

Professors and the Management of Unavoidable Conflicts of Interest: Don't Always Need the Heavy Artillery of Policy

ARTICLE (RÉVISION PAR LES PAIRS / PEER-REVIEWED)
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Résumé

Les conflits d'intérêts (CI) dans le contexte universitaire reçoivent une attention croissante, mais l'accent a été en grande partie sur les conflits d'intérêts financiers problématiques résultants des relations universitéindustrie, qui doivent clairement être évités. Le résultat, malheureusement, est une perception péjorative. En effet, ceux-ci sont percus comme étant de la fraude et donc un problème d'inconduite académique. Dans cet article, l'objectif est de montrer que même si certains conflits d'intérêts financiers et non financiers sont particulièrement problématiques et devraient donc être évités, beaucoup sont omniprésents et sont en fait la norme dans le milieu universitaire malgré qu'ils soient encore largement ignorés et incompris. Grâce à une réflexion sur ma propre expérience en tant que professeur d'université, je décris une diversité de conflits d'intérêts financiers, non financiers et institutionnels communs de degrés de risque divers, qui se posent dans les activités quotidiennes d'un professeur, pour ensuite examiner comment ces CI peuvent et doivent être gérés dans la pratique. Il est essentiel de se préoccuper de toute la gamme de conflits d'intérêts et de réfléchir à des politiques, des procédures ou des lignes directrices appropriées afin d'interdire certains conflits d'intérêts et atténuer les risques des autres. Cependant, ces mécanismes «durs» ne sont qu'une partie de la solution. Ce document met l'accent sur l'élucidation de différents mécanismes «doux» - comme l'éducation, la conscience de soi, l'humilité et le dialogue (avec les collègues, étudiants, personnels) - qui peuvent habiliter les professeurs à gérer ces conflits d'intérêts, qui ne peuvent être empêchés ni évités.

Mots clés

professeurs d'université, étudiants, les conflits d'intérêt financiers, non financiers, la gestion

Abstract

Conflicts of interest (COI) in the university context are receiving growing attention, but the focus has been largely on problematic financial COI arising from university-industry relations, which clearly need to be avoided. The result, unfortunately, is a pejorative perception of COI as being equivalent to fraud and thus an issue of academic misconduct. In this paper, the aim is to show that while some financial and non-financial COI are particularly problematic and so should be avoided, many are pervasive and actually the norm in academia even if they are still largely ignored and misunderstood. Through a reflection on my own experiences as a university professor, I describe a diversity of common financial, non-financial and institutional COI of varying degrees of risk, that arise in the day-to-day activities of a professor, in order to then consider how these COI can and should be managed in practice. It is essential to attend to the full range of COI and to think about appropriate policies, procedures, or guidelines to prohibit some COI and mitigate the risks of others; but these "hard" mechanisms are only part of the solution. This paper will focus on elucidating the various "soft" mechanisms - such as education, self-awareness, humility, and dialogue (with colleagues, students, staff) - that can empower professors to manage those COI that cannot be prevented or avoided.

Keywords

university professors, students, financial, non-financial, conflicts of interest, management

ISSN 1923-2799 1 / 1 / 18



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Conflit d'intérêts

Bryn Williams-Jones est l'éditeur en chef de la revue. Les éditeurs Charles Marsan et Charles Dupras sont membres du <u>Groupe de recherche sur les conflits d'intérêts</u> de Williams-Jones; Dupras et Williams-Jones ont publié ensemble, et le doctorat de Marsan est supervisé par Williams-Jones.

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Conflicts of Interest

Bryn Williams-Jones is Editor-in-chief of the journal. The editors Charles Dupras and Charles Marsan are members of Williams-Jones' Conflict of Interest Research Group; Dupras and Williams-Jones have published together, and Marsan's PhD is supervised by Williams-Jones.

Introduction

The term 'Professor' does not denote a formal profession – as would be the case for doctors, lawyers, nurses or engineers, for example – so there are no professional codes of ethics as such for university professors (even if there may be codes for university staff in general) to guide their behaviour and make them publicly and legally accountable should they breach the norms of their profession. While some professors are also members of formal professions and thus have professional codes of ethics. for the most part professors have to look for ethical guidance in the general professional or institutional norms of academic integrity (honesty, accuracy, fairness, collegiality, etc.) that they learned during their graduate studies, and through trial and error as they became integrated into their respective academic institutions. Yet, views about "the role of the academy" in society and that of professors are increasingly contested, especially in a context where professors are more than ever encouraged to develop and transfer their knowledge or do research that can be translated into commercializable products [1,2]. In the Canadian context, there are a diversity of relevant policies and guidelines that provide a normative framework for professors - e.g., institutional policies on academic integrity/misconduct [3] and conflicts of interest [4], and national guidelines on research ethics [5] and academic integrity [6] - but this guidance may be incomplete, insufficient, hard to access, and sometimes even contradictory. And this is particular the case for conflicts of interest (COI).

ISSN 1923-2799 2 / 18



In discussions about COI and university professors, we generally think of the issue as being: 1) a problem of academic misconduct, and 2) something that involves financial interests associated with biomedical or applied sciences research. That is, we are mostly sensitive to situations involving the clinician-researcher working on a clinical drug trial sponsored by a pharmaceutical company who is paid for each patient recruited onto the study [7]; or the professor who develops a new technology, launches a start-up company and then devotes more time to growing the company at the expense of other professorial responsibilities [8]; or the Dean who negotiates a large corporate donation to a research centre in their Faculty, with the implicit expectation that influence will be brought to bear to "encourage" the hiring of certain professors and not others [9,10]. Such high profile cases have lead most universities in North America to adopt strict COI policies and procedures to limit the negative consequences of such major financial (and some non-financial) interests on academic behaviour [11]. The problem, however, is that these measures give the impression that most if not all problematic COI are financial, and that they are the result of corruption and misconduct by "a few bad apples" [12]. Conflict of interest is thus considered bad by definition, and so should always be avoided; i.e., the best approach is through the implementation and respect of "zero tolerance" policies and procedures. But this is simply not the case.

