

Awareness of Ethical Pitfalls: A Requirement for Professional Protection

Catherine A. Roberts

The AMS Committee on Professional Ethics (COPE) serves an important role in our profession. It deals with cases of ethical impropriety that are reported to it and takes actions as warranted. In this article I report on my experience as a member of COPE.

The cases that I describe are ones that I had direct involvement with as chair of COPE. Established in 1983, COPE is designed to help deal with delicate ethical dilemmas. Some of the stories I'll share here might not strike you as particularly grievous or alarming. Still, each contains an apt lesson about how we, as mathematicians, can behave in a professional and ethical fashion. Although the actual clout of COPE is limited, it carries considerable moral weight in the profession. A censure from COPE is a very serious matter. COPE's resolution of certain cases during my tenure included a request that an article such as this be published in the *Notices* for the purpose of educating the mathematical community. COPE believes broadcasting these accounts may help prevent similar situations from arising in the future.

You may have heard whispers about distasteful situations that have arisen within our community. There was the case of the stolen thesis result, in which one student's quickly published doctoral thesis contained proofs that were pilfered from original results that another graduate student had recently presented at a conference. There was a situation in which tenure was denied to a mathematician—a decision that was determined to be based in departmental nepotism aimed to open the position for a relative of the department chair. Then there was a professor who stole his

graduate student's result and published it under his own name. The details of these older cases are contained in confidential reports that are not available to me, and I hesitate to try to describe them in any detail. In January 2009, as I finished my term, COPE directed me to write to the wider mathematical community, asking me to focus specifically on new cases that we had seen. Our recent work provides many examples of lapses in ethical judgment; these will inform readers in the remainder of this article.

The cases that I highlight are likely to be of particular interest to graduate students, postdoctorates, and new faculty members; however, due to the confidential nature of these reports, I cannot describe them in much detail.

Before I go further, I find it worth mentioning that the mathematical community is, for the most part, well behaved. We treat each other with respect, and we strive to do the right thing. Nonetheless, COPE's recent work provides copious examples of lapses in ethical judgment.

As you can imagine, COPE has addressed multiple cases of plagiarism. Indeed, there are several AMS committees that discuss the issue of plagiarism from various angles. Sadly, one could make a compelling argument that plagiarism is ubiquitous and stands as one of the biggest challenges to our profession. For example, someone I know was reviewing a paper for a reputable journal, only to discover that the manuscript contained paragraphs lifted from one of her own, previously published, manuscripts. As editor of the journal *Natural Resource Modeling*, I had a situation arise in which an identical manuscript had been submitted simultaneously to us and to another journal. Serendipitously, the same reviewer had been contacted for both submissions and was able to alert the journals to the breach in protocol. Both journals banned future submissions from this author. When we encounter behavior that is

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unethical, sometimes resolution is relatively easy. There are times, however, when COPE ought to be invited to the table.

The Case of the Plagiarized Teaching Statement

One component of many academic job applications is the Teaching Statement, which is written by the applicant to describe his or her teaching experience, style, and philosophy. When graduate students begin to assemble their application materials, there is a desire to figure out the best style and format for selling oneself as a job candidate. It is natural to examine the curriculum vitae, cover letters, teaching statements, etc., from successful mathematicians. Indeed, good ideas are shared this way, and I would encourage graduate students to ask to see the application materials of their friends who have recently been on the job market. It is also straightforward to find such materials on the Internet by visiting the websites of newly hired assistant professors at other institutions. Oftentimes there are Career Centers or special workshops at one's university intended to help people prepare for job searches. We learn best from each other, and this kind of effort to prepare one's own application package is essential and recommended.

COPE cautions anyone on the job market, however, to be careful not to be unduly influenced by the application materials of others. Even if you find a sentence or idea that captures your thoughts precisely, do not copy from someone else's materials. First of all, when too much sharing goes on, then over time the universe of applicant dossiers averages out. Your ability to stand out is diluted. Moreover, there's a risk that you might wander into the danger zone of plagiarism.

