



Slash the Slash – or, The Art of Not Being Oblique

by Stephen de Looze

*Come listen, my men, while I tell you again /The five
unmistakable marks /By which you may know, wheresoever
you go, /The warranted, genuine Snarks.*

From "The Hunting of the Snark" by Lewis Carroll/Charles Dodgson

The snark that I will be hunting in this article is the slash, variously known as the oblique stroke, bar or mark, the slant line or the virgule. In my opinion it is the most abused punctuation mark. I am sure that other writers and editors have their own pet hates—the illiterate use of the apostrophe, wild capitalization, or a failure to distinguish between hyphens and dashes. But for me, the slash—or what I like to call "slash creep"—should be the *cause célèbre*, because medical writers seem to be as guilty of rampant abuse as anyone else. I have even challenged writers on this, who were ready to defend their "slash creep" as perfectly acceptable style.

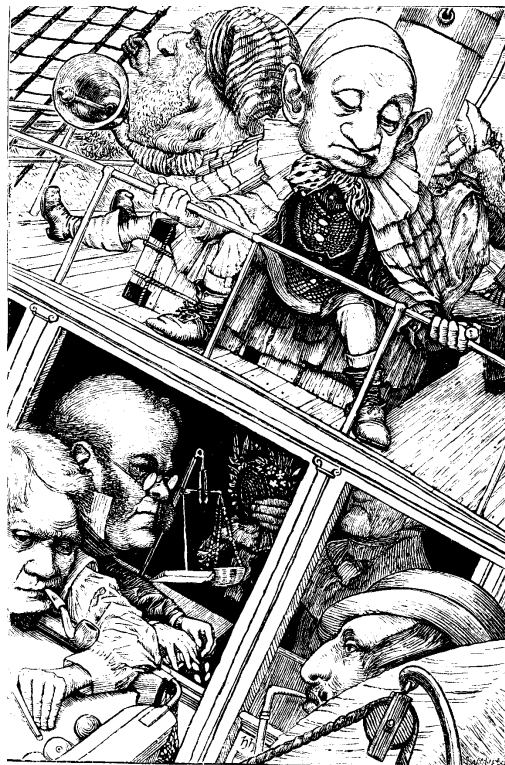
So let us begin with the "five unmistakable marks", or the five correct uses of the "warranted, genuine Snarks". Two are exemplified at the top of this article. The first is for separating lines of poetry when written out across the page—not a common feature of medical writing! The second is for stating two equivalent, alternative names for the same thing (or person). This use does feature in our work, for example:

Paracetamol/Acetaminophen is one of the most widely prescribed NSAIDs...

The institutional review board/independent ethics committee must be informed of all serious adverse events...

The third use is as the familiar mathematical symbol for division ($y = 4x/z$), the fourth in expressions of rate or concentration (km/h, mg/ml), and the fifth in some rather specialized abbreviations and nomenclatures such as genotype designations and web addresses. In all these cases, the slash is unambiguous and, in common with its punctuation mark brethren, serves as an aid to comprehension.

When it comes to using punctuation marks other than the slash, writers do not feel impelled to imbue the mark with their own



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private significance—but not so with the slash, which suffers from what may be called "the Humpty Dumpty approach". This is explained in the well-known passage from Lewis Carroll's, alias Charles Dodgson's, perhaps most famous work:

"There's glory for you!"

"I don't know what you mean by 'glory' ", Alice said.

Humpty Dumpty smiled contemptuously. "Of course you don't—till I tell you. I meant 'there's a nice knock-down argument for you!' "

"But 'glory' doesn't mean 'a nice knock-down argument' ", Alice objected.

"When I use a word", Humpty Dumpty said in a rather scornful tone, "it means just what I choose it to mean—neither more nor less".

From "Through the Looking Glass"

Below is a table, copied from an article on definitions of phases of investigation (clinical trial phases) that appeared in the American Heart Journal in April 2000. The author is none other than the famous Bob Temple, an influential American regulator at the US Food and Drug Administration, and a major contributor to the international standardization of clinical study reports and other documentation.