A COI, in its broad sense, can be defined as "a situation in which a person has a private or personal interest sufficient to appear to influence the objective exercise of his or her official duties as, say, a public official, an employee, or a professional" [13, p.68]. These factors include not only financial interests, but also the full range of personal factors that can affect judgment or objectivity (e.g., personal pride, prestige, competitiveness) [14]. In the context of university research, a COI can arise with "any factor that might tend to undermine a competent researcher's ability to make scientifically reliable judgments concerning research strategy, evidence or conclusions" [15, p.52]. Further, a determination of whether there is a COI should not be seen as a black or white factual – "yes there is, no there is not" – decision. Not only would such a determination be difficult, and likely very subjective, it would also set the threshold for determining COI very high and so make the concept hard to operationalise.

Following Resnik [16], a more useful definition of COI would focus on 1) determining the risk or probability of there being a COI given the interests at stake, and 2) distinguishing between those COI that are real (actual) or apparent. A professor, then, has a real COI "if and only if he or she has personal, financial, professional, or political interests that have a significant chance of compromising the judgment of the average [professor] in the conduct of research [or other professional activities]" [16, p.111], which is distinct from an apparent COI, which would be the case "if and only if he or she has personal, financial, professional, or political interests that appear to the average outside observer to have a significant chance of compromising the judgment of the average [professor] in the conduct of research [or other professional activities]" [16, p.112]. The most obvious COI occur in situations where professors have financial or personal interests that are likely to influence the objective exercise of their official duties, either as contributors to the shared body of knowledge or as educators [11]. Of particular concern are those COI resulting from the private funding of research, whether this be in the form of research contracts, external consulting activities, or participation in joint-ventures [17-19].

Despite the fact that COI can be defined as a "potential for alteration" of the professor's judgment in particular situations, they are not inherently unethical, nor something that should be considered synonymous with academic misconduct, even if they do sometimes lead to unethical behaviour [12]. The institutional context of the university makes many COI likely, even inevitable, and they may be unintentional and unconscious. In this paper, I explore a diversity of largely ignored COI – which I have grouped into *financial*, *non-financial* and *institutional* COI – that arise in the normal daily activities of a university professor – i.e., myself. While some COI will be sufficiently problematic (i.e.,

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significant risk of harm to students, colleagues, individual or institutional reputations) to necessitate changes to institutional structures (e.g., implementation of policies restricting certain interests), I will reflect specifically on how those COI that are often unavoidable can and should be managed, and generally without recourse to the "heavy artillery" of COI policies.

Financial Interests

A professor in the Bioethics Programme of the Department of Social and Preventive Medicine at the Université de Montréal, my research focuses on issues in health innovation, professional ethics, scientific integrity and the management of conflicts of interest. As such, I will never receive patient recruitment fees for a clinical trial or launch a new technology spin-off company. Nonetheless, my research expertise has led me to be solicited for and engage in paid extramural activities. For example, I have done occasional paid consulting contracts for government agencies (e.g., Genome Canada and Health Canada), have received modest honoraria for sitting on expert advisory committees (e.g., Genome Quebec), and also received honoraria and had my travel expenses paid (with very nice hotels) to give invited presentations at conferences or workshops in exotic locations such as China, South Korea and Red Deer Alberta! The amounts of money involved – ranging from a few hundred dollars to a few thousand – are still very welcome, as too is the opportunity to travel internationally. Clearly these incentives were a small but non-negligible interest that weighed in my evaluation of whether or not to engage in the different activities. This raises a challenging issue, in my mind, namely conflict of commitment, "the umbrella term for issues centering on the allocation of time and energy to fulfill three primary academic roles: teaching, research, and public service" [20, p.360].

As many an economist or business person would agree, "time is money". As a busy university professor my "free time" is rather limited, and so for me this time is worth a substantial but completely arbitrary amount of money. I have only one or two days free per 7 day week where I can get to my own research and writing, the rest being taken up by teaching, supervision or administrative responsibilities; so the financial or other incentives required for me to part with my free time are thus relatively high. Why would I want to spend that time working for someone else? It is not as if I need the money, given that I have a good salary and benefits. But if the interest of a contract or paid trip is non-negligible and also aligns with my research and publication interests and activities, then it becomes an opportunity worth considering.

The standard mechanisms proposed for dealing with these types of financial COI include:

- 1) Financial thresholds, such as the US National Institutes of Health (NIH) policy requiring federally funded researchers to disclose contracts or fees of more than \$5,000, although this does not mean that they will be prohibited [21]. But such disclosure thresholds have obvious problems because even \$1,500 could be a potentially problematic interest for some professors at some point in time (e.g., a junior professor with a lower salary and substantial debts) and so warrant disclosure, whereas \$10,000 for a wealthy senior professor may not be problematic for that individual...while a \$100 bottle of wine to a connoisseur could be problematic regardless of their salary! Does the disclosure of only some financial interests necessarily mean that the COI has been managed? Cleary disclosure can only be the first step in a management process. But how (what criterion) is a third party, e.g., my Head of Department, to decide whether my receiving a \$1,500 honorarium for an invited presentation constituted a problematic COI, and if so, determine an appropriate management strategy?
- 2) *Prohibitions*, against "free pens" or paid travel/speaking engagements from the pharmaceutical industry, because they are effective means of generating unconscious positive influence [22,23]. But why focus just on Big Pharma, even if their marketing and influence have been notably problematic in medicine? Surely other industries or for-profit/not-for-profit

ISSN 1923-2799 4 / 18



organisations that give away free pens (government agencies, professional organisations) or who pay for travel are trying to influence certain behaviour or create positive feeling on the part of professors? Would the free pen, travel to the capital city and a nice dinner be acceptable when coming from a federal funding agency (but not industry?) for sitting on a volunteer scholarship review committee? Clearly these "gifts" are part of the funder's publicity campaign, aimed at both recognising my participation in an activity that demands a great deal of time and work, and also creating a positive influence, i.e., to entice me to continue participating in such volunteer academic activities.

