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The role of the scientific editor

From this issue the *BDJ* enters a new phase in its development. This is my last issue as Editor, and in fact is the last issue to have a full-time dentist employed by the BDA in that position. Thus it is the last issue to feature the special relationship that has existed between the Editor and the Scientific Editor since 1919.

When my predecessor, Dame Margaret Seward, completed her time as Editor she published an article in her final issue describing the complete editorial and production process for manuscripts submitted to the *BDJ*. I felt I would like to publish a similar article, but obviously could not copy her choice of topic even though the process has changed a little since her time. Thus it seemed to me that a fitting subject would be a glimpse into the role of the Scientific Editor, especially as I had worked with three in my 12 years as Editor. This would mean that this article would not only have historic value but also be extremely useful for authors and referees in the future.

Because it is an association journal the *BDJ* is substantially different from most other scientific journals, and the post of Editor is often held by a dentist who is not necessarily a scientist, enabling a more rounded approach to the strategic direction and development of the Journal. This is essential because the readership consists of a high proportion of practitioners, not specialists and researchers. Yet the integrity and success of the *BDJ* depends on its scientific rigour, a vital part of its commercial success at home and its international reputation abroad. For all these reasons the Scientific Editor is the most important individual after the Editor, and as such the individuals holding the post must be both recognised and respected in the research community. When I say that the five individuals who have contributed to this article are more than able to fill the post I am not simply saying this because I ought to or to make them feel good – I am saying it because it is true.



This article is the response I received from each of the five Scientific Editors when I invited them to contribute and I will let them speak for themselves. Sadly, Professor Frank Ashley, who was Assistant Scientific Editor from 1980-1985 died on 3 September 2000 and thus his considerable contribution to the *BDJ* cannot be reported first hand.

At first I was unsure how best to publish the contributions, as there is of necessity some repetition and the full

extent of the five papers is quite substantial in length. I was also unsure about how best to edit them fairly. But, without conferring with each other, each Scientific Editor has produced a personal contribution that emphasises a different aspect of both the job and also (more importantly) the *BDJ* itself. Thus the final result is a well-rounded and full description of the scientific development and process. Finally, to round off the article I asked Dame Margaret Seward, the Editor before me, to write a short conclusion which encapsulates what scientific integrity is all about.

I have added a brief introduction from myself to each section to help place it into the context of the whole article. Finally I must add my own special thanks to each of the authors in this article for their substantial contribution to the scientific standing of the *BDJ*, and my personal thanks for their help to me. I have enjoyed working with each of them and trust this special article is a fitting tribute to their contribution.

Mike Grace
Editor

Tony Naylor

Tony Naylor was Scientific Editor for 31 years. I had asked him to delve into the development of the role of what was originally referred to as Scientific Assistant Editor from the early beginnings, but to ensure he added his own reminiscences. He has done both admirably.

The *BDJ* began its existence in 1872 as the *Monthly Review of Dental Surgery*, eight years before the British Dental Association was founded in 1880. One of its objectives was to press for the formation of a national association to represent British dental surgery, comparable with the British Medical Association. After protracted negotiations, the *Monthly Review* was purchased in January 1880 by the newly founded BDA for the sum of £200. Alfred Coleman was appointed as Editor and the first issue comprising 84 pages that was published under his editorship was in April 1880 at a cover price of 6d (2.5p in today's currency!)

The content of the journal was mainly political with very limited science, technical or practical matters. It contained news, abstracts and translations from other journals, expressed concern about the state of children's teeth and emphasised the need for a public dental service. The circulation soared dramatically and although the content remained largely unchanged, between 1882 and 1908 a series of sub-editors were appointed, amongst whom was Frank Colyer (later Sir Frank). Concern was beginning to gather that the journal failed to encourage publication reports of original work. To redress this imbalance, an article was included on the application of X-rays in dentistry, the first article on the subject.

The Journal has always succeeded in attracting the support of people of distinction, amongst whom, in those early years were W.H. Coffin, F.N. Doubleday (later the Rev.), W.H. Dolamore, A. Hopewell-Smith and Lilian Lindsay. All were part-time, were paid meagre honoraria and assumed the title of Editor or Sub Editor. Mrs Lindsay was the first woman to qualify as a dentist and in addition to her 20 years' work as Sub Editor, she served the Association as Honorary Librarian and became deeply committed to historical research.

The first Scientific Assistant Editor was A.T. Pitts who was appointed in 1919 and remained in office until his premature death in October of 1939.

B.J. Wood, who was appointed Editor in 1938, was described by Florence Messer as 'the last of the amateur editors and the first of the professionals'. He came to the editorship with unparalleled experience of the affairs of the Association, having held virtually every honorary



office save that of Secretary. Instead of taking his well-earned retirement, he chose to edit the Journal and in his own words discovered that 'what had been a half-time occupation, sufficient to keep a retired practitioner out of mischief, became a full-time specialist job'. At the outbreak of the war on 3 September 1939, the Journal office, which comprised a typewriter, a duplicate set of advertisement ledger cards and one member of staff, immediately left London and was evacuated to Bryan Wood's home near Kettering. There it

remained in its 'temporary' residence for seven years!

