

Debate

Chair: Richard Smith
Editor, *BMJ*

Richard Smith outlined the aims of the session—understanding, clarification, to examine what could be done that is currently not being done. Suggested questions for discussion included:

- How big a problem do we have?
- Are editors facing up to the problem?
- What should editors do when faced with possible misconduct?
- Do editors have the legitimacy and means to manage misconduct?
- Do we need a national body to help with research misconduct?
- How can editors help prevent misconduct?
- Do editors have a responsibility to help with education on misconduct?
- How can we respond to misconduct among authors who do not belong to an institution?
- What should editors do about editorial misconduct?

On this last point, Richard Smith commented: “Editors are one of the most unaccountable groups left. You can still create all kinds of havoc as an editor—it’s very difficult to do anything about it.”

for that person’s future professional career. Conversely, you can have malicious whistleblowers who do fantastic damage to perfectly good people. So I hope we can form some idea of providing appropriate incentives to people who blow the whistle genuinely, of how to protect against victimisation, and some sort of sanction against people who allege misconduct which subsequently is shown to be quite untrue.”

Stephen Tomlinson responded: “It is a cause for concern that it’s considered that the anonymity of the whistleblower must be preserved at all costs, up to the screening stage. But if you then move on to a formal investigation, natural justice must tell you that the anonymity must be lost and the accused must be able to respond to the accuser.”

Edward Tuddenham said: “If the whistle is blown somebody has to consider whether it’s being blown mischievously or not, and if they think perhaps not, then an audit is held. And what we’re auditing is, do you have the data to support the interpretations that you have published? If not, too bad. If you can’t produce the data there doesn’t have to be a loss of anonymity for the whistleblower.”

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A show of hands revealed that none felt that they had witnessed satisfactory outcomes to allegations of misconduct in terms of a proper investigation, due process, and resolution.

The policy in the *BMJ*, said Richard Smith, was to reject a dubious paper because 85 per cent are rejected anyway, but over the past two years he’s reported four authors to the GMC, one of whom had already been struck off, and including one case each to the Indian Medical Council and the South African Medical Council. He also referred two cases to the chief executive officers of NHS Trusts “who always want to know what they should do with this information.”

Whistleblowing—in the UK and overseas

A register assumes that people are going to get on to it, and the main route by which they get on to the register is on someone’s say so, pointed out John Garrow. “The experience of everyone is that it does nothing whatever

One delegate suggested: “It’s fine putting in a police force in the UK. We have to tackle the big question of how we sort out what’s happening on an international scale. And in terms of whistleblowers particularly, the one case of whistleblowing to the journal that I’ve dealt with was an anonymous complaint about data fabrication that came from India.”

Sir Cyril Chantler commented: “You have an absolute duty to conduct all research in honesty and integrity. You have a duty to report evidence of fraud or misconduct in research to the appropriate person or authority. One of the problems the GMC faces is doctors who misbehave in one country and hotfoot it to the UK. There was a case just before Christmas, of an individual who was working in Canada. He was suspended and immediately came over here and took a locum job. He was struck off the register and is no doubt busy practising somewhere else. So one of the issues for the GMC over the next year is to establish some sort of fraternal relationship with other countries around the world to make sure we can deal with this.”

Peter Wilmsbury, of the Royal Shrewsbury Hospital,

cautioned: "A whistleblower who is malicious is not necessarily wrong. Whistleblowers will often blow the whistle after they have got into an argument with the person responsible for the wrongdoing, after having tolerated their fraudulent behaviour for a long time. The fact is, it doesn't mean they are wrong, it means their motives are wrong."

Anne Cockcroft, Editor of *Occupational and Environmental Medicine*, said: "Whistleblowers may not start off paranoid but they often end up paranoid, particularly if the person they are complaining about is somebody senior to them, and in institutions where perhaps the head of the institution might be the person responsible for the misconduct."

Michael Farthing felt that some perspective on this problem was called for: "I seem to remember Drummond Rennie (Editor of *JAMA*) said he's interviewed over 700 whistleblowers, of whom only 5% were malicious and wrong. So this is probably a very small minority, whatever the number is, compared with the people who have a genuine complaint."

Richard Smith warned: "The evidence is that almost all whistleblowers end up damaged. Unless you have some kind of legal protection for whistleblowers that applies to any kind of whistleblower anywhere, it's very tough to actually guarantee that they are protected."

