

2015

Gewis  
Quarterly  
Magazine

WINTER

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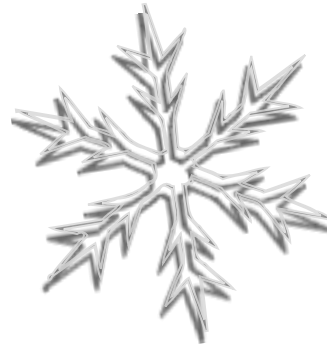
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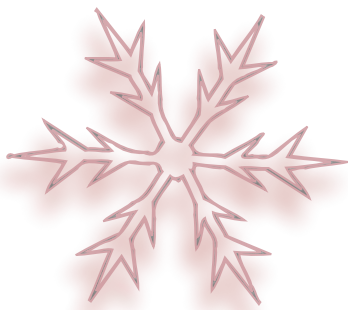
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# Graduate Women Speaking UP

## a letter from the editors

GWIS is fundamentally an organization dedicated to addressing the complex problem that women are currently facing, which centers on the academic, political, and social culture. To that end, GWIS conceptualizes, plans and sponsors "professional development events, networking workshops, [and] seminars". Most of our energy has been focused on skill-building events because those are the immediate, stop-gap measures that can help women successfully navigate the rocky academic terrain right now. We've spent a lot of time and energy thinking about how we can reduce attrition rates for graduate women by fostering useful connections, developing skills for handling difficult situations, and creating community. However, if we ever hope to stop swimming against the current and to actually achieve culture change across

*"true empathy between disparate groups is rare, and creating it requires self awareness and effort..."*

the board, we need to start thinking bigger than one woman at a time. With GWIS now running like a well-oiled machine, the communications committee has been devoting more of our efforts toward bigger-picture solutions. Of course, the kind of change we're hoping for will require more than one type of solution, and it will require us all. It can not be achieved by eight women, no matter how fearless, talented, or dedicated. It can not be achieved by any single workshop or mentoring program. It will be achieved by a combination of people and events, and it will be achieved by starting conversations that cross the

boundaries established by gender, region, race, and age.

Easier said than done! Those are difficult boundaries to cross - true empathy between disparate groups is rare, and creating it requires self awareness and effort. It is all but impossible to genuinely walk in someone else's shoes, especially when that walk requires us to shelve or even shatter preconceived notions about ourselves and our cultures. It is far easier and more comfortable to cling to the status quo than it is to confront those notions, even for those who stand to gain so much from doing so. As a result, we tend to shy away from discussing those topics which require an examination of the cultural norms we generally take for granted. However, avoiding such topics will only lead to chronic discomfort by failing to effect any real change. It is tricky to facilitate these kinds of conversations, because they are not only critically important but also uncomfortable and difficult. We've chosen to take the risk, because we can't afford to avoid them. We can't afford to get them wrong, either.

What does it mean to get these conversations wrong? There are many ways to derail a conversation, especially given the sensitive nature of the subject matter. If we are too passive, we risk not being heard, and failing to inspire change. If we are too aggressive, we risk reinforcing negative stereotypes, and making a bad situation worse. It's truly a delicate balancing act, one that requires our thoughtful participation; we often only get one shot at it. There's no such thing as a casual conversation here. This is the line that we walk every time we sit down to write or edit an article for GQM. We want to protect the integrity of the author's

ideas and voice, but we want to ensure that we're not offensive. We're constantly considering whether the strong statements we make are universally true, and if they're useful. The editorial process is fraught with insecurity.

*"The editorial process is fraught with insecurity..."*

We struggle with the idea of getting it "right"—and with what that even means. To us, that means identifying and calling attention to the real roots of this problem. We've found that there are a lot of distractions and red herrings that obscure the true causes of pervasive inequity, and we want to eliminate these distractions in order to find the foundation of this problem. As a scientific community, we're good at solving problems. It's what we do, all day, every day. But we can't solve a problem unless we understand it—and this is one of the most widely misunderstood problems that currently exists. So when we talk about getting it right, to us that means posing this problem in a form that everyone can understand, thus making it eminently solvable.