This particular advice is being delivered to the readers of *Notices* because COPE had a case in which a faculty member reading applications for an open position at his school recognized that the teaching statement from one of the job applicants was extremely similar to the teaching statement that he, himself, had written years ago. It was unclear how this particular job applicant would have accessed this faculty member's statement, except that for a short time it had been posted on the faculty's website. As COPE pursued this investigation, we suspected that the original teaching statement had been widely circulated. It was impossible to tell if the guilty job applicant even knew the identity of the initial author, as he may have seen the original, a secondary, or even a tertiary copy of the material. Even with the uncertainty regarding how this applicant would have seen the faculty member's teaching statement, it was clear that the statement was plagiarized. There was no way that these two people could have separately come up with such identical language and phrasing.

The resolution of this case is confidential. As you might expect, it involved the graduate student's institution and their internal process for penalizing the ethical violation of the graduate student.

It is crucial to remember that the application materials you send out must be a unique expression of your own individual personality. These materials report on your credentials and tell your story. The content of your teaching statement must reflect your own ideas and experiences. I realize that it is hard to construct a teaching statement, especially if you've had little teaching experience. Nonetheless, if you lift phrases from someone else's statement—even if those phrases articulate your own beliefs perfectly—you are plagiarizing. Teaching statements are widely circulated and over time have been getting more and more similar to each other; this needs to stop. The best way to stand out is to write your own, honest statement that explores your thoughts about becoming a college-level teacher. If you encounter another teaching statement that reflects your own ideas, then spend some time reflecting on why those words resonate with you. Next, write a statement in your own words, one that articulates your thoughts in a fashion that is unique to you.

The fact remains that graduate students tend to be unpracticed in writing teaching statements, and they are wise to seek out examples to emulate. If you are concerned, seek professional writing assistance from the resources that are available to you. The challenge is for each job applicant to minimize how much he or she is influenced by reading other statements and for each person to strive to write with integrity. Sure, there will be similarities—but none of your phrasing should match that of anyone else. I also advise everyone to protect their intellectual property! Reconsider posting your statements on your website. You might want to have a tighter control over who gets to view your writing.

The Case of the Withdrawn Offer

In this case, a department ended its search for a new tenure-track faculty member when their administration's verbal offer to their top candidate was accepted. Before a contract was signed, however, the economic situation at the institution changed, and all hiring was halted. In the meantime, the successful candidate had removed herself from the job market. She had turned down interviews at other campuses and didn't know what she was going to do, now that the hiring season was effectively over. She was without a job. This situation was particularly difficult since the hiring cycle for academic positions is focused on just a few months of the year. This highly desirable candidate found herself with a whole year ahead

of her before she would be able to seek another tenure-track position.

This is, sadly, not a new scenario. In fact, a March 12, 2008, article from the *Chronicle of Higher Education* titled “The Disappearing Job Offer”¹ discusses a situation in which a university had withdrawn several offers. With the heightening economic problems facing academia, it is sure to happen again.

COPE cautions all applicants to finalize any offer they accept before withdrawing from the job market. It has even been suggested that job candidates be advised to have their contract read over by a lawyer, who will have more experience in identifying weaknesses in the document. A senior colleague, especially one who has been involved in administration, can also help in this regard. You may not have much success modifying the language of a contract, but at least you will have a deeper awareness of what you are signing.

As an aside, during this economic crisis faculty are being asked to make all sorts of concessions to support their institutions: pay cuts (or “furloughs”), increases in teaching loads, increases in class sizes, reductions in benefits such as travel money, etc. Are these changes in expectations and employment benefits violations of ethical codes of conduct? I imagine that this would be a matter of some dispute. If you have a case that you think falls within the purview of COPE, a simple inquiry to the committee is encouraged. The next case gets at some of these very issues.

The Case of the Reworked Contract

Fortunately, this case resolved itself before COPE had to get actively involved. Still, the story presents a cautionary tale for all of us. The chair of a department of mathematics contacted COPE when the administration at his school made a move to modify the expectations for multi-year postdoctorate positions. This was due to the growing financial difficulties of the institution. Essentially, the duration of the postdoctorate appointment was to be abbreviated and the teaching load increased.

Both of these changes were in sharp contrast to the initial deal that helped this institution attract promising young researchers in the first place. According to the institution’s lawyers, the contractual language allowed for modifications to the offer letter that the postdocs had signed. Naturally, the chair was concerned, not only for the affected individuals but also for the possible damage to the professional reputation of his department. Initial discussion among the members of COPE was spirited and outraged. We felt that this situation warranted action. Before we moved forward, though, the chair was able to work with his administration to preserve the initial contracts

with his postdocs. Essentially, this particular issue went away, but I mention it here to point out that contracts typically contain language that grants the employer a way out of the deal should the financial situation of the institution change. In today’s economic climate, we need to brace ourselves for more such scenarios.