3) Disclosure, such as mandatory annual declarations or posting on institutional websites of faculty COI to promote transparency [24]. Again, we have the problem of deciding on what types of financial COI to declare (financial threshold), but also how and in what form they should be presented (e.g., internal to the institution or public). What if people do not declare or even do not know that they are or might be in a COI that should be declared? And just because the interest is disclosed does not mean that its influence has been eliminated and that the COI is managed [25-27].

Thinking in terms of influence, "but for" the financial incentive, there are many activities I would not have taken up; but does that put me in a problematic conflict of commitment that then also affected my professional judgment or objectivity, and so become a COI? Many universities have policies or practices (often not formally codified) that permit some level of outside activities (e.g., consulting) on the part of professors. This may be an implicit recognition that professors are actually underpaid relative to their education (e.g., when compared to the private sector or civil service), or simply an acknowledgement that as they likely work much more than 40 hours/week (more like 60-80 hours), professors have earned some flexibility in how they manage their time. But this very flexibility can become problematic if external financial incentives led me to spend more than the 1 day/week "do what you want" consulting rule common in many universities and so neglect my other academic responsibilities (a conflict of commitment), and/or prioritise the interests of those for whom I am consulting over my responsibilities as a professor (a COI).

More diffuse is the general pressure on professors to perform in order to progress their career and obtain higher salaries, even when there are no financial performance bonuses. Recognising that "what really counts" for promotion is grants and publications, there is every interest in spending one's time on research, publications and grant writing, to the detriment of teaching, supervision or collegiality (participation on various departmental or faculty committees). Here, then, the financial interest is in obtaining a better salary and more grant funds, and the conflict is that this interest skews behaviour towards a subset of a professor's academic responsibilities (and judgment about which are important) at the expense of others (e.g., students' interests) [20,28].

My own experience with the management of these financial interests has made it clear that formal annual disclosure policies that require filling in a form are a very limited part of the solution, especially when there is no subsequent plan for managing the situation. Instead, what has helped me to address these COI has been self-awareness of my own interests and reflection about how these interests can conflict with my other responsibilities. For example, in accepting paid travel to an interesting destination, or a consulting contract to perform a particular research project, I ask myself the following questions: Does this activity align with my current research interests? Is it going to distract me from my other responsibilities? Do I have time? How can it benefit my students or colleagues (e.g., funding for students, network)? And when uncertain of the answer to one of these questions, I consult my colleagues. This self-questioning necessitates a significant degree of reflexivity – even brutal self-honesty – and the humility to share one's concerns and seek advice from colleagues in order to see whether a particular COI is problematic, and if so, determine how it can be best managed. It also

ISSN 1923-2799 5 / 18



requires recognising that some interests are especially problematic, may be hard to identify through reflexivity (its very hard to admit, as a professor, that one may be biased!), and so should be avoided or even prohibited.

Non-Financial Interests

From my perspective, the COI that I find the most challenging to manage in practice – and thus the most intellectually interesting to reflect upon – are those that are non-financial and have to do with human interactions and relationships. As a university professor, most of my time is spent engaging with various people in diverse contexts (e.g., students, other professors, administrators, support staff), and as such I am regularly implicated in a diversity of COI that are more or less problematic. In this section, I will focus on three types of relationship: 1) professor-student, 2) professor-professor, and 3) professor-institution.

1) Professor-Student Relationship

My teaching is all done in the context of a graduate programme, so it is often the case that students taking my courses are also ones who I supervise for their Masters or PhD projects. As such, this creates an important COI that has implications for both the student in question, the class as a whole, and the trust they have in me as their teacher/supervisor. I invariably know "my graduate students" much better than the other students in my class, so there is a potential to be biased (e.g., be more generous) in my evaluation of their assignments as opposed to those of the rest of the class. Because I am aware of this potential for positive bias, I might also be overly severe in evaluating my own students' work, "over correcting" as it were and thus unfair in comparison with my evaluations of the work of their fellow students, because "I know my student can do better!" This type of COI can be thought of as being at one end (i.e., least problematic) of a spectrum of professor-student relationships.

More problematic is the situation – which I have had recounted to me by colleagues – where a student in the class is in a close personal relationship with the professor (e.g., child, spouse). In this case, it is appropriate that the professor not grade the student to avoid all real or perceived bias; better yet would be for the student not to take the professor's course, thereby avoiding all appearance of COI. Similarly, in the case where the student is the child of a colleague or a neighbour, and especially where there is a longstanding relationship (e.g., having watched the child grow up), it would make sense for this student to be evaluated by another colleague or teaching assistant.

In both cases, however, there is a need for a case by case analysis and an intervention that is proportionate to the risk. To prohibit, without exception, the participation in a course of students who have a close personal relation with the professor could unduly penalise some students, especially when the course is obligatory and no alternative courses are available. In a large class setting, where there are teaching assistants, it is possible to have the student graded by someone not in a close personal relation, although effort will still have to be made to ensure that there is no favouritism on the part of the grader towards a student they know to be in a close relation with the professor. But as in my previous example about having students in my graduate seminars, it becomes far more challenging when there is only one evaluator (the professor) and a small cohort of students. Overall, I would suggest that the perception of partiality may be less problematic than the pressure that the professor might *feel* to be more favourable towards this student (i.e., to be nice or not overly demanding to the child of friend/colleague), regardless of whether there are any *actual* pressures from the friend or colleague.

