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All Our Dreams Are Sold

The notion of conflict of interest is widely used but may entail different meanings. Margolis [1] distinguishes between conflicting interests and conflicts of interest. The former occur in any situation where competing considerations are presumed to be legitimate. Conflicts of interest, on the other hand, are characterized by an individual occupying dual roles which should not be performed simultaneously. Because of the potential for abuse, performing both roles at the same time is considered to be inappropriate. Which roles? For instance, being a researcher and holding a financial interest in an area related to the research one is involved. Krinsky et al. [2] performed a landmark study on 789 articles written by authors from Massachusetts Universities publishing in leading scientific journals in 1992. In 1 out of 3 cases, at least one author had a vested interest in research. Krinsky et al. took a very conservative stand as to what constitutes a financial conflict of interest: owing a patent directly related to the published work; being a major stockholder or executive in a company with commercial interests tied to the research; or serving on the board of directors of such a company. The percentage of issues of conflict of interest would have greatly increased if consultancies and honoraria had been taken into account. The study clearly shows the extent of corporate presence in scientific publishing. It does not necessarily mean that the scientific pond is irremediably polluted and we can no longer trust the studies we read. What worries us is the tendency of a part of the scientific community to downplay its important results as exemplified by the response of *Nature* to them [2], which is likely to become a source of considerable embarrassment for the journal. We invited Krinsky et al. [2] to publish their findings in our journal to give them the opportunity to disseminate data and ideas

through the databases this journal is connected with. This opportunity had not been offered previously.

The tendency to downplay and deny the results of the study followed another important investigation that appeared in 1992 [3]. Wilkes et al. [3] assessed the accuracy of scientific data presented in pharmaceutical advertisements of 10 leading medical journals. Each full-page pharmaceutical advertisement was sent to 3 reviewers: 2 physicians in the relevant clinical area and 1 academic clinical pharmacist. In 30% of cases, 2 or more reviewers disagreed with the advertisers' claim that the drug was the 'drug of choice'. In 44% of cases reviewers felt that the advertisement would lead to improper prescribing if a physician had no information about the drug other than that contained in the advertisements. The potential adverse consequences of misleading advertisements are obvious: increased health care costs when physicians have been persuaded to prescribe expensive new drugs over equally effective lower-cost drugs or nonpharmaceutical treatments (e.g., psychotherapy), needless harm or even death because physicians have been persuaded to prescribe products for uses for which they have not been adequately tested, etc. [4]. But what are the consequences of conflict of interest? Zalewski [5] offers an impressive list of examples where the issue of a conflict of interest was associated with important scientific and clinical issues. At times a conflict of interest may undermine the credibility of scientific data, such as in the scandal over a study on a heart attack medication (TPA) published in the *Journal of the American Medical Association*, when a reporter from *Newsday* revealed that at least 13 researchers were long-term stockholders of the company manufacturing the drug [5]. The issue of a conflict of interest may also be raised when assessing the potential clinical impact of

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research findings, such as in an editorial in the *New England Journal of Medicine* minimizing the potential lethal side effects (which the test of time then confirmed) of dexfenfluramine by 2 scientists who had consulting ties to companies producing it [5]. Conflicts of interest may also affect the peer review process [6], including book reviews [7]. Zalewski [5] reports on the controversies upon the editorial decisions of *Arthritis and Rheumatism* in 1994, rejecting several submissions claiming a link between silicone breast implants and autoimmune diseases. Finally there may be considerable pharmaceutical pressure in not publishing, or modifying the presentation of, results of clinical trials, as in the case of calcium channel blockers compared to a diuretic in the *Journal of the American Medical Association* [5]. One wonders how many negative trials have not been published as a result of pressure or obstructionism exerted by drug firms upon authors or conflicts of interest in the editorial process of manuscripts.

