



European
Medical Writers
Association

The *Write Stuff*

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**Do we
need proof?**

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Journal insights

The *Write Stuff* is the official publication of the European Medical Writers Association. It is issued 4 times a year and aims to provide EMWA members with relevant, informative and interesting articles and news addressing issues relating to the broad arena of medical writing. We are open to contributions from anyone whose ideas can complement these aims, but opinions expressed in individual articles are those of the authors and are not necessarily those held by EMWA as an association. Articles or ideas should be submitted to the Editor-in-Chief (see below) or another member of the Editorial Board.

Subscriptions

Subscriptions are included in EMWA membership fees. By writing to info@emwa.org non-members can subscribe at an annual rate of:

- €35 within Europe
- €50 outside Europe

Instructions for contributors

- The *Write Stuff* typically publishes articles of 800–2800 words although longer pieces or those with tables or graphics will be considered.
- All articles are subject to editing and revision by the Editorial Board. Any changes will be discussed with the author before publication.
- Submissions should include the full address of the author, including the telephone and fax numbers and email address. Suitable quotes for side boxes can be indicated or they can be selected by the Editorial Board.
- Material should be submitted by email as an MS Word file using Times New Roman (or equivalent), 10 point size, and single spacing.
- Published articles generally include a recent photograph of the author (portrait picture, CV or passport style, min. 360 x 510 pixels).

Timelines

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Cover picture

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EMWA 9th Autumn Meeting

1-3 November 2007, Basel



You are invited to the 9th Autumn EMWA meeting to be held in Basel, Switzerland from 1 to 3 November 2007 at the Ramada Plaza Basel.

The Autumn conference will again provide members with further opportunity to continue with their training in the EMWA professional development programme. The workshop programme will cover a wide range of medical writing subjects, including advanced workshops for experienced writers looking to keep their knowledge up-to-date or refresh their skills. Further details and regular updates will soon be available on the website at www.emwa.org.

Basel is perfectly situated for an Autumn conference. Centrally located on the border of Switzerland, Germany and France, it is easily accessible from all corners of the EU. The city has

the oldest university of the Swiss Confederation (from 1460), one of the best-preserved old towns in Europe and more than 30 museums. Basel is also a seat of the pharmaceutical industry in Europe and we will open the conference with a lecture from Prof. Fritz Bühler from the European Center of Pharmaceutical Medicine, which is located in Basel.

This promises to be an informative and educational few days for everyone. I look forward to seeing you in Basel.

Julia Forjanic Klapproth
EMWA President



From the editor's desk:

Do we need proof?

By *Elise Langdon-Neuner*

Sometimes it seems that we accept things without questioning, whereas at other times we demand an almost impossibly high standard of 'proof'. The rationale behind the theme of this issue of *TWS* is to suggest that this is rather curious—well, isn't it?

We believe what we are told by our doctor, or at least we are expected to. Every consultation with a doctor nowadays seems to end with firm advice: "drink more water". It does not matter what the ailment is—stomach ache, heart burn, erectile dysfunction—water is the universal cure. (Perhaps the bottled water industry has a thing or two to teach the pharma industry.) Any sign of dissent in the doctor's surgery and the advice is reiterated, "You know you must drink 2 litres of water a day, don't you?" Despite extensive searching in medical journals and data bases Professor Heinz Valtin, an American kidney specialist, found no rigorous proof to support this recommendation [1]. He accepts that the human body needs 2–2.5 litres of fluid a day but contests the belief that this must come from water. Some of it can come from solid food. He suggests that people follow their customary fluid intake and thirst rather than feel guilty about reaching a target intake that has not been proved to be necessary. Other people, however, including doctors—who are assumed to read their medical journals—firmly believe the 2-litres-a-day myth.

Richard Clark introduces his article in this issue of *TWS* by stating that we like to think that modern Western medicine has a firm foundation in fact and proof. He then asks what constitutes proof for us and mentions a probable fact that parachutes prevent death or major trauma that can never be proved. Conversely, a few recent studies seem to have proved some most improbable things. A study published last year used a double-blind trial to prove that dogs can be trained to sniff out bladder cancer [2]. The *New England Journal of Medicine* recently published a perspective about Oscar, a cat that can predict when residents of a geriatric hospital in Rhode Island are about to die [3]. The authors of these articles believe that they have proved that dogs can sniff out cancer and cats (at least Oscar) can predict human death.

Currently Western medicine accepts randomised, double-blind, placebo-controlled trials as the best proof for the value of a particular drug but, returning to Richard again, he questions whether this trial design is always the best. He also challenges the irrational beliefs behind some doctors' reluctance to prescribe opioids while more dangerous drugs are sold without prescription. My general practitioner, Dr Clay, who had a village practice in Wiltshire (UK) when I was a child, would no doubt have agreed with him.

Dr Clay told a story about his father who had been the village doctor before he took over in 1916. When his father had first qualified he had developed tuberculosis and went by boat to Australia. On this voyage he had a painful soar throat which was relieved by morphine injected into him each day by the ship's surgeon. He became addicted to the drug and continued to take daily doses of opiates all his life—but without any apparent ill effects on his medical work.

Of course, Western medicine is not all there is. There's alternative medicine too, although this is generally regarded as suspect in Western society by reason of its lack of 'proof'. Jack Aslanian looks outside the biased terminology used to describe alternative medicine and makes suggestions for correct terminology. And he asks an interesting question: "Does a particular alternative or complementary treatment cease to be alternative and become 'mainstream' once it has become validated?" If they are adopted by conventional practitioners, and demonstrated to be safe and effective then they are no longer considered alternative according to the Webscout, Joelyn Flauaus, in her introduction to some fascinating Web sites that look at alternative and complementary therapies.

Taking a playful look at proof in her article in this issue, Wendy Kingdom tries to extrapolate the methods of proof used in medicine to questions in everyday life. She sets out to design a prospective study to prove why some of the drinking glasses she buys have a shorter time-to-breakage than others. But she gets stuck on the numerous variables that would need to be taken into account. Even if these could be corrected for, the study might not be able to prove anything. She cites a prospective study by researchers in Australia which determined the rate of loss of teaspoons from their institute's tearooms, but never actually proved where the teaspoons went, which you might think would have been a most useful bit of information.

As always, *TWS* not only contemplates the curious, but also has a lot of useful information for medical writers. Cathy Holding has some invaluable tips for those planning to branch out into medical journalism. Geoff Hart looks at the ubiquitous human trait of assuming everybody else is like ourselves and gives practical advice for medical writers who have personal or email contact with people from different cultures. This trait was also evident when Microsoft unleashed Word 2007 on a less than enthusiastic world as Karen Shashook reports. Anybody who thinks clients cannot be persuaded to adopt ethics guidelines will be interested in Jenny Fanstone's article on how her company has been successful in obtaining clients' agreement to acknowledgement of medical writers.

From the editor's desk

I don't think we would have difficulty finding proof that medical journals prefer to publish positive results and that this can be a problem for medical writers when they are asked to advise on prospective publication venues. In Madeline Frame's article in this issue she considers approaches that can be used to look at trial data in a different way to find angles that might appeal to journal editors. We all know as well that journal editors are preoccupied with impact factors. But do we know how they might be manipulating these factors? In her article in this issue Diana Epstein has a bit more than 'only an opinion' on this topic.

The regular columns including, Journal watch, In the bookstores, and Alistair Reeves' Myths about English contain yet more practical information. In a second article Alistair returns to the curious in his discussion about whether multiple animals exist. This question first began to worry me when these creatures popped up in a sentence in a preclinical report: "Interstitial inflammatory cell infiltration was recorded in multiple animals". For those who have not

come across them before and need proof that they exist, the laboratory multiple animal is brought to life by our regular cartoonist, Michael Dawes, in his cartoon accompanying Alistair's article.

Finally, we are excited to introduce a new section in this issue of *TWS* especially for freelancers.

This must all prove something—about *TWS* at least.

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2. McCulloch M, Jezierski T, Broffman M, Hubbard A, Turner K, Janecki T. Diagnostic accuracy of canine scent detection in early- and late-stage lung and breast cancers. *Integr Cancer Ther.* 2006;5(1):30-9.
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What does scientific language prove?

You would think that by now everybody who gives any thought to writing scientific text concurs with the *American Medical Association's Manual of Style*, among many other style books, that clearly states the active voice is preferred in scientific writing except in instances in which the actor is of less interest than what is acted upon. Not so. I stumbled upon a page from the Gallaudet University in the US which advises the use of passive voice in scientific writing [1]. And its justification for promoting use of the passive voiced?

1. Let the facts stand on their own!
2. Removes some accusations of bias (who did it, how many did it.)
3. Presents an 'air' or feeling of logic."

The writers of the page, who are from the departments of Chemistry and English, then give the following example:

Unscientific

I did this experiment several times. Each time I got the same results. After the last time, I was convinced that I was right. The new bacteria must have caused all the problems we found in our patients.

Scientific

The procedure was repeated until there was certainty regarding the results. The problems encountered by the patients were caused by the bacteria."

To cap it all the authors go on to give a step-by-step chart on how to change active sentences into passive ones.

Arguments against number 1 of the above justifications for using the passive are well presented in Matthew Stevens' book *Subteleties of Scientific Style* reviewed on page 129 of this issue. He says passive sentences suggest the work did itself and obscure the reality of science. The actor is not only important, he or she is essential. Number

2 could be frightening at a time when more acceptance of responsibility and transparency is being called for in science. But number 3 is most concerning. The validity of results remains the same regardless of whether they are reported in the active or passive voice. The passive voice has its place where as stated above the identity of who did an action is not important, e.g. the animals were killed on day 5, but to suggest that the passive is of itself 'scientific' places more importance on appearances than the reality behind them. Added to this the passive can more often be ambiguous and imprecise than the active voice and the active voice is simpler and clearer. The expression 'blinding with science' springs to mind. Ambiguity, imprecision, and complexity blind science from non-scientists and scientists whose knowledge is outside the particular field being reported on.

The use of the active is not a newfangled idea in science. Science used to be reported in the active voice. According to Jane Smith, writing in the *BMJ*, it was with the rise of 'scientific' studies that 'objective' language came to be used [2]. She gives an example of a case report written in 1841 by Robert Storrs, a surgeon from Doncaster, which reflects the scientific writing style of the day: "Mrs Lowther, at twenty-two, a stout good looking woman of lymphatic temperament, was delivered, after a tedious labour, of her first child." He describes the problems with her everted uterus and finally reports "About a fortnight ago I saw her tripping along the street quite well." Confidentiality prevents the use of patients' names now-a-days in such reports but what's wrong with the rest of this delightful style? Of course I know the answer. It's not pompous, sorry I mean scientific, enough.

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1. <http://depts.gallaudet.edu/englishworks/grammar/passive.html>
2. Smith J. Journalology—or what editors do. *BMJ* 1990;301:756-9.



Message from the President

By Julia Forjanic Klapproth

Now that the dust has settled after the conference, I want to take a moment to clarify the new ideas for the Executive Committee (EC). I realized during the Annual General Meeting (AGM), and while talking to people afterwards, that not all these new ideas were sufficiently clear. So I would like to use this President's message to explain how the new terms for Presidency and Vice Presidency, and how the proposed subcommittees of the EC, are meant to work.

In recent years, there were 2 key issues for the EC: how to find new people to fill the EC positions coming up for re-election every 2 years, and how to provide continuity when we did. Without new people coming on to the EC it will stagnate and ultimately cease to represent the opinions and needs of the membership. And with the system we had up to now, when we managed to convince (some might say, coerce) someone to join the EC, they had no experience of how the EC functions and, moreover, there was no form of knowledge transfer from the outgoing to the incoming officer.

So the question was, how can we encourage people to volunteer and how can we improve knowledge transfer and continuity within the EC? People were daunted by the fact that they would have no one to support them for whatever responsibilities they would be taking on. Understandably, most people are more than a little wary of committing themselves to a 2-year term of office without knowing

exactly what would be involved. But what we discovered is that people are more willing to join a subcommittee in which they have a less formal obligation but can still provide their opinions and insights, and learn something of the way EMWA works. Et voilà! The idea to establish subcommittees to assist the various EC officers was born.

While exploring the idea of subcommittees we realized that they would reduce the burden of the EC position by providing ideas, enthusiasm and support to the EC member. They would also give people a chance to get to know what it means to be an EC member and learn about the responsibilities associated with particular positions. This would help the people on these subcommittees make more informed decisions about joining the EC. It would also serve as a platform for knowledge transfer to potential candidates so that they can come up to speed with a particular position before getting started.

In a nutshell, subcommittees enable us to tap into a broader resource base and at the same time create a natural pool of candidates who can volunteer to join the EC. Which doesn't mean that people who are not on a subcommittee are excluded from running for a position on the EC! Everyone is always welcome. The goal is simply to create a system to improve the odds of finding new candidates.

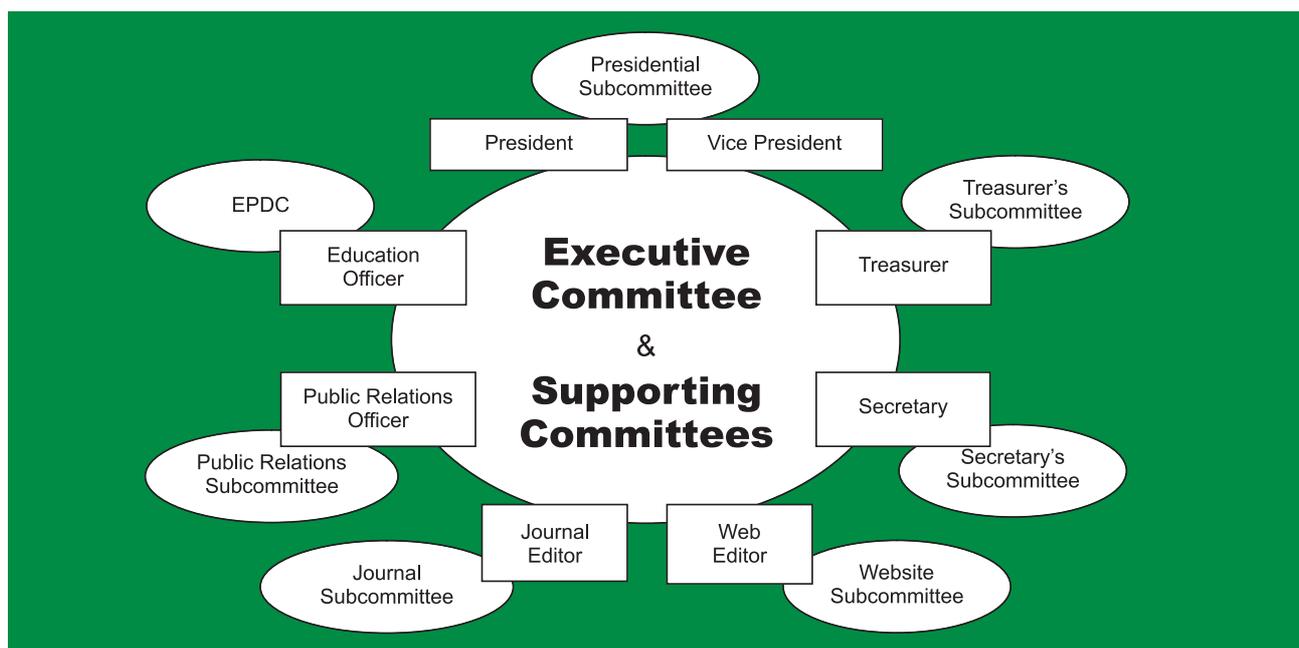


Figure 1. Organigram of the EMWA Executive Committee and Supporting Committees

Message from the President

So, that is the theory. But what does this mean in the real world? To try and address this I am going to describe the overall structure of the EC and the associated subcommittees and I am going to answer some of the specific questions people asked about the details of these subcommittees.

Figure 1 is an organigram of the EC with the associated subcommittees. Each of the members of the EC has equal voting rights. All but 2 of the positions are elected, 2-year term positions; the Journal Editor and the Web Editor positions are assigned by decision of the EC and are for undefined lengths of time. The Vice President, once elected, automatically becomes President at the end of their term as Vice President, making the combined posts a 4-year term altogether.

The decision to increase the Vice Presidency and Presidency to 2-year terms each (from previous single-year terms) was also a move to improve continuity within the organisation. It is an idea that has been suggested by numerous members over the years and the EC felt the time had come to give it a try. Until now, the President and Vice President worked essentially independently of each other. The Vice President came in and had to hit the ground running to organise the following year's Spring Conference. Rarely did the Vice President receive any guidance from the President and frequently they just reinvented the wheel. By shifting full responsibility to the President for all conferences, the Vice President can learn the ropes while supporting the President. So again, the goal was to reduce the burden of the individual by sharing the work load between the 2 positions, and to allow for knowledge transfer from the President to the Vice President and thereby create a sustainable process that provides for continuity.

The Education Officer is elected to the EC and is simultaneously chairperson of the EMWA Professional Development Committee (EPDC). The Education Officer organizes the workshop programme at EMWA conferences and represents the EPDC on the EC. All EMWA education officers have previously served on the EPDC. The EPDC itself, specified in EMWA's policies and procedures, is currently composed of 7 EMWA members who were invited to join the committee for a 5-year term after an application and selection process. The EPDC develops and maintains the EMWA Professional Development Programme (EPDP), issues the Workshop Leaders Handbook, and mentors new workshop leaders. The much increased workload of the EPDC—the number of workshops at the spring and autumn conferences has more than doubled since the EPDP was first launched—means that subcommittees of the EPDC will also be established.

Each of the other EC members will lead their own subcommittee, which is developed on the initiative of the respective EC member. The subcommittee is formed by those members who approach the EC with a desire to help out and any other members actively solicited by the EC member. While these are to be seen as official committees of EMWA, they are not elected and are informal in structure and function. The main role for subcommittee members is

to provide ideas or support to the EC member heading the subcommittee. The specific activities of a given subcommittee will depend on the needs of the EC position it supports and the ideas of the members contributing. For example, our Public Relations Officer is putting together a subcommittee of representatives from as many countries as EMWA has members in order to have local insights and contacts when targeting a particular country.

There is no set limit to the size of these subcommittees, and they will vary depending on the way they interact with the EC member. It is not foreseen that any face-to-face meetings will be needed for these committees as all communication can be managed by email and telephone. There is also no time limit for participation on a subcommittee. Members can stay on as long as they like and leave whenever they like. Members can also be on more than 1 subcommittee if they are so inclined. A list of all the members currently on each of the subcommittees is given at <http://www.emwa.org/Officers.html>.

According to our the EMWA Policies and Procedures, any member who has attended at least 1 Annual Spring Conference in the last 3 years is eligible to run for the position of Treasurer, Public Relations Officer or Secretary. However, to be eligible for the position of Vice President, it is also necessary to have served on the EC or represented EMWA in an official capacity in the last 5 years. The purpose of these conditions is to ensure that someone who wishes to run the organisation has demonstrated a certain amount of continued interest in EMWA and has had a chance to learn about how EMWA runs from the inside. The problem arose in that, previously, the pool of people who fulfilled these criteria was slim, and often consisted of people happily serving other functions they did not wish to leave.

By implementing the idea of the subcommittees we are enabling more people to actively get involved in how EMWA runs. The Vice President can now be chosen from the EC, the EPDC and any of the subcommittees. Which does not imply that by joining a subcommittee, particularly the Presidential Subcommittee, a member is automatically expected to run for Vice President. What it does mean is that the EC has a chance to observe people from a larger pool who might be good candidates for the position of Vice President, which should help reduce the chance of electing someone who does not have the ideas, enthusiasm and commitment to do the job well.

I hope that this has answered most, if not all, of your questions about the rationale for these subcommittees and how they are meant to function. If you have other questions, or would like to join a subcommittee, please feel free to contact me or any other EC member. We would be happy to hear from you.

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Cross-over trials: Painful lessons

by Richard Clark

Pragmatic approach to pain trials

We like to think that modern Western medicine has a firm foundation in fact and proof, and yet there is debate about what constitutes proof. With regard to medical writing, we accept that the burden of proof is addressed in the form of clinical trials. The randomised double-blind placebo-controlled trial is generally accepted as the best proof for a particular drug, but is it always the best trial design?

Some years ago I had the onerous duty of trying to get the results of a ‘pragmatic’ trial accepted in the *British Medical Journal*. For reasons I won’t go into, a placebo-controlled, double-blind trial was not appropriate given that the two analgesics had different routes of administration such that a ‘dummy’ treatment would soon be unblinded. As many patients were suffering from severe chronic pain, a placebo group wasn’t ethical. Furthermore, the powerful analgesic effect of placebo in pain management is still not understood. We argued that comparing a new medication with the normal first-line treatment and using a cross-over trial design was the best approach, and eventually the manuscript was accepted and published [1]. Notwithstanding these arguments, the editorial (written by an expert in evidence-based medicine) was particularly scathing about the lack of double blinding [2]. Neither did he like patient preference as one of the outcome measures. As pain is subjective, patient satisfaction with their analgesic, or their preference for one analgesic over another, deserves special emphasis in pain management.

Cochrane reviewers have their say

An audit of 43 major clinical guidelines with potential coverage of opioid-induced constipation formed part of a poster I was writing recently. Most of these guidelines gave some sort of advice on the management of this condition, but a notable exception was the Cochrane Review on opioid switching which gave no firm advice due to a lack of randomised controlled trials:

“Opioid switching is the term given to the clinical practice of substituting one strong opioid with another, in an attempt to achieve a better balance between pain relief and side effects. This is an established clinical practice for patients with cancer pain, but the evidence is based on case reports and uncontrolled studies, and *no randomised trials met the inclusion criteria for this review* [my italics]”[3].

This is so typical of the Cochrane reviewers. It takes 30 pages of text to tell us that not one study met their inclu-

sion criteria, and so they are not going to draw any conclusions (except that they cannot draw any conclusions). If your parent or grandparent was in severe pain or having very unpleasant side effects while receiving an opioid, would you tell the clinician not to try switching them to another opioid because the Cochrane review didn’t draw a conclusion on the subject? Of course not!

Evidence-based medicine protagonists wanted for parachute trials

This puts me in mind of the (not entirely serious) call for randomised double-blind trials of parachutes [4]: The authors wanted to determine if parachutes were effective in preventing death or major trauma “related to a gravitational challenge” by conducting a systematic review of randomised controlled trials. They were unable to identify any randomised controlled trials of parachute intervention. Thus, they concluded that:

“As with many interventions intended to prevent ill health, the effectiveness of parachutes has not been subjected to rigorous evaluation by using randomised controlled trials. Advocates of evidence-based medicine have criticised the adoption of interventions evaluated by using only observational data. We think that everyone might benefit if the most radical protagonists of evidence-based medicine organised and participated in a double-blind, randomised, placebo-controlled, cross-over trial of the parachute.”

Irrational beliefs

To take the other side of the argument, we sometimes tend to have some fairly irrational beliefs, even when there is overwhelming scientific evidence to oppose this irrationality. Many doctors are afraid of prescribing opioids because of a perceived danger that proper medicinal use of these analgesics leads to a danger of physical addiction. In fact, this is very rare. On the other hand, many more dangerous drugs are sold without prescription. In the UK alone, non-steroidal anti-inflammatory drugs cause about 2000 deaths per year due to gastrointestinal damage that they can cause [5]. In the US this figure reaches 16,500 deaths per year [6].