Posing a problem to the entire scientific community, even when well understood, is remarkably daunting, so we will need some help. We believe that the best way to approach this is to involve as many different perspectives as possible. The goal is to acquire a comprehensive understanding. This is why we are always championing new contributors and soliciting your feedback. You won't believe how much we learn from talking to all of you during social events, seminar mixers, and casual encounters in the campus center. It is these two-way interactions that keep this organization going. We are working hard to create and protect the spaces for such fruitful exchanges, but that is not without its challenges. We don't want to be tolerant of intolerance, and we also don't want to alienate anyone. We want to foster empathetic, thoughtful conversations between people from different backgrounds. In order to do this, we need to find—or even create—common ground.

Creating common ground is a challenge of both philosophy and communication. What we say and how we say it are considered in equal proportion, and given that we aren't career rhetoricians, we often struggle through the process of putting our ideas in print. For precisely these reasons, we turn to the scientific method. We make use of the body of research being conducted by our colleagues to guide us in our endeavours, because we all have a deep respect for the scientific process. We use these findings to hone our thoughts, and then we share them with you.

We consider our responsibilities here in the communications committee to be threefold: we need to inform our community that such conversations are both valid and necessary, we need to create and concatenate resources which provide useful materials

and promote dissemination of knowledge around the relevant topics, and we need to facilitate the transition from discussion to action. GWIS has executed our preliminary goals effectively, and now we've taken the next step. We're beginning to build respect between people from different backgrounds by building safe spaces - be they mental or physical - in which those different backgrounds can mix and mingle, and by providing important, thought provoking topics that spark meaningful dialogue in those spaces. Of course, our committee will continue to perform the vital services that we've always performed, but we've begun expanding our mission to include the ideals discussed here by creating this magazine. We plan to continue our expansion, and to take even more of you with us, by opening the ranks of the quarterly magazine format to include more of your contributions, by revitalizing the blog to promote feedback, by encouraging active participation from our members and readers, and by organizing workshops and seminars specifically pertaining to communication. Not one of these tasks is straightforward, but at least we have a plan.

*"Creating common ground is a challenge of both philosophy and communication..."*

In this issue of GQM, we share our thoughts with you on some of the many subtle facets that compose an act of communication. As you read about the importance of listening skills on page #3, the role of power-centric ethics on page #10, and the consequences of communication breakdowns on page #5, we hope you will share your thoughts with us about the many roles communications play in your everyday life. Within the committee, we have begun to regard communication as a vital skill that requires active and thoughtful pursuit, and one that we have all but ignored for far too long. We're working every day to be more effective, honest, open, and receptive, and judging by the forthcoming, numerous, and beautifully sincere responses we're received for the upcoming special issue of GQM, it's already paying off. We're glad to be on the journey with you!

The GQM Editors  
Joelle A. Labastide and Dina Navon

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# Are You Listening?

thoughts on an undervalued communication skill

By Hannah Blau

Success in STEM requires good communication skills. A scientist must produce convincing grant proposals to win funding from governmental agencies, private foundations, and industrial partners. She must deliver engaging seminars targeted to her audience, be they specialists in her discipline, scientists from other fields, or members of the general public. She must give a coherent written account of her work in reports, white papers, conference submissions, and journal articles.

Heard it all before? I'll bet you have. When STEM students are offered professional development in communication skills, the instruction focuses on techniques for oral and written presentation. Listening skills are taken for granted. As graduate students we are encouraged to put forward our ideas, to claim credit as individuals for "advancing the state of the art". If everyone is talking and no one is listening, have we achieved any real communication? While each graduate student strives to make a name for herself, none of us toil in isolation. We work under the guidance of a faculty member and in collaboration with lab mates. Listening well to your advisor and to your peers will deepen your relationship with them. You can become a better listener through thoughtful practice.