The problem then is to ascertain whether specific episodes that emerge are the unavoidable drawbacks of a scientific system that functions in a substantially independent way or are simply the tip of the iceberg. What iceberg? Corporate interests which result in self-selecting academic oligarchies that influence clinical and scientific information. There are many ways whereby such an influence may occur. Journals' supplements to support the new release of a drug are a common practice; the fact that their articles are rarely peer-reviewed and of lower scientific standard than those that are published in the regular issues of the journals [8] and that authors often receive a fee for them is not always appreciated and may mislead readers. Apparently, it is also possible to buy editorials [9], and placing misleading advertisements seems to be the rule [3]. What type of guarantee does the reader have that such practice does not affect the regular part of the journals? However, the most powerful way corporate-driven academic oligarchies have to display their power and influence is through meetings and symposia, particularly in professional societies meetings. Elsewhere [10], I have described the 'prodigal experts' who characterize such practice. The fate of the most important trial on the psychotherapy of panic disorder – the London-Toronto Study [11], whose findings were anticipated by this journal [12] – is very indicative of the degree of retaliation that may be provided to outliers. In this randomized trial, 154 patients had 8 weeks of: alprazolam and exposure (combined treatment); or alprazolam and relaxation (a psychological placebo); or placebo and exposure; or placebo and relaxation (double placebo). Both alprazolam and

exposure were effective, but exposure had twice the effects size of alprazolam. During taper and follow-up gains after alprazolam were lost, while gains after exposure were maintained. Combining alprazolam with exposure marginally enhanced gains during treatment, but impaired improvement thereafter [11]. This study, despite the excellent methodology and the important findings, was put under an unprecedented boycott in psychiatry, particularly in meetings. The authors commented:

One has to wonder what the response would have been had the London/Toronto results been the opposite of what we found, that is, had alprazolam turned out to be at least twice as effective as behaviour therapy from the end of treatment onwards. Would so many errors have been made, so many 'ifs' and 'but' been raised? It seems unlikely. Such results would have been blazoned in international and APA conferences. Every psychiatrist would have received glossy mailings with multi-coloured graphs showing the superiority of drug over behaviour therapy [13, p. 793].

The danger then becomes obvious. As Krinsky et al. [2] remarked, the scientific community is draining itself of a reservoir of disinterested experts who can be called upon to advise government policy makers on the safety and efficacy of treatments, on the hazards of chemicals, and on the safety of technology. And these experts may find increasing difficulties in getting support from research grant agencies and in obtaining appropriate visibility at meetings and journals.

At this point, however, an important question arises: what can we do to support independent thinking and to loosen ties that bind? Krinsky et al. [2] outlined the importance of disclosure policies. Such policies are now endorsed by an increasing number of journals, including *Psychotherapy and Psychosomatics*. Further, disclosure of conflict of interest is now requested at several association meetings, mainly in North America. Unfortunately, however, such disclosure has not become the rule for European journals and meetings. One has to wonder, for instance, how long we should wait before associations such as the European College of Neuropsychopharmacology or the Association of European Psychiatrists endorse the conflict of interest policies of their American equivalents. Disclosure is an essential step for dealing with conflict of interest contamination in science. But it is not sufficient. In response to the study by Wilkes et al. [3] on misleading advertisements, Fletcher and Fletcher [14] suggested the creation of an independent review body. It would be extremely helpful to have an international review body for assessing the issues concerned with conflict of interest in the various medical disciplines, which the journals might refer to. It would also be very helpful if

universities or granting agencies developed specific policies for integrity in science, as the Harvard University Medical School did in 1994. However, as Fletcher and Fletcher [14] remarked, 'readers too have a role and always will. They must be critical, whether it be of advertisements or of research, review, and opinion articles. They can expect others, especially the journals, to do their best to assure quality and to tell readers how they do it. But no quality assurance effort is perfect, and critical readers are the last line of defense against misinformation of any kind' [14, p. 952]. In the same vein, members attending a meeting of their association have the right to be able to rate its quality and the influence of the pharmaceutical industry with appropriate evaluation forms and

to manifest their dissent (electronic mail is a powerful instrument for it). This, however, becomes difficult if an individual participating in the meeting has been supported by a drug firm, an increasingly common phenomenon that seems to indicate the success of the meeting. An additional source of resistance may be for researchers to be more selective in accepting invitations. I have already emphasized how a character from a tale by Herman Melville (Bartleby) may become a symbol of such resistance [15]. Next time we are invited to a meeting (all expenses paid), let's think of Bartleby for a second. He would kindly reply 'I would prefer not to' and continue his work. But may be all this is just a dream. And all our dreams are sold.

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