The reaction to the introduction of the measles, mumps and rubella (MMR) triple vaccine is another example of irrationality. The mass of evidence shows the safety of this formulation, but many people did not want their children vaccinated with it, instead preferring single vaccines (despite

Cross-over trials: Painful lessons

the lack of any evidence that single vaccines are any safer). Many didn't vaccinate their children with any of these component vaccines in any form. One study in 12 children had alleged a potential link between autism and the MMR vaccine [7], and together with media hype and the perceived rise in incidence of autism, this led to low levels of MMR vaccination in the UK. Though the weight of evidence is skewed dramatically in favour of vaccination, many parents might feel worse if they *actively* did something causing their child to be ill (i.e. vaccination followed by autism) rather than being passive (no vaccination and then the child gets measles, mumps or rubella). This is understandable but not very logical. Interestingly, even a Cochrane Review concluded that "There was no credible evidence behind claims of harm from the MMR vaccination", so you know that the evidence in favour of MMR has to be overwhelming!

A logical approach to causality?

We need to take a more logical approach to causality. The causal criteria set by Sir Austin Bradford-Hill are very useful in this respect [8]. These are: (1) *strength* of association, (2) *consistency* of observation, (3) *specificity* of association, (4) *temporality* of the relationship, (5) existence of a *biological gradient*, (6) *plausibility* of causative relationship, (7) *coherence* of causative relationship with existing understanding, (8) *experimental* demonstration of cause and effect by manipulation of suspected cause and (9) *analogy* to an existing recognised cause. However, I'm assured that it is not as simple as this (though it seems complicated enough already!). Bradford-Hill never used the term 'criteria' and he explicitly stated that he did not believe any hard-and-fast rules of evidence could be laid down, emphasising that his nine "viewpoints" were neither necessary nor sufficient for causation. Nevertheless, as a non-statistician myself, these criteria seem pretty useful, even if they just form a framework for discussing evidence regarding a potential causative relationship. To come back to the MMR example, parents are worried that there is an association between this multivalent vaccine and autism based on temporality (Bradford-Hill criterion number 4). This is clearly just one facet of the logical approach to causality and is not enough on its own, particularly in small numbers of vaccinated children.

Tui Na

Western medicine does not have all the answers. So, many people (myself included) have used 'alternative' medicines or therapies—in the absence of scientific proof—in preference to mainstream medical treatments. Why is that? The usual advice about chronic back pain has changed from 'lie very still on a hard surface and don't move' to 'take painkillers and perform your normal daily activities'. I'd had a bad back for quite a while, and neither of these approaches worked very well. Chiropractic treatment helped a bit, but recently I've tried the exotic-sounding Tui Na, which has been remarkably effective. Essentially, this

is a little-known branch of Chinese medicine that dates from about 1700 BC that includes massage of soft tissues (muscles, ligaments and tendons), accupressure techniques and musculoskeletal/ligament manipulation. No doubt the Cochrane reviewers would not be pleased. It would be great to have a randomised cross-over trial of Tui Na with 'usual care', but I'm not going to wait for that.

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Queuing strategy for medical writers

In that awkward pause in a buffet queue, after you have been asked what you do for a living and have replied 'medical writer', you might consider filling the silence with a few facts from Word Trivia¹ as follows:

I am (which by-the-way is the shortest complete sentence in the English language) a medical writer. Did you know that 'hillypilly' is one of the two longest words in English consisting only of letters with ascenders, descenders and dots in lower case, 'asthma' begins and ends with a vowel but has no other vowels in between, 'abstemious' has five vowels in order, the plural of 'mouse', the rodent, is 'mice' and the plural of a computer 'mouse' is 'mouses', the word 'stifle' is an anagram of 'itself', the longest words that are reverse images of each other are 'stressed' and 'desserts'—at this point you might find that your stressed audience has made for the desserts leaving your field free for the starters.

1. <http://users.tinyonline.co.uk/gswithenbank/wordtriv.htm>



Reflections on terminology: Not ‘alternative’ medicine but integrative medicine

by Jack Aslanian

What catchall term should we medical writers and editors favor and promote for referring to the totality of approaches to wellness and healing that include both the allopathic (‘orthodox,’ ‘Western,’ or ‘mainstream’ as some refer to them) reactive and interventionist medical discipline as well as that other group of diverse, internationally or regionally recognized diagnostic and therapeutic approaches (often not much less reactive in nature) that the public tends to regard (because that is the way they are presented to it) as ‘alternatives’ falling outside ‘established’ medicine? A quick review of the book and periodical literature relevant to the topic reveals many different, often imprecise, laden, nuanced, even divisive terms used to refer to the second group. The overall impression is one of arbitrariness in the naming of the body of non-allopathic ways, as if the abundance and diversity of names are the progeny of hasty responses to come to terms with its presence and growth (inexorable and threatening to some establishmentarians) in modern Western society. Those with the time and inclination to do it can apply content analysis to gauge the current usages of the various terms, or they can focus on historical research to ascertain when a particular expression was first used, in what context, and with what meaning. Neither the currency of a name nor its biography, however, gives it legitimacy. In this essay I analyze many of the diverse names commonly, and often interchangeably, used to refer to non-allopathic medicine, and I argue that almost all of them lack the needed precision or neutrality to be allowed currency in professional or public discourse. My preferred term is ‘integrative medicine;’ and after giving reasons for dismissing its contenders, I will finish by proposing that that is the most unifying and precisely indicative, and neutral, term to use in equanimous discourse.

On a practical and basic level it should not matter what a corpus of healing practices is called. A name is a symbol and a tool for referring to the designee. The average person does not care whether a therapeutic approach is called allopathic or conventional or if it is called holistic or complementary. He or she is interested only in being cured or staying well. The practitioner, on the other hand, should be persuaded by efficacy rather than by a name or hierarchic allegiances. Still, we know that words are not tools simply; they carry overtones and meanings, sometimes only sub-

liminal. Some even claim that the proper name given a child has effects (sonic, perhaps even occult) on the development of his or her personality. More obviously, if parents were to name a daughter Horatio, or a son Judas, to use rather exaggerated examples, that naming not only will reflect the characters of the parents, it will also determine what peer and societal influences and experiences the child will have growing up and in adult life.

In a literature survey (which for the purposes of this essay I might have limited to a mere skimming of forewords and introductions) I came across the following terms appended to and qualifying ‘medicine’—there may be others, but these are the ones most frequently used to refer to non-allopathic medicine: alternative, unorthodox, unconventional, traditional, fringe, complementary, cross-cultural, mind/body, natural, all used to refer to the non-allopathic field¹. Keeping these terms close company are two others, holistic medicine and integrative medicine. Perhaps the dismissals that follow of most of the contending terms will generate debate, and also suggestions for other—and, one hopes, unifying and precisely indicative—alternative terms for integrative medicine. My purpose is not to describe or champion any particular medical philosophy or method. I would like to suggest that some terms are more appropriate than others for referring to them all as a group. Most of the contending terms I have listed above have this in common: at best they sustain a duality. Some do worse and reinforce antagonism.

Fringe medicine—Although presently not in very common use, this coinage is found in professional, quasi-professional, and lay literature. It is one indicator of the conceit and bigotry that could enter social and political discussions of various healing arts.

Unorthodox/unconventional medicine—In the first of the two coinages, the disdain and dismissal implicit in ‘fringe medicine’ is given an authoritarian aspect. The second also is judgmental, and depends on by whom and how the ‘conventional’ variant is defined. It is safe to assume that not one of the three expressions originated in the camps of believers and parishioners of non-allopathic disciplines.

Traditional medicine—As used in this context the adjective refers mainly to ancient and long-established medical cus-

¹ A search for those terms in *Dorland’s Medical Dictionary* (30th Edition, 2003) revealed only ‘holistic’ defined as a main entry or under ‘health’ or ‘medicine.’ Complementary and alternative medicine were cited and defined together under the main entry of ‘medicine’ as: “... alternative [italics in the original], that is, existing as a body separate from and as replacement for conventional Western medicine, or complementary [ditto], that is, used in addition to conventional Western practice.” [1]

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toms rooted in diverse cultures. Although this too is a relative term, it has little negative connotation or hubris. Yet, the implied referential precision of this term is one reason it should not qualify as a choice for an all-encompassing alternative moniker for integrative medicine—or even exclusively for the domain of non-allopathic medicine. Some of the methods in the realm of integrative medicine—such as biofeedback or any of the various electrotherapies—are not all that ‘traditional.’ The basis of a lesser objection is that ‘traditional’ implies temporality within a particular context. Because the problem to be solved here is finding a mot juste for that context, it follows that the adjective cannot be used in the naming of the context itself. Finally, institutions create their own traditions (after how many generations?). In high-powered, established academic settings the ‘traditional’ comprises the philosophies and methods of such institutions. And in fact, some Westerners writing in the field (e.g. *Stedman’s Medical Dictionary*, 28th Edition, 2006, page 1169) have used ‘traditional’ to designate not the ancient and ethnic (which in this context now are ‘non-traditional’) but the medical methods nurtured by Western scientific/academic institutions—thus further confounding the use of the adjective in this context.

Cross-cultural medicine—I came across one tentative attempt to wield this term into usage as a catchall referent to non-allopathic medicine. It could be an appropriate name for historical, anthropological, or sociological approaches to the study of medical practices for the purpose of establishing roots and geographic or temporal transference; it is not appropriate for designating established or developing practices. Knowing the cultural connections of a healing method does not change its usage. (And it should not—politically correct and enthusiasm for fusion should not be the primary patrons of medical practices.)

Natural or naturopathic medicine—Each of these two terms are used loosely as nominal umbrellas for the non-allopathic approaches. But each is delimiting: Naturopathy is a subset, one among several non-allopathic approaches—and one that by definition would exclude homeopathy, for example. Furthermore, it is fair to ask: “Why may acupuncture be considered ‘natural’ and the application of a #11 scalpel to a boil not?” Also, ‘nature’ may have deceptive and misleading appeal to lay people.

Mind-body medicine—This is a proper (and welcome) term for referring to a particular conception of the human organism and an approach to the diagnosis and treatment of its imbalances. It, however, is too often used as a catchall term, to refer to whatever is outside the domain of estab-

lished [sic] allopathic medicine. Too often it is found written as ‘mind/body medicine.’ Occasionally, but with increasing fashionableness, a nomenclatural trilogy is insinuated in the discourse in the form of ‘mind/body/spirit medicine.’² Using mind-body medicine to refer to all of non-allopathic medicine is not much different from using ‘neuroendocrinology’ to refer to all of psychosomatic medicine. And leaving hierarchic distinctions aside, to precisely reflect the interdependent relationship that it aspires to imply, the term should always be written with a dash, as ‘mind-body medicine,’ not with a slash—for all would agree that it is not a matter of either/or but of teamwork, interconnectedness, and reciprocity.

Complementary/adjunctive medicine—‘Complementary medicine’ is fairly free of the overtones of primacy and superiority that, one could argue, ‘adjunctive medicine’ seems to have. Still, even if it were to be construed to imply an easy coexistence with its rival, and perhaps even a coequality, complementary medicine does feed the conceptual divide—the allopathic/‘established’/‘conventional’ on one side and, on the other, the others, variously named approaches collectively considered complementary to the former. Still, those who have coined ‘complementary medicine’ and given it an office—as in ‘complementary and alternative medicine’ (CAM)³—should receive credit for implicitly acknowledging that allopathic medicine has its limitations.

Alternative medicine—Currently, this seems to be the term most common in both professional and lay usage—in titles of books, magazines, and articles; and as noted above, it has been rather legitimized by combining it with ‘complementary’ in naming an institution. Perhaps the adjective is popular because it rolls around the tongue more smoothly than ‘integrative;’ or perhaps because in the hierarchy of words it is more pedestrian (therefore less challenging also mentally) than either ‘integrative’ or ‘complementary.’ Perhaps democracy requires that there be choices. Or perhaps its professional usage gets a boost by the subtle shifting (implied) of the final decision to the chooser, increasingly the empowered patient (thus satisfying the need of the patient to have a say in his/her healing and, in these days of patient rights, litigiousness, and mistrusted medical profession, the wishes of the practitioner to reduce exposure and dilute his/her accountability)⁴. My main objection to this term, as opposed to holistic or integrative medicine, is that it is commonly used to refer not to the totality of medical theories, knowledge, and practices but only to those grouped under the non-allopathic banner: *If allopathic treatments do not work let the patient resort to the alternative* [the provider’s side]; or, if I mistrust the white coat or

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2 The perspective from this specific conceptual vantage point is appealing, and the spirit has an important role in maintaining wellness. However, the tri-brid term [sic], whether hyphenated or separated by slashes, implies three coequal compartments and a separation between ‘mind’ and ‘spirit’—and a distinction between the two. Without denying the existence of spirit, current knowledge would support the notion that we are conscious of some things called spirit and spirituality, and can resort to them, only because mind exists as a process.

3 As in National Center for Complementary and Alternative Medicine, under the auspices of NIH.

4 When an adjuster [sic] in an insurance company denies coverage for a referral or procedure, is that person practicing allopathic judgment or one rooted in alternative medicine?

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don't want to take prescription drugs [the patient's side], let me try alternative medicine. Therefore, this term continues to maintain a divide between two territories, which is at least fuzzy⁵. Still, if 'alternative' were to be used as a noun rather than as an adjective, 'alternative medicine' could awkwardly serve as a coinage that stands for a discipline that allows picking and choosing from everything that all care providers know to offer, regardless of their trade titles. Better yet, it could be applied similarly but used in the plural, as 'alternative medicines.' Other questions that the concept of alternative medicine raises are these: is a particular treatment alternative or complementary as long as it has not been validated by scientific methods? And once thus validated: does it cease to remain alternative and become mainstream? In a related vein: in any of the coinages discussed here, but especially this one, should 'medicine' refer to one, a single, specific therapy or intervention? To a medical approach or outlook—homeopathy, for example? To a warehouse of disciplines? To anything that has to do with wellness and healing? The preceding set of questions might be considered pedantic, but I am raising them to illustrate the imprecision of terminology.

In medical practice, the adjective 'alternative' poses other conceptual problems. Are there any *true* alternatives to surgical intervention for a condition such as tension pneumothorax? Would, or should, any physician or patient in his/her right mind delay treatment to determine if there are? On the other hand, if a chronic pain condition could be alleviated by chiropractic or relaxation techniques, for example, is pharmacotherapy really an alternative for its treatment?

Holistic medicine—Its sonorous qualities, its allusions to and invocations of unity of function (but also to teamwork between diverse medical disciplines), and the very idea of holism perhaps make this term the ideal candidate for adoption. Yet, it is not as popular as 'alternative medicine.' The reason for this may be the slight historic disadvantage it has: in certain societies it invokes images of 'flower children,' 'new age,' 'dropouts,' 'hippies,' and counter-culture, among other associations similarly off-putting (at least in the staid and sanctified professional context of healing arts). That little bit of loaded imagery, however, can be discounted, especially because some of the social trends that, as hangers on, originators or adherents of various healing practices, or as hopeful supplicants, did help holistic health gain acceptance are nearly defunct and others have been assimilated and lost the threatening reactionary vitality they had. 'Holistic medicine' should remain a reliable alternative to the other currently very apt term⁶.

Finally, the case for integrative medicine: it would encompass non-allopathic practices as well as allopathy to refer to an integrationist medicine that brings together the best from various medical modalities⁷. Wellness and healing should not depend on specific and exclusionary outlooks. In medical practice, it is no longer a question of, "If you're not in step with us, then you're in the fringe." Nomenclature should reflect more than the competitive coexistence of disciplines; it should mirror concurrence based on an honest acknowledgement of facts. It should reflect the emerging openness and the gradual crumbling of a face-off. There is sufficient experimental evidence (in controlled studies, the validator of scientific knowledge) and experience, and the patients' subjective reports of benefit, to allow to confidently state that many, many of the healing practices that were once dismissed with skepticism, often also with insults and derisiveness, do work—acupuncture, or example, relaxation techniques, or some herbals. If relaxation and imagery exercises done before surgery reduce postoperative pain, they should not be considered outlying modalities. Not only do they work, they sometimes work where surgery or pharmaceuticals may not work at all, or may work but accompanied with the potential of side effects and complications. In addition, there are reports that in certain societies the so-called alternative medical approaches attract more of the public than does allopathic medicine. Public dependence on holistic modalities is up, and rising; insurance companies even cover the cost of some of them. The best medical practice is one that integrates various theories and proven approaches while being open to new knowledge about the effectiveness of approaches and practices that, without doubt, will continue emerging. Such openness and sense of mutuality will banish the use of loaded or fragmenting terminology. The elephant is an organism and the most faithful view of it is integrative.

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5. Pelletier KR. *The Best Alternative Medicine*. New York: Simon & Schuster, 2000.

5 One book on the topic has the following view of alternative medicine under the heading of 'An Important Message': "...Because the methods described are, by definition, **alternative** methods [bold face in original], many of them have not been investigated and/or approved by any government or regulatory agency.... Accordingly, ...should not be substituted for the advice and treatment of a ...licensed professional, but rather should be used in conjunction with professional care." [3] The responses that such cautionary characterization deserves are self-evident. Among them: There appears to be confusion between 'adjunctive medicine' and 'alternative medicine.'

6 It should be used at least to designate the entire field of non-allopathic medicine.

7 And if chauvinistic exponents of allopathy do not subscribe to this melding, integrative medicine would still be a better term than alternative medicine in that it is more instructive to refer to a stance and process than to a territory the other side of a fuzzy division.



Breaking news

by Wendy Kingdom

It is my observation that drinking glasses of the same type do not break at the same rate. Put another way, my kitchen cupboard contains an odd assortment of glasses that were once part of larger sets. The single items remaining are the ones that are of particular interest. One might think that if one were to purchase a set of four glasses and three of them were broken after 9 months, then the fourth glass would be broken within one year. Yet there are odd glasses in the cupboard that have outlived their counterparts many times over.

This observation was particularly acute recently when I bought a set of four drinking glasses from the supermarket. Three of these glasses were broken in a very short time, which I put down to the poor quality of the glass. However, the fourth glass wasn't going to give up so easily and kept going for months until I decided to make it the focal point of this article, then it broke (Fig. 1).

The quality of the glass cannot provide an explanation for the rate at which the glasses were broken. The glasses that I mentioned in the paragraph above cost only £5 (about €7.3) for a set of four. I bought another set of four glasses of a different design but for the same cost from the same supermarket, and these glasses appear to be indestructible. Well, I have no doubt that I can break them if I choose to but I mean that none of these glasses have broken during everyday use over a period of about 6 months. Therefore, the cost of the glasses cannot be a significant factor in the breakability rate.

Of course, the quality of the glass is not necessarily related to the cost. Apparently, one way to evaluate the quality of glass is to look at it end-on (Fig. 2) and see how green it looks: the darker the green, the poorer the quality of the glass. So, unless one were to use a colorimeter of some description (presumably at great expense) a colour chart would be needed and the glasses graded on a categorical scale. However, the colour test falls down when the glasses are of different shapes. Can you reasonably compare a straight-sided tumbler with a long-stemmed wine glass? I don't think that you can.

Another way to find out the quality of a glass is to flick the rim with a finger nail; the clearer the ring, the better the quality of the glass. One could devise a 'ping' scale such as 0 = dull thud, 1 = slight ring, 2 = moderate ring, 3 = quite nice ring, and 4 = rings like a bell. One might have to resort to employing an expert, which could be very costly and not very sensible if the glasses only cost £5 for a set of four in

the first place. It would be necessary to weigh up the cost-benefit ratio of determining quality as opposed to cost. Failure to do so could jeopardise the whole experiment.

If one wished to study the phenomenon of the rate of glass-breaking in detail, one would need to conduct a prospective survival study. Planning such a study is rather complicated because there are so many factors that can influence the probability of a glass being broken, for example, frequency of use. There would have to be a system of rotating the glasses, or only using the test glasses when the whole set will be used at the same time.



Figure 1



Figure 2

The presence or absence of children in the household is likely to have an influence on the longevity of drinking glasses, which suggests that the study should be conducted only in households that lack the joys of the presence of little people. However, as we all know, clumsiness is not a characteristic exclusive to children. Therefore, it might be necessary to apply an appropriate test—a Butter-Fingers scale—to exclude any households in which one or more of the inhabitants score above average in this test. This opens up a whole new area of study as there doesn't appear to be a suitable validated rating scale available in the literature, so this would have to be devised and tested.

Then, it would be necessary to examine the effect of washing the glasses by hand or putting them in a dishwasher. One can't make assumptions about which method is more likely to result in a glass being broken. Dishwashers ruin glasses by turning them cloudy but the glasses do not usually get broken. Better quality glasses are more likely to be hand washed than put in a dishwasher to preserve their appearance so we're back to the argument above about the quality of the glass, but now there is the confounding factor of the method of washing.

What about the volatility of household relationships? Some people enjoy a good argument and they throw crockery at

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>>> Breaking news

each other—so I'm told. Then there's how much you like the glasses. If you buy some that will do for now but you don't particularly like them, you can be sure that the ones that you bought because they were nice will be broken much more quickly than the ones that you don't like. How on earth could you test for that?

Overall, therefore, just thinking about the glass-breaking puzzle by myself I have identified the cost, the quality of the glass, frequency of use, method of washing (and I forgot to mention the wearing, or otherwise, of rubber gloves), clumsiness of the user, temper threshold, and likeability factor as possible variables that would have to be considered in a prospective study. If one were to set up a research team to study this observation in detail, who knows how many other variables might be identified that would contribute to the joys and complications of proving the scientific point.

I am not alone in my pondering and quest for extending the gambit of the prospective study to things that might otherwise just slip by us when we are not looking. Academic researchers in Australia have tried to find out what happens to the teaspoons in their research institute [1]. They conducted a prospective study in which the eight tearooms in the institute were populated with a known number of teaspoons. The whereabouts of the teaspoons were then monitored over a period of 5 months (a total of 5668 teaspoon

days). The principal findings were that the half-life of a teaspoon in the institute was 81 days, which translates into a rate of loss of 2.58 teaspoons per person per 100 teaspoon years. However, although these researchers were able to determine the rate of loss of the teaspoons, they were unable fully to find out where they went and resorted to speculation on the existence of a planet in the cosmos that is entirely given over to teaspoon life-forms.

Having considered all of the above, none of the factors that I have considered would explain why in any set of four glasses, three of them will break in a shorter time than the fourth glass. The only thing of which I can be certain is that we have too many odd glasses and it's time that we 'recycled' some.

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Reference:

1. Lim MSC, Hellard ME, Aitken CK. The case of the disappearing teaspoons: longitudinal cohort study of the displacement of teaspoons in an Australian research institute. *BMJ* 2005; 331: 1498-500.

Wendy Kingdom is Treasurer of EMWA and joint owner of some very odd crockery.

Full access to data on safety and effectiveness of drugs?

An editorial in the *BMJ* on direct to consumer advertising of drugs in Europe suggests a partnership between drug

companies and drug regulatory authorities in which drug companies would give full access to all clinical trial protocols and to the periodic safety update reports. It also proposes that patients' needs and not industry patents should be the focus of regulatory bodies.

Magrini N and Font M. Direct to consumer advertising of drugs in Europe. *BMJ* 2007;335:526

Getting your job title right

This is a job announcement published in *The Guardian*.

NEIGHBOURHOODS & REGENERATION
ANTI-SOCIAL BEHAVIOUR COORDINATOR
SAFER COMMUNITIES SERVICES
HACKNEY COMMUNITY SAFETY TEAM

Society Guardian, August 29, 2007, p19

Tim Albert, who for many years has written articles and books, and run courses on writing scientific papers, thought this might be an opportunity for a change in career direction and applied for the post. This is his letter of application.

Dear Response Handling Consultants

ANTI SOCIAL BEHAVIOUR CO-ORDINATOR

I was very interested to see this advertisement in yesterday's Guardian newspaper and feel that I am particularly qualified for this post.