Production of the Journal was fraught with difficulties, which included the increasing cost of paper, engraving, insurance and taxation; together with the shortage and poor quality of paper and a serious reduction in advertising revenue. Despite these challenges, the Journal appeared regularly and on time except when a bomb fell on the printing works and interrupted the gas supplies, requiring the type metal to be melted in ladles over an open fire!

Pitts was succeeded as Scientific Assistant Editor by Martin Rushton who was serving in the Emergency

At the outbreak of the war the Journal office was evacuated to Bryan Wood's home near Kettering...

Medical Service at the Maxillo-Facial Unit which had been established at Odstock.

In 1947, Rushton was succeeded by A.E.W. Miles but remained associated with the Journal until his death. Professor Miles continued until 1951 when Ron Emslie took over.

Some time during the summer of 1961, the late Ron Emslie asked me if I would be interested in taking over from him as the Scientific Assistant Editor of the *BDJ*. At that time I was the Dental Research Fellow in the Department of Dental Medicine at Guy's but with very little experience in writing scientific papers and no experience whatsoever in editorship. The suggestion certainly interested me and when, some weeks later, Leslie Godden, the then Editor, formally invited me, I accepted with enthusiasm; thus began an association with the Journal which extended continuously for 31

years, serving three Editors. The honorarium for the job was £350 per year, a princely sum in those days, the prospects of which enabled me to buy a new car!

In 1961 the Journal office was in the BDA Headquarters at 31 Hill Street, a small but very elegant house built in Regency times. As now, the Journal appeared twice per month and all the work associated with its production was done by the Editor, his assistant Frank Tidman, Miss Messer who dealt with the advertising content, and Miss Allen, the Journal secretary. The printing was carried by Staples Ltd whose offices were in the Oxford Circus area. All were devoted to Godden who had taken over from Bryan Wood in 1953. Before he became Editor, Leslie Godden had divided his time between West End practice and the editorship of the *Dental Record*. He was not a scientist and relied heavily upon his Scientific Assistant Editor and his Editorial Committee which at that time comprised M.A. Rushton, A.E.W. Miles, A.S. Prophet, Ron

In those days there can be no doubt that the Journal was run on a 'shoe string' with as little Association money as possible being invested in it.

Emslie, John Osborne and Geoffrey Slack plus the Scientific Assistant Editor.

The Editorial Committee met about six times a year and spent most of its time discussing papers which had been submitted for publication and which had previously been sent for review to at least two members of the committee. Rarely were papers sent to external referees; whenever an outside opinion was suggested, the Editor usually replied: 'I have total confidence in my Editorial Committee and do not need external advice!'

Godden was a charming man of the highest integrity. He had a deep love of the English language and his perfect knowledge of grammar was reflected in both his speech and his writing. He was a great exponent of the colon and semi-colon and abhorred the 'split infinitive'. He could appear somewhat pompous which, perhaps, did not help very much when he was negotiating with the Council of the Association and the permanent officers for some modest additional financial support for the Journal.

In those days there can be no doubt that the Journal was run on a 'shoe string' with as little Association money as possible being invested in it. This always seemed to me to be an extraordinary situation as it was the Association's only external organ, the main vehicle for communication with the membership and the major British journal for the publication of dental scientific and clinical information. This situation was not to improve for some years.

The main duty of the Assistant Scientific Editor was the checking of galley and page proofs and on rare occasions offering an opinion concerning a manuscript submitted for publication, usually when there was disagreement between members of the Editorial Committee. As I have indicated above, my experience at this stage was very limited and any opinion I might have given would have been of limited value. However, often I found myself being blamed for the rejection of papers I had never seen! Indeed, recently I was informed that a well-known retired practitioner still daily sticks pins in a pink wax effigy of me for the non-acceptance of his paper some 40 years ago!

Proof reading was extremely important. It was necessary to identify spelling errors (there were no 'spell checks' in those days), break up long complex sentences, check tables and illustrations and ensure that the captions were adequate, and that illustrations, notably radiographs were correctly oriented. All corrections were made in red ink and it was rare, even in page proofs, for there to be a correction-free page. Proof reading the scientific pages was a weekend task, but the non-scientific pages were a Wednesday evening job. As the Journal had to be in the hands of the printers by noon on the Thursday, the corrections needed to be given to the Editor by telephone during the morning, an exercise that rarely took less than an hour!

Although proof reading is tedious and boring, it is an excellent way of keeping up to date with advancing knowledge outside one's own particular field. Furthermore, it provides invaluable insight into writing scientific papers.

