience
Sources