## Colleagues value your listening skills

In my college years, I used to help my friends who had papers to write by listening as they explained their ideas to me. By asking careful questions I coaxed them to clarify their thought process and identify gaps in their reasoning. During finals week in my senior year, two friends who were working on papers wanted to speak with me about their topics. One was a senior in political science, the other a first-year graduate student in psychology. They both came to me at the same time. I was reluctant to reject either one, so we all three went to sit at a table in the vending machine area of the library. I started with political science and listened as she laid out her paper topic. When she had to pause and think about the answer to one of my questions, I switched to psychology with his completely unrelated subject. Eventually he reached a good stopping point and I left him to ponder while I turned my attention back to the first friend. I continued alternating between them, roughly ten minutes per turn. At the end of an hour, they were satisfied and I was exhausted.

Those who have taught in the classroom or tutored during office hours know that explaining a concept to someone else is the best test of our own understanding. In the early stages of a project, discussing our goals with a sympathetic listener will help us to better plan the next step, the next experiment. At a later phase of the work when we prepare a paper, reviewing the content with a friend will lead us to improve the paper's organization and rewrite the paragraphs that fail to get our point across. How could we reap these benefits without the generosity of colleagues willing to listen to us and engage with us? We must be ready to return the favor when these colleagues call upon us to serve as their sounding board.

I recently attended a panel of Ph.D. software engineers speaking about their work at a large computer company. One of the panelists said, "You don't get any points for working alone." On the contrary, he went on, you are expected to function as part of a team. Teamwork is not limited to jobs in industry, it is equally important for jobs in academia. Some graduate students carry out research in large grant-funded projects involving many collaborators. Some learn the value of teamwork as junior faculty serving on committees and submitting joint proposals with other professors. Regardless of the context, listening to your colleagues is a prerequisite for constructive interaction in a team. Listening to a teammate demonstrates respect for her intelligence and her contribution. Mutual respect is the lubricant that makes the team mechanism run smoothly.

## Impediments to effective listening

The biggest impediment to effective listening in science is the dominant communication style. As scientists we

are trained primarily to speak, not to listen. One who sits quietly in a lab meeting and absorbs the words of other participants is suspected of being either a daydreamer or a slouch. We are rewarded for expressing our own ideas, often at the expense of others. Interrupting a colleague to offer an alternative viewpoint is considered normal behavior. What starts as a reciprocal exchange of ideas can degenerate into a sparring match as each party struggles to display his intellectual superiority. Some people thrive in this competitive atmosphere, others are intimidated into silence.

Listening means not just shutting your mouth but also paying close attention to what is said. We all have a surprisingly strong tendency to hear what we expect or want to hear even when our interlocutor is saying something quite different. How often have you watched a seminar presenter mishandle a question because she did not truly listen to what was asked, and answered instead the question she thought she heard? You have to keep your mind open as well as your ears. This is especially important when you are working with people who do not share the same cultural heritage, educational history, or professional background. Our preconceptions of the other cloud our perception of the present communication we have with him.

## Improve your listening skills

Here are three steps you can take to improve your listening skills.

1. Stop interrupting other people. If a question comes to mind while someone else is speaking, jot it down on a piece of paper so you can ask it when they reach the end of their thought.
2. Do not finish another person's sentence (a corollary of the previous guideline). You may think you know what she is about to say, but you could be wrong. If you rush to finish her sentence she will lose track of what she wanted to say because you have deflected her thought process. However, if your interlocutor specifically requests your help in finding the right word, then help her as best you can.
3. Learn to be comfortable with silence. If the speaker pauses momentarily, do not feel obliged to jump in. You will find if you let a moment of silence elapse between you, often the other person will resume speaking. This gives him the opportunity to reveal additional ideas that might never have come to light if you had tried to reply immediately.

These guidelines are easy to formulate, but difficult to follow. An effort of will is required to restrain the ego that always wants to assert itself. You might practice for many months before listening with an open heart and an open mind becomes second nature to you.



# Waging a Scientific PR Campaign

An Interview with Dr. Patricia Brennan

by Dina Navon for GWIS

Working as a scientist these days requires so much more than mere laboratory skills. No longer can we afford to sit in our ivory academic towers, untouched by the masses.