Towards the end of Godden's editorship, I was invited to write the occasional 'leader' on a particular scientific issue of the day. I remember writing one on 'Dextranase' and on 'Lies, damn lies and statistics'.

Leslie Godden retired on reaching the age of 65 in 1968, and whilst on his 'retirement' holiday in his wife's native New Zealand, he was awarded the OBE. Archie Donaldson, who like Godden, gave up West End practice to take on the editorship, succeeded him.

In many ways Donaldson was like his predecessor. He loved the English language and spoke as he wrote it. Before becoming Editor, he had for many years been Curator of the museum and had an enviable reputation as a dental historian and antiquary. Indeed, he held a part-time lectureship in 'The history of dentistry' at the University of Edinburgh. Like Godden, he was a man of the highest integrity.

He came to the Journal with no editorial and very little scientific experience. He relied heavily on his staff, the Editorial Committee and his Scientific Assistant Editor. Everything he undertook was meticulously planned and painstakingly prosecuted. However, like Leslie Godden, he had little success in persuading the Council that there was a serious need

for additional funding for the future development of the Journal.

By the time Godden retired, the concept of peer-review of scientific papers and clinical articles was already firmly established; there was no difficulty in convincing the new Editor of the need for papers to be reviewed by external referees who were acknowledged authorities in the particular field. This considerably reduced the responsibilities of the Editorial Committee and undoubtedly raised the standard of articles appearing in the Journal. Very soon an unofficial panel of referees was accumulated who generously provided opinions, comments and advice to the Editor who, when appropriate, passed them on to the authors – anonymously, of course. This resulted in a considerable increase in the quality of the scientific and clinical content of the Journal and of its standing internationally. It was a move which really should have been introduced years earlier.

As the Scientific Assistant Editor, at first, my proof reading duties continued very largely as before, but in 1971 my work at Guy's had increased to such an extent that I found that I could not do the job adequately. Donaldson then invited A.G. Alexander to 'job share' with me; an arrangement which turned out to be an extremely happy and fruitful one.

Archie Donaldson reached retirement age in 1978 and like Leslie Godden was awarded a much-deserved OBE. His successor was Margaret Seward (now Dame Margaret) who was already well known for her work in support of women in dentistry.

Although, like her predecessor, Margaret Seward had very little experience in the editorial field, she was aware of the urgent needs of the Journal and was soon able to deploy her managerial skills to bring the *BDJ* out of the nineteenth century into the twentieth ready to enter the

twenty-first! Her enthusiasm, energy and vision seemed to know no bounds!

By this time I was giving serious consideration to giving up my work for the Journal, but I was so captivated with her ideas that I agreed to remain. Her first move was to persuade the Association that it had become essential to establish a proper administrative base for the Journal within 64 Wimpole Street. To achieve this the Journal required a proper staff with money to pay them and space for them to work; to her lasting credit, she acquired both!

Margaret Seward immediately set out to make the Journal more attractive and to increase its appeal to practitioners. The number of photographs that appeared was considerably increased. Furthermore, as the cost had significantly reduced, she was able to introduce the widespread use of colour on the cover and illustrations. The Journal was increased to A4 size in response to requests from libraries and to fall into line with others.

The Editor was always ready to accept invitations extended by branches and sections to visit them and to speak about the Journal. In this way, a large part of the membership of the Association became aware of the objectives of the Journal and had the opportunity to offer comment and criticism.

The Editorial Committee still continued to meet though considerably less frequently. It no longer discussed the acceptance or otherwise of papers, being much more concerned with advising on policy matters.

In 1992, Margaret Seward had been nominated to be President of the Association, and in accordance with tradition resigned as Editor. She left behind a thoroughly modern Journal with a much increased standing in the profession both nationally and internationally.

Tony Naylor

Andrew Rugg-Gunn

Andrew Rugg-Gunn was the first Assistant Scientific Editor I worked with and I found his advice and friendship just what was needed by a fledgling Editor with a practitioner background and very little scientific knowledge. It was during his time that I changed the title to Scientific Editor, removing the 'Assistant' title as I felt the role was much more than simply an assistant.

My eight year appointment as Scientific Editor of the Journal ranks as one of the most enjoyable experiences of my professional life. The reality of the daunting prospect of covering all aspects of oral science was that judgements were made on scientific principles rather than the minutiae of the specialties. Sometimes it was necessary to set down those principles – for example, in my editorial 'Scientific validity?' (Vol. 182(2)) and the accompanying guidelines in the same issue. It provoked some correspondence, but the Editor was right to ask me to do this as it assisted future authors.