Table I. Contrasts between Phase II and Phase III studies

	Phase II studies	Phase III studies
Population definition	Narrow	Broad
Patient exclusion criteria	Many	Fewer
End points	Symptoms/surrogates	Symptoms/surrogates Outcomes
Size	Modest	May be (much) larger
Safety	Common events	Less common events
Duration	Short: wk/mo, extensions	Short or long; extensions possible
Dose-response studies	Good idea	Good idea
Pharmacokinetics	Formal studies	Formal studies/screen
Control	Placebo, dose/response 3-arm; add-on	Placebo; add-on Some active control
Exploratory/ confirmatory	Yes	Yes

Am Heart J 2000;139;133-135.

The slash is used no less than six times, so let us take a closer look for any of the "five, unmistakable marks".

"Symptoms/surrogates" as end points in phase II and III trials. Clearly, the two words are not alternatives for the same thing, so what is meant here exactly? From the article, it is clear that both symptoms AND surrogates can be end points in phase II trials. The slash is used to mean "and", or even just a list separator, since the two items are simply a list of two. Elsewhere in the table, the semicolon is used as the list separator (for "placebo; add-on" controls), though a comma would do the job just as well. The

matter becomes more interesting in the cell listing end points for phase III trials. Here we have the entry "Symptoms/surrogates [*new line*]Outcomes". Is the meaning of this cell "symptoms; surrogates; outcomes", or is something more implied by the slash that connects symptoms and surrogates but not outcomes? We don't know.

"Short: *wk/mo*, extensions" for duration of trials. The erratic punctuation in this cell makes comprehension challenging, but after some consideration we can guess that the slash here is implying a range, i.e. "in the range of weeks to months". However, that is only because we know something about clinical trials. For someone without this knowledge, or if the expression "*wk/mo*" were to occur in another context, its meaning would be far from obvious.

"*Formal studies/screen*" as a description of the pharmacokinetics. The first attempt at deciphering is "formal studies or formal screen", but with prior knowledge and a glance at the article, the slash here is doing the work of "and": pharmacokinetic investigations during phase III investigations can take the form of both formal studies and screening studies. However, without prior knowledge, we would again be left guessing.

The slash in "*Dose/response*" in the cell describing controls in phase II studies has curiously substituted for the hyphen, correctly given elsewhere in the table ("dose-response studies"). Once more, the reader is left wondering if some more subtle meaning is implied by "dose/response" than "dose-response", though by now, the sensitive reader will be beginning to realize that this table has been badly afflicted by "slash creep".

Lastly, what about that "*Exploratory/confirmatory*" in the last line? At least with regard to its primary variables, a trial cannot be both exploratory and confirmatory, so the slash here is possibly simply a substitute for "or". But if you don't know about clinical trials, this would be but one possible interpretation.



*Then the bowsprit got mixed with the rudder sometimes:
A thing, as the Bellman remarked,
That frequently happens in tropical climes,
When a vessel is, so to speak, "snarked".*

The table above is certainly well snarked. In reviewing the six uses of the slash above, we find it means, variously, "and", "or", a hyphen, a range, a list separator, and, potentially, something undefined. All six uses are different; none of them are any of the five unmistakable marks. In fact, the use of the slash to mean any of the above is by no means rare. I have found it lurking even at the heart of the EMWA Professional Development Programme, in the "Editing/Writing" option (a legacy from AMWA), which will henceforth be known as the "Editing and Writing" option. A recent brochure advertising a medical writing

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conference proclaims a session to explain "what regulatory agencies really want from a report/dossier". The crucial point is that while authors think that their personal meaning for the slash is obvious, it almost always serves to obscure rather than to clarify, and may carry a quite unintended message.

As Humpty Dumpty said, "When I make a word do a lot of work like that, I always pay it extra". In fact, the slash must be paid very handsomely indeed, since it is made to do even more work than this in many documents that cross my desk. Here are some more examples.

The "*and/or*" problem. The expression "*and/or*" comes complete with its own slash and is very widely abused. This is partly out of carelessness and partly out of a failure to appreciate that the word "or" can be inclusive as well as exclusive, as illustrated by the sentence:

Confidential information can only be given to patients or their close relatives.

