

BELVER C. GRIFFITH
AND
JOHN IRVINE AND BEN R. MARTIN (AS A TEAM)
WIN THE 1997 DEREK JOHN DE SOLLA PRICE AWARD

The Editorial and Advisory Board and the Publishers of *Scientometrics* are glad to announce that the 1997 Derek John de Solla Price medal has been jointly awarded to *Belver C. Griffith* and *John Irvine & Ben R. Martin* (as a team) for their distinguished contributions to the quantitative studies of science. The awarding ceremony has taken place on June 18, 1997 in Jerusalem at the 6th International Conference on Scientometrics and Informetrics.



Professor Belver C. Griffith



Dr. John Irvine



Professor Ben R. Martin

COMMENTS ON BELVER C. GRIFFITH, RECIPIENT OF THE 1997 DEREK DE SOLLA PRICE AWARD

It is a great pleasure for me to present Belver Griffith with the Derek de Solla Price Medal. As Dean Dick Lytle of the Drexel College of Information Science and Technology put it at a reception in Belver's honor, "For those in the know, this award is long overdue." I most heartily agree with Dean Lytle, for there are today very few scholars in the field of information science and bibliometrics who have the breadth of Belver's achievements.

There is also a special resonance with the namesake of this award, Derek Price, with whom Belver enjoyed a close intellectual and personal association. Derek's work originally drew him into the statistical analysis of science, and Belver regards Derek, along with Thomas Kuhn and Robert Merton, as the seminal figures in science studies. To quote Merton on hearing of this award: "Knowing of Derek's own high regard for Belver's scientific commitment and contributions, I also know that he would have applauded this decision." In my view, if there is an heir to Derek's scientometric mantle, it is Belver.

I cannot presume to give a précis of Belver's academic or professional achievements. He admits to having three careers. His roots are in experimental psychology, where the emphasis is on hard measurements and rigorous testing. He had the good fortune to have outstanding mentors. After a number of significant contributions to cognitive psychology, he began a long collaborative relationship with Bill Garvey at the American Psychological Association. What emerged were the studies of communication among psychologists, reporting results of extensive surveys and careful measurements, in Belver's words "the natural history of the production, dissemination and use of information." These landmark studies from the 1960s are yet to be superseded. While the technology has changed radically since then, the principles driving communication in science are the same. For future analyses of scientific communication in the electronic age, the Garvey/Griffith studies will provide the model and baseline.

Establishing the metric of communication processes in science was prologue, it appears, to Belver's interest in social networks and informal communications in science. His relationship with Derek dates back to 1962. The invisible college idea was then

taking shape, and with Nick Mullins and others during this period Belver formulated his ideas on communication within social groups in science: competition/cooperation, and the importance of the scientific elite.

My association with Belver began shortly after I joined ISI in the early 1970s and started working on co-citations. He saw in that measure a means to a formal structure of science parallel to the informal social structure he had been studying. For me, it was an important collaboration, an opportunity to work with a seasoned scholar with broad interests in, as he called it, "knowledge mongering." What impressed me was that not just information storage and retrieval were under discussion, but sociology, history, and philosophy of science as well. Even today this broad view sets Belver apart from many in the information field.

In the early 1970s, with funding from the National Library of Medicine, a research team began to take shape at Drexel to work on the structure of science project, including a number of talented graduate students. During this period Derek as well as other important scholars visited Drexel, drawn by Belver's personal magnetism and hospitality, to inspire the troops and wreak intellectual havoc. As Howard White testifies, Belver had the ability to put together and motivate highly creative research teams, as well as pick strategically important research problems for them to work on.

Some of the substantive results of this work are the first clustering routine for co-citation data written by Belver's graduate student Sandra Dey, and implemented by his future wife, Caroline Adams. In addition, Belver was the first to use multidimensional scaling to map cognitive and social connections, and he in turn educated others in this technique. This research provided important components of what later became the research-front system at ISI.