Two aspects of my role gave me great pleasure: first, seeing important pieces of research through to

publication and, second, giving encouragement to less experienced researchers. I had an (unwritten) list of 'flagship' research – a small band of people producing research of worldwide significance and preferring to publish in the *BDJ*. There were about six of these topics during my tenure. First was the work by Jon Shepherd and colleagues on the removal of asymptomatic lower third molars. For me, this sensitive issue first erupted as a comment by Jon Shepherd in Vol. 174(3). This was followed by a definitive article by Mark Brickley and Jon Shepherd in Vol. 180(7), comments in Vol. 183(6) and a further article in Vol. 187(7). The second 'flagship' topic put orthodontic treatment, principally in general dental

practice, on a sounder scientific basis. This work was led by Steve Richmond and collaborators across the UK. After a report of a survey of orthodontics in GDS (Vol. 172(4)), they provided a critical assessment of standards of orthodontics in UK practices in Vol. 174(9). Significant publications followed in Vols. 178(10), 183(4 and 10) and 187(4). The third was the work by David Bartlett and colleagues investigating causes of dental erosion, particularly gastro-oesophageal reflux, and measurement of the progression of erosion (Vols. 182(5) and 184(3)). The hazards of dental amalgam was the fourth topic. Following an editorial by Mike Grace in Vol. 175(5), Barry Eley published a series of seven review articles on amalgam of world significance in Vols. 182(7) to 183(1). The fifth investigated the important area of dental attendance and the dental condition of adolescents. The research team of Nigel Pitts, Nigel Nuttall, Chris Deery and others used unique Scottish national data to clarify the complexities of this relevant issue (Vols. 176(10) and 187(2)). The last topic came late during my tenure and remains controversial but of great potential significance. This was the article by Robin Seymour and Jimmy Steele 'Is there a link between periodontal disease and coronary heart disease?' in Vol. 184(1), with accompanying commentary by Denis Kinane in the same issue.

There were other very important contributions to the world literature published in the Journal. Amongst these I would highlight articles concerned with the health of the elderly. Paula Moynihan was the first to show (Vol. 177(7)) a relationship between dental impairment and low consumption of dietary fibre. This can be linked to the detailed investigation of the oral health of the elderly by Jimmy Steele and colleagues in Vol. 180(1): both are of considerable interest to nutritionists. In the words of Jon Shepherd in a letter in Vol. 183(1), occasionally, one article changes clinical practice. He was referring to the publication by Peter Robinson and Keith



Smith of their clinical trial of surgical removal of lower third molars and lingual nerve damage (Vol. 180(12)).

The centenary of the Journal occurred in 1995 and was the subject of an editorial by Mike Grace in Vol. 179(11). After a mammoth search by Tony Naylor, described in the same issue, the 10 most significant research publications to appear in the Journal during these 100 years were reproduced and reviewed by invited experts between issues Vols. 180(3) and 182(4).

Some of my most satisfying moments were spent assisting the less experienced authors through to publication. Mike Grace had considerable experience of general dental practice and was always delighted to receive a research manuscript from outside mainstream academia. Examples of such papers are: David Reekie in Vols. 182(4) and 185(9), David Thomas in Vol. 183(7) and Christopher Avery in 186(1). This inclusive style of Mike Grace was something I admired greatly. This, together with his insistence that articles must be relevant and readable, made being part of the editorial team so enjoyable.

At the other end of the spectrum, I had my 'fifty-percenters club'. These were authors who regularly responded to only 50 per cent of the critical points put to them by referees and editors. I am sorry to say that many of these were rather senior academics who thought that they would get away with it. They were, perhaps, slow to appreciate that, contrary to their own opinion, the requests were made to improve the quality of the article and that, in the end, the Editor has the final say. Such battles were part of the 'cut and thrust' of the Scientific Editor's job. As Scientific Editor you have a chance to see reports of outstanding research, some not so good research (which will be rejected) but, above all, you see all sides of human nature. I am most grateful to Mike Grace for giving me that opportunity.

Andrew Rugg-Gunn

Phil Sloan

Phil Sloan followed Andrew Rugg-Gunn and provided a solid backbone of support (as had Andrew) and some good ideas to progress the scientific validity of the Journal. I had not realised the impact of the original lunchtime meeting I had arranged had had on him until I read his contribution to this article. Obviously it had been considerable.

My appointment as Scientific Editor began at a curious lunchtime meeting held in the board room of the University Dental Hospital of Manchester, as it was then known. There was no agenda; we were told only that Mike Grace was visiting. The sandwiches were eaten and a rather general conversation about publishing issues followed. Discussion ranged around the role of the *BDJ* and the academic obsession with impact factors. The

merits of the practice and research sections were considered. The research dean wanted to know whether papers published in the *BDJ* could contribute to a 5* rating in the Higher Education Funding Council's Research Assessment Exercise or whether it was better to publish in a 'mainstream' science journal (what could be more relevant to an assessment of clinical dentistry than a paper in the research section of the *BDJ*?) The purpose

of the meeting never really emerged. There were a few slightly awkward silent periods and I found myself talking about the peer review process, putting forward arguments in favour of Richard Smith's innovative idea of introducing an open refereeing system. It was not until the next day that I learnt that I had talked myself into being offered the post of Scientific Editor, following Andrew Rugg-Gunn, a dental academic for whom I have the greatest respect.