I have had considerable experience in co-ordination, both at my work running a small private company, and in my leisure time, where I have been involved in a range of organisations, from scouting to amateur dramatics.

I have had less experience in anti-social behaviour, but feel I could learn quickly. Activities I would promote would include providing open air meeting places for young people, encouraging the use of amplification in dense housing areas, and running courses in graffiti spraying.

This is a very worthwhile project and I look forward to causing distress to the residents of Hackney. I assume that the funding is coming from a lottery funded arts project and I would be grateful if you could confirm this.

I also look forward to receiving full details.

Yours sincerely

Tim Albert



Making the most of clinical trials publication

by Madeline Frame

Having worked in the pharmaceutical industry for many years, I have witnessed the increasing complexity of the clinical trial documentation required to register and support new drugs. This has increased the cost and amount of work involved in collecting the extensive data, but has presented opportunities in terms of accumulating large amounts of peripheral clinical data that can be explored and published to extend a drug's profile and possibly lead to new indications for its use.

Publication planning for primary data

When study protocols are initiated, it is usual even at that early stage to make a preliminary publication plan. This will involve deciding who the principal authors will be and the main publication packages likely to be available from the data collected. Generally, the aim is to present the primary data at major congresses (i.e. the most important and influential ones) as soon as it is available, before full publication, and these congresses will be identified in relation to the study end date and availability of data. It is important to be aware of the abstract deadline and to allow time for review and approval of abstracts before submission. If there is a tight timeframe between completion of data analysis and abstract submission deadline, it is helpful to have the abstract drafted in a skeleton format, ready to insert the data.

With regard to full publication of the primary data, ideally it should be submitted to a journal selected as the highest ranking one that is likely to accept the paper. By careful targeting of the most suitable (not necessarily specialist) journals, a lot of time can be saved. Sometimes it is worth contacting the editorial department of a journal to inquire whether they may be interested in the results of a particular study. Journals like *Lancet* like to be involved with cutting edge research in medicine, so if your study is genuinely ground-breaking, it is worth a shot. If manuscripts are sent to top ranking journals without careful consideration of their true merit and contribution to the field, they will frequently be rejected, and each process of revision and re-submission to an alternative journal is time-consuming and, for the pharmaceutical company, time lost in profiling a new drug or indication. That advice probably comes over in a patronising way and may seem like common sense, but it is not unusual to hear colleagues or study steering committees going through their list of rejections from various journals and not to be surprised, given their over-inflated expectations. I think some people want to have their name

in *New England Journal of Medicine* and feel that if they submit a sufficient number of papers, eventually one will be accepted! In essence, a medical writer, who is emotionally detached from the research, can have a valuable role in moderating the choice of journal.

Publication of secondary analyses

Although authors are sometimes criticised for 'salami slicing' their data, there is value in publishing different aspects of a study in different papers, allowing extra detail and 'in depth' discussion.

This may involve sending them to specialised journals outside the normal realm of the drug, for example pathology journals for histological findings. Sometimes publications fit well 'back to back' in a journal and can be submitted to the journal as a pair. In that instance, usually the full methods only need to appear in one of the papers, and can be cross-referenced in the other. This generally makes the results more digestible than having all results in one paper.

There is also merit in submitting abstracts on data subsets, where there may be insufficient data for a full paper, but an important point has been addressed in the analysis. Abstracts also serve to keep the drug in profile at congresses when it is no longer a new product.

Publication of safety data

In most current clinical studies, a significant amount of safety data is collected and frequently both serious and non-serious adverse events are presented in manuscripts. As it is now much more difficult to introduce brand new compounds onto the market, the prospect of showing fewer adverse events with one therapy than another can be considered as a treatment advantage for competing 'marketed' products. In relation to drugs that have been well tested, there is a case for presenting their long-term safety profile and this involves trawling lots of studies where 'normal' clinical chemistry has only been touched upon in primary publications. This can be especially important in relation to, for example, safe use of drugs during pregnancy.

Getting around publication bias: Choosing appealing angles

The pharmaceutical industry as well as practising physicians or scientists are often criticised for publishing only their positive results, leading to publication bias and an unbalanced view of their research. On the other side of the

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>>> Making the most of clinical trials publication...

coin, however, high profile journals are not so interested in studies that, for example, show a small difference between two drugs that is unlikely to have a huge influence on therapeutic practice. This is not because the data are inadequate in any way, but because they are not exciting or eye-catching.

I was once involved in writing an article about two antihypertensive drugs and the study had been well-performed in a multi-racial population. The results were good but not particularly new, and the paper was rejected initially for that reason. Consequently, we decided to take a different tack and looked at the influence of ethnicity on drug responsiveness, as it was already recognised that there was a higher incidence of hypertension in the black population. Taking this view of the data, we found some additional interesting findings, and whilst the main results were still presented, the additional findings provided the spice. The manuscript was immediately accepted by a mainline journal!

Nowadays, it is more difficult to perform post-hoc or unplanned statistical analyses, unless they are predefined in the protocol. Ideally the protocol should cite many secondary variables that may be explored. Thus as much data as possible can be gleaned without altering the statistical design or schedule.

In a recent article in the *BMJ* (2007;334:1341) on a clinical trials conference, Michael Day reported that researchers were criticised for not analysing their data in sufficient depth to make real value judgments on the best treatment for patients. In the same article, clinical trials are criticised for focussing on highly selected groups of patients who are not necessarily representative of the general population, and for using treatments that may be difficult to replicate in normal clinical settings. These criticisms are not so easy for the pharmaceutical industry to resolve, however, as the regulatory safety demands are such that testing of new drugs is restricted to carefully selected groups who do not have other major diseases such as cardiovascular disease or liver/kidney impairment. Children under 18 years and pregnant women are usually excluded too. These restrictions generally result in a long programme of studies, with wider patient groups only being tested once a substantial safety base for the new drug

has been established. In my personal experience, there is often a huge unmet need in paediatrics for good therapies, as so many drugs are not indicated for children owing to lack of data. Paediatric studies are inherently difficult to perform, but the rewards from publishing the data and extending a drug's indication into paediatrics can be considerable.

Conclusion

Freelance medical writers working outside the pharmaceutical industry may not have the authority to influence decisions on which publications can be derived from a study and where they should be published, but a thorough reading of a clinical report may prompt them to give some ideas as to how the best can be made of the results. It is always worth looking at opportunities in the data when the primary data are being written up, as this can have an influence on journal selection for future publications.

Madeline Frame

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Key points in publication planning

- When study protocols are initiated, it is usual even at that early stage to make a preliminary publication plan.
- Large amounts of peripheral clinical data collected during clinical trials can be explored and published to extend a drug's profile and possibly lead to new indications for its use.
- The aim is to present the primary data at major congresses as soon as it is available, prior to full publication in a high-ranking journal. It is important to be aware of the abstract deadline and to allow time for review and approval of abstracts prior to submission.
- If manuscripts are sent to top ranking journals without careful consideration of their true merit and contribution to the field, they will frequently be rejected, and each process of revision and re-submission to an alternative journal is time-consuming.
- There is value in publishing different aspects of a study in different papers, allowing extra detail and 'in depth' discussion, or as short abstracts, if few data are available pertaining to a specific point.
- If results are good, but not particularly new, it may be valuable to take a different slant on the data that give originality and interest for journals.
- The medical writer can play a valuable role in moderating the choice of journal.

Internet interest

There are 1.1 billion Internet users: 398.7 million in Asia, 314.8 in Europe and only 233.3 million in North America. 5.5 million people are apparently still waiting to be connected.

Source: Bryne C. Google evangelist unveils his Web vision. *The Independent* 27 August 2007



What makes science news?

by Cathy Holding

This article is aimed at the writer who wishes to branch into freelance science journalism and who would like to know how. Science news can be a reasonable source of income for anyone who can write scientifically yet at a level that is accessible to the non-specialist. It can be hugely enjoyable and rewarding, and nothing can beat the feeling of seeing your name and your article live on-line, or in print.

Selling science news

As with any form of writing, science news is a product that must be aimed specifically at a market. It is therefore necessary to carry out research into what the markets are, and to read the stories that are published in target magazines in order to know the type of reader the stories are aimed at. Alison McCook, News Editor for *The Scientist* (www.the-scientist.com) explains. “You really need to demonstrate you know our audience. I get a lot of pitches, and sometimes I think, if only this person had read a couple of our articles...!”

Problems facing Freelancers

It may be difficult for freelancers to sell science news stories to certain sectors, because some of the bigger science magazines, such as *The Scientist*, now employ their own in-house staff. Alison highlights the problems facing freelancers. “Before we were largely freelance and now we’ve switched. We now put out at least two or three freelance stories per week—two years ago, ninety percent of everything we did was freelance.” However, she encourages all writers to go for it. “The topic is just science, that has always been what we focus on, that’s our trade—anything related to life, even organic chemistry, behaviour, ecology—as well as all the molecular biology,” she says.

Problems facing freelancers include competition: the in-house staff skim the big stories off the surface of the ocean of science publications each week, with the result that the freelancer has to dive a bit deeper, and therefore with more skill, to find those more rare species that he can sell to earn his crust. Other freelancers may have spotted the paper and be pitching the story too: often commissions are handed out on a first come-first served basis, but not all publishers do that. *The Scientist* commissions are now based on merit, not speed of typing or time zone, making it just that bit easier for a good journalist who gets up a little late! The need to pitch the story to the editor during the time that the paper is under embargo will also lose you a day or so. Another problem for the freelance journalist is setting up interviews

in time: for example *The Scientist* requires two other voices to comment on the paper in question, and getting all these interviews set up, carried out, recorded, transcribed and written into the article by the deadline can be really stressful!

Pitching

Pitches are the means by which the writer draws the attention of an editor to a news article. To sell a story, a freelance writer must pitch well. So what constitutes a good pitch? “Something I can read quickly,” says Alison. “Short enough that I can visualise what the first sentence is going to be; and it doesn’t just say what you want to write about, but why it’s important.” Both *The Scientist* and *New Scientist* have pages on their websites that provide instructions for freelance science journalists on how to write pitches and articles for them. Some people pitch a press release to the editor—but this may be counterproductive in the case of editors who prefer a pitch demonstrating the journalist’s clear understanding of the nature and implications of the paper.

Regarding editorial response, you are likely to get more rejections than acceptances but these should never be taken personally. If the editor adds a sentence along the lines of, “Thanks but no thanks, but please keep pitching!” then you are doing pretty well! The problem for freelancers is that it can take a decent amount of time to construct a pitch, from reading the paper and perhaps some background papers too, to writing the pitch and finally waiting for the response. If the pitch is rejected, then the work goes unpaid.

You should be prepared to be edited, although that’s not always the case. “Often articles are fine and I don’t need to edit very much,” says Alison. However it depends on the magazine; *New Scientist* edited my article very heavily so that it sounded more in-house. “As long as it’s within our general style,” agreed Alison.

News does not have to be restricted to the news section of a magazine either; you can pitch to other sections too. For example, *The Scientist* has a section called the Notebook. “They’re very short pieces but they touch on important topics,” Alison explains. “So it might be the story behind some really interesting science; you know the people working on it and what led them to come up with this finding, that sort of narrative article.” In addition she adds, “You’ll see from our website we cover another category we broadly call “policy” stories, meaning anything that’s affecting how life scientists do their work.”

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Sources for science news

So where does a science journalist get the news from? It seems that no sooner has a paper been published than it's already been written about, so how does a lowly freelancer get hold of the papers? The answer is that journalists are given privileged access to papers from various sources a few days before they are due to be released for publication—these are called embargoed papers. But beware—journalists may not publish anything about embargoed papers until the embargo date is passed, under pain of excommunication. (As a cautionary tale, you can read about the breaking of the JAMA embargo on the National Heart, Lung, and Blood Institute (NHLBI) Women's Health Initiative (WHI) clinical trial that was unexpectedly stopped early because it showed that the risks of combination oestrogen-plus-progestin therapy outweighed the benefits for postmenopausal women, with implications for millions of women taking hormone therapy[1].) The embargo provides enough time to set up interviews and write the article to coincide with the release of the paper.

There are various websites that provide embargoed publications for journalists. For example, reporters and freelancers can access embargoed and breaking news, peer-reviewed journals, experts and other valuable resources through EurekAlert! (www.eurekalert.org), an online, global news service operated by AAAS, the science society. The European equivalent for this site is Alpha Galileo (<http://www.alphagalileo.org/>), and registered journalists have access to embargoed information and an email alert service that allows research areas of interest, type of content, languages spoken and dispatch time to be specified. Also the Nature Publishing Group has a press site (<http://press.nature.com/press>), where weekly releases from *Nature*, weekly joint releases from the Nature Research Journals, occasional releases from the Nature Review Journals, from the NPG Academic journals and from the Nature Clinical Practice Journals can be accessed.

It is necessary to register to use these facilities, and you will be asked to demonstrate that you are a bona-fide journalist. This is usually done by providing evidence of previously published news articles, or by proving that you are already working for an organisation (such as the BBC), or by a reference from someone else working in a news organisation (for example, by getting the editor of the news site to request access for purposes of writing the news article). For Alpha Galileo, it may be sufficient to submit proof of membership of a writer's organisation such as EMWA, and if further information is required then the website will make contact. EurekAlert! definitely do require 'clips', or previously published articles; however if you register through the website it is possible to enter into dialogue with them to discuss the issue. Once signed up to these websites, you can receive press releases from various journals by email, and in the case of *Nature* some of these arrive a short time before the embargoed papers are actually released.

When receiving press releases it's a good idea to trawl through all the titles in the release, not just those that have been written up; with your insider knowledge you may spot something the press release authors may have missed. Usually for the news desk, editors want embargoed papers. However, I wrote a news article for *New Scientist* that had been published for a couple of weeks already, but whose implications had obviously been missed by other reporters when I stumbled across it. But this is a very costly way of deriving news; a huge amount of trawling and very little reward. If you go for a particular journal frequently that does not issue press releases, it may be worth while contacting the editor and requesting that he forward papers of interest to you before they are published so that you stand a chance of getting the news out the moment the paper goes live.

The bottom line

So how much money are we talking for freelancers? "It varies, it's 80 cents a word for news [at the time of publication of this article]; we always negotiate though, so if someone wants more we can always talk about that," says Alison. For a new writer she often works "on spec": "This would be someone I haven't worked with before, who I'm not completely confident about," she explains. The new writer would be expected to write the article but not be paid for it unless it was actually used. "It's sort of like a tryout. If I can use it then I would definitely pay that person," Alison adds.

How do you make science news?

So, finally, the question of what makes science news!? Alison found this question the most difficult. "It's hard to explain," she said. "It's just something you didn't know before, it's about general awareness; like the one minor paper we haven't covered."

Although certainly a gut feeling is involved, there are certain questions that journalists should ask themselves, when reading a press release or a paper, which help in developing that instinctive feeling for a hot paper. Below I detail how I went about preparing a pitch for *The Scientist* recently (it was rejected because they were covering a different paper in the same issue).

The press releases, or even table of contents, provide the first clues about whether a paper is newsworthy. The primary question is, what will the news headline be? Take for example the title of a paper from a recent edition of *Science*: "The Near Eastern Origin of Cat Domestication"[2]. Not the most news-grabbing title, but it offered potential. After reading the paper, the title of the news article became clear: "Cats domesticated over a hundred thousand years ago". If you can put the whole thing into a title that appears catchy, you're on to a good start. The title has to encapsulate the results of the paper and make the reader want to read on.

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Second comes the by-line, the sentence that goes underneath the headline, which reiterates the main point, suggests the angle of the article and hopefully doesn't give the whole game away so the reader will read on! In this case it was, "Furry feline friends around far longer than first thought". Again, if you can encapsulate the paper in this way, then it's likely to have news potential. (Incidentally that by-line may have been a bit too informal for *The Scientist*).

Third, the first sentence of the article or pitch has to say it all again in more detail. This is the sentence that Alison McCook referred to above regarding short pitches. In the case of *The Scientist*, the first sentence must be 30 words or less. Here, I chose, "All domestic and wild cats are derived from 5 mitochondrial DNA lineages which date as far back as a hundred thousand years, prior to any other archaeological record of domestication, according to research published in *ScienceExpress* this week." Once again, if the results of the paper can be captured in this way, the odds are looking good for a news article.

Fourth, it has to be clear why it's important. I reckoned that, "this should appeal to archaeologists and human behaviourists, to groups interested in cat populations and to domestic cat owners in general."

The authors themselves usually understand why their work is important, and it's a good clue to go to the conclusions. In this case, the authors felt that archaeological imprints have been left in the genomes of living cats and give clues about the timing, steps and history of domestication. It would seem that the process began well over 9,000 years ago while farmers in the Near East domesticated grains and cereals as well as livestock animals. Meanwhile, wildcats of the region may also have adapted by regulating rodents in grain stores and abandoning innate aggressive behaviours. Fascinating stuff! If you can make your reader think it's fascinating too, you could be on to a winner.

Closing points

Writing science news is fascinating and challenging and ultimately rewarding from a morale point of view, if not a financial one! If you choose this line of work I wish good luck and offer the advice: be thorough, and be persistent! One caveat, however, from being published on the internet: the main thing you get from fame is spam!

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Cathy Holding has written more than 150 news articles published in *The Scientist* (<http://www.the-scientist.com>) and *New Scientist* (www.newscientist.com). She is currently working as a freelance science writer. For more about Cathy see www.cathyholding.co.uk

Are embargos in the public interest?

Vincent Kiernan has written a very interesting essay entitled 'The Embargo Should Go', adapted from his book *Embargoed Science*.

Kiernan argues that while embargoes are convenient for journalists and suit the scientific journal world they do not serve the public interest. He contends that regardless of if the research being reported is good or bad news the scientific and medical establishments are always cast in a positive light, as the font of new findings. Journalists are so preoccupied with writing about research, which is spoon fed to them, that they do not have time to question and investigate the workings of science and medicine. If they were freed from the tyranny of the embargo they would have time to visit scientists in laboratories and troll for investigative stories.

The trump card for embargo supporters is that science is complex and journalists need to prepare articles from research articles to ensure their accuracy. But when other journalists are able to report complex news about court decisions and tax laws without an embargo system Kiernan questions if this is not an insult to the intellect of scientific journalists.

The essay casts the Internet as a mixed blessing for the embargo system. In the short run it provides an easy means of distributing embargoed articles to journalists but in the long run the more journalists involved the more likely it is that embargoes will be broken. Thinking further, at the moment few journalists are searching self-archiving sites for news even though this is an early source of new research because scientists post preprints of articles on the sites. One journalist, Tom Siegfried, who uses physics preprint servers for news of the latest research, is quoted as saying that the role of physics journals is now largely limited to providing archival copies of important papers and for proving records for tenure.

The essay concludes that it is time for science journalists to break out of their dependence on journals as a source of science news, and for scholarly societies to stop trying to shape the flow of news in a way that suits their own political ends.

Source: <http://www.aps.org/publications/apsnews/200703/backpage.cfm>

Successful cross-cultural communication requires us to test our assumptions

by Geoff Hart

Everyone's heard about the ignorant tourist who is visiting a foreign country and having difficulty communicating with the natives. The tourist tries to communicate in English, our modern lingua franca, and when the native fails to understand, the tourist repeats exactly the same sentence, but louder and slower. After all, everyone must speak English, so the problem must be volume and pacing. At best, both people shrug, smile placatingly, and move on, having failed to communicate; at worst, tempers rise, and both leave with greatly reduced respect for the other person's culture.

It would be nice if we all spoke dozens of languages and could avoid such problems, but in reality, most of us lack that skill. Instead, we face the tourist's problem whenever we try to communicate in our own language with colleagues or clients from other cultures. The most common communication problems arise when we assume the other person thinks the same way we do and shares our understanding of what we're trying to say. We writers make this mistake less often, because we've learned to identify and eliminate such assumptions in our writing; this lets us add the missing context or explain our hidden assumptions to ensure we communicate successfully. But we're not immune to the problem either, particularly in oral communication, when we have less time to revise our words.

People who live where interactions among multiple languages and cultures are part of everyday life have an enormous advantage over North Americans, for whom multilingual and multicultural communication is an exceptional situation. For example, many Europeans and Asians can communicate effectively, if not elegantly, in a second or third language, but most North Americans are stubbornly unilingual. Unfortunately, familiarity with a multilingual context doesn't ensure successful communication either; despite my multicultural awareness, I repeatedly forget the difference between US letter-size paper and European A4, and even though I live in Canada, a British Commonwealth nation, I work with so many American authors that I tend to assume US English is international English. It seems to be fundamental to human nature that we assume our audience shares our assumptions, and that's only rarely true.

With practice, we can learn to consciously use the same thought process we use to clarify our writing whenever we must use our own language to communicate with someone from a different culture. In this article, I'll explore some ways to increase the likelihood of success.

Understand the culture

Most of us recognise the difficulty of dealing with other cultures, and are willing to at least make an effort to adapt our communication style. Those of us who speak English as our first language, and particularly North Americans, recognise English's role as an international language, and tend to assume that other cultures will make an effort to accommodate our linguistic imperialism. It's certainly true that people of a host country will try to extend a host's courtesy to visitors who don't speak their language, but we shouldn't rely on this in our professional communication. Making even a simple effort to learn a host country's customs lets us show respect for their culture, and that respect is returned. In contrast, failing to make that effort can lead to resentment, and that can compromise even communication that would otherwise be clear. Once offence is given, it's too late; "you never get a second chance to make a first impression", and that first impression can interfere with all subsequent communication.

As communicators, we should strive to understand other cultures well enough that we can at least avoid the obvious traps. Something we writers often forget, focused as we are on words, is that communication begins long before we have a chance to exchange many words. For example, business meetings often begin with an exchange of business cards. North Americans tend to glance briefly at a card before shoving it into a pocket. In China, this would be insulting behaviour, so before travelling in China, I trained myself to accept an offered card with both hands, read it carefully, pronounce the name and smile, and ask whether I had pronounced the name correctly. In return, I offered my own card with both hands simultaneously, held so my colleague could read it without having to turn it around. The effort was always appreciated.

In most Asian cultures, establishing a friendly relationship must precede efforts to focus on business, and if you don't understand this, you'll receive a cool reception. When I communicate with Asian colleagues, I consciously try to break my North American habit of writing concisely and getting quickly to the point. After I've completed the initial formalities, I'll often comment on the weather or any interesting work I've been doing, and during our annual Chinese lantern festival (Shanghai ships thousands of handmade silk lanterns to Montreal each year), I'll mention this to my Chinese colleagues and send them a link to photos. Many reply with pictures and anecdotes of their own.

Even within multicultural Europe, cultural differences can disrupt communication. Germany, for example, is a stereotypical low-context culture that values direct, concise, straight-to-the-point communication, whereas Spain is a high-context culture that values relationships and the context surrounding communication (http://en.wikipedia.org/wiki/High_context_culture). Although such stereotypes can mislead us, deep cultural roots may underlie a stereotype and explain why people communicate in a certain way and how we can accommodate that approach. In urban Quebec, for instance, conversations switch back and forth between French and English as speakers choose the language that offers the most flexibility to express a given concept or to help less-skilful speakers who are having difficulty. Conversations that begin in the group's majority language soon become a Babel of multilingual idiom. This is a common pattern: those who try to understand and accommodate people from another culture are accorded equal respect.

Speak slowly

The tourist who speaks slowly but loudly seems foolish, but there's logic to this approach. When we must speak to a foreign audience in our own language, we must remember that they lack our experience with the language and cannot easily compensate for faults in our speech. Speaking slower (without emulating a dying tape recorder) gives them time to recognise individual words and determine their meaning; speaking louder (without shouting) makes the words more distinct because it focuses our attention on pronouncing words distinctly. It's not the volume or pace that is important, but rather the effort to concentrate on the words rather than using all the bad habits we've acquired from over-familiarity with our language.