At the other end of the spectrum of problematic cases are romantic relationships between students and professors. Even if the relationship is fully consensual between two adults, the power imbalance

ISSN 1923-2799 6 / 18



will be such that other students or colleagues will invariably question whether the professor abused their position of authority to seduce the student, even if in fact it were the reverse situation [29]. Moreover, there may be a breach of confidence that jeopardises the trusting relationship that should exist between a professor and their graduate student. A romantic interest, I would argue, undermines the professor's ability to actualise their fiduciary responsibility to work in the best *academic* and *professional* interests of their student, as would also be the case for financial COI (e.g., the student also works in the professor's spin-off company). The risk of biased judgment — not to mention accusations of sexual harassment — and the associated loss of credibility and trust on the part of the class and colleagues (and towards the Institution) is simply too high to be permitted [30].

Most institutions would rightly condemn – and even punish as academic misconduct – romantic relationships between professors and undergraduate students, because of the power differential (if not necessarily also an age difference) and the very negative perception of bias on the part of other students and colleagues [31,32]. More challenging is the case with graduate students, who tend to be older and more mature (many of my graduate students are my age or older), and who can develop close and long term working relationships with their supervisors that sometimes lead to romantic feelings. Should a consensual romantic relationship develop during the course of a supervision, a reasonable solution would be for the student to change directors, and for the now former supervisor to avoid evaluating the student in all other context (juries, scholarship competitions); nonetheless, the appearance of COI may still be very hard to eliminate [33]. I would thus take the strong position that professors should avoid if at all possible teaching, and never supervise, graduate students with whom they have a close personal relationship (e.g., filial, romantic, or business).

But to return to the initial and arguably less problematic but more common case of my teaching graduate students who I also supervise, it would be impractical – and probably unwarranted given the level of risk of bias – to require me to not grade these students. In practice, this would mean asking other professors to grade students in a course that they do not teach, adding a responsibility that is normally assumed only in cases of student misconduct (e.g., plagiarism) or a disagreement on a final evaluation. One possibility might be to use evaluations that a blinded review procedure, so that students identities are hidden during the evaluation process (e.g., stripping of identifiers such as name, ID number, etc.). While this could certainly work minimizing a risk of bias in the context of written exams, it would be much less practical for essays because I will likely know the student's research interests and writing style, and impossible for in-class presentations. These last two evaluation mechanisms are commonly used in the humanities and many social sciences, and ones that I invariably use in my graduate courses. My management approach has thus been to make a conscious effort to be as fair as possible in my evaluations, recognising my own bias towards being either overly generous and/or more demanding of the students I supervise.

Given the significant academic liberty that professors have in the design and conduct of their courses (and thus confidence in their judgment), as well as the substantial subjectivity in evaluating written work, self-awareness and experience are likely the best management approach when it is not possible to blind the work or have it evaluated by a third party. But transparency is also important to building and maintaining trust in the face of actual and unavoidable COI. So in these situations, I discuss the COI with my class at the beginning of term. Disclosure becomes "a teaching moment" or pedagogical tool to help introduce students to the notion of COI in general, and the risks or harms that need to be avoided (e.g., positive or negative bias, favouritism), and justice and equity in student evaluation (e.g., merit vs. egalitarianism) that can be compromised when COI are not managed appropriately.

Besides teaching or graduate supervision, there are many other situations in the professor-student relationship that regularly put professors (including myself) and their students in potentially problematic and often unavoidable COI [28].

ISSN 1923-2799 7 / 18



Publications

Unlike some disciplines in the humanities and social sciences, in the applied and health sciences – and for my purposes, in bioethics – it is both possible and valorised to co-author papers with students. The obvious positive aspect is that this helps students learn how to write and publish, and to build their academic experience, credibility, and confidence. Co-authoring also benefits professors by allowing them to produce many more publications per year than if they were publishing alone; but for my student co-authors, I would be unable to publish the 5-7 articles per year that are considered a "normal" publication record for a tenured professor. Given the very real pressure on professors to "publish or perish", this could lead to important COI. A professor might push a student to spend an unreasonable amount of time on a manuscript to get it into the top journal, at the expense of the student's other activities/interests, namely completing their thesis in a timely fashion, a case I've frequently heard from graduates students in the health and applied sciences. Or the professor might pressure the student to be named on all papers in the thesis, regardless of the professor's actual level of contribution, something that is also very common in the applied sciences. Less overtly problematic, but equally sensitive, is the challenge of equitably allocating authorship in team publications, where the professor and students may all have interests in being first author, and where (inter)disciplinary norms may be missing or conflictual [34]. The issue of publication authorship can lead to COI when trying to determine who should be first author (and the order of other authors): myself as the researcher and professor who's sometimes also paying the students as research assistants, or one of the students who "needs the publication more" than I do, regardless of their actually contribution? My solution has been to discuss, from the beginning and at different moments during any writing collaboration with my students and research teams, the issue of authorship [34]. I make it clear that author order is always up for re-negotiation as the work proceeds and will depend on a person's level of involvement; the first author is the person who drafts the paper and "runs the project", and that is rarely me because of my lack of time, thus my interest in co-authorship. Nor do I assume nor require that I be a co-author on every paper – even if in practice I often am named on the paper – included in my graduate student's thesis.