"There's an absence of whistleblowers when it seems highly likely that fraud has taken place. There doesn't seem to be any investigation in the institution concerned as to why results published in journals, which are totally unrepeatable, and after several attempts, were ever published," commented Terry Hamblin, Editor of *Leukaemia Research*. "In many institutions abroad you've got the priesthood of medicine and the science of medicine. The priesthood is by far the stronger. One of the worst things is that in order to get promotion in almost any university influenced by western thinking, you've got to publish. The result is some publications in which some fact is merged with myth, and so forth, but if they don't publish they die. To some extent, we the journal publishers are at fault here because this has become the lodestone for everybody worldwide."

Anne Cockcroft explained that *Occupational and Environmental Medicine* takes quite a lot of papers from abroad, "but I also do quite a lot of work abroad myself—community surveys and so on. The interesting thing when working in different countries is that the norm is that people don't believe the results of surveys because, depending on who has done them, they are fudged in one way or another—often for political reasons."

"It seems to me there is a crucial question as to how much "we," a sort of amorphous group that goes under the heading COPE, should concern ourselves with international activities, and how much we should concentrate on getting our own house in order here," commented Richard Smith. "But there are things we could do—for instance to we could give the guidelines to the European Association of Science Editors for their meeting, and the Council for Biology Editors in the States. We could give them to the World Association of Medical Editors. We could present them to the International Committee of Medical Editors of Vancouver. Alternatively, we could say that probably the majority of our papers come from outside Britain and therefore we have to think globally."

Ultimately it was felt that employers who should take responsibility for pursuing the sanctions and investigation. "We can't solve that here. We particularly can't solve that internationally, but as editors we do have to work out ways of handling those issues for all submitted manuscripts, and not just for those coming from the UK," suggested one delegate.

Mohsen Shahmanesh, Editor of *Sexually Transmitted Infections*: "There's nothing we can do to change the situation in other countries. What we can do though, is to do something we did some years ago and that's to reject the paper."

Mr Whitfield of the *British Journal of Urology*, disagreed and felt that it was important to tackle the issue on an international basis. "We probably all receive more redundant publications than fraudulent reports and this is where international editors can get together and make it known that editors in a particular subspecialty are on the lookout for it."

Philip Fulford, Editor of *Bone and Joint Surgery*, agreed:

One of the worst things is that in order to get promotion in almost any university influenced by western thinking, you've got to publish.

Frank Cox, Editor of *Parasitology*, pointed out different cultural perspectives which can make it difficult to adopt a universal approach: "If we report someone in England, or Australia, or the United States, it can be up to the departmental level. If we report something in China or some parts of the Middle East these people can actually end up in prison. How do you decide what level of action you should take against particular people in different parts of the world, bearing in mind that cultures are so different?"

"I think that because English has become the international standard language in science and medicine, and because the Internet is 80% English, we have a duty of education, let alone punitive action, outside our own country."

Submission of raw data

Stephen Evans, statistical adviser to the *BMJ* suggested that European practice should be taken into considera-

tion. “In terms of the guidelines we’ve got to be aware of good clinical research practice which is already a guideline in European law. The single thing that can make a big difference is for journals to demand the right to the data.” However, he felt that this approach is not without its difficulties. “It can take a statistician an enormous amount of time to prove that the data are fraudulent—if you’re going to make a case, it’s got to be proof beyond reasonable doubt. The resources required for this are considerable. In my previous experience with other journals, quite often the papers just go away. In some instances they send you the data, you can reproduce the answers in their equations absolutely imperfectly, and all their statistical significance totally disappears, but they then go and publish it somewhere else.”

It was suggested that a condition of publication should be that authors are prepared to produce their raw data for editors if they are queried, and if they refuse, the paper won’t be considered.

Kim Bartlett, of Newcastle University, wondered what people thought constituted raw data, bearing in mind that much of it is in electronic form, many machines will edit or smooth data, or enhance it in some fashion, and how should it be stored?

Stephen Evans responded that it was both easier and reasonable to have it on disk. The raw data that comes out of the machine, even if it’s processed, he said, is still raw data and a good statistician should be able to detect when it has been smoothed.

Alan McNeilly, Editor of the *Journal of Endocrinology*, explained how he had recently submitted a paper to an American journal, one of whose reviewers felt the photomicrographs were “too good to be true” What he was saying, was that all data, not only numbers, but particular visual images can be smoothed by various computer distorting mechanisms—for example, gels, and it is very difficult nowadays to say what is truly raw data.

Peter Pharoah, Editor of the *International Journal of Epidemiology*, commented: “Surely raw data is data that hasn’t been cooked. When I think of my raw data, it’s in a filing cabinet on paper. The act of putting that on to a computer is possibly cooking the data, and you can cook it at any stage you like. The raw data is the paperwork from which you get the data.”