No longer are we all independently wealthy people who turn to science out of boredom or a thirst for knowledge. We need funding in order to complete the work we love. We need it to buy supplies for our fieldwork, technology for our labs, and food to fuel our brains. It's a necessary evil - and it's an evil that requires effective communication on many levels. Here, Dr. Patricia Brennan discusses the many roles of communication in scientific fields, as well as what happens when there is a lack of such communication and steps you can take to increase public understanding of basic research.



**DN:** In your own words, can you provide a brief description of your research program and the broader context for the work?

**PB:** I study the evolutionary consequences of sexual conflict and interactions between the sexes during reproduction. The importance of understanding sexual conflict is that oftentimes,

adaptations that result from sexual conflict are counterintuitive or puzzling. We are only now beginning to understand how these adaptations can evolve and spread in a population. Much of my research has focused on duck genitalia and forced copulations.

Your research has, in the past, come under attack by conservative media outlets such as Christian Science News and Fox. Can you tell us a little bit about your experiences with the media, both positive and negative?

**PB:** For years, since I first published in 2007, I had a lot of very positive feedback from the media, including the New York Times. Overall I had a great experience; most journalists would write to me when they had a question, and they often let me see drafts before they were published. There was really only one time that there was a story that was off-base, but for the most part I had great experiences with multiple types of media, not just written articles but also through radio and TV. People were clearly fascinated by this story of sex and violence. In March 2013, there was a very factual story on CNS [Cybercast News Service] about how the research was being funded through the NSF. From there, the story spread quickly to more extreme media. These reporters began questioning whether this was a wise choice to spend NSF funding – taxpayer money – on duck genitalia. And all of this was happening within the context of sequestration, a time when the national conversation was intensely focused on our budget. It was personally very hard for me to deal

with, but most of my colleagues recommended that I not do anything and instead just let it go. The overwhelming response I got was that these types of attacks just happen, and it will all blow over soon enough. I was really uncomfortable with the idea of just "letting it go" because it was my research that was being attacked, and I'm very passionate about what I do. A lot of the people who had previously reported on my research came to my defense, but I still felt like I should respond personally, so I wrote the Slate article "Why I Study Duck Genitalia", published in April. I felt it allowed me to address some of the misinformation and defend my research.