Research Assistants

In conducting my research and in publishing, I invariably work with a small team of research assistants (RA), some of whom I also supervise. This is a direct benefit to me because it brings in extra expertise and support to advance the project, benefits students who get research experience and funding, and allows me to publish at a higher rate (more collaborative publications). But how should I choose who to hire as an RA? Can I legitimately favour my own students who I know well, am responsible for and have an interest in seeing financially supported and advancing in their careers? What about other graduate students, who are equally in need of funding and research experience, but are not part of a research team; do they not also deserve a chance (an issue of equity, and not a COI)? Finally, in hiring students as RAs, there is a clear change in the power relation and in our respective roles, because I am paying their salaries; they are students but also employees, and I am a supervisor but also an employer [28]. There is pressure for them to perform and concentrate on advancing my research agenda, but at the same time I am also interested in their success and so that could lead me to be at times too lenient (e.g., with regards to their other commitments/interests, or author order on publications) and so undermine the timely work on the project, and thus the interest of funders in seeing the project completed.

The numerous and diverse interests that arise when hiring an RA (whether their thesis is supervised by me or not) can and often do conflict. At the heart is an issue of trust, both with regards to the student with whom I work and to the funding agency (and thus the broader society) that financially supports my research. I honestly choose to "play favourites" and so select the best students I encounter in my teaching, and preferentially those who I have already agreed to supervise for their Masters or PhD theses. In this way, I support those students to whom I have a direct obligation (e.g.,

ISSN 1923-2799 8 / 18



supervision, mentoring, financial support where possible), who I know to be competent, and with whom I am able to work effectively; and in so doing, I also am more likely to succeed in my research activities and thus meet my obligations to research funders. As with issues of supervision and authorship, the inevitable COI between my and the RA's interest in publishing, gaining research experience, and also meeting the interests and demands of my research project are managed through regular and open dialogue. But it is also important to recognise that my priorities and those of my students will diverge at times, at which point it becomes a question of negotiating tasks and timelines, sometimes finding other personnel, or accepting a slower or different productivity than initially planned. In my experience, this is invariably the nature of research projects, where the plan we start with may not be the one we complete; the inevitable COI are thus managed through dialogue, compromise and adaptation, and the result is still excellent productivity.

Letters of Reference

Professors are regularly solicited to write reference letters for their students, primarily for scholarship applications, but also eventually for jobs. Given my positive regard towards my students, and my real interest in seeing them succeed – it is personally very rewarding, but also reflects well on my own academic prestige – how objective can I really be? What should I do when I have multiple students asking for letters for the same competition; should I accept to write all letters, as strong as possible for each, or only accept to write a letter for the "first through the door"? Should I accept to write letters for students who I do not think are strong enough "just to be nice" or to not discourage them? [35,36]

My approach has been both self-interested and honest: for students who I do not think strong enough for a competition, or who I do not know well enough, I tell them that I cannot write them a strong enough letter, and discuss where I think their weaknesses are and how these can be improved. I do not waste my time writing weak letters that will actually hinder a student's application. For those students who are strong and whom I know well (even if I am not their supervisor), I accept to write them all letters, even if they are competing for the same scholarship, and make it clear to all that I will write the strongest letter possible. The management of this COI is through transparency, but also reflexivity, as I try to be as honest as possible about each student's strengths and weaknesses while also writing the best possible letter.

In an attempt to mitigate the inherent favourable bias in letters of reference, some institutions (departments or funding agencies) have moved towards requesting numerical or grade based evaluations instead of written letters of reference. But these are, to my mind, no less subjective than the traditional letter where I enumerate the excellence and diverse skill sets of my students, particularly in a field where multiple competencies are required [37]. Through my students, I am clearly competing with other colleagues who are also promoting their students' interests in succeeding. In a sense, then, there may be a market competition at work such that the best student dossier (grades, project proposal, letters of reference) wins out, thus eliminating (minimizing) the problem of bias; i.e., if all professors write strong but honest letters of reference. However, in a context of grade inflation and pressure towards hyperbole in reference letters, if professors let their own interest in their student's success lead them to unreasonably promote less competitive students, this market analogy fails and difficult COI remain.

Perhaps even more challenging is the case of the extremely productive student who also has some personality conflicts. Knowing that my letter of reference is an important part of an application package (e.g., for a scholarship, a job), do I leave out certain weaknesses such as the fact that the student can sometimes be "difficult" in a team setting, or even avoid all reference to collegiality, and instead play up their excellent publication record because the truth would not be an unqualified recommendation? The conflict is thus between being honest and providing the information that a reviewer (i.e., a fellow colleague, or even myself as a reviewer) would want to know, and wanting the

ISSN 1923-2799 9 / 18



reviewer to positively evaluate my student. The reality is that some letters a professor must accept, and they will be very hard to write; the tension cannot be evacuated from the situation, and so the professor may remain genuinely conflicted about what is the objective truth and whether they should express it in a letter of reference.²

Aside from completely eliminating letters and simply relying on student CVs (which raise their own problems with objectivity and "padding" or inflation), guidance for addressing the COI raised in the context of letters of reference will likely be found in norms of academic integrity and collegiality (which have obvious limitations), to some extent in professional self-interest in avoiding a potential loss of credibility should the professor gain a reputation for promoting mediocre students. But it will also be important for the professor to be honest and to try to write the strongest letter possible, while recognising that they will have to grapple with difficult questions to which there may be no clear solution.