Andrew came down to Manchester to hand over the meticulous paper records that had been maintained by previous Scientific Editors and to provide me with advice that was to prove invaluable. The peer review process of the *BDJ* was second to none. I learned that manuscripts were sent out to two referees and arrived on the Scientific Editor's desk with the two reports and a view from Mike Grace. It was possible also to obtain a statistical view and in some instances to discuss a manuscript with the Clinical Editor. The downside of this rigorous process was delay and of course those rare instances where all involved had slightly different, or even worse, frankly contradictory views. Coping with the volume of manuscripts proved problematic: after two weeks' holiday, as many as 20 manuscripts could be waiting for an urgent response. Andrew Rugg-Gunn and Mike Grace's advice about shifting perspective from that of a peer reviewer to editorial advisor was key.

At a memorable Editorial Board meeting in December 2001, we heard that plans were advanced for introducing a new format for the *BDJ* and a change to a web-based system for manuscript submission and peer reviewing. It was fascinating to witness the development of the new format and to see a truly professional publishing organisation in action. It was only when I attended a production meeting that I really understood how each issue of the *BDJ* was put together. At the production meeting the Editor decides which articles will be published in the next issue, but much of the meeting is devoted to layout, with lively discussion between those in competition for space for advertising, news and other copy. As with every other endeavour in the business world, economic considerations play their part in the decision making process.

An enormous amount of work went into the repackaging of the new *BDJ*, even the shade of the now familiar navy blue cover and the edge marking that enables all academics to find the jobs pages within seconds of opening the pack, required careful planning, evaluation and expertise. It was during this period that the *BDJ* began to improve its impact factor. The impact factor and cited half-life rose steadily, with the result that the *BDJ* now ranks second only to *JADA* as the top

professional dental research journal in the world. Readership surveys showed that the new format was highly successful and confirmed that the *BDJ* has international appeal.

The transition to web based manuscript tracking was less smooth. It appeared that the dental world was not ready for the change and many found the electronic system challenging. Those who work in research laboratories use the web every day and it has become an indispensable tool. Indeed it is hard to imagine how international scientists operated before

electronic library resources, databases and email existed. Dentists are, of course, highly skilled computer literate people, but they are also busy clinicians. They don't work for hours online. The advantage of the paper system was that the manuscript and all accompanying documents could arrive in a single package, enabling the manuscript to be read between patients or even on the train. Reports could be hand-written and the whole thing could be dropped into the nearest post box when complete. Reflecting on what happened, perhaps the peer-reviewers had been pampered by a *BDJ* editorial team that was highly customer focused. The result of the change to a

If something is published that contradicts passionately held views, then the knives come out and the science is torn to shreds.

web-based system was a period of confusion, ending with a backlog of manuscripts. Some actually refused to use the web based system and eventually a combined paper and electronic system had to be introduced. Even today when you receive an email from the *BDJ* inviting you to peer review a manuscript, you reach a web page that is not as customer focused as it could be. You have to cut and paste part of the web address into your browser to reach the manuscript. This is not at all difficult but there is still scope for a slick web administrator to makes things easier.

The experience gained from being Scientific Editor was incredibly useful, particularly in my present post as R & D Director of a large NHS Trust. One thing I learned was that the scientific community will bite back. If something is published that contradicts passionately held views, then the knives come out and the science is torn to shreds. Sometimes the science does have its limitations, but there can be a case for publishing what may be the only evidence that we have on a subject, even if it falls short of a well designed randomised controlled trial. Many correspondents appeared not to be aware that the research section was aimed principally

at other researchers. All the evidence was there and publication in the research section did not 'endorse' the conclusion. The introduction of a commentary on each research paper in the new format went a long way to improve things. In the pages of any issue of *Evidence Based Dentistry*, one can find systematic reviews of research where well-conducted studies have led to diametrically opposing conclusions. All this research has to be published somewhere before it can find its way into a systematic review.

Other invaluable experience gained from being Scientific Editor was learning how to deal with fraud and misconduct cases, and also how to handle

personal visits from individuals who feel that they have been dealt with unfairly. Mike Grace always responded to any query with a polite and informed response, and always made himself available to discuss his decisions. This was a welcome contrast to the approach of many editors who are unwilling to talk about what appears to be an arbitrary 'editorial decision' that may fly in the face of the referees' reports.

I enjoyed my three years as Scientific Editor immensely and wish the *BDJ* every success in its newly organised structure.