This approach is particularly useful when working with interpreters. When I spoke about technical communication during a visit to China, I consciously spoke louder and more slowly than usual (I have a quiet voice and speak fast when I'm excited), and paused and relaxed between sentences. This gave audience members who spoke some English more chance to understand what I was saying, and gave the interpreter time to reiterate what I had said in Chinese without feeling rushed. In addition, I paused slightly longer than usual after displaying a new line of text in PowerPoint so everyone had a chance to read and absorb that line before I began speaking about it; because most people understand written language better than its spoken form, this increased the likelihood my audience would correctly discern my spoken words. I also printed my presentation for the interpreters, along with explanations of difficult or technical points, and gave them copies well before my talk so they had time to understand my presentation and ask me about anything unclear.

The difference between speaking your own language to a compatriot (in the original sense of that word, namely someone from your country) and speaking to someone from another culture is analogous to the difference between movies and a live performance. Film-makers focus closely

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on the faces of actors so that even subtle and nuanced gestures and facial expressions are clearly visible. Particularly now that we can watch a movie on DVD, they know we can replay a scene if we missed something. But at a live performance, we're farther from the actors and can't replay scenes, and we must concentrate to exclude distractions such as the scenery; even for those in the front row, there are no 'extreme close-ups'. That forces performers to speak louder and exaggerate their gestures to ensure that nobody will miss what they're trying to communicate. As a result, stage performers sometimes appear to be 'over-acting' on television because they haven't yet learned to overcome these habits. When we speak to someone in a language they don't understand well, we must reverse that process to some extent.

Suppress your reflexes

Each of us develops certain communication reflexes that become subconscious. People who know us well can learn to understand them, but others may not be so fortunate. For example, I type '<g>' frequently in my e-mail messages; the 'g' stands for 'grin', and is the equivalent of the smiley face icon. In North America, this identifies a comment that should not be taken seriously, and it's a useful way to emulate the way we smile during a conversation to ensure that listeners will understand what we're saying as an attempt to amuse and engage our conversational partners. Recently, I typed <g> in an e-mail message to a Filipino colleague whose impeccable English led me to assume she would understand. Her reply made it clear that she hadn't understood, and because I was paying attention, I noticed this and was able to explain what I'd done. Paying attention to her nonverbal cues told me I'd behaved reflexively without confirming that she would understand, and correcting the problem led to an interesting conversation that taught me much about the Philippines.

Because these kinds of reflexes are subconscious, we tend not to notice them, but we can at least learn to pay attention to how people respond to what we say and do. It can be helpful to ask a friend to point out what we're doing wrong; once we're aware of a problem, we can learn to suppress it. More often, we must identify potential problems ourselves because we won't have someone to monitor our actions. Before travelling to India, I learned that food should not be touched with one's left hand—problematic, given that I'd spent much of my life eating this way. For the month before my trip, I actually sat on my left hand at the start of each meal until I'd learned to touch food only with my right hand.

Both examples show how learning what might offend my colleagues and looking for their reactions would let me look for bad habits I needed to suppress. Only when you're aware of a problem can you try to solve it.

Suppress language reflexes

Similar problems arise in our writing and speech, often from unconscious assumptions that shape how we frame our thoughts. Idiomatic phrases are a particular problem, as they differ dramatically between cultures. In Quebec, for example, the French use obscenities based on Catholic reli-

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gious practice, whereas the English use obscenities based on body parts and bodily functions. Most cross-cultural communication won't involve obscenities, but I've chosen this example to dramatise how the sources of idiom differ. Another example is that many American idioms used in business writing are based on sports, such as 'getting to first base with a client' (baseball) or 'making an end run around an obstacle' (American football). This is less common in non-English cultures, but also varies among English cultures; for example, the British might speak of a 'sticky wicket' (cricket) to refer to a difficult or embarrassing situation.

Verbs also pose problems, and not just because languages differ in their preferred verb tenses and in verb conjugations. For example, the subjunctive is a dying part of English and passive voice is discouraged, whereas both are alive and well in French. Phrasal verbs pose particularly serious problems, because they are idiomatic and thus, metaphorical. For example, the phrase 'served notice' requires an understanding that 'serving' means 'delivery' and 'notice' means you want the person to notice something; 'informed' or 'alerted' says this more clearly because both verbs are largely free of metaphor. But even the non-metaphorical 'have to' is not immediately obvious because 'have' indicates possession; 'need to' or 'must' are easier to understand.

Complex sentences containing parenthetical clauses are another problem, particularly in speech. Our audiences are not stupid, and will eventually be able to untangle the meaning of such sentences, but doing so requires more effort. The problem relates to limitations on human short-term memory: while reading or hearing our own language, we process the components of a sentence easily and extract their meaning rapidly. But understanding a foreign language is slower, and we often lose the last part of a sentence while our attention is focused on understanding the first part. In speech, we can slow our pace to avoid this problem; in both speech and writing, we can break longer sentences into shorter ones, or simplify the sentence so the parenthetical information and clauses are easier to identify and understand.

Synonyms are yet another problem, particularly for English, which has the world's richest vocabulary. As James Nicoll famously observed, "We don't just borrow words; on occasion, English has pursued other languages down alleyways to beat them unconscious and rifle their pockets for new vocabulary." As writers, we take great pleasure flourishing our vocabulary, and English offers many words to abuse in this way. Unfortunately, it takes considerable time and effort to acquire such fluency, and in cross-cultural situations, most of our audience won't share our skill. For such audiences, simpler is better. Metaphorically, a '\$10 word' is longer, more complicated, or more obscure, and thus 'more expensive to purchase' than shorter, simpler, more familiar '\$1 words'. But in a very practical sense, the \$10 words are also more expensive in terms of the mental effort audiences must exert to understand them and in terms of the cost of failed communication. Using simpler and more familiar words seems to suppress our creativity, but we still have ample opportunity for linguistic virtuosity when we use simpler words.

Synonyms can also lead to confusion over the intended meaning. Technical writers learn a useful trick related to synonyms: wherever possible, we use each word to convey only a single meaning, to avoid words with multiple (potentially confusing) meanings, and to avoid using two words to communicate the same meaning. This eliminates three potential sources of confusion over the meaning of a word. The European Association of Aerospace Industries' Simplified Technical English (<http://www.simplifiedenglish-aecma.org/>) takes this approach to extremes, because its practitioners face a uniquely difficult challenge: creating English that will be understood correctly, after some training, by culturally diverse audiences around the world. (Translation and localisation would be a better solution, but when you're translating thousands of pages of complex documentation into dozens of languages simultaneously, this may be logistically and economically impossible.)

Conclusion

Successful cross-cultural communication depends on the same skills we use to write clearly: we must spend the time required to understand our audience, identify our assumptions, and determine whether the audience shares those assumptions. When they don't, we can make our assumptions explicit or choose a different approach so the audience shares our understanding. Some of the assumptions we make are cultural, others are linguistic, and others combine aspects of both. But all these assumptions arise from the same root: even when we're communicating with someone from our own culture who knows us well and shares our language, they exist in the separate world of their own mind. It's the gap between those worlds that creates different assumptions and different interpretations of the world.

Editors understand this problem because we spend much of our careers solving problems that result from authorial assumptions readers don't share. This statement reflects more than just pride in my profession. I'm the author of more than 300 published articles, and each one has been a new lesson about my ignorance of my own assumptions. Learning to edit our own writing minimises such ignorance because we learn to test our assumptions, but the lesson is stronger when someone else does the teaching; each of us is somewhat blind to our own assumptions. Successful cross-cultural communication requires us to learn enough of other cultures that we understand how their assumptions differ from ours, then apply the same critical skills we learn from editing our written communication and having it edited by others to reveal our own assumptions.

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Transparency in medical writing: Medical writers leading the way

by Jenny Fanstone

In recent years, the role of medical writers has come under increasing scrutiny from both the medical and lay press and it is important that we, as medical writers, take positive steps to be open and transparent about our work. To provide guidance to our writers, clients and authors, and from our own need to be seen as an ethical company, Caudex Medical Ltd. has created an acknowledgements policy that offers leadership in achieving this transparency.

Caudex Medical acknowledgements policy

Caudex policy was developed following a review of position statements and information provided by key medical writing, publications and pharmaceutical industry associations, including EMWA, ICMJE, GPP and WAME. At that time, the EMWA guidance was the most comprehensive; furthermore, it affirmed the value of the involvement of professional writers in medical communications, reflecting our aims in creating an acknowledgements policy. Caudex thus decided to align itself with the EMWA guidelines.

Acknowledgements statements

Having created an acknowledgement statement, Caudex recognizes that in some circumstances, flexibility in the wording is essential. Journal requirements and the role that either an individual writer or a team from Caudex have played in the writing process are two such cases, and so options exist for either 'Caudex Medical' or the individual writer's name to be included. In all cases, the involvement of the sponsor is disclosed.

The default statements recommended by Caudex are:

*The authors take full responsibility for the content of this paper but thank Caudex Medical (supported by **sponsor name**) for their assistance in preparing the first draft of the manuscript* and collating the comments of the authors and other named contributors.*

Or, if acknowledgement of the individual writer is preferred:

*The authors take full responsibility for the content of this paper but thank **name plus qualifications** (Caudex Medical; supported by **sponsor name**) for their assistance in preparing the first draft of the manuscript* and collating the comments of the authors and other named contributors.*

Including your clients

From its inception we have been repeatedly asked by other writers and agencies how our clients have reacted to the

introduction of this policy. Others who have tried to do a similar thing have experienced negativity from their clients. It invariably emerges that when approaching the client with their recommendation, writers and agencies don't have a policy document – they mention that it would be good to include a statement and may do so at the end of the manuscript-writing process, but still they encounter great reluctance and inevitably the experiment falters.

Caudex experience has shown that the key is in having a policy document to back up your suggestion; by showing it to your client, they can see the careful consideration that has gone into your proposal. Through the inclusion of references to statements made by medical writing, publisher and industry associations, it is possible to demonstrate the research that has been done and the weight of support behind the initiative. And with journals increasingly including the requirement for such disclosure in their *Instructions to Authors*, the need for transparency is easy to prove.

Client response

In our experience, the Caudex acknowledgements policy has been received favourably both by new clients, to whom we have introduced the policy at pitch stage, and established clients with whom we have been working for substantial periods of time. In each case the client has recognized the proactivity of Caudex in this field and held us in high regard for our stance, and it is felt within Caudex that this factor may already have been an extra point in winning business.

The policy has been accepted well by authors, also; indeed, by including it as a default addition to every manuscript at first draft stage, it is seldom remarked upon, and seen as a natural and automatic part of the writing process.

Choosing to work with an ethical company that is proud to stand up and *be seen* to be acting ethically reflects well on our clients in the eyes of both clinicians and, we hope, journal editors.

Jenny Fanstone

Caudex Medical Ltd
Oxford, UK

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* Adapt role if necessary

Word 2007—rejected with an invitation to revise and resubmit

by Karen Shashok

Last summer Microsoft unleashed Word 2007 upon the publishing industry without warning users of the changes in the software's features that made adapting to the latest version a challenge. As a result of backward compatibility and usability problems, leading journals (including *Science* and *Nature*) were obliged to announce they could not accept manuscripts prepared with Word 2007, or to ask authors to take special measures to ensure their manuscript files could be processed (see Box). These measures include saving files as an older (.doc rather than .docx) file type, as requested by Wiley and Blackwell, or using Equation Editor or MathType (equation editors included in previous versions of Word) instead of the default equation editor included in Word 2007, as requested by Springer. As of this writing (6 September 2007) Elsevier had not announced their policy regarding Word 2007 files. But mc strategies, a healthcare e-learning company owned by Elsevier, has been offering online IT courses in each of the four applications in Microsoft Office 2007, including Word 2007, since the product was released in June 2007 [1].

The compatibility problems with Word 2007 made it impossible to submit .docx files via online manuscript submission and management systems, and were an impediment to editing and production since publishers' current systems could not handle the new file format. Moreover, mathematical formulas created with Word 2007's default proprietary math and equation editor (accessed via the *Equation Tool* ribbon) were converted into uneditable graphics objects in .docx files that were saved as .doc files and opened in earlier versions of Word.

How did the snafu come about? Bruce Rosenbaum of Inera Inc, one of Nature Publishing Group's main suppliers of Word macros, explained:

Most publishers are a long way from upgrading to Word 2007. There are two main reasons for this delay. First, other systems in the publication workflow, most notably online submission/peer review systems and editorial tools, are not yet compatible with DOCX files. If the surrounding infrastructure doesn't support DOCX, there's no impetus to switch internally. Second, the user interface is very different from previous versions of Word, and this change brings transition issues, especially with editors who may balk at the degree of change and see Word as a tool to do their work, not a tool to relearn with each new release [2].

A sample of publishers' requests that authors avoid Word 2007 (all accessed on 29 August 2007)

1. Guidelines for Electronic Submission, Text, Software and format. "Microsoft Word 6.0 is preferred, although manuscripts prepared using any other microcomputer word processor are acceptable. Please note: This journal does not accept Microsoft WORD 2007 documents at this time. Please use WORD's 'Save As' option to save your document as an older (.doc) file type."

Source: Journal of Surgical Oncology, Instructions for Authors.
<http://www3.interscience.wiley.com/cgi-bin/jabout/31873/ForAuthors.html>

2. "Please note: This journal does not accept Microsoft Word 2007 documents at this time. Please use Word's 'Save As' option to save your document as a .doc file type. If you try to upload a Word 2007 document in Manuscript Central you will be prompted to save .docx files as .doc files."

Source: Echohydrology, Instructions for Authors.
<http://www3.interscience.wiley.com/cgi-bin/jabout/114209870/ForAuthors.html>

3. "Word 2007. Will authors please note that Word 2007 is not yet compatible with journal production systems. Unfortunately, the journal cannot accept Microsoft Word 2007 documents until such time as a stable production version is released. Please use Word's 'Save As' option therefore to save your document as an older (.doc) file type."

Source: Blackwell, European Journal of Neurology, Author Guidelines.
<http://www.blackwellpublishing.com/submit.asp?ref=1351-5101>

4. "Note: If you use Word 2007, do not create the equations with the default equation editor. Use MathType or the equation editor included in previous versions of Word instead."

Source: Springer, Instructions to Authors.
http://www.springer.com/cda/content/document/cda_downloaddocument/instruct-authors-e.pdf?SGWID=0-0-45-392601-0&teaserId=343495&CENTER_ID=357799

5. "Equations. Word 2007 users please note: With Word 2007 Microsoft has introduced a new proprietary math editor as the default editor for equations, but there are incompatibilities which prevent us from using equations created with this new editor. Please use the Design Science Equation Editor (formerly the default Word editor) or MathType rather than the new default math editor featured in the Insert ribbon. To use either Equation Editor or MathType, in the Insert ribbon, click 'Object' and choose object type 'Microsoft Equation 3.0' or 'MathType Equation.' The Equation Editor toolbar or MathType window will appear and will work as in previous versions of Word."

Source: JBC (Journal of Cell Biology), Rockefeller University Press, Instructions to Authors. <http://www.jcb.org/misc/ifora.shtml>

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A related posting on Inera's website added enlightening details about the situation:

It has recently come to Microsoft's attention that *Nature* (<http://www.nature.com/nature/authors/submissions/template/index.html>), *Science* (<http://www.sciencemag.org/about/authors/prep/docx.dtl>), and many other scholarly publishers do not accept files authored in Word 2007. The following was sent by Inera CEO Bruce Rosenblum to Microsoft on June 12, 2007, to explain why this situation exists:

[...] As a result of Microsoft's success with Office, and the relative stability of the Office environment and DOC format over that time, third parties have built sophisticated applications to address specific vertical market requirements for integration of Word into highly efficient workflows.

eXtyles® is one such application; eXtyles is a suite of editorial and XML tools for Word in wide use by scholarly publishers. [...] Other tools include online submission and peer review applications, and other applications used in the post-editorial production workflow.

Like eXtyles, most of the applications in this workflow ecology are not yet compatible with DOCX format. For example, I surveyed the four largest vendors of online submission and peer review systems this week, and none support DOCX files. Nor could any of the four provide me with a date when they expect to have native DOCX compatibility.

If you detect no sense of urgency to upgrade systems in this vertical market, you are not mistaken. For most scholarly publishers, the challenge is to publish high-quality and accurate information on a regular schedule. Software upgrades to critical publishing systems, unless they are seamless or provide a significant immediate benefit, are often not a priority.

In the case of Word 2007, upgrading is not seamless. Because files incorporating OMMML equations are not semantically backwards compatible with older versions of Word, publishers must update an entire ecology of systems before they can accept DOCX files. Completing such updates requires work with third parties, careful testing, training, and finally deployment—often one system at a time—of updated applications. All of this takes time.

In the meantime, because a DOCX file with OMMML equations renders the equations as graphics when used with today's systems, it's easier for publishers to ask authors to refrain from submitting DOCX files until every part of the workflow ecology is DOCX-compatible. [...]

Had the conversion from DOCX to DOC provided a conversion from OMMML to Equation Editor format, it would have provided the necessary backwards compatibility for publishers to upgrade one system at a time. But because this compatibility is not available, it's created the need for a "big bang" upgrade, or a delay until the ecosystem of interdependent systems is deliberately updated over time. In the environment of scholarly publishing, such substantive upgrades often take years, not months.

I hope this post clarifies some of the core issues DOCX format presents scholarly publishers and explains Word 2007 issues that are cause for publisher upgrade reticence. Those of us in the scientific community look forward to a dialog to articulate scholarly publishing requirements to Microsoft so that Microsoft can provide products that serve the needs of the entire scholarly community [3].

A press release dated June 22, 2007 from Design Science, the firm that develops the MathType and Equation Editor software used in Microsoft Office, provided information on progress toward solving the problems created by the new default equation editor in Word 2007:

Authors are encouraged to continue using Equation Editor (Microsoft Equation 3.0) or MathType with earlier versions of Microsoft Word. Design Science has also published a technical support note (<http://www.dessci.com/mt/tsn124>) that explains how to make Equation Editor easier to use in Microsoft Word 2007.

In related news, Design Science is preparing to release MathType 6.0 for Windows, a major new version addressing the needs of Word/PowerPoint 2007 users. Currently in beta, with release expected within a month, this new version will allow authors to prepare submissions compatible with scientific journals' workflows. [...] [4].

On Nascent, *Nature's* blog on web technology and science, Howard Ratner, speaking as Chief Technical Officer of Nature Publishing Group (NPG), reported in a posting dated 14 June 2007 that "Both Science and NPG have been in correspondence with Microsoft staff on this important issue" [5]. In his 27 August 2007 posting he reported that *Nature* and Microsoft have been examining together "how Microsoft, third-party vendors and publishers can work together moving forward to make Word 2007 work within the STM publishing ecosystem" [6].

I wonder why this latest incident with a Microsoft product doesn't seem to have opened publishers' eyes to the risks of overdependence on proprietary systems that are notorious for being imperfectly debugged and creating new problems with every upgrade. Open Document Format might avoid much of the disruption to the workflow ecology

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>>> Word 2007...

many users of Microsoft products experience, and upgrades would probably be free of much of the stress that Word users experience (not to mention the expense in terms of training and loss of workflow efficiency). As noted by Johnathan Hunt on the Nascent blog, “Surely, if a document format transition needs to occur, Nature could transition to the ISO approved Open Document Format, supported by multiple vendors (even partially and grudgingly by Microsoft)” [7]. For more information on Open Document Format follow the links in its Wikipedia entry or visit the OASIS website at http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=office.

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Are ‘QA findings’ always negative?

I recently received the following question from Karl Kleine, Epidauros AG, Bernried, Germany:

“I have been discussing with my colleagues whether ‘findings’ in the QA context or in general is something negative, like a ‘deviation from procedures’ or indicates ‘non-compliance’. My colleague, Michael Haberl, from a scientist’s perspective, argues that a ‘finding’ may also be positive, and that we should not write ‘No GLP findings’ in our inspection reports.”

I see lots of QA reports from different companies and act upon them. In the QA context, a ‘finding’ usually means that something has to be done to resolve the ‘finding’ to improve something. In this sense, it is negative, and in the QA context always will be. In general, a ‘finding’ is positive or negative if declared to be so, or neither—so it can mean anything—and this has always been the case: it depends on the context and whether the word is modified.

If you show that your drug is not inferior to another and this is what you aimed to do, this is a positive finding. If you aimed to do this, and your drug emerged as inferior, this finding is negative. If your findings were inconclusive, they were neither positive nor negative.

If you failed to satisfy a criterion required by ICH, the ‘finding’ that you did so is negative in the QA context. To me, ‘No GLP findings’ is a positive statement, because it negates the fact that a finding can be negative. The adjectival use of ‘no’ this way (‘no’ is an adjective, a noun, and an adverb!) is a very frequent way of starting what is ultimately a positive statement in English.

In the QA context, if you say: ‘Were there any findings?’, of course you mean ‘Did you make any negative findings?’ But this is no problem, because this is the context-specific use of the word ‘findings’.

If a fellow researcher wanted to demonstrate superiority of one drug over another, you might ask her: ‘So, what were your findings?’ Here the word findings is neutral, until your colleague responds and says perhaps: ‘The findings were very good ...’.

Specifically in the QA context, you might prefer to say ‘No GLP issues’, but then you could argue that this suggests that an ‘issue’ is always negative (but this is not the case), and then we are back to square one.

I should stick with ‘No GLP findings’. Everybody understands what this means, and it is definitely positive.

And we should never forget that those concerned with language sometimes tend to ‘overdiscuss’ hidden meanings that words may or may not have, or try to force a context-specific meaning onto a word, some times unsuccessfully, and sometimes successfully, thanks to the vagaries of language. But this takes time.

An example of the latter is the word ‘event’. 25 years ago, the question ‘Were there any notable events in your study?’ would probably have drawn a very blank look from a study manager, unless something really surprising had happened. Now, in the context of drug licensing, everybody knows this can only mean ‘Were there any notable *adverse* events in your study?’ When writing, of course, the word ‘adverse’ should always be there, but it is quite acceptable when speaking to use ‘event’ on its own. And, as we see, this has already happened with the word ‘findings’ when modified by the term ‘GLP’. If it is not modified, its meaning is still neutral and context-dependent, and I suspect it will remain that way.

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Still more myths about English (5)

by Alistair Reeves

Another 10 myths about English to follow Myths 1–20 in previous issues [1–4]. Apart from some that are new to me, some old chestnuts have been thrown at me over the past 6 months at training events (see Myths 26–30), which, although fallacies, are claimed by participants be ‘rules’, usually backed up by an elusive ‘native speaker’ somewhere in my questioner’s immediate vicinity or past. These old chestnuts enjoy astonishing robustness—but then old chestnuts wouldn’t be old if they didn’t, would they?

Myth 21: You have to say ‘those patients’ in the following situations

You have a sample of patients who have undergone hysterectomy. The aim was to perform laparoscopic hysterectomy, but some patients had complications and were converted to laparotomy. Your author writes: *223 patients were enrolled. 201 underwent laparoscopic hysterectomy and 22 had to be converted to laparotomy. In those patients who had to be converted to laparotomy, the duration of surgery....* OR You have 24/194 patients with grade 3 or 4 leukopenia under chemotherapy for cancer. 22 had grade 3 leukopenia and 2 grade 4 leukopenia. Your author writes: *In those patients with grade 4 leukopenia* OR Your author writes: *Major deviations are defined as those deviations which lead to the exclusion of the subject from the PP set.*

I was recently told that a ‘native speaker’ had said you had to use *those* ‘because you are talking about specific groups’. Unfortunately I had to take all the vicarious ‘native-speaker’ wind out of this participant’s sails. How on earth can you make a rule out of this, and why do you need the demonstrative pronoun (*those*) and not just ‘the’, no article, or no subsequent noun? I am increasingly seeing this, but I cannot understand why authors think it is better. Can anyone tell me? This is certainly not a rule.