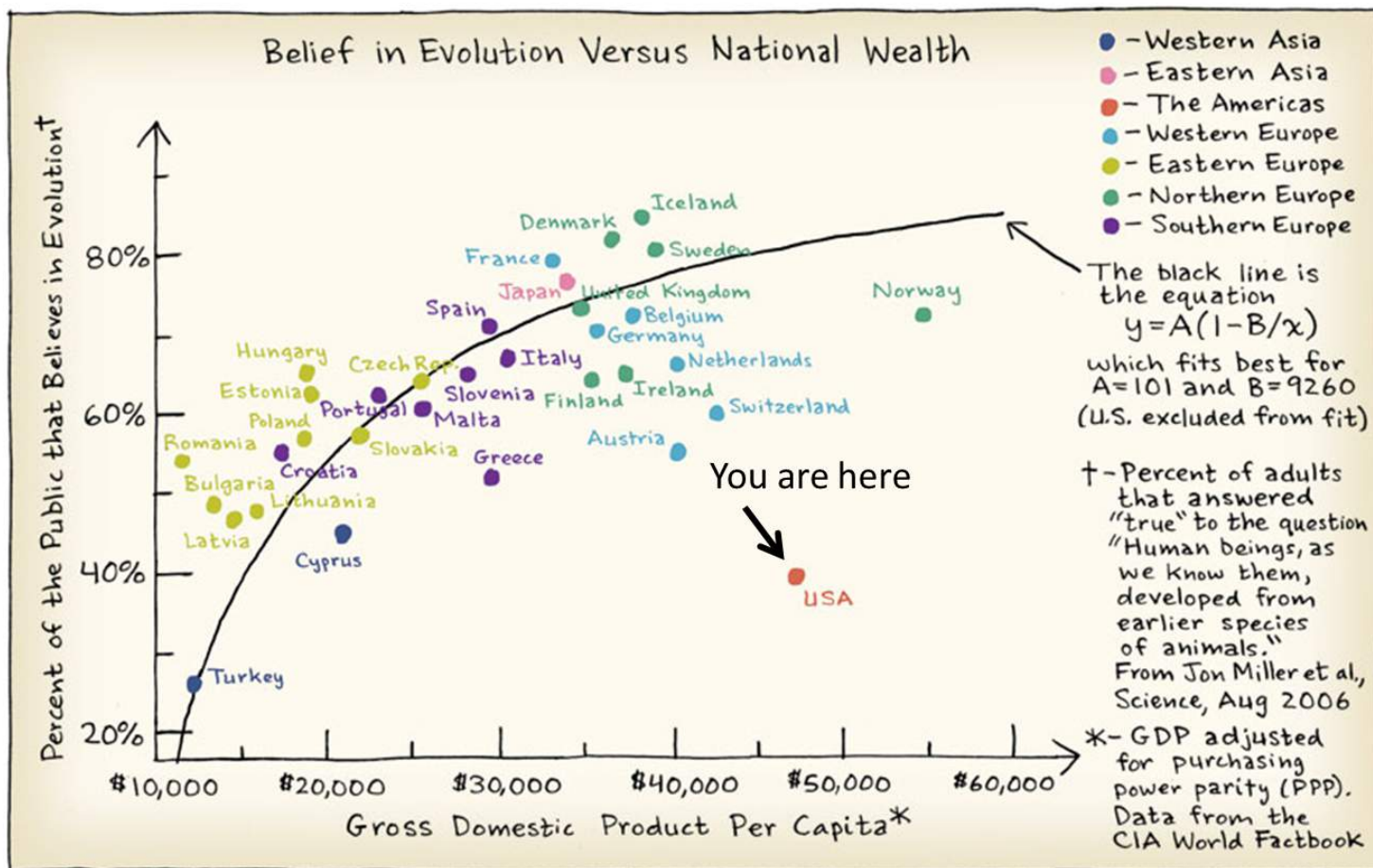
**DN:** As graduate students, we understand the importance of basic research to scientific and technological breakthroughs. Folks outside of academia sometimes don't have that same understanding. In your opinion, where does this gap stem from?

**PB:** Middle and high school, and that's the place we need to educate people about this. By the time kids get into college, it's a message you can pass on to some of the students in the sciences, but you really need to get it through to middle and high school kids, inspire them to have conversations about basic science

around the dinner table. In fact, high school may be too late already, and we really need to focus our efforts on middle school students.

**DN:** We really admire your decision to use this stressful, painful situation as a platform to address a fundamental problem in the scientific community. What precipitated that course of action? Did you get support from collaborators, mentors, or other colleagues? Did you face any opposition?

**PB:** As I mentioned earlier, the universal response was that it would all just blow over. Anyone in academia understands what my research is about, and the politicizing of it is just something that can happen when you're funded through the government. I did run the Slate piece through several close collaborators who had some helpful comments, and immediately after it was published the public at large was very supportive. Tons of emails came in from scientists thanking me for taking up this battle, and it spurred a larger conversation in people's labs and homes. Originally, though, I didn't know what to do, and no one had any satisfying advice for me. Nobody had a plan; there was no conversation for how to deal with this. No one told me that this was something I had to think about. Yet these attacks





continue happening to researchers across the country, so we need to think about it. We need a unified response as a scientific community. We need everybody to become involved, and that's really my main motivation right now, to come up with good responses and statistics and stories to defend not only specific research programs but scientific inquiry as a whole.

**DN:** In light of your experiences, where do you feel effective communication about your research ranks in relation to the work itself? Is it just as important? Less so? More so? Why?