Phil Sloan

Iain Chapple

When Phil Sloan stepped down because of increasing time commitments I was at a loss as to who could replace him, but the Editorial Board assured me that Iain Chapple at Birmingham was more than up to the job, if I could persuade him to add this to his many other commitments. For both my own sake as well as the *BDJ*'s I was delighted when he accepted, and have enjoyed two very productive and enjoyable years working with him. The BDA could not have had a better Scientific Editor to end the unique relationship between Editor and Scientific Editor that has served the *BDJ* so well since 1919.

To be nominated by my peers and asked to serve the *BDJ* as its Scientific Editor was a tremendous honour, and the last two years have been a great privilege. As someone with a background in exploratory biological science, both laboratory-based and clinical, my views of 'research', I now realise, were somewhat narrow in an era of increasingly diverse methodologies and approaches to answering scientific questions. Within the first three months of my post I had assessed 65 first draft publications, and by the end of my first year, 180 first draft manuscripts and numerous revisions/re-submissions had crossed my desk. I learnt very quickly about the tremendous scope and diversity of dental research and the enormity of the task faced by Mike Grace as Editor of a professional journal that serves clinicians, scientists, students, patients, industry and commerce, policy makers and the media.

It is my view that every piece of research should start with a research question, be hypothesis driven and have clear aims for the reader. Research methods should be robust, validated and appropriate and statistical analysis and the reporting of results should be clear and unbiased. Discussion should be relevant, relate to previous literature and, above all, acknowledge the limitations of the research.

One of the most difficult balances to achieve is that of objective, honest and unbiased scientific reporting, in an era where researchers and research groups rely increasingly upon industrial sponsorship to fund research. This creates a dilemma, where the sponsor



requires some clear and tangible benefit from their investment, yet the researcher needs to report failures as well as successes. It is in my view, essential that a journal such as the *BDJ* does not let sponsors influence or indeed encroach upon our publishing standards or upon the body of manuscript text, as occurs with some international journals, purely to improve journal profit margins. Unbiased reporting and integrity are essential components of a professional journal. Commercial sponsorship and interest should always be declared by the

authors of such articles, and space should be found to satisfy the needs of our industrial partners that is separate from the body of clinical and scientific text.

In an international journal like the *BDJ*, results must have 'generalisability', without being too parochial. Yet, they must also be of interest to a readership, predominantly based within the UK and within general practice, without alienating international readers or those from a more academic background. Scientific papers must deal with quantitative data, descriptive epidemiology, clinical trials, questionnaire-based research, laboratory-based research, and more recently, qualitative research. A delicate balance has to be met between accepting a paper of moderate scientific quality but major significance to the readership, and a lower impact publication of high scientific quality. All research has limitations and minor flaws somewhere within its thesis, design, results analysis or interpretation and the appropriateness of the conclusions drawn from the data. The key issue is whether the flaw is fundamentally

unacceptable, or acceptable provided the authors acknowledge the limitations of their study. After all, even the most robust research discovery needs independently validating by a different group, using different methodology or perhaps on a different population, to establish a 'body' of evidence.

Authors feel aggrieved when their hard work is rejected as 'not appropriate to our readership' or of a scientific quality that is below the current threshold for the Journal. This is understandable as thresholds vary and peer review is, by its nature, a process that involves some subjective opinion. Equally, referees also require explanations and justification when, after thoughtful,

Commerce is vital to any scientific journal and the support of our industrial partners is vital to the future of dental research, but their role and influence should be facilitative, supportive and synergistic and not a directional influence.

carefully prepared and time-consuming reviews, the editors take a different view. Sometimes this results from the perceived importance of a subject to our readership, which takes precedence over minor study flaws, and sometimes it is because two referees occasionally form opposing views and the Scientific Editor must make a decision or involve a third referee. The Scientific Editor relies heavily upon the dedication, expertise, skill and selfless provision of time and energy of a truly excellent panel of referees, but must also be prepared to read every paper in depth and form a personal opinion, drawing on all their experience, and based upon objective and unbiased scientific principles.

Dentistry is a small discipline internationally and even smaller nationally. Top drawer scientists very occasionally produce poor science, and the most inexperienced researcher can, on occasion, produce high impact science. One of my primary goals as Scientific Editor was to follow up a robust system of referencing manuscripts and reviews and to rigidly adhere to a review system that was also robust, eliminated bias and had several stages of manuscript re-examination, to ensure publishing decisions were fair and the authors treated with the respect that their genuinely well-intentioned efforts deserved.

Last year John Murray generously agreed to 'screen' all scientific submissions for appropriateness to the Journal and to eliminate manuscripts with obvious scientific flaws. His tremendous experience and work ethic enabled me to focus on manuscripts worthy of engaging the valuable time of our referees. This is stage 1 of the review process. Good manuscripts are now often

rejected because they are simply not appropriate to the *BDJ* readership and would be better served by a specialist journal. Manuscripts are then reviewed by two independent referees (stage 2) and also by the Scientific Editor. Where we feel a reviewer has been unduly harsh, alternative reviewers are sought; a sensitive process requiring intimate knowledge of the community. If reviewers disagree, either a third opinion is sought, or if I feel competent to make an overall decision on a subject, I do so. Therefore, three individuals review some manuscripts and where statistical expertise is required our Statistical Advisor, David Moles is consulted. Where authors or referees feel aggrieved, the manuscript is re-reviewed in the light of their comments and indeed, on very rare occasions, the author's opinion and offer to improve the clarity of their work is accepted and the paper published.