In all above instances, you can delete the noun after *those* (e.g. *In those who had to be converted to laparotomy*) and this sounds much more sensible. In the third instance, you can substitute simple *are* for *defined as*, and you can actually get rid of *of the subject* too, take out a superfluous *the*, and ‘hey presto’, you have a much better and simpler sentence: *Major deviations are those which lead to exclusion from the PP set*, even though I would probably never write this, depending on the context.

Myth 22: ‘Irregardless’ is US English

Another claim by an elusive ‘native speaker’. There certainly will be people in the USA and UK, and indeed elsewhere, who would have no objection to *irregardless* in the following sentence: *Irregardless of the diameter of the erythematous lesion, 0.5 cm ointment was applied.* I hope they are in a minority in both countries! Always read *regardless* for *irregardless*, and give *despite* and *regardless* preference over *irrespective*. *Irregardless* does not exist, and *irrespective* very quickly leads to multiple-negative problems: *Irrespective of the absence of X, we did not...* looks very innocent, but I bet most readers backtrack to make sure that they have understood this correctly. You are pretty much lost here as soon as you read *we did not*.

Myth 23: ‘Whilst’ and ‘amongst’ are pompous

Neither is pompous. British English still uses *whilst* and *while*, and *amongst* and *among* interchangeably. US English prefers *while* and *among*, and US readers will assume that *whilst* and *amongst* are evidence that an author is more familiar with British English. The Oxford English Reference Dictionary confirms this for *whilst* but not *amongst* [5].

Some like to differentiate between the meaning of *whilst* and *while*, preferring *while* as an indicator of time, and *whilst* to mean *although*: *While the patients are receiving the infusion, vital signs must be monitored every 10 minutes; Whilst the first potential investigator objected to the inclusion of subjects with perennial allergic rhinitis, subsequent investigators did not.* In our context, *although* is always better if you mean *although*, but the latter example is a perfectly legitimate use of *whilst*, as is: *Whilst the chest X-ray is being taken, please try not to breathe.*

Myth 24: ‘Administrate’ has now come into common usage

‘A native speaker told me this is now in common usage’: the words of another participant. I suspect this is a lost cause, but even if *administrate* has come into common usage (whatever that means), I am still quite happy to take a stance against it and quote the EnglishPlus website [6]: “*Administer* is the verb form for *administration* or *administrator*. The word *administrate* is an incorrect form of the verb created by some who drop the *-ion* suffix of *administration*. Be careful when forming verbs from nouns that end in *-ation*, as the correct verb form may not end in *-ate*”. Hence—incorrect: *400 mg/m² were administrated by infusion pump*. Correct: *400 mg/m² were administered by infusion pump*.

>>> More myths about English

Myth 25: Don't you have to say and write 'an unique' or 'an hotel'?

(Almost) perfectly answered by AskOxford [7]: “The form *an* for the indefinite article is used before a spoken vowel sound, regardless of how the written word is spelt. If you say *an otel* when speaking (which is now often regarded as distinctly old-fashioned [in my mind, completely so, or affected—AR]), then it may be appropriate for you to write *an hotel*; but most people say *hotel* with a sounded *h*, and should [therefore] write *a hotel*”. The fact that some don't, and still say and write *an hotel* is evidence of linguistic insecurity: *an hotel* is supposed to sound educated. It doesn't. It is also not necessary to say *an historic occasion*... (although I have seen a 'rule' in a USA grammar book that you say *an historic occasion* because the stress is on the second syllable in the word *historic*, whereas you say *a history book* because the stress is on the first syllable in the word *history*—bit too complicated for me!). AskOxford again: “By contrast, words such as ‘*honour*’, ‘*heir*’ or ‘*hour*’ in which the ‘*h*’ sound is dropped are written with ‘*an*’. Because ‘*European*’ is said with an initial ‘*y*’ sound, which counts as a consonantal sound in English speech, it is said (and written) with ‘*a*’ not ‘*an*’”. This therefore also applies to ‘*unique*’ because it sounds as if it starts with a ‘*y*’, so it is ‘*a unique*’ and not ‘*an unique*’.

The experts on this website also cover a further question I am frequently asked: “An abbreviation such as MP (Member of Parliament), which is pronounced *em pea*, begins with a spoken vowel, and so it is ‘*an MP*.’ Translated into our context, this means that you say *and write* ‘*a* follicle-stimulating hormone level of XX’, but ‘*an* FSH level of XX’, and this applies to any abbreviation that sounds if it starts with a vowel—and there are plenty.

Myth 26: There is a rule that says you cannot start a sentence with ‘However’

There are a lot of old chestnuts around, and this one looks as though it will never crumble. I wish someone could hit this one with a great big ‘conker’¹ and blast it out of existence. There is no rule. However, if you do start a sentence with ‘however’, and it does not mean ‘by what method’, it should be followed by a comma.

Myth 27: There is a rule that says you cannot end a sentence with ‘however’

Another very old chestnut, and again: no rule. If you do, it should be preceded by a comma. Ending sentences with ‘however’ is more of a spoken device; it is a perfectly legitimate written device, however.

Myth 28: And while we are dealing with old chestnuts: Isn't there a rule that says you cannot start a sentence with ‘because’?

The same participant as in Myth 21 hurled this old chestnut at me with a triumphant glance, and again I had to apologise for taking the wind out of his sails, because the answer is: yes, you can. Because respectable writers have been doing it for many years, even if they were taught not to at school. It would be unusual to do this in the results section of a study report (but what's wrong with doing something unusual now and again?). It is probably more suited to your introduction or methods sections, or discussion. For example, if you had intended to determine a particular variable in a study, but decided post hoc not to because there were too many major protocol deviations or too many missing samples, why shouldn't you say *Because too many samples were missing, the analysis of ... was abandoned?* I appreciate you could say *The analysis of ... was abandoned because too many samples were missing*, but this may not be what you want to say and you may *want* to stress that it was ‘because’ there were too many samples. One thing to bear in mind, however, is that when starting sentences with ‘because’ in English you are deviating from expected word order (subject, verb, object, interspersed with adverbials, usually after the verb). This device should therefore be used infrequently when writing, usually when you want to create emphasis.

Myth 29: And here's another ... Splitting the infinitive is bad style and a sign of ignorance

This time it was a quiet participant at the back who put up her hand and said ‘My boss says that splitting infinitives is bad style and a sign of ignorance. What's your opinion?’ My opinion is that this boss has no idea what he or she is talking about. And that's what I actually said to this lady. Ignorance of what? If splitting the infinitive shows ignorance, then I and many others who seem to have been doing a pretty good job for quite a few years have obviously been ignorant for most of our lives. Try to avoid using the split infinitives ‘to more than double’ or ‘to almost halve’ without making it obvious to your reader that you have tried to avoid them—it's just not worth the effort. Despite my saying this, AskOxford [7] says: “It is probably good practice to avoid split infinitives in formal writing”. I'd like to ask them to define what they mean by ‘probably’ here and why they say this, because they add the following cautionary note: “Clumsy attempts to avoid them simply by shuffling adverbs about can create far worse sentences”, and in my experience they usually do.

¹ Conker is British English slang for horse chestnut. I don't know if it still happens, but when I was at grammar school in England, you eagerly awaited the ripening of the horse chestnut, gathered as many as you could, decided which might be particularly resistant, threaded some string through one of these conkers and tried to break another person's conker on a string by hitting it hard. For some strange reason, only boys played ‘conkers’—but this was more than 40 years ago. There were all sorts of recipes for creating the ‘superconker’—various combinations of baking, boiling and soaking them in vinegar. They were named incrementally after the number of conkers they had conquered plus the number the last conker conquered had conquered plus 1 (note the crazy difference in English spelling here), i.e. if your conker had smashed 22 conkers, it was a ‘twenty-twoer’; then it smashed another that had smashed 25 and it suddenly became a ‘forty-eighter’ (22 + 25 + 1). Not a conker was to be seen lying on the streets in Northern England, and I remember being amazed during my first visit to Germany in 1961 that the streets were strewn with conkers, nobody picked them up, and all the cars and buses were actually driving over them with no regard whatsoever!

More myths about English

Myth 30: Isn't there a rule that says that 'e.g.' and 'i.e.' must be italicised?

No. But it appears that this (spurious) convention is again being propagated as a rule by those illustrious 'native speakers' because I have been asked this recently at several training events, and it has also reached old chestnut status. It may, of course, be house style or journal style—then you obviously follow it. This is linked to Myth 10 [2], where I dealt with the supposed rule that *in vivo* and *in vitro* must be italicised. If you want to italicise Latin terms, no-one can stop you. But you must remain consistent to be kind to your reader, and it is easier to remain consistent if you don't do it. But the best reason is that it is not necessary.

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Picturing your subject area

Medical writers wanting to envisage their subject area might find the medical animations at www.healthscout.com/nav/animation/1/main.html useful. The site has 38 animations on such conditions as migraine, Alzheimer's disease, osteoporosis, diabetes, and urinary tract infections. Flash player is needed to view the animations.

Vital signs

Dear *TWS*,

I enjoyed Alison McIntosh's article, 'Reading round your therapeutic area', in the June issue [*TWS* 2007; 16(2):77-8]. Might I make a suggestion for the website/book club? As a PWM (person with migraine: my preferred term since I'm not usually a patient, just someone susceptible to migraine, and I loathe the word migraineur), I would recommend Oliver Sacks' book *Migraine* to anybody needing a concise and accessible guide to the subject.

Michael Shaw

Heathfield, UK

Dear *TWS*,

As communicators, we are often quick to criticize but slow to praise. I'd like to do both in equal measure.

I was richly entertained by the latest edition of *TWS*. It is among the best issues I have read. However, as *TWS* is the official publication for an association of communications specialists, I'm surprised to see glaring inaccuracy and inconsistency in a single issue. I refer to references to the splendid book that "is another reason that the comma and punctuation in general should not be ignored". Small wonder medical writers often encounter inaccurate references if the following are a representative sample:

Lynne Tullis' book *Eats shoots and leaves* (p45)

Lynne Truss' phenomenally successful 'Eats, Shoots and Leaves' (p53, cited on p56 as Truss L. Eats, Shoots and Leaves. Profile Books Ltd. London, 2003)

Lynne Truss's book *Eats, Shoots & Leaves: The Zero Tolerance Approach to Punctuation* (p62, cited on the same page as Truss L. Eats, Shoots & Leaves: The Zero Tolerance Approach to Punctuation. London, Profile Books, 2003)

Am I pedantic or merely concerned for attention to detail? Take your pick, but please keep up the fabulous work with *TWS*.

Bryan Graham,

Abington, Cambridge, UK

Editor's reply

Thank you Bryan for these comments. Naturally praise is welcome but criticism is valuable because it prompts us to try harder and strive to improve quality, which was certainly lacking in the instances referred to. Of course medical writers should pay attention to detail and these comments highlight the sort of inaccuracy and inconsistency we should be looking for when proof reading. The inaccuracies are inexcusable. The inconsistency was because *TWS* had no style rule for quotation of book titles in the text, and failed to rigorously apply those it does have to reference format.

From now on the style for quotation of journals titles, i.e. italic script, will be consistently applied to book titles as well, both in reference lists and when cited in the text of an article. In this case the correct book title is *Eats, Shoots & Leaves: The Zero Tolerance Approach to Punctuation*. The author's correct name is Lynne Truss and the correct format for the reference list is:

Truss L. *Eats, Shoots & Leaves: The Zero Tolerance Approach to Punctuation*. London: Profile Books Ltd, 2003.

A greater effort will be made in future to check the master proof for inaccuracies and inconsistencies. Volunteers to help with this task and join the copy editing team would be very much appreciated!

Elise Langdon-Neuner

The awful English language

I am repeatedly seeing 'lead' and not 'led' as the past tense of 'lead' (Repeated administration *lead* to accumulation in the plasma). I have also found that I have written this. The spellchecker does not catch this, of course, so it is up to our eyes to do so. Add this to your list of words that you check with 'Search and replace-Find next' (and not with 'Replace all') before you pronounce a text to be 'final'. Yet another reason to reform English spelling!

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Is there a correlation between proficiency in English and publication in ISI-indexed journals?

Research into this question is ongoing at the Federal University of Rio de Janeiro, Brazil. Brazil's share of publications in ISI-indexed journals has increased from 0.4 to 1.6% over the last 25 years. This could reflect an increase in researchers or in international cooperations but the study's preliminary¹ findings suggest it is more related to the writing skills of scientists.

1. http://www.scielo.br/scielo.php?script=sci_abstract&pid=S0100-879X2007000600001&lng=en&nrm=iso&tlng=en

Erratum

The recent article by Shashok and Jacobs published in *TWS* [Shashok K and Jacobs A. Who's watching whose ethics? Slanted reporting of the medical writer's role in *Neuropsychopharmacology-Cyberonics* case. *The Write Stuff* 2007;16(1):33-35] and posted on www.emwa.org/Journal.html contained a citation oversight that could confuse readers. The sentence 'Some critics complained, however, that there was no explicit mention of the fact that her fee had been paid by Cyberonics, and insisted stubbornly that the paper had been "ghostwritten" [11-14].' should have read 'Some critics complained, however, that there was no explicit mention of the fact that her fee had been paid by Cyberonics [11-14], and insisted stubbornly that the paper had been "ghostwritten" [14].' We are grateful to Michael Altus for correcting this oversight.

To smiley or not to smiley?

The electronic communications world seems to be divided between those who cheerfully tag¹ a smiley onto the end of almost every posting and those who suffer trauma if a smiley inadvertently pops into a message bearing their name. This last group view the smiley as a sign of an uneducated writer and are supported in their distaste by the *New Hacker's Dictionary*: "Overuse of the smiley is a mark of loserhood! More than one a paragraph is a fairly sure sign that you've gone over the line".



The smiley started life as a design for an insurance company but its creator, Harvey Ball, failed to register an intellectual property right to the image when he designed it in 1963, allowing it to fall into the public domain. An enterprising couple known as the Murray brothers, who coined the phrase 'have a happy day', popularised the image by using it on the novelty items that they produced. By the late 1980s it became widely known as an icon of the acid house dance music culture and was being engraved on ecstasy tablets [1].

The smiley was first used as a text symbol in 1980 by Scott Fahlman, a research professor at Carnegie Mellon University's Department of Computer Science, who posted it on the university bulletin board. Michael Quinion champions the smiley's place in electronic communication in his article 'Should the smiley be outlawed?' [2]. He suggests that the wide use of smilies indicates that they fill a gap. Whereas writers of personal letters know their respondents this is often not the case with the Net, making it an impersonal medium. Cultural preconceptions are sometimes impossible to assess, increasing the possibility of comments being interpreted as personal insults. The smiley, says Quinion, is universally understood to mean 'only joking' and thus avoids embarrassment. I would question this argument. When I drive to our local shops I am coerced into behaving myself by a flashing road sign. If I drive under the speed limit of 50 kilometre per hour the sign radiates a smiley face, but go 1 kilometre over the limit and a grimacing emoticon with a down turned mouth flashes up. Are the traffic authorities 'only joking'?

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1. <http://en.wikipedia.org/wiki/Smiley>
2. <http://www.worldwidewords.org/articles/smiley.htm>

1 <g> is the tag for an 'only joking' smiley in XML. For ways of conveying other emotional tones on a Web page see <http://www.geoff-hart.com/resources/1995-1998/expressive.htm>

Multiple problems: Different or more of the same?

by Alistair Reeves

My first thought many years ago when faced with the term *multiple-dose study* was that groups of subjects received different doses. I had to learn that this is not the case, and that this means that subjects receive the same dose repeatedly. The term *repeated-dose study* also exists (which I prefer, but do not correct when editing). A Google search will show you that they exist alongside each other and are used with about equal frequency. So here, multiple means *more than one of the same*, at least in our context.

The specific question that stimulated this article was: *Is it possible to say multiple animals?* My spontaneous reaction was that this sounds strange, and, after some consideration and research, I am still of the same opinion.

Consult the Wikipedia website *multiple marriages* [1]: you will find Mickey Rooney and Zsa Zsa Gabor with 8 spouses in succession, and 4 other people with upwards of 9. Why is it that *multiple marriages* sounds acceptable, but *multiple husbands* or *multiple wives* does not? Or does it? If you are talking about bigamy or polygamy, then *multiple husbands* or *multiple wives* sounds acceptable, but because bigamy and polygamy are generally the exception, the mind places its filter on the use of the word *multiple* together with the word *marriages*, and these are usually understood to be successive, unless the context makes the reader think otherwise. This is probably why you are much more likely to say *she has had several* (or *numerous* or *different*) *husbands* rather than *she has had multiple husbands*. This illustrates the use of ‘multiple’ very well: it is highly context- and usage-dependent and is frequently collocated with some nouns in some situations, but just doesn’t sound right together with other nouns. And this is not determined by rules or conventions, for example, that multiple as a modifier sounds acceptable with the singular, but not with the plural.

Regardless of whether the spouses came in succession or together, *multiple* as used above also has the dimension: *more than one of the same*. I appreciate that the spouses may have had different ethnic backgrounds or very different external appearances, but they were all in the same category, i.e. spouses.

Even though an animal is an animal, whether you are talking about a dog or a gnu, *multiple animals* on a website that describes the patent for an *Animal leash for multiple animals* [2] does not sound acceptable: “*The invention relates to the field of animal restraints and in particular, to an ani-*

mal leash having a swiveling arrangement in order to rotate that portion of the leash having multiple lines that connect to each of the collars on the animals. A swiveling arrangement will prevent the multiple leashes from entangling with one another so that more than one dog or other animal may be walked with the handler only having to hold onto one main leash”. In the context of this description, *multiple lines* and *multiple leashes* sounds acceptable, but *multiple dogs* or *other animals* obviously did not sound acceptable to the authors, because they chose to write *more than one dog or other animal*. This would have been exactly my feeling too, and I would also have described the product as a *leash for more than one animal* or *several animals*, expecting that several of the same animal would be attached to the leash. Without further explanation, however, it cannot be denied that *multiple* here suggests that you might attach a dog, a cat, an iguana, and a hyena to the lead, if unlikely. If this really were the intention, then I would prefer to call the leash a *multiple leash for different animals*, and would wish the walker lots of fun with that combination.

A further website gives advice on the proper transport and sale of *multiple animals*, and means, for example, transporting herds of sheep, cattle or pigs—so *more than one of the same type* of animal [3]. Of course, it could mean transporting a mixed herd, but herds are not usually mixed.



The new multiple animals were proving to be quite challenging test subjects



>>> **Multiple problems: Different or more of the same?**

But multiple does often mean *different things*, and this seems to be especially when dealing with abstract concepts. Acceptable (but only just about) is to say *We had multiple reasons for rejecting her proposal*. I would prefer to say *We had several different reasons for rejecting her proposal*. At a pinch, you might also understand it to mean that there were many different single reasons, or several reasons with more than one element each.

What do we assume from the word *multiple* in the title of this journal article: “Identical *Burkholderia cepacia* complex strain types isolated from multiple patients attending a hospital in Brazil”[4]? The authors were reporting on *more than one clinical source* in Brazil. So the use of the word *multiple* is actually inappropriate: *patients* would suffice, and to reflect the difference the title should have

The French caused English to become the language of science

According to a footnote on page 69 of Seth Lloyd’s book *Programming the Universe* the French Academy of Sciences caused the adoption of the English language as the international language of science in the seventeenth century by being the first national academy to abandon the previous international language, Latin, and publish their proceedings in their own language. The English and Germans just followed suit. The rest is just an accident of history.

Should medical journalists declare conflicts of interests?

Where would we be without journalists? Certainly without a democracy. But what about medical journalists who receive ‘free lunches’ from the pharma industry? Should they declare their competing interests? Ben Goldacre, a medical journalist, asked some colleagues. He found the range of responses he received striking and reports them in his interesting article in the *BMJ* [1]: “some laughed at my naivety: some expressed outrage at the venality of their colleagues: and some were emotive and defensive, playing down the idea there was anything to worry about and explaining journalists could detach themselves from such ties and remain impartial. In fact the arguments almost exactly mirrored those among medics, played out in editorials and letters about conflict of interest in academia, about 15 years ago.”

Reference:

1. Goldacre B. Journalists: anything to declare? *BMJ* 2007;335:480

read ...*from different patients attending hospital in Brazil*. “Managing dyslipidaemia—multiple patients and multiple approaches: metabolic syndrome, familial hypercholesterolaemia and hypertension”[5], another journal article title. Does this just mean more than one patient, or patients with dyslipidaemia of different origins? Together with the word *approaches*, *multiple* sounds acceptable, because this means that there are different ways to treat patients with dyslipidaemia, presumably depending on the origin. But *multiple patients* just does not sound right whereas *different approaches for different patients* does.

Want a ‘pet portrait? Consult pet.drawings.com [6]. The website sells pet portraits and offers pictures of *multiple animals*, illustrating this with, amongst others, a drawing of a Yorkshire terrier and a dachshund—all the examples supplied show different animals, sometimes just different dog species, sometimes with cats and other animals. This underlines the fact that *multiple* is often expected to mean *different* and not just *more than one of the same type*. But somehow the collocation *multiple animals* just doesn’t work. A house can have *multiple entrances*, or you can have *multiple options* or *multiple injuries*, but you can’t have *multiple drinks* or *multiple pictures* on your walls. In a *multiple-choice* question, you have a series of *different* answers to choose from, and not *multiple answers*.

Probably influenced by the idea of diversity in the word *multiple*, a *multiple animal* conjures up to me the idea of a Hydra-headed chimera-like creature with the tail of a dragon, the rear end of a horse, the forelegs of a cow, and the head of a dog, zebra and eagle, or any other combination. The connotative image with *multiple patients* is a sort of Voldemort-Ganesh-Jake-the-peg-like figure, possibly with 2 faces, more than 2 arms, and 3 legs.

It seems that *multiple* generally works when collocated with inanimate objects, but not with animals or people, and seems to be used more frequently to indicate that the plural entity consists of different elements. And it is therefore not possible to give easy advice on when to use it best. What can you say if you are tempted to write *multiple* but are not sure? Depending on the context, more than one, several, different, numerous, a number of, a few, many, a series of, some, various, groups of, a plethora of, and a multitude of are all good options. So you have *multiple* choices-but this doesn’t sound right either (but *different* does)!

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1. http://en.wikipedia.org/wiki/List_of_people_with_multiple_marriages
2. <http://www.patentstorm.us/patents/5901668-description.html>
3. http://www.crlms.com/Portals/12/WebHelp/Managing_Animal_Locations/Moving_Multiple_Animals.htm
4. <http://jmm.sgmjournals.org/cgi/content/full/55/2/247>
5. http://eurheartjsupp.oxfordjournals.org/cgi/reprint/6/suppl_A/A23.pdf
6. <http://www.pet-drawings.com/gallery/multiples0.html>

All websites were accessed on 3 September 2007.

4-letter words and others

by Alistair Reeves

Small words can often change meaning dramatically and cause writers a great deal of bother (not only in English—anyone who has learned German or Hebrew will remember the travails of learning how to use ‘je’ (roughly equivalent to ‘each’ in other languages in some contexts) or ‘et’ (אֵת) (an indicator of the accusative which leads a life of its own). In English, these words are often slipped into sentences when speaking and are sometimes hardly noticed. The position when spoken is often not so important; they sometimes form part of an ‘afterthought’ and are therefore not in the ‘correct’ position for written English. But it is not always the position that counts: some are used only in spoken language, and some have particular quirks when written. I am starting this series with 3 inoffensive 4-letter words: *till*, *like* and *both*.