Scholarships

At the level of granting agencies, it is obvious and practical to require that supervisors not judge their own students in scholarship competitions; i.e., professors *recuse* themselves from the review process (the do not evaluate their own students) and often even leave the meeting while the candidate is being evaluated, so as not to bias or even give the appearance of biasing the discussion and decision making. There are invariably sufficient committee members present to ensure that all students are fairly evaluated when one member of the committee has to leave because of a COI; and the risk to the credibility of the funding agency is far too great to permit even the appearance of COI. By contrast, the management of COI in internal institutional scholarship programmes can be much more problematic. Whether as part of a responsibility in my graduate programme, or through my active involvement in various research centres, I am regularly called upon to evaluate student dossiers for scholarship competitions, and often I find myself evaluating and ranking my own graduate students, or students who I have taught. But were we to apply the rule of the large funding agencies, there might simply not be enough professors around the table to do the evaluation...and often many members of the jury have their students in the competition!

An alternative would be to remove this responsibility for evaluating scholarships from programmes or departments and place it within the hands of a more distant body, such as the Faculty of Graduate Studies. But then, in essence, this would require replicating internally the structure of the funding agencies, and thus necessitate the constitution of review panels with the requisite subject/discipline/methodological expertise to fairly judge the dossiers; the solution to the COI is thus very costly in terms of time and personnel, and probably impractical. In practice, what we often see is local (centre, department) evaluation, where professor COI is managed but not eliminated through transparency (declaration) and a balancing of interests through competition. Committee members try to evaluate, as best as possible, the candidates in hand while being clear about their own interest (their own students' success) in face of the interest of their colleagues. Alternatively, professors could refuse to write reference letters for competitions on which they will be evaluators. But this would then put their students at a competitive disadvantage – compared with students' whose supervisors are not on the scholarship committee – in presenting the best possible application, something that is particularly problematic in small programmes (my situation) where it may already be difficult to obtain strong letters of reference because there are only a few professors who teach most of the courses.

My own career advancement benefits when my students graduate and succeed, so a pervasive interest – and thus COI – arises from my professional relationship with my students. I might overpromote them beyond what they are actually capable of accomplishing, or may help them too much in their research and publication activities. But I also have a responsibility as a professor – whether as

² Thanks to Daylian Cain for sharing this excellent – and challenging – example! ISSN 1923-2799



supervisor or teacher – to help my students acquire the knowledge and skills necessary to progress in their studies and chosen career paths. The management of the aforementioned COI is thus – as in the case of letters of reference, or scholarships – an issue of academic integrity on my part, and requires self-awareness and honesty about my own interests. In some cases, it can be possible to include other expert evaluators to form the scholarship committee (something we have done in my Programme on occasion), and thus eliminate the need for professors who are also supervising candidates to participate in the jury. But this will not always be possible. As such, the issue of internal scholarships and fair evaluation procedures should be a subject for ongoing discussion amongst colleagues (e.g., to identify best practices and procedures). In the context of specific juries, professors must disclose their own interests, and discuss those of the students and colleagues involved, in order to help ensure that awareness of our respective interests leads to fair and honest evaluations, and the maintenance of professional and collegial relationships.

2) Professor-Professor Relationship

The academic environment is a competitive one, and it is likely impossible to succeed without a healthy dose of professional ambition. Even in the Canadian context, where professors have relatively good salaries and access to grant funding through provincial and federal funding agencies, there may be competition that could result in COI. The most obvious COI (whether financial or non-financial) arise in the context of peer-review, whether for grants or in publications, and these are invariably managed, if imperfectly, through disclosure mechanisms [27]. This obviously requires honesty on the part of a reviewer to disclose an interest, whether favourable or not, with regards to the submission of a colleague, friend or competitor/adversary. Evaluating a grant application or peer-reviewing an article takes substantial time and energy, is invariably volunteer work, and while important to the functioning of the academic community, is not highly valued in promotion. So an important factor supporting the effectiveness of the COI disclosure mechanism is that it can give busy professors who are in a COI an easy way to get out of work that they might otherwise feel obliged to accept!

The downside of not evaluating a paper or grant due to COI can be the problem of expertise, which is particularly challenging in very specialised areas of research where all the researchers know each other. Blinding of the review process may work in large fields, but becomes completely impractical in other areas, such as for scholars working in bioethics in Quebec and English Canada; the community is simply too small. So for example, in the journal *BioéthiqueOnline* of which I am Editor-in-Chief, we have opted for a policy of full transparency in our evaluation process (i.e., authors, editors and peer reviewers are clearly identified during the full review process and named on the final publication), and disclosure of all COI on the website and on individual publications. We accept that students and colleagues will sometimes be in COI regarding the evaluation of manuscripts – we invariably know each other well, having worked together – and so declare these interests so the reader can evaluate whether they biased the quality of the work published in our journal.

In my experience, much more problematic and harder to manage are the professor-professor relations that have to do with teaching and administrative responsibilities, collaborative opportunities, competition for limited resources, and ambition to succeed and be respected by one's peers. Some of these may be simply issues of professional integrity and collegiality, but others can lead to important and very problematic COI.

Workload

Having recently received tenure in 2010, I still very well remember the experience of being a new and junior colleague in my department. In research universities, junior professors are often protected during their first few years from assuming too many administrative or teaching responsibilities, because they should be working to both build their courses and establish their research and publication records, with a view to contract renewal (after 2-3 years) and eventual tenure application.

ISSN 1923-2799 11 / 18



In practice, though, the arrival of "the new kid" in a department can be an opportunity for more senior colleagues to download responsibility for courses they no longer wish to teach, or participation on committees that they find uninteresting or time consuming. At the same time, junior colleagues may not know the departmental history or politics, feel ill-placed to "say no" to "requests" from colleagues, or simply be poorly placed to judge the "good learning experience" of sitting on a particular committee. Often this is also an issue of being presented with too many good opportunities (i.e., too many interests) – this was certainly my experience in the first few years – and being unable to judge which ones are worth the investment and which opportunities are too costly in terms of time, energy and stress. There are many conflicting interests pulling a professor in different directions, and sometimes these become COI when junior professors feel pressured (whether or not intentional) to accept responsibilities that they would otherwise not, if they were being more self-interested.