No system is perfect, but I hope that I have served the readership in a fair and unbiased manner and in doing so achieved the following objectives:

1. Set quality thresholds whereby, given the increasing demand for publishing in the *BDJ*, only manuscripts at the high end of scientific quality and impact are accepted.
2. Accepted, for the first time, qualitative research, given the maturation of this approach to answering scientific questions and the recent establishment of quality standards. I hope also to have gained support for this approach from our International Editorial Board and secured national expertise and wise counsel for manuscripts in this arena.
3. Reviewed the rapidly changing evidence base for questionnaire research and implemented the principles and recommendations of Donald Dilman.
4. Involved in the introduction of an Associate Scientific (Screening) Editor to protect the time and efforts of our invaluable reviewers.
5. Established a principle whereby scientific papers of high practical and clinical impact are published in the 'Practice' section of the Journal, something endorsed and supported by the Clinical Editors I have had the pleasure of working with, Ian Needleman and Valerie Clerehugh.

Scientific editing within the *BDJ* has evolved slowly and cautiously, responding to the rapidly changing evolution of, and approaches to research. It requires an intimate knowledge of the profession we serve; a strong, mutually trusting and respectful relationship between the editorial team and our esteemed panel of referees, and overall, a sensitive approach to a very emotive process. The *BDJ* is the journal of the UK dental profession, and needs to build further upon the above principles, which have taken 125 years to develop and evolve. It is vital that scientific quality and rigour remain the primary driver for publishing in the *BDJ* and we resist any

pressures commerce might bring to bear upon those principles. Commerce is vital to any scientific journal and the support of our industrial partners is vital to the future of dental research, but their role and influence should be facilitative, supportive and synergistic and not

a directional influence. Let science do the talking for itself and ensure communication lines with our busy expert reviewers and authors remain open, personal and professional.

Iain Chapple

John Murray

When I was first appointed to the post of Editor John Murray met me to 'brief' me on the job. He had filled the role of Assistant Scientific Editor following the late Frank Ashley and decided to step down when Margaret Seward retired. I found his advice, both initially and later through the years, invaluable and was delighted to invite him to return to the Journal to help Iain Chapple by filtering out the manuscripts that were unacceptable, a role he did with his usual energetic enthusiasm. In this article he remembers his long association with the *BDJ*.

I remember when my first article was accepted for publication in the *BDJ* in 1969. In those days reprints arrived in a rolled bundle. I was so impatient I ripped the pages whilst opening the outer wrapping; I had to stick them together with sellotape. But another memory sticks more firmly in my mind, the day I received a letter from the Editor of the *BDJ*, Mr J.A. Donaldson, inviting me to become a Scientific Advisor, in 1975.

At that time Scientific Advisors met every two months or so at the BDA Headquarters, with the Editor in the chair and Professor Tony Naylor, the Assistant Scientific Editor, in close attendance. The late Frank Ashley and I were younger members of the group. I was made welcome, treated extremely well, and over coffee and sandwiches, we considered the quality of the papers submitted, especially those where there was obvious disagreement in the referees' reports. Professor Bert Cohen was a stickler for the correct use of English and punctuation. He would wield a red pen on many proofs to show his displeasure of 'sloppy English' (split infinitives, in particular, were an anathema to him!)

Looking back, the atmosphere was slightly formal and 'old fashioned', but the objective was clear: to seek out the best articles, improve them through good refereeing and editorial advice, and publish as soon as possible, within the constraints of the needs of the whole Journal. We were acutely aware that the *BDJ* had many functions: it was the mouthpiece of the BDA; it welcomed and responded to readers' views through the correspondence columns; and it allocated space for news and notes, practical articles and advertising. Our mission was to enhance the scientific section of the *BDJ*.

When Mr Donaldson retired in 1978, Mrs Margaret Seward was appointed Editor. She arrived with a mandate for change. The format was altered from quarto to A4; colour, and many more photographs, were introduced as a result of the development in printing techniques. She commissioned articles,



especially on clinical subjects and developed an excellent series of *BDJ* books, but also steadfastly supported the scientific section. At that time there were some who felt that the scientific papers should be separated from the *BDJ* and published in a new British academic dental journal. But the BDA is concerned with the art and science of dentistry, and the inclusiveness of our journal, as a mouthpiece for British dentistry, was retained.

