

Dealing with conflicts of interests: Some suggestions

Balaram must be commended for his interesting editorial (*Curr. Sci.*, 1999, 77, 1381–1382) on the extremely important topic of ‘Conflicts of interests’ (COIs) arising from ‘academic consultants’ in industry–academia interactions. The aim here is to supplement his editorial and to offer some suggestions for dealing with COIs.

A COI situation arises when an individual holds two positions *P1* and *P2*, the first position *P1* being the main one (for which, for instance, the individual receives a salary) and a second position *P2* that is held concurrently. In this situation, there is the possibility that the pursuit of the interests of position *P2* conflicts with the interests of the primary position *P1*. The opposite is also possible, when the pursuit of *P1* conflicts with *P2*: for example, the conduct of pure academic research may lead to results/conclusions that diminish the academic’s marketability as a consultant.

The obvious example of *P2* is when the individual derives personal assets and/or income. In this case, a conflict of interest arises when position *P1* in an institution is used to advance *P2* directly through an increase of personal assets and/or income – this is straightforward corruption.

Insider trading is a classic example of this type of COI, and is very much in the news nowadays with US companies like Enron, WorldCom, etc. It involves trading by officers, directors, major stockholders or others who hold private inside information, allowing them to benefit from buying or selling stock. There was also the case of the investment arm of Merrill Lynch advising their clients to buy stock, while their research department was telling the banking arm to stay away from the particular stock.

The increase of personal assets and/or income may also take place indirectly through the provision of a ‘service’. For example, doctors may own diagnostic facilities (or a pharmacy) and recommend patients have diagnostic tests in their facilities (or buy medicines from their pharmacy). In this case, a doubt arises as to whether the doctor is recommending the diagnostic test (or medicine) in the interest of the patient or to promote profits in the facility.

Another example of *P2* is when the individual holding a position *P1* is a

relative (for instance parent or sibling or uncle/aunt or relative by marriage) of an employee or beneficiary of the same institution. In this case, a COI arises when position *P1* is used to take/implement decisions that benefit the related employee or beneficiary. Despite the theoretical possibility of a COI, in practice, there may be a congruence of interests, a win–win situation, when the institution’s interests are advanced along with the interests of the related employee or beneficiary.

Yet another example is of an individual holding, in addition to the position *P1* in one institution, a position *P2* in another institution. In this case, a COI may arise if there is a conflict in the objectives of the two institutions and the advancement of one undermines the other. For example, there could be a COI if the head of a government scientific department is an office-bearer in a scientific academy established ‘to promote the progress . . . of science . . .’. In this case, the advancement of the objectives of the department in particular, and the government in general, may conflict with the promotion of science and the advancement of the objectives of the academy. Such COIs are sought to be avoided in some countries by office-bearers of scientific academies not being allowed to hold government posts.

A special case of the above category is when the position *P2* in the other institution is not a ‘permanent’ job, but only a temporary position as a consultant or the recipient of a sponsored project. In such cases, the question arises whether the person is faithful to the objectives of his/her primary position *P1* or whether he/she is serving the interests of the sponsor of the second position *P2*, i.e. the consultancy or project.

A glaring example of this type of COI was revealed in the recent news item: ‘IITs in jute versus plastic sack game’ [*The Statesman*, Kolkata, 27 June 2002, p. 1]. Apparently, IIT Kharagpur came out with a report stating that jute was superior to plastic as a packaging medium, but an IIT Delhi report concluded just the opposite. Such contrary conclusions would be part of the healthy dialectics of arriving at the truth, but for the perturbing and alarming fact that the IIT Kharagpur project was commissioned by the Jute Manufacturers Development Council

and the IIT Delhi project, by the Indian Centre for Plastics in the Environment. Here, in the COI between *P1*, the academic’s commitment to truth, and *P2*, the service of the sponsor, there is a suspicion that policy recommendations have been ‘bought’.

Perhaps a more subtle COI is the example of an individual in position *P1* being involved in decision-making concerning a second institution in which the individual will eventually play an important role *P2*. For example, the head of an institution may take decisions regarding the establishment and/or growth of a new institution that he/she will head after retirement. Thus, there can be COIs between the position *P1* that the person holds and the interests of the institution in which the same individual will occupy position *P2* after retirement. Such situations may foster behaviour that is questionable when position *P1* is used to advance the interests of position *P2*. For example, there are cases of bureaucrats retiring and joining firms with which they have been dealing during their service. To avoid such conflicts, many countries have rules against individuals taking up post-retirement positions in institutions/countries regarding which they make decisions during their tenure in the first institution. For example, defence personnel are not permitted to join after retirement, defence equipment suppliers with whom they have been interacting during their tenure.