Michael Farthing agreed that raw data is often the patients’ notes themselves. “But they often get lost as they disappear into the database, and unless you have built in systems to know when people enter and exit on the database, and what changes are made to it at a particular time, you can end up with what is apparently raw data in electronic form. To go back to a thousand sets of notes would be extremely difficult.”

Redundant publication

Richard Smith outlined how redundant publication is something for which there are good data. Around 20% of papers are published more than once in substantially the same format, he said. “It’s an incredibly common endemic problem.”

It was pointed out that papers published in the native language were often submitted in English unbeknownst to either editor, which was very difficult to detect. Perhaps ‘This must not have been published before, even in another language,’ should be included in Instructions to Authors? “I don’t even mind republication in English of important foreign papers, but the editors must know that it’s going on. When this happens we can write to the other editors of the journals in the same field: frauds hardly ever do it once.”

Richard Smith warned of the dangers of such an approach: “This is actually one of the things that people who know a lot about research misconduct will tell you—doctors playing lawyers can go horribly off the rails. You have to be very careful about sending out names of people all round the world unless you’ve got pretty solid evidence that whatever they did you could prove, to the extent of being in a libel court where the onus would be on you to prove the case.”

Charles Livingstone, Editor of *Clinical and Experimental Immunology*, felt that editors should be much more concerned with actually trying to identify what is the harm that flows from a particular piece of misconduct and that very little harm flows from a duplicate publication if the data are absolutely correct and it’s a solid piece of work.

Richard Smith suggested that “a keen systematic reviewer would say that a lot of harm potentially flows from publishing the same thing more than once because when naive people—most of us—do a systematic review we end up thinking that a drug perhaps is a lot more powerful than it actually is. And the other side of redundant publication is not publishing negative results which a lot of people are guilty of too.”

It was also suggested that a person involved with duplicate publication was also likely to be involved in other fraud and that relatively minor misdemeanour might lead to more serious misconduct, such as fraud.

The *Journal of Bone and Joint Surgery* have arranged to have papers of interest to French researchers translated and published “under licence” in a French journal.

Richard Smith felt there was no problem with duplicate publication as long it was openly acknowledged and the author’s permission had been obtained. It was only when it was hidden, that it was a problem, he said.

It was suggested that some scale of wickedness was needed to maintain a focus on the serious and ensure proper procedures, rather than getting bogged down with the fact that all of us are wicked. Scientific methodology is flawed, said the speaker. “I think it very rare that a piece of research as published is going to be completely correct. It may be that the wrong statistics have been applied wilfully, or it may be that they have been applied by accident, and yes, we have to improve the exercise of methodology, but we actually have to define precisely what we mean by misconduct.”

Defining misconduct

Frank Horan’s definition (*Journal of Bone and Joint*

Surgery): “Misconduct is cheating, it’s as simple as that. A paper signed by the professor of the department who has never seen it, is cheating too. I think you have a climate of cheating because people are allowed to get away with it. At the end of the day, my view is that it comes down to the editor. It’s our job.”

“A lot of people think that there is this really horrible stuff—the Malcolm Pearce type stuff—and then

have already published it once, is deliberate deception and it’s for personal gain.”

“Then you would have to qualify what deliberate deception is, and it seems to me that it’s fraud. If you produce fraudulent data, that is deliberate deception,” retorted the previous speaker.

“In terms of scales of wickedness, you seem not to have mentioned the silent impact of what some of

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there are all these arguments around duplicate publication, authorship, conflict of interest. We don’t really know, it seems to me, we don’t have evidence to tell us,” suggested Richard Smith.

A delegate said that it was impossible to deal with everything: “We can’t produce a procedure which actually covers the whole spectrum because there are degrees of wickedness. The procedure that has been written for handling allegations of fraud can’t be used to handle incidents of minor wickedness.”

“So if you put your name on a paper where you’ve done almost nothing, probably true of 20% of papers in the medical literature, where is that on that scale?” asked Richard Smith.

The previous speaker retorted that we shouldn’t be so interested in intentions to be wicked, but in effects.

these papers might achieve, and that is on the patients. So in my scale of wickedness, forget financial gain and an extra £10,000 a year, or an appointment in academia. What to me matters, is whether the patient at the end of the day suffers, by either not getting a treatment or getting a treatment which is inappropriate and could be fatal. I think we’re all being very sanctimonious about levels of wickedness and forgetting perhaps what we really want to be looking at, which is the end result of research misconduct,” commented the former editor of *Cancer Treatment Reviews*.

Peter Medawar (author on scientific integrity): “Article 1 of the Japanese penal code says, more or less ‘harmony is more important than justice’ and I think probably the same goes for truth, and it applies far beyond Japan. The second point is about the distribu-

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Retractions don’t make work disappear. Acknowledgements that papers have been retracted, are rare, he said, the work is repeatedly cited.