Frank Ashley succeeded Tony Naylor as Assistant Scientific Editor. As the range and geographical location of scientific advisors widened and the numbers of articles submitted increased, more work was carried out by correspondence. Frank Ashley carried a heavy load. He was responsible for advising on referees' reports and also had to check the proofs of all the scientific pages of every issue before publication.

I succeeded Frank Ashley in 1986 and continued as Assistant Editor until 1992. One of the best lessons I learnt about scientific writing, early in my career, was from my supervisor the late Professor Douglas Jackson. I handed him the first draft of a possible article, with all the necessary results tabulated correctly. A few days later he called me into his office. 'This is very good,' he said. 'I am very pleased with the way you have presented the data. When it has been re-written six or seven times it might be ready for publication.' He was of course, quite right. He niggled away at the manuscript, improving it so as to ensure that there was a clear line of thought going right through from beginning to end. That was the paper, the reprints of which I had to repair in 1969!

Margaret Seward encouraged me to sharpen articles, cut out verbiage, which might put off the general reader, and wanted authors to 'get to the point'. She relied on her networking skills to attract excellent referees and trusted their judgement, whilst at the same time keeping a close eye on the needs of 'her readers'.

The Journal has continued to evolve, since its early beginnings over 100 years ago. Some improvements,

such as the increase in the use of colour, so important in clinical dentistry, are obvious, but other developments occur incrementally and almost imperceptibly. Scientific papers are more structured today, and authors have very clear and specific guidance to follow when preparing their paper for submission, but clarity and precision remain the most important requirements of a scientific paper. In 1975 a paper I submitted, on the progression of approximal caries in primary molar teeth, using clinical and radiographic examinations, was accepted by the *BDJ*. I had corrected the proofs and was awaiting publication when I was rather surprised to receive a letter from the Editor, Mr Donaldson. He said that 'Tidman [his excellent assistant] and I have been reviewing your paper and some of your sentences jar on the ear. You have used the words "radiographically only" too frequently, so I hope you don't mind, but we have changed some of the phrases to "radiographically alone".' There will always be a place for an Editor who understands the needs of the reader, but is also sympathetic to, and supportive of, authors submitting manuscripts for consideration for publication.

Margaret Seward resigned the post of Editor in 1992, when she had been nominated for the post of President of the BDA. Frank Ashley, whose substantial contributions to the development of the *BDJ* should never be forgotten, had advised me not to retain the post of Assistant Scientific Advisor for too long, for fear of going stale. It seemed that it was the right time, with a new Editor in post, to stand down. Mike Grace was very fortunate that Andrew Rugg-Gunn agreed to become the next Scientific Editor.

I have been involved with the *BDJ*, reviewing manuscripts, for almost 30 years. Many papers submitted are too long-winded and complicated, but there is still an excitement when one finds a 'nugget' of new information, or an improved technique, that should be shared with a wider audience. The job of the Scientific Editor, together with the referees, is to unearth the nuggets and help them to shine by making the message clearer to the general dental public, not just to academics. In so doing we will continue to contribute to the scientific development of the dental profession in this country, and across the world.

John Murray CBE

Margaret Seward

And finally, a note from my predecessor, Dame Margaret Seward.

The mark of a professional organisation is the reputation of its scientific publication. Without doubt, the *BDJ* has and continues to enjoy high acclaim amongst the worldwide scientific community, which is confirmed by its frequent appearance in the numerous citation indices. This does not happen by chance. It is the reward for careful and consistent attention to detail by all involved in the production of the Journal which embraces technical as well as scientific team members. As I know from my time as Editor, the *BDJ* has been fortunate over the years to have been served by an impressive number of academics who have given willingly of their well earned leisure time to referee articles, to act as specialist advisors and to write abstracts, commentaries and guest leaders. But, also often unsung, to provide the much needed support to the Editor in the discharge of the numerous tasks that fall within their comprehensive portfolio.

I was fortunate to benefit from the wisdom and enthusiasm of Tony Naylor, Frank Ashley and John Murray who with all the scientific editors have brought great credit to the Journal and our profession. By their



efforts each issue has been assured of a quality which is known to be the envy of the dental publishing world.

A particular pleasure for me when travelling abroad as Editor was to see the pride of place given to the *BDJ* in dental schools or postgraduate libraries whether in Africa, India or Japan. It was the one English journal guaranteed to be, not only on display, but also well thumbed and read. For me it was humbling to realise the important link with the past as each editor is the custodian of the greatest scientific asset

of the BDA. It has always intrigued me to recall that the Journal is older than the Association because in 1880 the officers purchased an existing title as they were so intent to confirm the scientific aims of the BDA.

Like my distinguished predecessors I remain aware of the great privilege to serve as Editor of the leading dental scientific journal in the UK and congratulate Mike Grace and his team of scientific editors and advisors during the last 12 years for maintaining the scientific ideals of the founding fathers through the pages of the *BDJ*.

Dame Margaret Seward