Welcome to Academia

Mimi Tsuruga

Spring 2006

During the break, I attended a math conference. Although a math conference may sound like the most terrifying torture to some, it was an ideal environment to learn about academia. I attended the conference because I have a personal interest in my own studies and also because I hope to attend one of these conferences myself one day. I felt that this would be a perfect opportunity for me to complete my anthropology project, but did not want to make the impression that I was not genuinely interested in mathematics and the conference itself, so I decided that I will be attentive to details but avoid formulaic question-and-answer dialogues. The interviews that were conducted were casual conversations. Although my questions were motivated somewhat by this project, I asked questions on topics which I was sincerely curious to learn about. Fortunately, I was surrounded by teachers and they were happy to answer all of my questions, even those that were somewhat imposing. As such, I feel that it is unethical for me to list names and specifics of the interviewees since they were unaware that their responses to my questions would be read by others.

Conferences occur frequently in academia. It is where you can share your research to your colleagues. This is important because recognition can be the difference between an adjunct position and tenureship in academia. Some schools have conferences as frequently as once a week and others will have a few conferences which last more than one day. Although attending a conference can help your career, academics are teachers, so you cannot constantly travel the world presenting at conferences. The conference I attended was called a workshop. The difference, it seems, is that the organizer of the conference is also a presenter. It was a two-day workshop. All of the presenters were invited to present at this workshop (that is, as opposed to applying to be a presenter).

The workshop consisted of eleven speakers on the first day and seven speakers on the second day. The speakers came from universities all across the globe–from Taiwan, Germany, and the U.K., as well as many American universities. The group consisted of mathematicians of different stages in their academic career. Some were seasoned professors, some were post-doctoral students, some just got their PhDs and others had yet to defend their doctoral theses.

The attendance at the workshop varied throughout the day. The morning

speakers had the smallest audience, midday speakers had the largest and it averaged out for the evening. Over 30 people attended the workshop on the first day, but less than half stayed for the entire day.

None of the attendees or presenters were Black or Hispanic. Some had American accents, but nearly two-thirds had accents which indicated that English was not their first language. There were three-times as many men as there were women. I had a personal interest in this particular area and felt compelled to explore this subject further.

I had an opportunity to speak with one of the lecturers that day who is female. She told me that indeed, there are fewer women than men in mathematics, but that this is common across the board. She said that it is a "bottleneck figure" in terms of the number of women in mathematics. There are some women at the undergraduate level, there are less in the graduate level, even less in the doctoral level, and so on.

My concerns regarding women in Mathematics were somewhat different from what she mentioned. I knew from my first semester in college that I wanted a career in academia in mathematics, so I took notice of each of my female professors, seeing them as my models. It was very discouraging for me to find that every female math faculty in our school teaches only at the 100-level. Even a 300-level course is not considered "real math" because it is still introducing fundamental ideas of mathematics and yet only men are teaching these major courses. The lower elementary courses are considered requisites for other subjects such as computer science, economics, pre-med, and other sciences and, in fact, are not even considered when applying for graduate study in math. The woman I was speaking to assured me that this is not true for all schools and that there are many female faculty members that are certainly able to teach higher math. She even noted that Harvard University President Lawrence Summers' claim that women are less scientifically inclined is completely false and that there are definitely women who are highly regarded in the field of mathematics.

Another simpler concern I personally had about continuing in mathematics was that the female faculty at Hunter did not have rings on their fingers. Surely wearing rings is merely a custom and does not indicate for certain whether someone is or is not married. The woman with whom I spoke is

married, which was a relief for me. However, speaking with other attendees, I learned that it is actually quite difficult to be in a committed relationship like a marriage for someone in academia who has not yet gained a tenured position. Even after getting a PhD, to remain in academia, you have to be open to travel to any school that would take you. Restricting yourself to a particular geography would substantially limit your chances of having a teaching position or getting research grants. One of the people I asked said that when you move to a new school, your spouse would have to find a position in the same school, which made me wonder whether it is common for academics to marry academics.

The schedule for the workshop began at 9:00AM and was broken into several sessions with coffee breaks or lunch between each session. The sessions had two speakers, except for the last session which had three speakers, on both days. Each speaker is given 40 minutes to present. I do not believe that there was any pattern in the order of the speakers. (It was certainly not divided by subject.) However, it may be interesting to note that the first two (morning) lecturers did not have their presentation on a computer program, but rather used a projector with some hand-written notes.

Each speaker had their own unique style of presenting. Most of the presentations were power-point presentations or used some other similar program. Some were keenly aware of their audience and others were more concerned with presenting as much of their research as possible. One major difference in their presentation styles was the lecturer's decision to use visual aids. Some used graphs and diagrams as guides and others had slides filled with calculations, equations and formulas. One presenter had a mentor who strongly believed that lectures did not necessarily have to be deathly boring. (In fact, I witnessed at least 2 people fall asleep during one of the lectures.) He agreed with his mentor's philosophy and had a very different presentation compared to the others. The slides had color, animation and many diagrams which helped to clearly present his research. The method may have been too effective as he was asked so many questions that he could not finish in time (quite possibly because everybody was able to stay awake and follow his lecture).

Another difference in style is the presenter's public speaking ability. Some were very comfortable standing in front of their colleagues, but others were

visibly nervous. There are also some presenters who do not seem nervous, but had a habit of never raising their eyes, or looking towards the ceiling above anybody's gaze. The ability to squeeze humor into their lecture changed the mood remarkably. Some stayed stationary and others constantly moved, which is another strategy for maintaining an audience's attention.

Most of the speakers were asked questions after their presentations, except for a few who went over their allotted time. Some were interrupted during their lecture. I noted that those who were interrupted were the younger bunch in the group. The person who asked questions most frequently was the organizer of the event. I asked one of the speakers whether this particular professor was a genius and knew everything there was to know about this field. He replied that the organizer probably felt comfortable asking the questions because it was his workshop. He also mentioned that most of the time the attendees only pick up on subjects that are familiar to them and that it's rare that anybody understand any of the presentations fully as they are each experts in a specialized area in their field.

The most interesting thing I learned at this conference was that the purpose for the conference is not merely to learn about other's research interests. The breaks between the lectures are an opportunity for these mathematicians to make new connections and network to further their careers. One such example is a conversation over dinner after the first day of talks. One of the organizers asked about lecturing opportunities at the university of one of the speakers. That conversation was followed by questions about faculty members at the other school that may have similar interests as the organizer.

Other conversations are familiar in any circle. One attendee asked a speaker from an internationally prestigious school about her colleagues. Questions like "how is so-and-so like, in person?" made me feel very immature for not even being able to recognize the name.

I learned that one thing that is not discussed is the style in which each of these speakers present or teach. One person I spoke with told me that most people think that they are good presenters and teachers even if they are not. Those who think they are bad teachers usually do not enjoy teaching.

The topics discussed at the conference were soaring quite a few feet above

my head, but I was able to learn a lot about math. I used to think that math people were all incapable of human interaction, but found that there are many who are very social and, more importantly, are extremely interesting people. I am now even more excited about my future in academia.