“This is a bit like saying, how do we respond to hypertension?” suggested Richard Smith. Clinicians and public health doctors approach it differently, he said. “We really don’t have a very good fix on what this scale of wickedness is, nor do we have any very good agreement, nor do we have a sense of how it’s distributed.”

Many activities fall short of deliberate deception for personal gain, it was suggested. “Even duplicate publication and gift authorship, people would say, are less wicked than deliberate fabrication of research results.”

Perhaps this was playing with words, said Richard Smith. “When you use the phrase ‘deliberate deception for personal gain,’ getting a paper published a second time in a journal without telling that journal that you

tion of what we call wickedness and I wonder if this test isn’t too high? Instead of slamming wickedness, we should be more concerned to promote propriety.”

“Everybody is capable of being wicked, given the right circumstances, and one of the reasons perhaps why people behave worse in other countries, is that they have actually got different incentives,” suggested a delegate. “We’ve been talking about the outcomes here, but if we want to do something about it we need to talk about causes. At the moment, a lot of the incentives are towards being wicked, or fudging things, or twisting things a little bit at the edges.”

Possible actions

George Misiewicz, Editor of the *European Journal of Gastroenterology and Hepatology*, said that editors have enormous power because everyone who has done good

research wants to publish in English. He felt that the message of the guidelines would percolate worldwide and have an effect.”

It was suggested that COPE could write to universities and ask them to confirm that they have procedures in place for dealing with allegations of fraud in research. Chief executives and NHS Trusts should be included.

Peter Wilmshurst said that writing to the deans about whether they have protocols in place would mean nothing unless they were used. “I can think of five London teaching hospitals where the heads of the medical schools failed to take action against research misconduct this year.”

Richard Smith felt that it wasn't just a question of having procedures, but whether they were any good or not.

The editor of the *Journal of Pathology*, Peter Toner, suggested that COPE could set up an incident reporting system outlining just the nature of the problem, to obtain some statistical data on how many incidents are happening and being reported among the 250 journals published in the UK?

Richard Smith said that COPE is already doing that, to some extent. “Some of the cases presented to COPE are very clear, but it's surprising how many of them throw up issues that many of us had never thought of before, and which advance our understanding. The idea behind that is to sort of get a taxonomy. I suspect that most of the cases COPE receives come from few journals. Most journals at the moment, do not send us their cases; they deal with them in their own particular way. One reason to send us a case is not to get advice, but to get a fix on the problem.”

The incident reporting system was pursued further with a suggestion that it should be at two levels: request for a detailed presentation and discussion of the case, or simple notification on a postcard that a problem has been encountered without the need for discussion.

Stephen Tomlinson suggested writing to the deans to forewarn them that if they haven't got procedures in place they aren't eligible to receive any grants from the NIH or any other public health service.

Peter Hirschmann, Editor of *Dentomaxillofacial*

Radiology, said: “It seems to me that as far as NHS Trusts are concerned, this is a clinical governance concern. It is part of the way in which staff employed in trusts behave in relation to standards, and if trusts are going to have mechanisms in place to deal with doctors that harm patients, then may be this comes under the same umbrella.”

The editor of the *British Journal of Surgery*, John Farndon, wondered if journals could be encouraged to make joint statement, using the yellow card system? “One of the things we found on the international scene is tremendous enthusiasm in Western Europe to issue a joint statement.”

Michael Farthing said that was because of the tremendous fear of being sued. “I don't think you'll get US colleagues on board for this sort of networking.”

Sandy Davison of *Nephrology Dialysis Transplantation*, suggested that deans and the chairman of trusts could decide to limit the number of publications that could be cited when applying for a post. This, he said, would significantly reduce the number of publications being submitted and it would also make it possible to actually look at their merit. “We could start by cutting this out as part of the criteria for employment and grants.”

This already happens in Hull, and for some senior lecturer and chair posts, where candidates are asked to pick out the five publications that they want to highlight as their most important.

Many grant applications also now insist that a maximum of five most recent relevant papers.

“Rename the yellow card system an orange system, somewhere between red and yellow,” said Stephen Tomlinson. “And also emphasise that it should be anonymous so we might get the Americans in, because we are interested in doing this to assess the prevalence of the problems rather than identifying individual cases.”

Hilary Hearnshaw, from the University of Warwick, suggested that one of the drivers behind misconduct is because somebody gains from it. “One of the major gains is the CVs, and when you change that culture, that will be much more effective than any punishment or sanctions. Let's go for removing the rewards from misconduct.”