Following publication of our two papers on the structure of science in *Science Studies*, the focus turned to individual specialties. Belver's scholarly output is like an iceberg: for every visible output, there are many more invisible ones. Such was the case with work on the Australia Antigen (hepatitis virus) specialty, for which enough research was done to fill a hefty monograph. Yet something was incomplete about it in Belver's mind. I later learned that for him publishing something significant was more important than simply publishing.

At about this time, David Edge came out with his critique of co-citation analysis. To be rejected by a scholar Edge's stature was a blow to me, but Belver was not discouraged, and in response wrote a terse yet elegant statement of the basic assumptions of citation analysis. With typical generosity, Belver offered to add Carl Drott's and my name to the piece. Since it was printed in an obscure newsletter, I was pleased when Gene Garfield reprinted it in *Current Contents*.¹

The question of how scientific knowledge "ages" held Belver's fascination, and reveals his uniquely original way of approaching a problem which is highly analytical and at the same time intuitive, a combination which some find difficult to follow. With B.C. Brookes he saw aging as a process in which ideas or literature seemingly wear out or become less useful, reflecting also the growth rate and immediacy of scientific knowledge.

The co-citation measure was originally conceived as a document relationship, but in the 1980s Howard White and later Kate McCain were interested in developing new analytical capabilities that could exploit online databases. Belver teamed up with Howard to extend the idea of co-citation to relate authors, as they said, taking the *oeuvre* of an author as the unit analysis. Thus the author co-citation map was born, and continues to be an important tool for the study of scholarly disciplines.

In this period Belver was selected to compile a *Key Papers in Information Science* book, containing White's celebrated co-cited author map of information science. In 1982 Belver received the ASIS Best Teacher award, recognizing his role in training many prominent information science scholars and administrators. He acknowledged an unorthodox style of teaching in which there could be at times long silences as he thought through a difficult problem, elevating the pregnant pause to an art form.

Belver enjoyed frequent visits to Europe – the UK, the Netherlands, Scandinavia, Russia, and especially France – as a lecturer, consultant, or visiting scholar, or simply *bon vivant*. He particularly enjoyed encounters with the likes of K.-E. Tranoy and Kees LePair, and numerous Russian scholars.

One of Belver's most provocative papers came from one of these European junkets, namely, "Science literature: How faulty a mirror of science?" when he came into contact with number of philosophers and historians of science.² In it he challenges philosophers to take the findings of bibliometrics seriously. Looking back I wish we had had the time to follow up on some of his insights: the great winnowing of information, the process of appearance and disappearance of documents at the specialty level, and the information equivalent of critical experiments in science.

Belver has been a frequent participant in sociology of science discussions over the years, and observed with dismay its straying from the Mertonian fold into the free-for-all of socially constructed reality. In pointing out the absurdity of socially determined scientific truth,³ Belver expressed a deeply felt frustration shared by many social scientists who are now viewed as debunkers of science rather than students of its remarkable progress and social impact.

Yet he does not blindly embrace new technologies. Asked recently to comment on the future of information science, in which we all seem to be caught up in a mad dash for the latest technology, Belver made a characteristic comment: "Well, I'm a seasoned expert in dubiety, I guess, to put it in a nutshell, remember that technology wonks said that the Titanic was unsinkable." These words should be inscribed on every Web browser.

Belver has always represented for me the essence of scholarship: learned, incisive, witty, urbane, occasionally caustic, but more often generous and encouraging. He is a scholar of the old school, a throwback to a more contemplative age, who appreciates and strives for original thought, values substance over form, and is quick to point out the excesses of technical or intellectual fads. Another side of Belver that few may be aware of is his generosity and assistance to foreign scholars, particularly those from the former Soviet Union. He has opened his door to many, and made them part of his extended family.

So we salute this exceptional gentleman, scholar, and friend, Belver Griffith.

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I would like to thank Howard *White* and Kate *McCain* for their comments and contributions.

References

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