A challenge for directors of departments, and colleagues more generally, is to ensure an equitable distribution of teaching and administrative responsibilities, while also recognising that colleagues will have different interests depending on where they may be along their respective career trajectories. The solution is, first, a recognition that junior colleagues are particularly vulnerable in the early stages of their careers, and so their interests should be favoured over those of more senior colleagues, especially when these conflict (something that could be recognised in departmental procedures or even collective agreements). The corollary could be formal or informal mentoring arrangements, which I have seen in a colleague's department, where a more senior colleague is paired with a junior colleague to guide them through their introduction into "the academic game", teach them how and when "to say no", and so be able to better recognise and manage the diversity of interests – some of which will conflict – that are part of the life of a professor. In so doing, departmental colleagues also explicitly recognise that those who are more senior may be in real COI (whether or not intentional) with regards to the attribution of academic responsibilities to/by their junior colleagues.

Research opportunities

Similar to the case with students, professors may be inclined to favour their friends over other colleagues (and even marginalise adversaries) when it comes to building research teams, inviting colleagues to be part of research networks, or collaborating in multi-authored publications. Now many of these choices might be considered reasonable, even prudent, and not a COI. Professors are not forced to work with each other, and it would be foolhardy to collaborate with someone who one disliked and distrusted; professors can, one might argue, always work on other projects and build their own teams and networks. Yet, I have seen junior colleagues systematically excluded from groups or networks, and had serious impediments placed in their paths that even jeopardised career advancement (promotion, tenure, etc.). The contrary is also the case, where promising junior professors are solicited by senior colleagues to participate in large research teams or networks in order to expand the ranks of productive CVs, but also out of an honest desire to collaborate with the best (new) researchers in the field. As in the case of administrative or departmental responsibilities, junior professors may inappropriately weigh the prestige and "honour" of being invited to join a high profile team, against the work involved (committee meetings, reports), the actual resources provided (less money than promised), or the loss of time to focus on their own research and publications. In some very specialised fields, what might normally be productive competition can become vicious and mean spirited, and when some of the parties involved are in positions of power with regards to grant funding or promotion, there can be cases of serious academic misconduct, including COI.

In these cases, formal policies or regulatory mechanisms addressing academic integrity/misconduct and COI will likely be of only limited utility, because the threshold (and cost to those actors involved) necessary to invoke these mechanisms will be too high in all but the most extreme cases. More effective is the lived experience of professors who have gone through or witnessed problematic situations. By sharing such experiences with other colleagues, particularly those at the beginning of

ISSN 1923-2799 12 / 18



their academic careers – whether they are still graduate students or junior professors – it becomes possible to name and so identify the interests at stake and the cases where they create problematic COI. Not to be ignored, however, is the power of a good or bad reputation and the view of one's peers. Being forewarned by a senior colleague that a particular research team is either an abusive or an excellent environment is the sort of guidance that can both support a junior colleague and also mitigate some of the COI that are omnipresent in research.

3) Professor-Institution Relationship

University professors in Canada and in the US have enormous academic liberty and independence, both with regards to what and how they teach, and the subjects of their research. While I may have discussions with my colleagues and Head of Department about the courses needing to be taught in a given academic year, it is up to me alone to design my syllabus and decide on the most appropriate pedagogical approach. Similarly, my choice of research interests, and what grant applications or articles I decide to write, is a purely personal decision, even if I regularly receive helpful suggestions from colleagues and research collaborators. My relation with the institution — that is, with the Department of which I am a member, and with the University who is my employer — is one where I have substantial freedom.

Nonetheless, COI can arise in this relation when certain interests, e.g., personal ambition in advancing my career, are placed above those of the institution, whether it be the Department or Faculty. The most obvious examples are conflicts of commitment, when professors do not "pull their weight" in teaching, graduate supervision or committee work, and as a result other colleagues are "left to pick up the slack". Given our independence, as professors we may know little about how much work our colleagues actually do. The Head of Department will have a better idea, and blatant examples are all too apparent, e.g., when colleagues are rarely present at departmental meetings or on committees. But it may be very difficult in practice to know which colleagues are working hard on all aspects of the profession (teaching, research, administration, public service), and which are focused primarily on one aspect, usually research. It is particularly hard to determine when a healthy professional ambition that supports a successful career path (something to be encouraged), becomes a self-centred interest that will conflict with the interests and objectives of the institution.

To be fair, while professors have a range of activities required of them, the important aspects for career progression – particularly in research-intensive universities – are invariably publication record and success with grant applications; teaching and administration, while expected and important for the good functioning of the institution, are much less valued by promotion committees. So professors, especially those who are not yet tenured, must regularly juggle with the pressure – and potentially conflicting interests – to on the one hand "publish or perish", and on the other be a "good colleague" and participate on committees (administration), while also teaching their courses and supervising graduate students. The flipside is that once tenured, a professor cannot be fired baring cases of gross misconduct; there may thus be a real interest to take it easy once a professor has tenure (e.g., more time consulting, absence from departmental committees, neglect in student supervision). In practice, this is likely rarely the case because the competitive work ethic and ambition necessary to obtain tenure becomes ingrained in the professor's professional identity! And with this comes responsibilities and even an unconscious pressure to keep students involved in research and in publications (e.g., through co-authorship) and to keep research teams funded through competitive grant applications, which bring with them their own risk for COI.