How many writers would not be able to resist writing "*and/or*" in place of "or"? However, a moment's thought shows that "*and/or*" would not make the sentence any clearer, and in fact it makes it harder to understand—whenever "*and/or*" occurs in a sentence, the reader is obliged to read it twice: once in the "and" sense, and once in the "or" sense. This can be a challenge, especially in unfamiliar material. Take this sentence from a recently issued company guideline on electronic signatures:

Electronic records must be maintained in an electronic format for the time period established by the predicate regulation and/or the sponsor's record retention procedures.

Would anyone like to guess how long records must be maintained if the regulations specify ten years and the sponsor's procedures fifteen years? In general, *and/or* can be replaced by "and" or by "or", rarely, by "or...as the case may be" (or some other explanation).

Organizational hierarchy. My medical writing group used to be part of the clinical research department, so we were sometimes referred to as Medical Writing/Clinical Research. This seems harmless enough, but the nomenclature is only understandable if the organization is known. I recently came across a standard operating procedure (SOP) in which a task was to be performed by the "Local Safety Officer/Medical Affairs". On first reading, I assumed that this described an organizational hierarchy, but it transpired that what was meant was "either the local safety officer, or, if no local safety officer is present, a suitably qualified person in the medical affairs department". That is an awful lot of work for a small slash to be doing! An SOP must be, above all, unambiguous if the SOP is to be effective at all; here the careless use of the slash could cause serious procedural mistakes.

Quasi-mathematical phrases. This is exemplified by the commonly used phrase "risk/benefit ratio". As we have seen, the slash is correctly used as a mathematical symbol for division, and this is carried over into much less formal expressions where no real mathematics is involved. The correct punctuation here should, of course, be a hyphen. I suspect that the phrase "dose/response" used in the table above is a further carry-over of this, even though there is no suggestion of a "ratio" here. More

insidiously, by giving the aura of mathematical precision, the slash can be subtly misleading (or even dishonest) when used in this way.

Perhaps the most irritating use of the slash is the "*indecisiveness syndrome*", extremely common in sloppy business writing. A series of overheads recently presented at an internal meeting were all entitled "Sponsor's interpretation/position", when in fact either of the two words separated by the slash would have been adequate. The writer didn't know, or just couldn't be bothered to decide, which was preferable.

Job advertisements are a rich source of "slash creep", perhaps because they have been penned by individuals who have been exposed to "corporate-speak" for too long. Here is a small sample taken from a couple of pages from a recent edition of *New Scientist*: "...looking for a team player capable of supporting/installing/maintaining automated wet chemistry..." (would any one suffice?); "...you will have a BSc degree in electronics/physics/chemistry/mat. science..." (do you need them all?); "...based in the South Midlands/north of the M4..." (several locations?); "...applicants must have UK/EU nationality..." (is this a celebration of the fact that the UK is part of the EU, or a subtle statement of the opposite?). And repeatedly, applicants are asked to provide their "c/v".

*For although common Snarks do no manner of harm,
Yet I feel it my duty to say,
Some are Boojums—*

I once read an article on overuse of the comma, where the author described how the commas seemed to be like "tadpoles, swimming all over the page". I see those slashes like raised paving stones, causing unsuspecting readers to trip up, or at least forcing them to negotiate their way through the text with painstaking slowness. Whenever you are tempted to insert a slash (or an "and/or"), ask yourself if you are being kind to your reader, hedging your bets, or even setting a trap. The slash is almost always unnecessary, ambiguous or misleading, and leads, in the truest sense of the word, to your writing becoming oblique. My advice to everyone is: *slash the slash!* Your writing will become clearer and you will eliminate those boojums lying in wait to take you and your readers unawares.

Now **there's** glory for you!

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Illustrations:

P89: "He had wholly forgotten his name" by Henry Holiday from *The Annotated Snark* by Lewis Carroll, ed. Martin Gardner; Penguin Books 1967, 1975: 49.

P91: Humpty Dumpty from original Illustration by Sir John Tenniel for Lewis Carroll's *Alice's Adventures in Wonderland and Through the Looking Glass*; JM Dent & Sons 1954, 1970: 190.

P93: "But oh, beamish nephew, beware of the day" by Henry Holiday from *The Annotated Snark* by Lewis Carroll, ed. Martin Gardner; Penguin Books 1967, 1975: 65.