Thus, a COI is like a positive spill-over/externality that accrues to an individual indirectly through a second job, a relative, over time, etc. Or that accrues to someone, such as a relative, whose well-being and/or advancement directly enters the ‘objective function’ of the decision maker.

Two general observations must be made here. First, COIs are not merely a feature of the post-liberalization phase of Indian science, as implied by Balaram. They have persisted largely unchecked and unquestioned for several decades not only in science, but also in other areas such as government, military, law, medicine, etc. Second, the Indian scene has invariably been singularly blind to such COI situations. And the most honest individuals sometimes proceed brazenly in COI situations, as if there is no problem at all.

Since these COI situations emerge frequently, the question arises as to what safeguards can be put in place. One tempting approach that is followed widely is to formulate rules that are intended to prevent the COI situations. For example, relatives are debarred from being employed in the same institution. This approach can go as far as not hiring both husband and wife in the same institution. But the cure can be worse than the disease. Will not the institution suffer if an outstanding and meritorious relative is denied employment? What about the fundamental rights of the relative who is denied employment in an institution for no fault of his/her, except that he/she is a relative? Where does one stop – relative? or relative's spouse? or relative's spouse's relative? Besides, rules beget rule-breaking.

It is submitted here that COI situations are inevitable and unavoidable, and that it is not the COI that is the problem, but the damage from COI situations. Hence, instead of trying to prevent COI with rules of increasing subtlety and complexity, it would be more effective to try to minimize, if not prevent, damage arising from these COI situations.

This prevention/minimization can be achieved to a large extent by insisting on *full prior disclosure* of a COI situation (perhaps in writing) to peers and/or a higher authority (La Rocco, pers. commun.). Though there is a distinction between an actual COI and one that is perceived to be a COI situation, it may be advisable to insist on full prior disclosure of both actual and perceived COIs. However, this is only a necessary safeguard; it is not sufficient.

In addition, it is essential that decisions involving a COI are not taken by the very individual(s) with the COI, but by an *independent higher authority*.

The basis of the above suggestions is that most of the damage from COI situations originates from the fact that there was not full prior disclosure of the COI and/or that the harmful decisions were taken by the very person with a conflict of interests, rather than by a higher authority. And both the full prior disclosure of the COI and the decision by the higher authority can be encouraged before the decision and verified after the decision.

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Indian science slows down – II

Many years ago, I argued that Indian science was showing signs of slowing down¹. This was based on macro-level scientometric indicators for the eighties. From the first half (1980–1984) to the second half (1985–1989) of the decade, India's total contribution to world publication output (as measured by ISI's SCI database) dropped by 17.8%, while the world output increased by 9.7%.

Arunachalam² now offers a more detailed study covering two decades (1980–2000). This recent analysis shows the dramatic situation where Chinese science (from 924 papers in 1980 to 22,061 papers in 2000, i.e. rising by a factor of 23) and South Korean science (from 175 papers

in 1980 to 12,013 papers in 2000, i.e. rising by a factor of 68) have been rocketing to great heights. All this while Indian science (from 14,983 papers in 1980 to 12,127 papers in 2000) has actually been dipping down.

These are simple measures based on quantity alone. My fear is that if a quality evaluation is done, India's rank of 15 in 2000 would drop to something very low. Earlier, in 1995, I had cited Braun *et al.*³ to show that such a quality measure based on citation impact indicated that although India had ranked ten among 173 countries, when the ranking was done using percentage share in the world publication output in 1985–1989, its rank

plummeted to 70 when ranking was done using the mean observed citation rate as a percentage of the world average.

1. Prathap, G., *Curr. Sci.*, 1995, **68**, 983–984.
2. Arunachalam, S., *Curr. Sci.*, 2002, **83**, 107–108.
3. Braun, T., Glanzel, W., Maczelka, H. and Schubert, A., *Scientometrics*, 1994, **29**, 299–334; **31**, 3–30.

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Palaeontology needs immediate attention

Mukund Sharma (*Curr. Sci.*, 2002, **82**, 913–917) has highlighted the decline of interest in palaeontology, which is an interdisciplinary science requiring the attention of biologists and geologists. Since few workers collaborate in this area in India, the work fails to achieve international standards of research.

India has rich deposits of fossils and if serious workers join palaeontological research, they can obtain valuable information for evolutionary biology, palaeo-environment, stratigraphy, hydrocarbon sources, etc.

As our country lacks the expertise in identifying various groups of fossils for example, benthonic marine algae, we have

to approach European and other American workers for taxonomic and other problems.

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