Such conflicts of commitment and COI can often be managed through social or collegial mechanisms, such as the protection of junior colleagues from undue demands (as mentioned previously) or the indirect sanctioning of colleagues who do not do their share (e.g., placing them on necessary but unpleasant committees, or removing them from decision making contexts). Structurally, institutional

ISSN 1923-2799 13 / 18



changes could be made to valorise the full range of activities required of professors, such as by ensuring that all aspects are weighed appropriately in promotion, or by providing certain benefits (e.g., teaching release) for those with disproportionately high administrative responsibilities or graduate supervision workload (something that is done in my department). Academic liberty and autonomy, while a cause of some problematic COI (e.g., ambition that leads to conscious and unconscious self-interested behaviour and conflicts of commitment), can also be a strong protective factor because it can empower professors to "say no" to some demands of their institution (e.g., from the Department or Faculty). This does not mean that clear rules are not necessary, e.g., to manage particularly problematic financial/non-financial COI or conflicts of commitment, but that many COI will be managed by reference to other principles or values (e.g., academic integrity).

Institutional Interests

As Director of the Bioethics Programme – a graduate programme with more than 70 students at the Masters and PhD – I have an additional administrative responsibility that most professors do not have, namely, an obligation to defend and lobby in the best interests of my Programme. Specifically, I work to promote the best interests of our students, my colleagues and my field of specialization. In a department with other graduate programmes and other specialties, there can be differences of opinion and even conflicting interests - if not actually COI - with regards to the importance of other fields of research or institutional priorities. This becomes particularly evident in a context of limited resources. both with regards to operational funds and the human resources needed to ensure my Programme's good functioning. Along with the other programme directors, I may be competing to obtain sufficient funds to hire sessional lecturers or teaching assistants for my Programme's courses. Even more sensitive is the hiring of new professors, where vigorous and even acrimonious debate can occur about departmental priorities and the needs for particular areas of research and teaching. In these situations, there may be a direct conflict between my interest in and responsibility for the Bioethics Programme (i.e., ensuring that there are sufficient funds and personnel to meet our objectives), and the interests of my other colleagues, the other programmes, and the Department more generally, the result of which could be COI in some decision making contexts.

As with the previous types of professor-relationship, many of these COI can be managed effectively through full disclosure and open dialogue. In departmental meetings or in discussions with the Head of Department, it becomes readily apparent what are my personal and my programme/institutional interests, and these get "put on the table" and so have to compete with the interest of my other colleagues. If I can mount a convincing case to my colleagues that my Programme's interests should be prioritised, then the conflict – if there is one – is dealt with in a democratic fashion, and one that my colleagues should accept. Problematic, however, are those situations in which professors are not clear about their interests (either to themselves or to colleagues), or worse yet, when backroom deals are made between members of a department and so the diversity of interests cannot compete in the open and on a level playing field; the decisions made by key actors in the department may be biased, leading to harm to certain actors (e.g., some programmes or professors are disadvantaged) and then a loss of trust on the part of department members and even other colleagues. These situations do occur, but in a department with a strong democratic culture, and a practice of discussing and documenting (in minutes, with departmental policies) good practice, these COI can be better managed.

Conclusion

Conflicts of interest are receiving growing attention in the university context, but unfortunately, there is still an overwhelming pejorative perception of COI; they are too often seen as something equivalent to academic misconduct (and so to be avoided at all costs!), and as being primarily financial in nature [12]. This paper has aimed to show, in some detail and through a reflection on my own experiences as ISSN 1923-2799



a professor and director of a graduate programme, that COI are not only pervasive in the university, but that they are actually a normal part of the life of professors; while COI raise important concerns about bias and credibility of judgments, in many cases they are unavoidable. In large part, I suggest, COI are due to the reasonable and unavoidable ambition of professors in their own career development, and in that of their students, colleagues and department. The challenge, then, becomes one of identifying those COI that are problematic – and in making the implicit, explicit – and so avoiding COI when possible and when not, figuring out how to live with them while minimizing the risk (e.g., harm to personal or professional identity, trust, institutional reputation).

It is essential to attend to the full range of these COI – financial, non-financial, or institutional; intentional or unintentional – and to think about the appropriate policies, procedures, or guidelines to mitigate COI and manage them when they cannot be avoided. Yet, there are important limits to such "hard" mechanisms. Formal policies are essential to describing the "lay of the land", to marking the boundaries for what is considered acceptable behaviour, and should be accompanied by procedures and training to deal with misconduct or unethical behaviour. It is through policies and procedures that an institution can make explicit those norms and values that are implicit, and often unarticulated, and so work towards developing and ethical culture for the institution. Nonetheless, most of the tools or approaches I have outlined in this paper – and which I have used myself – are "soft"; that is, they rely on individual integrity, judgment, self-awareness or reflexivity, humility and collegiality [38]. This is because most of the COI encountered in the university context are not the extreme cases that unfortunately make the headlines, where the risks or harms are great, and so where formal rules and policies are clearly necessary.

The COI that professors regularly encounter — whether it be in writing letters of reference, or in collaborating with students or colleagues on research projects — are important and need to be managed. But were we to implement rules or policies for all these cases, we would unduly tie the hands of professors and the costs would likely be higher than the risks we are trying to avoid; nor would such policies be sufficiently flexible or adaptive to respond to all possible scenarios. A much better approach, I argue, is to empower professors to recognise those COI that are "out of bounds" — the ones normally addressed in institutional COI policies — and also be able to identify and evaluate those that are pervasive and so need to be managed. This, then, means giving much great attention to education — educating the educators, as it were — and providing practical tools and guidance to deal with common but problematic situations. It means bringing COI out of the darkness and accepting that it often has to be lived with and managed, but never ignored, nor systematically dealt with as fraudulent practice. It also means being sufficiently humble to recognise our own limited objectivity [39], and being open to discussing with our colleagues and our students those COI that cannot be avoided, in order to find the most effective and appropriate means for their management.

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ISSN 1923-2799 18 / 18