

Editorial

A former colleague often used to remark to me that there was a distressing tendency in the modern world, particularly in the highly sophisticated west, to pay more attention to what something was called, rather than what it was. His pet example of this was that if you called phenobarbitone a chemical for making buffers, anybody could buy it by the tonne; call it a drug and its buying and selling was suddenly very restricted. Richard Feynmann had a different slant on this subject, when he said that knowing what a thing was called didn't mean knowing what it was.

A more recent example of this phenomenon in the field of pharmacy and pharmacology has occurred in the vexed question of drugs in sport and in particular the sorry tale of clenbuterol. Clenbuterol, as most readers of this journal will know, is a β -blocker, available as such in some European countries. At the Olympic games in 1992, a number of athletes were found to be taking this drug, and the belief of the Olympic administrators was that they were taking it to enhance their athletic performance, thus giving themselves an unfair advantage over their competitors who had to rely on their natural ability and generous sponsors to reach the perfection needed for competing at such a high level. However, clenbuterol was not named as a banned drug (you see what my colleague meant!) and there did not seem any immediate reason for disciplining the "offending" athletes. But help was at hand. Not from pharmaceutical scientists of course. Clenbuterol has anabolic properties—although there is some dispute over that—and therefore clenbuterol is a steroid, and steroids were, as everyone knows A Bad Thing and were banned from all athletic competition. Corticosteroids are a strange exception; they are banned in racehorses, but not in tennis players!

To a pharmaceutical scientist, the general structure of clenbuterol will be immediately obvious, even without recourse to a reference book, both from its name and the fact that it is a β -blocker. Equally obviously it is not a steroid. Yet these lawyer-administrators managed, without challenge, to persuade the world that clenbuterol was a steroid and the athletes were thrown out of the games.

This is not an isolated example of lawyer-administrators twisting the language, and even the reality, of pharmaceutical science. An inroad was made some years ago in the wake of a number of scandalous revelations regarding sometimes sloppy, sometimes fraudulent work in a number of drug-testing laboratories, which led to the setting up of elaborate

procedures to ensure this did not happen again, all under the umbrella of Good Laboratory Practice. Good Laboratory Practice, at times, came to signify a set of bureaucratic rules, which were more important than the actual good laboratory practices of careful, conscientious scientists who were searching after the truth and not merely carrying out routines in which they had no personal interest; I recall one Standard Operating Procedure (we called them 'Idiot Sheets' before Good Laboratory Practice!) being called into question because the document did not stipulate that the tops were placed on test-tubes before the tubes were shaken.

The most recent example of the Good Laboratory Practice saga has reached me via a brochure on one company's latest HPLC model. Amongst the reasonable statements on why one should purchase a new machine—and there is no doubt that analytical instrumentation of all types have improved tremendously over the last ten years or so—is the statement that the company was phasing out its service support for an old model, and that with GLP principles in vogue, an instrument that can no longer be serviced is not valid for use. Thus, it is apparently no longer the skill of the analyst or the correctness of the findings, or even the fact that the instrument is in perfect working order, well maintained and well calibrated, that is important, but whether or not the instrument is supported by the original manufacturer. With the ability of the lawyer-administrators to determine that what things are called is more important than what they are, does this mean that it will not be long before a perfectly good and useful drug is withdrawn from the market because someone—no doubt a lawyer in a rival company—has discovered a spectrum submitted as part of a Drug Master File was run on an outdated instrument?

In many ways, the way the Law operates is inconsistent with the way Science operates. Science progresses with a series of hypotheses which are strengthened or demolished by experimental evidence; the Law has a tendency to assign finality to a decision and continue to maintain something is true until a new law is passed to the contrary. The application of the lawyer's principles instead of the scientist's towards the search for truth does not seem the best way forward.

The scientist should continue to strive to find out what a thing is, no matter what the lawyer may choose to call it.

JOSEPH CHAMBERLAIN