Till

Till when it means *until* should be reserved for spoken English or informal use when writing, such as emails. If you are speaking, you might say: *Samples should be incubated till distinct green spots form on the surface*; if you are writing, write: *Samples should be incubated until distinct green spots form on the surface*.

Like

In spoken British English and spoken *and* written US English, ‘like’ is often used where ‘such as’ is still preferred in written British English. This is illustrated very well by the following: *Over the past year, copeptin measurement has been shown to be useful in a variety of clinical indications, including the diagnosis of diabetes insipidus, and monitoring of sepsis and cardiovascular diseases like chronic heart failure and myocardial infarction*. And the following: *Second, the assay requires no extraction step or other pre-analytical procedures like addition of protease inhibitors*.

The *like* does not sound ‘right’ in British English. This is because *like* indicates *similarity*, but the aim here is to give *examples*. In the first sentence above, chronic heart failure and myocardial infarction are actually being given as *examples* of defined cardiovascular diseases. Cardiovascular diseases *like* chronic heart failure and myocardial infarction may just have symptoms that resemble these conditions, but may not actually fall within the definition of cardiovascular diseases. In the second sentence, the *addition of protease inhibitors* is an *example* of a pre-analytical procedure, but the use of *like* sounds as if

the assay requires no pre-analytical procedures that *resemble* the addition of protease inhibitors. The pre-analytical step could be something quite different—the author just meant that the assay has the advantage that it requires no pre-analytical procedures and wanted to give an example.

Both

Both indicates that you are talking about two things. It is worth paying attention to the position of *both* in your sentence. This is usually determined by whether it is used as an adjective or an adverb. It is definitely a useful device when used as an adjective to convey the idea of ‘two’, but when used adverbially, it can be argued that it is often superfluous, unless it is used for emphasis or to convey the idea of uniformity or congruity, and sometimes it may even be superfluous as an adjective too.

Adjectival use:

We saw similar trends in both groups.

2 patients dropped out after 8 days of treatment; both men had baseline diastolic levels of 105 mmHg.

The position here is clear: before the noun that *both* modifies, as is almost always the case for adjectives in English. And the reader already knows that you are talking about two elements that have already been mentioned.

Of course, you could just say: *2 men with baseline diastolic levels of 105 mmHg dropped out after 8 days of treatment*, but maybe you want to say *both* because of what is in the next sentence, to gain emphasis, for example.

An interesting variant of *both* when used adjectivally is *the two*, which is also acceptable when writing and not only when speaking: *We saw similar trends in the two groups*. I have not yet found any clear distinguishing features between the usage of *both* and *the two* in this way. I would be interested to hear whether any readers think there are specific situations where one should be given preference over the other. Which would you prefer: *The secondary objectives of this study are to compare the following between the two treatment groups* or *The secondary objectives of this study are to compare the following between both treatment groups*? Or if it is already obvious to the reader that we are talking about only two groups, perhaps the following would suffice: *The secondary objectives of this study are to compare the following between treatment groups*, and you need neither *both* or *the two*.

>>>

>>> 4-letter words and others

Adverbial use:

Initially proposed by the EMEA for yearly updates of licensed inter-pandemic inactivated influenza vaccines, immunological endpoints have been proposed for evaluation of pandemic vaccines both by the EMEA and the FDA.

This is a typical example of the wrong positioning of ‘both’ when it is forms part of a prepositional phrase with two modifying elements used as an adverbial phrase, and is a frequent error made by both non-native and native speakers of English.

This needs some explanation. *By the EMEA and the FDA* is a prepositional phrase because it is introduced by the preposition *by*. In this sentence, it is also an adverbial phrase that modifies the verb *have been proposed*. In the same way, *for evaluation of pandemic vaccines* is both a prepositional and adverbial phrase because it is introduced by the preposition *for* and also modifies *have been proposed*.

If the preposition *by* applies to both elements (*EMEA* and *FDA* here), then the *both* should be after the preposition. It should read *by both the EMEA and (the) FDA*, to indicate that you regard the EMEA and FDA as separate entities. To position the *both* before the *by*, you would have to say *both by the EMEA and by the FDA* to be correct. But the correct positioning of *both* avoids using the preposition twice. And, as you see, this also avoids repeating the definite article in this instance.

What would also make the *both* before the *by* correct would be a further element governed by the *both* after *by*

the EMEA and the FDA. For example: *Initially proposed by the EMEA for yearly updates of licensed inter-pandemic inactivated influenza vaccines, immunological endpoints have been proposed for evaluation of pandemic vaccines both by the EMEA and the FDA, and some national authorities in Asia*. Here the *both* indicates that the EMEA and FDA are one entity and the national authorities in Asia are another.

I said above that it could be argued that *both* when used adverbially is superfluous. This is illustrated by the following:

Initially proposed by the EMEA ... endpoints have been proposed for evaluation of pandemic vaccines by the EMEA and the FDA or ...*by both the EMEA and FDA*.

Do you really need to say *both* here? The answer is no, unless you wish to achieve emphasis.

Here is an error with *both* that I frequently see from continental European authors: *In summary, this survey demonstrates that airway management using the PLMA and a controlled mode of ventilation without muscle relaxants in children is both, effective and safe in the hands of staff-grade and trainee anesthesiologists*.

Both is never followed by a comma when used in this way.

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EMWA and the Institute of Clinical Research joint symposium announcement

EMWA is delighted to announce a symposium to be held jointly with the Institute of Clinical Research (ICR) on 27th February 2008 in London, UK:

"Publishing Clinical Trials: Ethics and the Pharmaceutical Industry"

This joint EMWA-ICR symposium will be presented by a panel of experts including medical writers, journal editors, academics and pharmaceutical industry managers. Topics will include publication policy, ghostwriting, fraud and other ethical issues of publishing clinical trials.

More information about the symposium and details of how to register will be provided this autumn on the EMWA (www.emwa.org) and ICR websites (www.icr-global.org).

27th February 2008—put the date in your diary now!

Alistair was right in a prior article

Alistair Reeves is right 'prior' is an adjective [TWS 15(2)59]. I recently encountered 'prior to and following incubation' in a report and changed it to 'before and after incubation'. 'Prior to' was too long for the tables so the author shortened to just 'prior incubation', which changed the meaning to an incubation that occurred before the current incubation rather than something that occurred before the incubation. Why is 'prior to' gaining popularity over 'before'? Neville Goodman and Martin Edwards have the answer¹. It is a sign of "turgid bureaucratic prose, of what the cynical may regard as deliberate attempts to confuse and obscure by euphemism, of Pentagonese and Whitehall-speak".

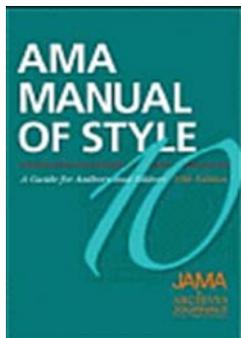
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1. Goodman NW, Edwards MB. *Medical Writing: A Prescription for Clarity*, 3rd edition. Cambridge: Cambridge University Press, 2006

In the Bookstores...

Standards on style and guidance on policy for medical journals



Iverson C, Christiansen S, Flanagin A, Fontanarosa PB, Glass RM, Gregoline B, Lurie SJ, Meyer HS, Winker MA, Young RK. *AMA Manual of Style, a Guide for Authors and Editors, 10th ed.* New York: Oxford University Press, 2007. ISBN 978-0-19-517633-9 (Hardcover). Approximately EUR 40.00, GBP 32.00, USD 55.00. 1022 pages.

That's not a typo—the new edition of the *American Medical Association Manual of Style* (AMA MOS10) has one thousand twenty-two pages, and weighs almost 2 kg.

Especially for researchers, writers, editors and translators who prepare material for health science journals published in the USA, this reference work provides detailed guidance in six main areas: Preparing an article for publication, Style, Terminology, Measurement and quantitation, and Technical information. This last section covers typography, manuscript editing and proof-reading, publishing terms and additional resources such as dictionaries, other guides to terminology, style and usage, writing, ethics, peer review, illustrations, databases, guidelines and professional organizations. The manual is thorough and authoritative (especially on objective elements of technical style such as units and nomenclature in different medical and scientific specialties); the content is carefully referenced, and the references on all topics are impressively up-to-date.

However, the manual's main virtue—its comprehensiveness—may threaten to become its downfall. The last page of the index is numbered 1010 in my copy, and there are 12 preliminary pages not counting the Contents page. I haven't figured out why the publisher lists the number of pages as 1032 on their website, but that may be just another of the editorial and production glitches that mar this monumental update of the *AMA Manual of Style*. In a complex project involving many contributors it is hard to keep oversights from proliferating in proportion to the total number of pages. Fortunately for users, the publisher maintains a list of errata at <http://www.us.oup.com/us/companion.websites/9780195176339/errata/?view=usa>, and users should be sure to download the list and check it for updates from time to time.

The publisher's website also has links to other types of useful information about AMA MOS10, including an excerpt from the Preface that summarizes the main changes and additions compared to the previous edition, published in 1998 (the "What's new" link at <http://www.us.oup.com/us/companion.websites/9780195176339/whatsnew/?view=usa>

for details). The sheer size and level of detail of the manual sometimes slow efficient consulting. For example, advice on the use of hyphens versus en-dashes for words and numbers is located in different sections of the manual with no cross-referencing. Guidance on some policy issues (for example, acknowledging contributors other than authors) is also treated in different sections, making some of the coverage redundant.

In Chapter 5 on Ethical and legal considerations and Chapter 6 on Editorial assessment and processing, the authors have done a great job of reporting on the most recent ethical issues and recommendations crafted by, among others, the International Committee of Medical Journal Editors. However, the 290 pages this material adds to the manual might be more at home in a separate handbook aimed specifically at editors, managing editors and others with responsibility for deciding what to publish and ensuring compliance with the most current professional and ethical guidelines.

The Forward notes that the manual "contains everything that a group of editors from the *JAMA* and *Archives* family of journals believe is essential to produce a manuscript that is well organized, clear, readable and authoritative" (p. v). The writing in the chapters on editorial practices and policies, typography, and manuscript editing and proof-reading does not always make clear when policies followed at *JAMA* and the *Archives* journals are being described to illustrate one possible approach among many alternatives, and when the manual is recommending a specific evidence-based practice as the most effective solution. Users should be aware that alternative methods for peer review, editorial processing and journal production are used by many successful journals published inside and outside the USA. International editors and authors need to be aware of certain differences in style rules between the US and the UK (AMA MOS10 naturally follows US usage), and as the text reminds readers in several places, the instructions for authors of individual journals need to be checked to detect and comply with alternatives to the AMA MOS10 recommendations for manuscript preparation.

Editors of small journals with limited resources must choose their priorities for quality control and quality assurance carefully to stay within their limited budget. These users can be forgiven for feeling that AMA MOS10 has overlooked the fact that most journals survive on a much smaller allotment of resources than *JAMA* and the *Archives* family enjoy. Advice on which of the recommendations deserve priority when available resources are limited would make the manual more useful to editors and publishers of small journals that cannot hope to implement all the guidance in the manual.

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>>> In the Bookstores...

The index still lacks entries for “author’s editor”, “medical writer” or “translator”, and these entries are also missing from the updated and expanded Glossary of publishing terms. However, the manual supports recognition of the work these professionals do by stating, in section 5.1.2 on Guest and ghost authors, “[t]o give proper credit to medical writers and author’s editors, journal editors should require authors to identify all persons who have participated substantially in the writing or editing of the manuscript. Substantial editing and writing assistance should be disclosed to the editor at the time of manuscript submission and mentioned in the Acknowledgment” (p. 132). This message is reiterated in section 5.2.1 on Acknowledging support, assistance and contributions of those who are not authors (pp. 140-141), and again in section 5.5.2 on Reporting funding and other support (p. 173). Translation is mentioned only in connection with secondary publication (pp. 149-150); it’s a shame translation was not included in the list of “contributions commonly recognized in an acknowledgment” on p. 140, because many researchers, aware of their linguistic limitations, prefer to submit a professionally translated manuscript rather than inflict on reviewers and editors a paper composed in their own English. After all, Chapter 5 (section 5.11.5) recognizes that poor writing alone is now considered a legitimate reason to reject a manuscript (p. 265). Whether this policy is fair to international authors is debatable, but it’s a fact of life.

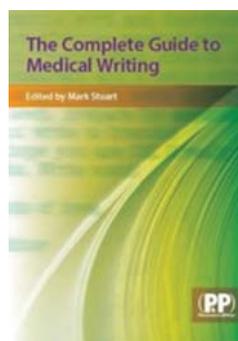
Given the thorough, up-to-date coverage and the well-deserved prestige this reference work has earned over the years, it’s an excellent investment, glitches and all, at about 40.00 euros. The layout and typesetting are more legible than in the previous edition, and with frequent use navigating the manual should become easy.

Now that the book has become so bulky, however, it is much less easy to consult on a cluttered desk top than previous editions were. So the time has come for publication in a fully searchable electronic format, and the Preface ends with an invitation to sign up at <http://www.amamanualofstyle.com> for news of progress on the electronic edition. It would be helpful meanwhile to incorporate thumb indexes or tabs to allow users to quickly access the start of each chapter, where the first pages list the contents down to the lowest level of subheading. This information, missing from the Table of Contents, is a substantial aid to navigation and should be easy to access without having to fold down page corners or add makeshift sticky-note tabs.

Publication transparency survey

Medical writers are asked to take part in the ‘PPP’ survey [see *TWS* 16(2) p92], which can now be accessed via EMWA’s website at <http://www.emwa.org/MEMBERS/InDevelopment/PPPSurvey.htm> or directly at <http://www.zoomerang.com/recipient/survey-intro.-zgi?p=WEB226SPGYXRDX>

A self-training aid for developing medical writers



Mark C. Stuart, editor: *The Complete Guide to Medical Writing*. London: Pharmaceutical Press, 2007. ISBN 978-0-85369-667-4 (Paperback). GBP 19.95, Approximately EUR 29.60. 512 pages.

This book treats medical writing not as a technical writing and documentation task performed to meet the publication and regulation needs of the pharmaceutical industry, but more broadly as any sort of communication in any medium with medical content, whether aimed at specialists or the general public. So the book is not intended as a reference work for the experienced medical writer, but as a career change or continuing professional development aid for physicians and students who wish to learn how to prepare different types of material that contain medical or health information.

The contents are generally well organized, and the main chapters are clearly sign-posted with headings and sub-headings, boxes and checklists, and so are easy to navigate. The front matter consists of a Foreword by Julia Forjanic Klapproth, a preface by the editor Mark Stuart, a note about the editor, and a list of contributors and their professional qualifications (most have a background in pharmacy). The 22 chapters are divided into 6 sections that cover Medical writing essentials, Reviews and reports, Medical journalism and mass media, Medical writing in education, Medical writing for medical professionals, and Medical publishing. Cross-references here and there refer readers to sections in different chapters that pick up on specific topics and develop them more fully. Five appendixes provide partial lists of Common medical abbreviations, Measurements, Normal values for common laboratory tests, Proof correction marks, and an A to Z of medical terms in plain English. The index seems complete and detailed, and checking the number of pages indexed for certain entries will give browsers a good idea of how well the topics that interest them are covered.

Each of the six sections contains some outstanding chapters and many solid contributions. The stand-outs are Chapter 7 on Conference posters (how to design them, how to prepare the all-important 1-minute introduction, and how to ensure that your poster earns attention and contacts), Chapter 10 on Writing for magazines and newspapers (equally useful for freelancers, in-house writers and academics), Chapter 14 on Presentation materials (i.e., slide shows), Chapter 18 on Writing marketing authorization applications for medical products (featuring a detailed anatomy of the Common Technical Document) and Chapter 21 on Writing for the internet (an excellent introduction to website quality and usability, with good advice

In the Bookstores...

about discussion forums, email, blogging, wikis and news items). Of the 22 chapters only one or two seem to be in need of major reworking for the next edition.

There is a slight degree of overlap between the first two chapters (both on writing effectively), and it would have been preferable to attribute Chapter 2 to named authors rather than to the “Plain English Campaign”. But that’s a quibble given that the book misses few opportunities to remind readers that plain, simple language is most effective, and also notes that scientific writing is likely to have many readers for whom English is not the first language—another good reason for writers to aim for plain English. Chapter 5, mis-titled “Reviews”, deals with other types of research methods and reporting formats in addition to reviews, and contains valuable information that would benefit from re-organization to cover clinical and basic research methods, hierarchies of evidence, types of study design and their corresponding research report formats, and types of review. This chapter, regrettably, has no references. While we await a revised edition users of the book can obtain fuller information on different types of research design and reporting formats from the excellent on-line resources made available by the *BMJ* at the Checklists & Forms link at <http://resources.bmj.com/bmj/authors/checklists-forms>.

Parts of chapters 8 and 9 might have been more appropriate in the section on reviews and reporting formats rather than medical journalism and the mass media. Chapter 13, on Writing examination and assessment papers, is probably more useful to academics and university-level instructors than to medical writers.

Referencing is very uneven across chapters, some ending with more or less complete lists of works the authors consulted, but some providing no references at all. The Appendixes are rather sketchy, and because the criteria used to decide what to include and what to leave out are unclear, they are not as authoritative or useful as the main chapters. It would probably be faster and more reliable for the writer at work to check the specifics of abbreviations, units, laboratory values or terminology on the Internet or in specialized style guides. The index does a good job of taking readers to where they can find information on specific topics. For a book like this one—which makes generous use of headings and subheading—readers would also find it useful to see all the headings in each chapter listed in the Table of Contents.

Appropriate authorship, public credit for medical writing services, appropriate citation of sources, plagiarism and biases in research publication are issues faced frequently by many of those who assist others in communicating medical and health information. So it might have been helpful to gather ethical issues together in a separate chapter and cover them in a bit more depth. Open access and electronic publication, now part of life, might also have been covered more fully. The list of professional organizations (including EMWA) at the end of the last chapter might have been more noticeable as an Appendix. But the first

edition of a new book on a complex subject can’t be all things for all readers, and despite these minor oversights in user-friendliness, Mark Stuart has done an excellent job of assembling, organizing and editing a large number of individual contributions into a coherent resource that covers most of the fundamentals very well.

Although not quite the “complete guide” its title claims it to be, the book is a useful addition to the writer’s collection of reference and professional development aids, especially if the writer plans to work for clients and audiences in the UK. Apprentice medical writers who buy it should complement the valuable advice in this book by consulting other resources [1-4], and by visiting the websites of the International Committee of Medical Journal Editors (<http://www.icmje.org>), the CONSORT Statement (<http://www.consort-statement.org>) and the Good Publication Practice for pharmaceutical companies (<http://www.gpp-guidelines.org>). For effective training, however, nothing beats attendance at courses designed by professionals for their peers; EMWA’s training courses deal with specific aspects of medical writing in greater depth and detail than is available in “The Complete Guide to Medical Writing”.

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Call for articles for *TWS*'s December issue

The theme for the December 2007 issue of *TWS* is ‘titles’ as in book or article titles, as well as academic titles. Articles (800-2800 words) or boxes (up to 800 words) on this topic are welcome and should be submitted by 12 November 2007 to Elise at langdoe@baxter.com. *TWS* is always happy to receive articles or boxes on any topics of interest to medical writers and suggestions for future themes.

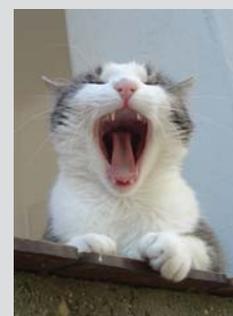
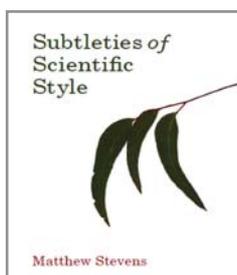


photo: Marlies Kari Neuner

>>> In the Bookstores...

A book to squeeze into the gaps on a medical writer's bookshelf



Matthew Stevens. *Subtleties of Scientific Style, ScienceScape Editing*, 2007. ISBN 0-9578877-2-8 (paperback). USD 12 (approximately EUR 8.84, GBP 6.00), 112 pages. The book can be ordered or downloaded as a pdf (for USD 6) through <http://www.zeta.org.au/~mls/subtleties.html>.

Subtleties of Scientific Style has been written for language editors. It is about subtle recurring writing errors, other books cover the common errors. The author decided to write the book when he realized that the books on his shelves did not deal adequately with faults in writing that he regularly encountered.

Matthew Stevens opens his book by telling us about himself and about his book. He is Australian and he warns that he finds much US usage of English perplexing, if not wrong. Part of the problem of science editing, he suggests, is that usages have become ingrained into the language of science and no one really thinks about what they really mean any more. Readers are invited to send him any favourite subtlety that he has not covered and they would like to see covered in a later—and bigger—edition.

The next introductory section asks: What is science? The main force of this section is that science does not happen but is done by people. Therefore authors should be honest about this and not tortuously avoid the active voice. The body of the book is written under the following headings: Substantive editing, Common errors, Errors of substance and sequence, Errors of reasoning, Improving expression, Improving visual presentation, Tricky or misused terms, and Errors in classical languages. There are five appendices: Editing techniques, Wordy phrases, British or US spelling?, Unicode values and non-displaying characters, and Character charts in logical groupings, which the author describes as two handy character charts for Macintosh- and Windows-based editors who are tired of hunting around for special characters. The book ends with a bibliography of Books, Worldwide Web resources and Software.

When I first started editing I read many books about editing. Nowadays I often lack the enthusiasm to read a new book because I have already read what new books have to say in an old book. This book is different. I learnt some answers to questions which my previous reading had never answered. For example the journal I used to edit required me to change rpm (revolutions per minute) to g (gravity) when centrifugation was being described. I have now been enlightened as to why this change should be made and why 'g' should be in italics (to avoid confusion with grams). Another style requirement was the use of exponents rather

than slashes when there are more than two units, e.g. $40\text{mU} \cdot \text{m}^2 \cdot \text{min}^{-1}$ rather than $40\text{mU}/\text{m}^2/\text{min}$. Now I know that three slashes are ambiguous whereas two are not—and why. Interesting thoughts are also slipped in, for instance the suggestion that pleonasm (where one word is implied by another) is so common in English because of the influence of Norman French on the (British) court system. Terms were duplicated in both languages to ensure that English speakers and French speakers understood, e.g. 'null and void', 'terms and conditions'.

Generally, concepts in the book are exceptionally well explained and supported with clear examples. One of my favourites is 'Stacked nouns and adjectives'. An example used in this section gives a taste of Steven's clear writing style:

Two words: "bank rate". That's easy enough. Three: "bank rate rise". That's a rise in bank rates. Four: "bank rate rise leak". Now that's getting harder. Five "bank rate rise leak probe". What's that? To get the answer we actually have to read it backwards: a probe (investigation) into the leak of a rise in bank rates.

Danglers are explained as a phrase that has become orphaned and is in need of a subject but is forced to make do with the nearest it can find. The result is that the connection between the phrase and the thing it refers to is lost. 'Times' and 'fold' are very often used incorrectly. Stevens explains the use of these words so well that it would be hard for anyone to come away failing to understand the difference between 'times large than' and 'times the size of'.

There are a couple of points which have insufficient explanations. 'Studies on/of' is dismissed with 'Prefer studies of'. As nearly every report that crosses my desk now is a 'Study on' and I intuitively change this to 'Studies of' it is comforting to know that Stevens would make the same change but it would be even nicer to know his reasons.