The Case of the Two-Body Problem

In this circumstance, a professor contacted COPE to complain about a failed job search at his institution. He speculated that the job search had failed in part because its top candidate was married to someone who was also on the job market. The candidate had disclosed this fact rather late in the hiring process, and although the school was able to make some kind of offer to the spouse, it was not good enough to attract the couple. The person who contacted COPE suggested that his institution might have had more success if it had known about the two-body problem earlier—he said the whole experience was rushed, inadequate, and frustrating. It is well understood that it is illegal for prospective employers to ask certain questions, including questions about a candidate’s marital status.

Much has been written and spoken about the two-body problem. A literature search can yield a full range of advice for a couple seeking academic positions together.² The Association for Women in Mathematics, as well as other groups, has hosted panel discussions on this topic at Joint Mathematical Meetings a number of times.

There is no consensus on how a couple should approach their two-body job search. It is a delicate issue. On the one hand, a department with good intentions might be able to be more proactive, and ultimately more successful, if it is informed of the two-body challenge early on. On the other hand, there are ample stories in which early disclosure proved to be a liability. If the couple seeks to be hired by the same institution but in two different departments, the administration may need to be involved in the interdepartmental coordination. The cultures of different disciplines could react quite differently to the situation. Moreover, a simple instance of the hiring calendars in the two disciplines being out of sync could scuttle the best of intentions.

On a personal note, my husband is a chemist, and we have been on the job market together twice. The first time, we did not disclose our two-body constraint until we had accepted an on-campus interview. We were successful at a school that was initially only interested in hiring my husband. He told the dean that he would accept the position if something suitable was offered to me. The second time we were on the market, several years later, we

¹ <http://chronicle.com/jobs/blogs/onhiring/503/the-disappearing-job-offer>.

² Try a Google search with keywords “two-body problem” and/or “AWM”.

did a targeted search and explained in our initial cover letters that we were seeking jobs together. In each search, there were pros and cons to our approach. I have no doubt that some places chose not to pursue us as a couple for fear that it would be too complicated. On the other hand, the administrators who worked with us successfully shared their appreciation for the advanced lead time. In conclusion, even after going through this twice myself, I still do not know what to suggest.

The members of COPE had a vigorous discussion on the topic of the two-body problem and concluded that there really is no clear advice to give to couples on the job market. As one committee member said, “it is a very fine balancing decision that a candidate has to make.”

The Case of the Uninformed Author or “I Didn't Write That!”

This next case was long and complex, but there's a valuable take-home message for journals and authors. I will only mention one facet of this case. A person writing up a research manuscript for publication listed a coauthor without informing or securing the permission of this person. The situation took a long time to sort itself out and get corrected. Current practices generally have a journal only requiring that the lead author of a manuscript sign a Copyright Transfer Agreement on behalf of all the coauthors. In this particular case, there was some delay before the unaware coauthor learned that he was listed on the paper.

COPE now advises all journals to require a signed copyright agreement from every author listed on a manuscript. This way, each author is acknowledging that he or she was a contributor to the research and is in agreement that it ought to be published. Some journals are also acknowledging the initial submission to all authors, in the hopes of identifying any troubling issues with authorship prior to the review process getting underway.

Clearly, one should not list any coauthor without receiving permission from that individual in the first place. Sometimes new researchers might wish, as a sign of respect, to include as coauthors professors who inspired the research or who participated in some small way with the analysis. Sometimes a weak author will list a well-known coauthor to add to the prestige of the paper. Suffice it to say that all researchers must be satisfied with the content of the manuscript before being included as coauthors. The lead author must take responsibility to ensure that all coauthors are on board.

History of COPE

According to the COPE Procedures Manual,³ the Committee on Professional Ethics “was established by action of the Council of the AMS in 1983”. It is

³ <http://www.ams.org/secretary/copemanual.pdf>.

customary for professional societies to have established ethical guidelines and codes of conduct. As stated in the June/July 2006 article in the *Notices*,⁴ setting forth such guidelines “helps in the preservation of that atmosphere of mutual trust and ethical behavior required for science to prosper.” The guiding principles for the committee can be found in the previously mentioned *Notices* article and online.⁵ These official documents address four areas: mathematical research and its presentation; social responsibility of mathematicians; education and granting of degrees; and publications.

There are times when inquiries directed to COPE do not fall cleanly into one of the four areas listed above. Generally, the chair of COPE initiates a discussion among the members of the committee—first to determine if the inquiry is suitable for consideration by COPE. Oftentimes some research is done or some confidential verifications of the story are made. COPE then makes a determination on how best to proceed, works with the parties involved, and comes to some resolution.

There is no set procedure for raising a complaint with COPE—a simple email inquiry to any member of the committee or to someone on staff at the AMS is sufficient to begin a dialogue about your situation. It is common for an initial email to be along the lines of “I've encountered something that doesn't sit right with me, and I'm wondering if this is the sort of thing you might be able to help me with.” Together, COPE and the person raising the complaint come up with a strategy for the particular issue.

The president of the Society appoints members of COPE to three-year terms. The list of committee members is available on the governance page of the AMS website. Dr. William Trotter, who can be reached at trotter@math.gatech.edu, currently chairs the committee.

Conclusion

The important question to ask ourselves is, “What can we take away from these stories?” We are often faced with making decisions about how we will behave in different situations, and we must keep in mind that there are consequences to our actions. When in doubt, ask for advice from others and choose the path that sits best in your gut and that will reflect upon your profession and yourself in the most positive light. Be careful. In summary, COPE has advice for graduate students and new researchers: Write your own teaching statements and do not take yourself off the job market until you have completely settled your negotiations with a hiring institution and have a written contract,

⁴ <http://www.ams.org/notices/200606/from-ethical.pdf>.

⁵ <http://www.ams.org/secretary/ethics/html>.

which you may want to have reviewed by a professional prior to signing.

Serving on COPE was an eye-opener for me. I'm a fairly "goodie two shoes" type of person, so when I was made aware of behaviors that had an unethical component, I was both surprised and genuinely disturbed. As a problem solver, I wanted to march in and fix each situation. I soon realized, however, that solutions are not always clearly defined and that sometimes the resolution cannot be completely satisfactory. I think that my time on COPE made me much more aware of my own behavior—I reflect more about how something I say or do might be misinterpreted, and I work hard to be very explicit. I keep much better records now, so that I will be better able to reconstruct my side of a story if things ever go sour. When faced with an ethical decision, even a small one (should I tell the sales clerk that my toddler niece ate some grapes before we made it over to the register?), I am choosing to be honest even more often than before. It is a more challenging way to live, but it is rewarding to live an honest life.

If You Have a Concern

If you have a matter that you feel might be appropriate for COPE to consider, the best place to start is to contact the chair of the committee (see above). All inquiries are confidential. Some are handled simply and do not involve initiating an official case; others might stretch over several months as COPE tries to understand the full nature of the situation and settle on an appropriate action plan. Even if you are already pursuing a situation on your own, if it involves ethical conduct pertaining to you as a mathematician, COPE would appreciate being informed—even if COPE remains on the sidelines. Involving COPE can help to build and maintain the integrity of our profession that we all value.

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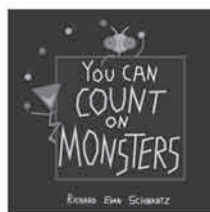
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Richard Evan Schwartz

978-1-56881-578-7; \$24.95; 244 pp.



This children's book presents the concepts of prime numbers and factoring in a novel and colorful way.

"My eight-year old granddaughter is just learning about multiplication and as we read through almost the whole book, she especially liked the "special numbers" (primes) where a new shape appeared. At one point she paused and said, "You never get two special numbers one right after the other." I gave positive reinforcement for this, her first mathematical conjecture (not mentioning the one counterexample of 2 and 3). She's going to take the book to her second grade class. Every school library should have one."

—THOMAS BANCHOFF,
former MAA President



"This book is filled with intriguing and amusing pictures designed to arouse the curiosity of budding mathematicians. I showed this book to my daughters (prime ages 7 and 11), and they both had fun with it. My favorite moment was when my younger daughter said 'Wait, the picture for 16 looks a lot like the picture for 8. Why is that?'"

—ARTHUR BENJAMIN,
co-author of *Proofs That Really Count* and
Secrets of Mental Math

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