Stevens clearly believes in straightforward honest writing. So I was surprised that after advising against writing "sacrificed" because it comes too close to being euphemistic, he suggests that 'euthanase' can be used instead because it means a good death and this is an accurate description of how laboratory animals are killed. I cannot agree with Stevens here. If anything is euphemistic it's the application of 'euthanasia' to laboratory animals. Euthanasia is a Greek word meaning good death. But the current meaning goes beyond this¹. It means a merciful death of a person suffering from a terminal illness or an incurable condition. Even if you were to extend the definition to animals the word certainly does not imply that the person killing caused the condition (which would hardly be merciful) or, which is often the case, that laboratory animals are killed because they are no longer of any use and it is inconvenient to keep them².

This book weighs only 250 g and would be worth squeezing onto the bookshelf between such tomes as the 2-kilo *AMA Manual of Style*.

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¹ See for example www.answers.com/topic/euthanasia?cat=biz-fin and www.medterms.com/script/main/art.asp?articlekey=7365

² Buyukmihci N.C. Ethical and practical Concerns for the Use of Nonhuman Animals in Research <http://avar.org/pdf/publication/paper/research.pdf>



Webscout:

Alternative and complementary therapies

by Joelyn Flauaus

For almost all readers of *The Write Stuff*, writing about conventional methods of diagnosing or treating diseases is daily business. Wouldn't it be interesting to look at the other side of the fence to explore the world of complementary and alternative therapies (CATs)? Which CATs are popular at the moment? Are they effective?

In general, CATs comprise therapies used instead of, or in addition to, conventional and traditional medical treatments. CAT practices are often based on belief systems that are at odds with the findings of science. They often use spiritual, metaphysical, untested and innovative methods of treatment and healing. CATs are sometimes adopted by conventional practitioners and no longer considered alternative if they have demonstrated to be safe and effective (e.g., acupuncture).

Below you find a selection of websites introducing you to some CATs and a website analysing the benefits and scientific evidence of efficacy (or lack thereof) of the CATs. Judge for yourself!

<http://www.thrive.org.uk>

"Thrive" is a British charity that makes use of gardening to change the lives of disabled people. The healing aspects of gardening are being used as a therapy or as an adjunct to therapy. Garden therapy (or social and therapeutic horticulture) programmes result in increased self-esteem and self-confidence of participants by developing social and working skills, literacy and numeric skills, the development of responsibility etc. People recovering from a major illness or injury (e.g. stroke patients, car accident victims) or having mental health problems can benefit from the therapeutic aspects of gardening as traditional forms of communication are not necessarily required.

<http://www.createwritenow.com>

Writing therapy uses the process of writing for inner exploration. Writing about your feelings aims to gradually ease pain and to strengthen your immune system. Writing therapy can take place with a therapist or through mailing or the Internet. Writing therapy targets patients who deal with mental and physical illnesses. This special kind of therapy is attractive for patients who prefer an anonymous setting as they don't need to expose their private thoughts and anxieties in person.

<http://www.chiropractic-uk.co.uk>

Chiropractic is an alternative medical approach to managing conditions that are due to problems with the joints, ligaments, tendons and nerves of the body, particularly those of the spine. Chiropractic uses a type of hands-on therapy called spinal manipulation or adjustment to activate the self-healing abilities. The aim is to improve the function of the joints, relieve pain and muscle spasm without the use of medication.

<http://www.quackwatch.com>

Quackwatch—Your Guide to Quackery and Health Fraud. If you are concerned about the benefits and the efficacy of alternative therapies or you simply want to know why 'unconventional' therapies seem to work visit this page.

If you find a page or a blog that should be mentioned in the next issue, or if you have any other comments or suggestions, please email me at: joeyn@trilogywriting.com.

Joelyn M. Flauaus

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Goggling and Word tips

A colleague translates crime novels from English into German in her spare time. Sometimes she asks me about English words. The last question was, 'What exactly is a twisted wire chair?', Goggle had not been much help. Had she tried Goggle Images? We did this and found enough pictures for her to write a description in German.

Almost as a matter of course when I am writing something I use the right mouse to check synonyms in Word in case there is a better word which did not immediately come to mind. This produced nothing for 'tongue-in-cheek'. Neither did my paperback *Roget's Thesaurus*. Put the phrase into Goggle followed by 'synonym' and numerous resources pop up, providing alternative choices.

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Journal watch:

Authorship guidelines and ghostwriting, and using multiple publications to improve the reception of a single research study

by *Melanie Lee*

Ghost marketing

The use of ghostwriters and ghost authors by the pharmaceutical industry has again been heavily criticised, this time in an article by Barton Moffat and Carl Elliot from the Center for Bioethics at the University of Minnesota [1]. The article begins by giving an overview of ghostwriting and goes on to discuss the types and prevalence of ghostwriting, arguments against ghostwriting, how science is undermined by ghostwriting, and why ghostwriting persists and how it can be eradicated. The authors describe how pharmaceutical companies contract medical communications agencies to prepare articles and then commission an academic physician or researcher to ‘author’ the paper—the ghostwriter ‘will typically produce an initial draft of the article, specified to order by the pharmaceutical company, which the academic sham author is then invited to review, revise, or simply to sign’. Whilst it is true that a medical writer usually prepares the initial outline for a paper, the authors will generally review the article at least once. During the review process there should be adequate opportunity for a full discussion of the accuracy of the results presented and the conclusions made. The authors of the manuscript retain control over and are responsible for the data presented and the key messages and conclusions put forward. The medical writer ensures the clarity and readability of the paper, and facilitates the integration of the opinions of several authors. Moffat and Elliot also state that ‘when articles appear in press, the academic appears as the author, while the contributions of the ghostwriter and the pharmaceutical company remain hidden’. While EMWA guidelines recommend the acknowledgement the medical writer and disclosure of their funding source, it is still not common for these details to be included at the end of a journal article. Adhering to these recommendations would address some of the issues of ghost authorship for many people, whilst others may argue that the role of a sponsor and/or gifts given to author(s) from a sponsor should also be revealed. However, Moffat and Elliot are highly critical of ghostwriting and argue that it is ethically wrong. They propose that a task force should be established to gather information about potential cases of ghostwriting, and that authors found to be involved should be sanctioned.

Medical journal guidelines on authorship

Guidance for determining authorship is available from a number of organisations including the Committee on Publication Ethics [2], the Council of Science Editors [3], and the International Committee of Medical Journal Editors (ICMJE), which publishes the Uniform Requirements for Manuscripts Submitted to Biomedical Journals (URM) [4]. Despite this there are currently no universally accepted criteria for determining authorship. A recent study of industry sponsored trials found evidence of ghost authorship in 75% of papers [5]. Publications consultant Liz Wager has surveyed the guidance for authorship given by biomedical journals and assessed whether the advice is consistent between journals and/or complies with international guidelines. The results have now been published in an article on Medscape [6]. Instructions from 234 journals were reviewed, including 9 journals edited by ICMJE members, 117 journals edited by members of the World Association of Medical Editors (WAME), and 108 journals edited by non-WAME editors. Nearly half of the journals (100 journals, 41%) did not give any guidance on authorship. Journals edited by WAME members were significantly more likely to mention authorship in their instructions (82/117 or 70%) compared with journals edited by non-WAME members (43/108 or 40%) (chi-square test, $p < 0.001$). Of the 134 journals (59%) that did mention authorship, 68 (29%) based their guidance on the ICMJE criteria, 26 (11%) included a general reference or link to the ICMJE web site, 25 (11%) included direct quotations from the ICMJE authorship guidance, and 17 (7%) contained paraphrased versions of the ICMJE criteria. Of the journals that cited the ICMJE URM, 35% referred to an out of date version. 33 (14%) journals proposed their own criteria for authorship, and 33 (14%) journals stated only that all authors must approve the final version of the submitted manuscript. A limit on the number of authors who could be listed was set by 8 (3%) journals. Only 21 (9%) journals required listing of individuals’ contributions to a project and their names and affiliations. This survey has shown that the guidance provided by journals about authorship still varies greatly. By adopting more uniform policies, journal editors could play an important role in ensuring that authorship is accurate, equitable, and transparent, thereby helping to avoid authorship abuses such as the use of unacknowledged ghostwriters or guest authors.

Journal watch:

Multiple publications improve the reception of a single research study

The practice of repetitive publication (republication of an entire paper or closely similar versions reporting the same body of research) and divided publication (breaking down of findings from a single piece of research into a string of papers, each of which is the 'least publishable unit') is surprisingly common. In a survey of 3,247 scientists, approximately 5% reported that they had published the same data in 2 or more publications within the previous 3 years [7, 8]. It has been estimated that the occurrence rate of repetitive papers in the clinical medical literature may be 0.017–303 repetitive papers per 1,000 papers published [9, 10]. Lutz Bornmann has recently investigated whether the practice of 'multiple publication' actually leads to greater reception of the research [11]. Data from 96 applicants for a research fellowship from the Boehringer Ingelheim Fonds (BIF) were used in the analysis. Participants listed all the articles they had published in the framework of the research project for which they had applied for a BIF grant. The reception of articles by scientific peers was measured by citation counts, as this is a generally accepted measure of the impact of scientific research. The total number of citations was found to increase approximately linearly with the number of papers published on a study, and this increase was dependent on the mean number of pages in the articles. Therefore, publishing more articles resulted in higher citation counts of the articles, providing the articles had enough content to gain citation by other researchers. So it does pay to publish multiple articles for a study in the form of sizeable reports.

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Appealing ideas from other languages

English has a vast vocabulary but other languages can express some good ideas better:

Kopuhia = someone who disappears instead of dedicating himself to his work (Rapa Nui, Easter Island)

Linti = someone who idles his day away lying under a tree (Persian)

Zamzama = to waft along in a relaxed style (Arabic)

Goyang kaki = relaxing and enjoying oneself as problems are sorted out by others (Indonesian)

Bettschwere = without the energy to get out of bed (German)

Nubie yam = a farmer who points to his farm but does little more, i.e. finger farm (Waali, Ghana)

Gober les mouches = to stand by and idly gulp down flies (French)

Source: *The Meaning of Tingo* by Adam Jacot de Boinid, Penguin Books 2005

Where do doctors get information?

A recent review of the literature found that doctors still rely on paper and personal communication as their prime source of information. The article considered the information needs of doctors, the way in which they seek information and the sources they use.

Davies K. The information-seeking behaviour of doctors: a review of the evidence. *Health Information and Libraries Journal* 2007;24(2):78–94.

<http://www.blackwell-synergy.com/doi/abs/10.1111/j.1471-1842.2007.00713.x>

**Competition in December's TWS**

Meet Alexander Pope, Blue, Sporty, Ginger, Zoe, Bono, Jacques, Nutte and many others in the next issue! *TWS* will be holding a challenging (and fun) competition in the December issue. The task will be to match author photos of regular contributors to photos of their pets. The prize will be a free ticket to the banquet at EMWA's Spring Conference in Barcelona.

This picture is reproduced with the kind permission of Rosebuds of Haworth who sell a range of decorative products for the home (www.rosebudsofhaworth.com).



Hey, it's only my opinion

Impact factor manipulation

by Diana Epstein

In the early 1960s Irving H. Sher and Eugene Garfield created the Science Citation Index for peer reviewed scientific journals. They realised that if journals were selected for the index solely based on total publications or citation counts small journals which specialise in certain topics may not qualify for inclusion, which would be unfair. So they came up with a simple calculation for journal selection: the number of citations a journal receives in a given year to all articles published in the previous two years divided by the number of substantive articles the journal published in those previous two years = the impact factor (IF) [1]. The Box on the next page gives an example of an impact factor calculation.

The IF is currently used not only to measure a journal's scientific influence but has become increasingly important as a basis for awards of research funding, grants, and authors' academic advancement—a development which has been heavily criticised¹.

Every year a discussion is held at one of the journals I manage to agree a topic for the annual editorial. Last year there was a slight drop in the journal's IF and we decided to address the impact factor. First we compared the current ranking with rankings of previous years. While doing so we noticed that there were two other journals in our journal's subject classification which had mysteriously increased their ranking within one year, causing our ranking to drop. We investigated further and brought to light a serious manipulation of these journals' impact factors, brought about by self-citation. One journal's IF was boosted 18 ranks by one paper containing 303 self-citations. Both journals involved were given a severe warning and the next IFs published in June 2007 showed a decrease in their ranking. The editorial addressing the IF, which should have been published in our January issue, did not appear in print until the July issue. Competitor publishers, editors in chief and societies did all they could to block publication of our editorial. Under this pressure it was carefully rewritten and eventually turned into a position statement on impact factors from one of the societies affiliated with the journal [2]. The political ramification of our discovery was immense and even today the seismic sensations are being felt in certain learned scientific societies.

How easy is it to manipulate the IF? Amazingly, it is incredibly easy. Indeed all that we came up with that might

stop a journal from manipulating its IF was the editor's own integrity. The 'impact game' may be played in a number of ways [3] as set out in the paragraphs below.

- **Self-citation.** Self-citation refers to a paper being submitted to a specific journal in which papers that have been published during the previous 2 years in that same journal are cited in the reference list. While self-citation of relevant papers is legitimate, excessive self-citation can indicate a manipulation. Thomson Scientific, the company which now lists journal impact factors, considers self-citation to be acceptable up to a rate of 20%, anything over that is considered suspect.

High self-citation rates may not always be unethical. They can arise because the journal provides a unique publication forum for a new or specific topic or because the journal receives a low number of citations and few incoming citations from other journals. For such small journals a small increase in self-citations causes a large shift in its IF. However, an unethical editorial practice that encourages authors to add citations to papers from the journal to the reference list or remove citations from competing journals with a view to bumping up the journal's IF can lead to a distorted view of the journal's participation [4].

- **Increasing non-source items in the journal.** Not all articles published in a journal qualify as substantive source articles for inclusion in the denominator of the IF ratio calculation—but all citations of these non-source articles are eligible for inclusion in the numerator. A more subtle manipulation is therefore to include articles in the journal that do not count as source items for the denominator. It is not always clear how Thomson Scientific distinguish source from non-source articles but a general guide is given in Table 1. Interestingly the ratio of pages in *Nature* devoted to

Table 1: Types of articles counted and not counted as source items

Counted	Not counted
Original Papers	Editorials
Review articles	Letters to the editor
Case Reports	News items
Proceedings papers	Abstracts
Short reports (communications)	Commentaries

¹ The European Association of Science Editors (EASE) has posted a draft statement of its stand point on the inappropriate use of the impact factor on its website www.ease.org.uk. The statement recommends that journal impact factors are used only—and cautiously—for measuring the value of journals.

Hey, it's only my opinion

source to those devoted to non-source material more than halved from 3:5 in 1977 to 1:6 in 1997, while the number of pages in the journal remained about the same.

- **Review articles.** Another strategy for increasing IFs is to publish as many review articles as possible because they are more likely to be cited. Hence, journals that only publish review articles generally have high impact factors.
- **Timing.** The timing of publication can also affect the IF. Considering the sample period of 2 years, a good paper published in January has 11 months longer to be cited than one published in December of the same year!

Fortunately, the majority of journals do not use these questionable ways to bump up their IF but in subspecialties where there are a limited number of journals which do not overlap they may be vulnerable.

Are there legitimate steps that journals can take to increase their IF, by increasing the content of review articles, juggling their non-source:source content, asking authors to cite relevant articles from their journal? Are all these practices fair in love and war in the impact factor game? Could a better manipulation-proof way be devised to rank journals? I am not so sure but until a better way is found I do believe we are stuck with it and the manipulation debate. After all we all like numbers!

But, hey it's only my opinion

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Example of IF calculation for 2005

Cites in 2005 to articles published in:

2004	188
2003	272
Sum	460

Number of articles published in:

2004	152
2003	155
Sum	307

Calculation:

$$\frac{\text{Cites to recent articles}}{\text{Number of recent articles}} = \frac{460}{307} = 1.498$$

More ways editors can improve impact factors

The 17 March 2007 issue of *BMJ* with its theme 'Finding your way around the impact factor' is a useful resource for finding out more about current thinking on the impact factor.

One delightful banter is Christopher Martyn's 'Advice to a new editor' in which, posing as an experienced editor, he writes a letter to a colleague who is about to take over the reins as the new editor of a journal. He warns that the first thing potential authors will ask her about the journal will be "What's the impact factor?" Forget all your good intentions about serving readers and improving quality it's raising the journal's impact factor that an editor needs to concentrate on. In which way can enterprising editors increase citations to papers in their journal?

Write an introductory article under the title 'Editor's choice' making a few banal remarks about the articles in the issue and—give citations to these articles

Commission commentaries on articles in the issue—which cite the articles

Encourage correspondence about articles in the journal—which cite the articles

Publish papers in a well-researched area that contain a serious mistake—people will refer to it in their papers, write refutations and cite the articles.

What editors should certainly not do is become social minded and publish papers on unfashionable conditions (e.g. itching) with little research being undertaken and few researchers to cite it in their publications or case reports which might be popular with readers but are rarely cited.

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Risky business

At-risk patients should be screened monthly. Is it really necessary to say *at-risk* here? *Patients at risk should be ...* is OK, of course. But many writers do not seem to be able to resist adding '*at-*' when they use *risk* adjectivally as a modifier before *patient*. *Risk* on its own seemed to do us very well until about the mid-1990s (*Risk patients should be screened monthly*); and also: the same writers do not seem to need to talk about *at-risk groups*, but seem happy to use just *risk groups*. Health economists have tried to tell me that this is a technical term in their area (but why should patients be accorded an *at* and groups not?). I suspect this is yet another example of the insidious spread of a term we do not need. Or can anyone give me a cogent explanation of the difference between a *risk patient* and an *at-risk patient*?

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Out on our own: From freelancers for freelancers

Following the successful and dynamic Freelance Business Forum at the EMWA conference in Vienna (May 2007), we heard your calls for improved communication and information sharing for our membership group.

Welcome to *The Write Stuff's* first regular dedicated feature section for the freelance membership.

'Out on our own' will feature in every issue of *TWS* going

forward. We aim to tackle issues that interest and concern us all and also hope to encourage **you** to share **your** experiences. We kick-start our feature section with what we hope will become the first articles of many contributing to a valuable freelance information resource.

This is your section—written by freelancers for freelancers, so please send us your comments, ideas and contributions for future issues. Together, let's make our feature a success.

Alistair Reeves a.reeves@ascribe.de and

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Presenting freelance support for the freelance membership...

By Sam Hamilton

A consensus was reached by members attending the Freelance Forum in Vienna, May 2007, that freelance advice and support from the more experienced EMWA freelancers would be of benefit to the freelance membership as a whole. As a result, a small team of experienced freelancers (Sam Hamilton, Alistair Reeves, Linda Lieu, Helen Kulesza and Elaine O'Prey) has developed the following advice lists for consideration by freelance medical writers when setting up a freelance enterprise and for general business conduct thereafter. While most points will apply to work in any (EU) country, specific web addresses or sources of information are given for the UK and Germany, as these two countries have the largest membership groups in EMWA. This is just a start for what we hope will become a valuable resource for new freelancers (also on the web page), and we would encourage freelancers everywhere to add to these addresses or sources of information from their own countries, and advise us if there are any other country-specific matters that should be included. Please contact Sam with your contributions.

The team has also prepared a specific list of points for inclusion in freelance medical writers' agreements or contracts, which appears at the end of the article.

Advice list relating to the setting up of a freelance enterprise and for general business conduct thereafter

1. Talk to friends and ex-colleagues about your plans. If you know any freelancers, ask them how they conduct business, how these activities work, and what important advice they have for someone starting out.
2. Develop a business plan (you might not think this is necessary, but it is a very good exercise). Consider

how much you will charge. Consult the EMWA 2003 and 2007 Freelance Business Surveys (this issue of *TWS* has a summary of the 2007 results and detailed results for both are available to EMWA members on the website). Decide how much you need to earn and how much work you need to undertake each month to achieve this. Determine how you will generate business. Consider the initial equipment costs for your business. It is especially important that you have some idea of your income and expenditure as well as earning potential if you decide to set up a business bank account (see later) as these are the kinds of questions the bank may ask you. Pension schemes and health insurance organisations will also need this information.

3. Consider if you should trade under your own name or a company name. Determine the legal requirements in your country via the tax office (in the UK: <http://customs.hmrc.gov.uk>, in Germany: <http://www.finanzamt.de>, which will take you to the *Finanzverwaltung* for your state), a solicitor or small business advisor.
4. Consider the need for a logo, business cards, a company image, business stationery etc.
5. Investigate local funding options for setting up your business. You may be entitled to loans or grants, so investigate possibilities via the small business advisor, Business Link in the UK <http://www.businesslink.gov.uk/bdotg/action/layer?topicId=1073861197&tc=000KW020210764>, or via the *Arbeitsamt* or *Industrie- und Handelskammer* in Germany.

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6. Contact your local tax office as they often run free courses to help you understand the tax implications of being self-employed (this is certainly the case in the UK), or will offer advice on an individual basis. Business Link in the UK may also be available to help you establish your business, and often offer free or subsidised courses. Contact the *Arbeitsamt* or *Industrie- und Handelskammer* in Germany for this type of information.
7. Decide whether you want to hire office space or work from home. Consider all the implications of having a 'home office' because this can often mean that you never 'leave work' even on a weekend (list out the pros and cons, and discuss this with your partner if you have one). If you are short of space at home, then renting office space might provide a better option.
8. Consider the need to be Value Added Tax (VAT) registered. You should investigate the rules governing the charging of VAT, as in the EU, VAT is not usually chargeable for clients based outside your own country (this applies to editing, writing and translation, but not to training, although there is some variation in how the EU VAT legislation is interpreted from country to country). Your own country's VAT rules should be reviewed. (UK VAT site: http://customs.hmrc.gov.uk/channelsPortalWebApp/channelsPortalWebApp.portal?_nfpb=true&_pageLabel=pageVAT_Home, Germany: contact your local *Finanzamt* or *Steuerberater*). If you are not sure about whether you should charge VAT or not, you must seek advice from a tax advisor.
9. Consider the need to make your company limited. Some UK-based pharmaceutical companies and recruitment agencies require that persons who work for them do so under the auspices of a limited company.
10. Consider the need for establishing a presence on the Internet. Buying a domain name is often worthwhile. This is inexpensive and will avoid complications if you subsequently change your Internet Service Provider (ISP) as you can retain your e-mail address. It will also allow you to use an e-mail address that relates to your business, rather than a generic name (e.g. btinternet.com). It will also provide web space if you decide you need a presence on the World Wide Web. Alternatively you may find it easier to use a yahoo.com or mail.com address as you can change ISP without altering your e-mail address. There may be limitations on the size of files you can send or receive as attachments, and so it is advisable to investigate all options.
11. Consider the need for opening a business bank account. In the UK some banks charge for business accounts while others do not (e.g. The Abbey). A separate account for business is a more efficient way of managing your affairs. In Germany costs for a current account are much higher than in the UK, and business bank accounts are very costly, so a second current account is usually quite adequate. Investigate all options and deals available. Decide how you will use your business account. You may choose to pay yourself a set amount each month and keep some in a separate account for your tax bill, etc. Try to use your business (or perhaps a separate current) account so that you can easily identify all business expenditure. This simplifies year-end accounting.
12. Engage the services of an accountant and maintain your book-keeping on an ongoing basis. Advice from a tax advisor when you submit your annual account to the authorities can ensure that you claim for all the business expenses you are entitled to. Your local tax office may also offer to go through your tax form with you and offer advice on what you can and cannot claim for, or offset against your tax bill.
13. In some countries, bear in mind that after your first tax declaration you will be required to pay income tax and VAT in advance.
14. Once you decide to become a freelancer, make it a basic principle to keep every receipt you receive and keep a written record of every car journey. Many items and business travel are tax deductible, saving you income tax and VAT.
15. Consult the EMWA list of points for inclusion in freelance medical writers' agreements or contracts when setting up or reviewing contracts. If you do not use written contracts, always ask your client to confirm the essential points of the agreement (after considering the EMWA points for inclusion in freelance medical writers' agreements or contracts) in an e-mail (check whether e-mails are legally binding in your country). If not, ask for brief confirmation by post.
16. Whenever possible, only perform work after having a (signed) agreement in place (this may, of course, be an e-mail). If a potential client invites you to attend a meeting before signing a contract, then make clear your expectations in terms of compensation for meeting attendance. This also applies to telephone conferences.
17. If you are unsure of the reliability of a company or organisation you will be working with, it is good practice to check this via your country's listing of registered companies. In the UK consult the Companies House listing <http://www.companieshouse.gov.uk/>. In Germany most public listed companies can be found at <http://www.deutscheboerse.com> or you can ask the local *Industrie- und Handelskammer* for information. Also check company websites to see how well-established the company is, for example, determine the number of products on the market or in the pipeline and how the company is financed.



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Points for inclusion in freelance medical writing agreements

The following points are suggested for inclusion in freelance medical writers' agreements or contracts (henceforth referred to as the agreement). The agreement may be initiated by the medical writer, using the points listed. Alternatively the points may be used as a checklist of items included in client-initiated agreements.

General

1. Detail all parties included in the agreement, the date of initiation, and services covered by the terms of the agreement. The agreement can be extended beyond this period by written agreement of both parties. State that any interim alterations to the scope of agreed work will be regarded as additional, must be made in writing, and that payment for this additional work will need to be negotiated. State that the assignment will be considered completed on submission of the last planned piece of work, and that this is when the final invoice will be submitted.
2. The agreement/contract must be signed and dated by both parties (the place of signing is also needed in some countries).

Financial

3. Detail the agreed hourly rate, or absolute value of the agreement, and when invoices will be issued. This may be monthly in arrears or on completion of agreed milestones. Detail how many days the client has to pay from the date of the invoice. Industry standard is 30 days. If your company is VAT registered, you may need to charge VAT. Charging of VAT should be investigated for your country. If your client is based abroad, the agreement may be VAT exempt. Clearly specify if VAT will be charged or not.
4. Be clear that payment for services is not dependent on publication, for example, in the case of preparation of a manuscript. The writer should be compensated for the actual writing task and this should be independent of acceptance of the manuscript by the target publication.

Liability

5. State that the services will be performed on a 'best-effort' basis in accordance with the standard of care reasonably expected in the performance of such services. State that the client is responsible for providing sufficient information and materials for execution of the agreement in good time (stating dates, if possible). The client must be available during the execution of the agreement to answer questions. Any delays caused by unavailable data on the part of the client remain the responsibility of the client. State that the writer will inform the client in good time if he or she feels that agreed timelines can no longer be met because of late delivery, unexpected volume, or other reasons, and that new timelines (and possibly higher remuneration) must be negotiated.

6. State that the client will be responsible for checking the contents of the prepared texts for errors and inaccuracies, and will be responsible for the final sign-off of that text. The client must hold harmless and indemnify the writer against any liability except in the case of intent or gross negligence on the writer's part. The client should also agree to hold harmless and indemnify the writer regarding third party rights in the execution of the agreement and the writer will not be held liable for any damage or loss whatsoever.

Copyright

7. State that any information, inventions or discoveries (whether patentable or not), product innovations, suggestions, ideas and reports made or developed under this agreement shall be promptly disclosed to the client and shall remain their property.
8. State that right to use the work developed under this agreement will be transferred to the client after payment of the entire cost of the agreement.

Termination

9. State that either party can terminate the agreement at any time by giving 30 days' written notice. However, if this is not possible (e.g. through illness) then state that termination may be agreed immediately. Clients might reasonably expect that under such circumstances a replacement writer is suggested. A clause can be included that during the period of notice the writer will make reasonable efforts to find a substitute writer who, to the best of his or her knowledge, can fulfil the contract, but that no guarantee of this can be given.
10. State that upon completion of a project, all material provided or developed as a result of the agreement will be destroyed or returned to the client and that, as far as possible, all electronic materials will be deleted.

Confidentiality

11. During the term of the agreement and for ten years afterwards state that due care shall be exercised to prevent unauthorised disclosure of confidential information.

Dispute

12. Depending on your location, state that this agreement shall be governed in accordance with your country's law (and in some countries, e.g. France and Germany, a 'place of jurisdiction' [meaning the name of a town] has to be given). In the case of dispute, state that the parties will first attempt to resolve the dispute by mutual consultation and agreement out of court.

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EMWA Freelance Business Survey 2007

by Alistair Reeves and Sam Hamilton

The previous and first EMWA Freelance Business Survey was conducted in 2003 on a paper questionnaire distributed at the Lisbon Freelance Forum and was subsequently sent out by post and e-mail. It was an ambitious questionnaire (first attempts at anything often are!), as any reader who has consulted the results of the survey on the website will have seen. With much badgering and follow-up, we finally received 63 completed questionnaires.

For the 2007 survey, we moved into the 21st Century with a much simplified, web-based questionnaire on www.surveymonkey.com, following Kelly Goodwin's example with the EMWA survey for salaried medical writers. Our survey was open from 4 March–13 July 2007, by which time, with advertising in *TWS*, on the website, and at the Vienna 2007 conference, 101 respondents had completed at least one question—a much better result than 2003. Most respondents completed most of the questions, but two respondents answered only one question each.

This report on the 2007 survey includes some comparisons with the results of the 2003 survey. A document on the website contains all results for both years where possible; it was not always appropriate because the content of some of the questions differed. Also, the 2003 questionnaire was addressed to individual freelancers and small businesses with up to 7 employees (the latter accounted for 27% of the sample), whilst the 2007 survey was addressed *only* to individual freelancers, whether registered as a limited company (or national equivalent) or not. The 2007 survey is now closed.

Number of responses and countries

By 13 July 2007, 101 responses had been received: 47 (47%) from the United Kingdom, 20 (20%) from Germany, 6 (6%) from Switzerland, 4 (4%) from France, 3 (3%) from Spain, 2 each (2%) from India and The Netherlands, and 1 each from Austria, Belgium, Canada, China, Denmark, Eire, Italy, Portugal, Taiwan, Sweden, and the United States of America (6 respondents skipped the question).

EMWA membership and website

85/99 (86%) respondents were EMWA members, and 48/99 (49%) had their own website.

Type of freelancer and hours worked

57/96 (59%) of respondents were full-time freelancers, 32/96 (33%) part-time freelancers, and 7/96 (7%) were in full-time employment and doing freelance work. No definition of 'full-time' or 'part-time' was given; the respondents decided whether they were full-time or part-time.

52/95 (55%) respondents work 31 – >50 hours per week, presumably mostly full-timers, and 43/95 (45%) work 1–30 hours per week, presumably mostly part-timers (Table 1).

Table 1: Number of hours worked per week (N=95)

Hours per week	Number of responses (%)
1-10	10 (11)
11-20	7 (7)
21-30	26 (27)
31-40	31 (33)
41-50	16 (17)
>50	5 (5)

Sources of work

Respondents were asked to indicate their sources of work (totalling 100%) from the categories given in Table 2, which shows the mean percentage of work obtained from each source.

Table 2: Sources of freelance work (N=87)

Source	Mean % of work
Longstanding customers	49
Referrals from colleagues	22
CROs/agencies	21
Referrals from customers	10
EMWA freelance directory	10
Own advertising	8
Other freelance directories	1
'Looking for a medical writer'	1
Other	1

CRO=contract research organisation

This pattern was similar to that of the 2003 survey. It is worth noting, however, that the mean percentage of work from the EMWA freelance directory increased from 5% in 2003 to 10% in 2007.

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>>> EMWA Freelance Business Survey 2007

Types of activity

Respondents were asked to indicate their types of activity (totalling 100%) from the categories given in Table 3, which shows the mean percentages of each type of activity.

Table 3: Types of freelance activity (N=84)

Type of activity	Mean % of work
Writing	67
Editing	18
Translation	11
Consultancy work	6
Training events	6
Quality control	6
Proofreading	3
E-publishing	1
Other	3

Again the pattern was similar to the 2003 survey, with writing as the major activity, followed by editing and translation. The mean percentage of work time spent writing increased from 57% in 2003 to 67% in 2007, and the mean time spent translating from 5 to 11%.

Types of documentation

Respondents were asked to indicate the type of documentation they generally work on (totalling 100%) from the categories given in Table 4, which shows the mean percentages of each type of document worked on.

Table 4: Types of freelance activity (N=83)

Type of documents	Mean % of work
Documents used for drug approval	41
Scientific papers	35
Marketing materials	12
Training, presentation and educational materials	6
Investigator brochures	5
Product information, websites	4
Text books, SOPs	3
Consultancy documentation	1
User manuals for devices	0
Other	6

SOP=standard operating procedure

As in 2003, the mean percentage of time spent on documents used for drug approval and journal articles for the medical and scientific press were greatest. The mean percentage of time spent on journal articles increased from 24% in 2003 to 35% in 2007. The absence of small businesses from the 2007 sample may be partly responsible for this (this is based solely on the anecdotal observation [conversations at EMWA meetings] that freelancers often seem to be approached by individuals to write or edit journal articles as they are expected to be cheaper, and it is often not worth small [and indeed larger] businesses taking on this type of job.).

Hourly charges for medical writing and related activities

All charges were to be given in euros as *average* hourly rates for the activity in question. Charges entered in other currencies were converted to euros at the 13 July 2007 rate. An hourly rate of € 750 for all activities from one respondent was assumed to be € 75. Several respondents entered ranges: the midpoint was taken as the average value.

The average hourly rates (mean ± standard deviation; median [range]) for the different activities are given in Table 5, rounded to full figures.

Table 5: Average hourly rates

Activity ^a	Hourly rate (€)				
	2007			2003 ^b	
	N	mean ± SD	median (range)	N	median (range)
Consultancy	26	105 ± 50	91 (29–250)	26	105 (20–>160)
Medical writing	76	76 ± 23	75 (29–140)	55	80 (20–160)
Editing	52	71 ± 26	75 (29–140)	48	70 (20–150)
Quality control	26	73 ± 31	65 (30–150)	21	75 (20–>160)
Proofreading	34	69 ± 29	62 (25–140)	24	55 (20–150)

SD=standard deviation

a 3 respondents answered for E-publishing with hourly rates of € 65 (2) and 200 (1).

b Mean ± SD was not calculated for 2003.

Average hourly rates have not changed between 2003 and 2007. The absence of a difference between the medians and ranges for writing and editing may be because editing was defined as 'editing texts that need considerable rewriting'. The lower medians for consultancy and writing may have been influenced by the absence of small businesses from the sample. Except for consultancy, there were no responses higher than € 150 per hour for any activity, and some of us will be surprised that some colleagues can evidently earn as much as this per hour *on average*. Some writers, however, are still obviously charging *very low average* rates (10/76 responses for writing and 13/52 for editing were between € 29 and 49 per hour). Perhaps this survey will encourage them that they can reasonably charge more.

19 respondents entered charges for training (Table 6, rounded to full figures).

Table 6: Charges for training

Activity ^a	Hourly rate (€)				
	2007			2003 ^b	
	N	mean ± SD	median (range)	N	median (range)
Whole day	19	815 ± 406	1000 (400–2300)	16	955 (850–>1150)
Half day	15	510 ± 238	475 (200–1000)	14	517 (475–775)
Hourly	7	107 ± 62	100 (46–200)	8	Not calculated (40–190)
Preparation	8	84 ± 34	84 (48–150)	3	Not calculated

SD=standard deviation

a 2007 charges of € 75 for a half day and €150 for a whole day entered by one respondent were not included as these were assumed to be an error, because the same respondent gave an hourly rate for training of € 100.

b Mean ± SD was not calculated for 2003.

No substantial shifts in charges for half-day or whole-day training events were seen between 2003 and 2007.

Because we asked for average charges, we also asked respondents to tell us if they had different charges for different client groups (Table 7).

Table 7: Charges for different client groups

Client group ^a	No clients	N	Lower	Same	Higher
Pharmaceutical companies	11% (8)	64	2%	64%	34%
Agencies	26% (19)	55	7%	89%	4%
CROs	38% (28)	45	2%	92%	6%
Private persons	61% (44)	44	54%	46%	0%
Colleagues	43% (31)	41	49%	51%	0%
Higher education establishments	59% (45)	31	48%	52%	0%
Physicians (hospital or practice)	60% (42)	28	39%	61%	0%
Government organizations	66% (46)	24	17%	83%	0%

CRO=contract research organisation

^a Each row should be read as follows: Pharmaceutical companies – 72 respondents answered the question: 8+64 = 72; 8/72 (11%) do not work for pharmaceutical companies; of the 64 who work for pharmaceutical companies, 2% charge lower than their average hourly rate, 64% charge their average hourly rate, and 34% charge higher than their average hourly rate.

Freelance

The noun 'freelance' was first coined by Sir Walter Scott in the 19th century and referred to a medieval mercenary soldier. Now the expression means a self-employed person offering their services where needed, not under contract to any single employer (source <http://www.all-words.com> where its translation into various languages can also be found).

Articles about medical writing in *Science Magazine*

Anyone thinking of a career in medical writing might be interested in a series of articles in *Sciencecareers* of *Science Magazine*. These can be found on the website

http://sciencecareers.sciencemag.org/career_development/previous_issues/articles/

by adding the following after the last slash

[2007_06_22/caredit_a0700088/\(parent\)/104](http://sciencecareers.sciencemag.org/career_development/previous_issues/articles/2007_06_22/caredit_a0700088/(parent)/104)

[0980/careers_in_medical_writing_opening_doors_feature_index/\(parent\)/104](http://sciencecareers.sciencemag.org/career_development/previous_issues/articles/0980/careers_in_medical_writing_opening_doors_feature_index/(parent)/104)

[3570/starting_a_career_in_science_writing/\(parent\)/104](http://sciencecareers.sciencemag.org/career_development/previous_issues/articles/3570/starting_a_career_in_science_writing/(parent)/104)

Although these articles relate to the US much of what they say is relevant to European medical writers too.

Thanks to **Raquel Billions**

(medical.writing@billiones.biz) for these sites.

EMWA Freelance Business Survey 2007

The results were similar to those in 2003: about a third of those who work for pharmaceutical companies charge them more than their average rate, and about 40–50% of those who work for private people, colleagues, higher education establishments and physicians charge them lower rates than average. Most respondents who work for agencies, CROs and government organisations (about 80–90%) charge their average rates.

Thanks to Alison McIntosh for checking all the numbers.

We thank all those who took part in the survey.

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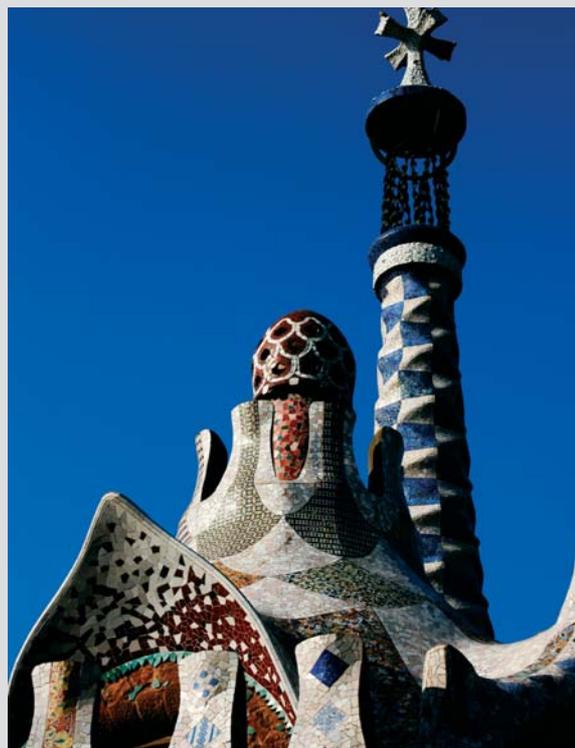
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EMWA's 17th Annual Spring Conference 2008

An important date to note for 2008's diary is the EMWA Annual Spring Conference, which will be held from 29th April to 3rd May 2008 in Barcelona, Spain, at the Hotel Rey Juan Carlos 1 (<http://www.hrjuancarlos.com/en/index.html>).

A full announcement will be made in the December 2007 issue of *TWS*.



A continuing personal account of my first year as a freelance medical writer

by Sam Hamilton

As I progress through my first year in business as a freelance medical writer, I invite you to share my experiences over the last quarter. In previous issues of The Write Stuff (TWS), you heard about my journey to freelance medical writing and my first six months in business. The next three months have required hard work and long hours as contracts have come to fruition. In delivering several high quality documents, I have established relationships with a number of clients which I hope to cement over the coming years. Read how spring and early summer turned out as the business developed apace.

Months 6 to 9

April 2007

By early April, I heard back from Helen in the US. A fellow freelance medical writer and close personal friend, she had been invited to bid for the writing of a programme of early phase protocols for a major pharmaceutical company. She had asked for my counsel during the bidding process and we knew we would be working together for the next 18 months to 2 years in the event of a win. We were both delighted and excited to hear that the bid had been successful. Helen concentrated her efforts on widening her pool of US writers, and I firmed up arrangements with the smaller UK-based writing team which I would be running. We began to investigate setting up contracts which would be legally acceptable on both sides of the Atlantic and options for the exchange of currency with minimal associated costs.

Several writing activities were already underway in early April, including draft reporting on as large a clinical study report (CSR) as I had tackled in 9 years, and updating client comments on a partly completed CSR which had been delayed from January.

The children had two weeks of Easter holidays looming, so with this in mind, I scheduled meticulously to enable a degree of harmony between work and family life. It actually worked pretty well, considering my daughter had different ideas, caught chicken pox and was excluded from school for the last week of term, extending her holiday somewhat! So as to avoid a rapid descent into chaos, I

arranged for her to have a few days with her grandparents as she was not ill at all, just itchy! This enabled me to maintain momentum during that crucial period between statistical output becoming available and the draft report deadline. The output at that stage was based on draft data. My experienced client was entirely pragmatic in their approach to reporting this 'large' study which comprised 20 secondary efficacy variables, and for which we both knew the CSR would eventually turn out to be voluminous. I received draft output and, consequently, a head start with reporting. When the final output eventually arrived in late April, changes to draft data were highlighted, so I simply revised the relevant pre-written sections.

I scheduled meticulously to enable a degree of harmony between work and family life. It actually worked pretty well, considering my daughter had different ideas...

I made minor revisions to the report for which review of the efficacy section had stalled in January. The safety data continued to be unavailable, so the report still could not be closed out.

We enjoyed some free time and even managed a few days away over the Easter holidays, walking in the beautiful Lake District in the North West of England.

In late April, I attended a networking event for new members of the Healthcare Network North East England (www.hcnetnee.com), a local organisation which works with companies, including those involved in clinical research, to increase sales and market opportunity through networking. I was the only new member present in my field, and most other participants appeared to make components for use in equipment designed to improve the quality of life for physically incapacitated patients. As a result, networking opportunities were a touch thin on the ground for me, so I simply enjoyed the lunch, participated as best I could and learned a little about an area I knew nothing about previously.

I wrote a Standard Operating Procedure (SOP) for a University-based group overseeing investigator-led clinical research activities in the region.

A large contract I had been negotiating for the past 3 months eventually fell through, due to lack of funding. I accepted and moved on from this more readily than I had

A continuing personal account...

expected, which told me that I had finally begun to think like a seasoned freelancer. I was starting to realise that enquiries come up regularly and new business is often just around the corner, though one might not realise it at the time.

May 2007

May was an extremely busy month for me. I completed the shell of a CSR I had begun preparing in February, as the last of the component documents arrived. Helen was contracted to perform quality control (QC) review of the full report and she did this in two stages, the first being QC of the shell. I was delighted to see that we worked very well together as a team and she worked to the same standard as I expected of myself. A promising partnership was underway! The completed shell was now ready for the results expected later in the month.

I continued to update and revise the large CSR with final data. During this stage of reporting, things became a little more complicated for a number of reasons. The client required my report to stylistically match a report being written internally, concurrent to mine. Myself and my fellow writer shared sections of our reports as we completed them, to ensure some degree of match. However, timing was not perfect, so we knew that some sections would require revision very late in the reporting process. Revised primary analysis coupled with additional analyses in a subgroup of 'interesting' patients added to my workload. However, I submitted the draft report on time in mid-May. The client very reasonably agreed to compensate me for the changes of scope from the originally contracted task.

My accountant, Lynne, forwarded an unexpected incentive payment as a result of her having registered my taxation details online. It was certainly a sum better in the business' coffers than the government's, in my opinion!

I attended 3 days of the EMWA Vienna conference. I arrived somewhat late for the Gala Dinner on the Wednesday evening due to my late incoming flight—perhaps a taste of things to come... I attended the final two courses which would hopefully lead to my foundation accreditation, joint-chaired the Freelance Forum with Alistair Reeves and hosted a lunch discussion table. I met many old friends, made some new friends and generally had a great time. It was a real antidote to the unrelenting pace of the previous couple of months. However, my return home was not quite as straightforward as it should have been, and included a cancelled connecting flight from Paris to Newcastle on Friday afternoon, an enforced overnight stay in Paris and purchase of another flight to get me home before the whole Bank Holiday weekend expired. Having returned home a day late, I then drove determinedly, map

I worked long hours with the family still away... and I ultimately exceeded both reporting deadlines by 3 days.

in hand, to locate my family who were camping deep in the Cumbrian countryside. We spent 4 chilled-out days together before I had to leave them early to resume work.

June 2007

Final output for the smaller CSR arrived a few days ahead of client comments on the large CSR. I worked long hours with the family still away. Helen quality controlled the small report and I ultimately exceeded both reporting deadlines by 3 days. It would be fair to say that by mid-June, I felt very much in need of a change of pace. My client was happy with my efforts on the large report and anticipated further need of my services in future. The smaller report's comments were delayed, possibly until August—a mutually agreeable decision.

I caught up on outstanding actions from the Vienna conference, with the generous help of 4 fellow freelancers, Alistair Reeves, Helen Kulesza, Elaine O'Prey and Linda Liem.

I also set up a currency trading account to facilitate affordable currency exchange between Helen and myself. In setting up a XETrade account (<https://www.xe.com/fx/>), I was able to pay Helen for her QC services direct in dollars electronically transferred to her US account whilst incurring no currency exchange charges whatsoever. Neat!

I prepared PowerPoint presentations for two lectures I was due to give at the University in July. I was grateful to Wendy Kingdom, a seasoned EMWA lecturer and fellow freelancer, who was generous with her time and advice in relation to preparation of one of the lectures.

As previously, a couple of minor pieces of work cropped up, were executed and closed out, all of which brought June to a highly satisfactory conclusion. The summer loomed and I looked forward to a family holiday in the US and a slower pace of life, at least for a couple of months.

I will update you on my fourth quarter in business during my first year of trading, so look out for my final article in the next issue of *TWS*.

Sam Hamilton

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EMWA is currently developing a freelance e-mail user group so that the freelance membership may raise issues for debate between meetings. More information on the list will be available shortly, so watch the website. In addition, due to popular demand, the Freelance Forum will now take place at both the Spring and Autumn conferences from November 2007. We would welcome your feedback on our endeavours to date, so do please join us in Basle (Friday 2 November 2007, 1730-1830) and Barcelona and have your say.

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