**PB:** If you're asking about people who are judging your work in academic setting, then this type of communication is not considered a priority. The number and quality of your publications are what gets judged by your scientific colleagues. De-prioritizing this type of communication is a mistake. These kinds of efforts should matter quite a bit. If you're asking from the perspective of a granting agency, this is super important – it's why the NSF and the NIH have broader impact requirements in the first place. And for the public, it's absolutely critical. If we want to garner more support and funding for science, we need people to understand how science impacts their lives. And the only way for them to get that understanding is for us to bring them that message over and over. It's hard, not everyone is good at everything. Some people are great at writing scientific articles for an academic audience; some are better at communicating to students; and still others have a gift for sharing their passion with people outside of academia. But everyone should be supporting the efforts of the people who are good at that last category, because we need that message to get out, it's vital for the survival of our field. If we can't convince people that our work is important, we won't get funded, and if we don't get funded, we have no way of continuing the research.

**DN:** What do you think is the responsibility of a scientist to communicate their work to a wider audience? Is it just responding to bad press, or do we have a general responsibility to educate the public on and defend funding for basic research?

**PB:** Everybody has to do something; I don't expect everyone to go out and give public outreach talks. Not everybody is good at it – some people are just awkward, and some might actually be making things worse if they aren't

communicating effectively. But support your colleagues who are good at this; give them strong recommendation letters. Support the scientific organizations with lobbying power in Washington. If you can't do this yourself, help those who can.

**DN:** How many different roles does communication have to play in scientific research? Who do we need to communicate with? Will the same types of communication work in every situation?

**PB:** What we really need is a science PR campaign. If I were selling science to people, then I'm going to sell it according to my audience. I would do that differently if I was selling to kids, or teenagers, or working adults, or seniors. Each population I just named is interested in different things, each one has different buttons I could press. We need to understand what these populations will respond to – for example, social media is a good way to reach teens, maybe, but not seniors. If I wanted to get information to seniors, I might give a lecture at a nearby rotary club. We have to figure out how to touch on those different populations. For kids, it's important to go to schools, talk to the teachers or give a guest lecture. Or even better – plan an activity that shows the difference between basic and applied science. One of the papers published recently has an exact curriculum for this, so you can take that to a middle school science teacher and discuss how to make it work in that classroom. You have to target your strategy to your audience. We have such diverse audiences, so we must also have strategies that target each one of them. And this is why I think no one person can be good at targeting all of them; different scientists have different strengths, and we can capitalize on this to reach different people more effectively.

**DN:** Can you see particular places where breakdowns in communication often occur? How do those breakdowns affect our ability to perform research?

**PB:** It's a lack of communication, and not just a breakdown. There is no active effort to educate people in these areas, especially at the high school and middle school level. I once asked the twelve students in my class if they ever discussed anything like this in high school or middle school, and only one person had that experience. Even throughout college – out of those twelve students from many different

# Was duck penis study an appropriate use of taxpayer money?

By **You Decide** · Published March 25, 2013 · FoxNews.com

The National Science Foundation has been criticized for spending \$384,949 on a Yale University study that examined, among other things, the particulars of duck penises. Do you believe the study was a proper use of taxpayer funding? [Read our story](#) and then give your thoughts in our question.

Was duck penis study proper use of taxpayer money?

- Yes. Sure, it sounds silly, but these studies produce real and useful scientific information.
- No – what a quack! A government looking to cut back shouldn't be wasting money on anything like this.
- Maybe. We need to fund scientific research, but perhaps now's not the best time for bird-brained studies like this.

## Opinion Video



Gretchen's take: Do voters care about Clinton controversy?



What will happen to Hillary Clinton?



Bias Bash: GOP

backgrounds, not just biology but physics and psychology, just one had come across this idea of the difference between basic and applied research. These students are ready to graduate; they're mostly juniors and seniors, and the vast majority of these students have never been exposed to this idea. This is a gaping hole in terms of education! If we can teach it to the kids still in high school, and make it a part of their curriculum, just as we teach them about scientific method, if we can really stress that these innovations and leaps and breakthroughs only come about on the foundation of basic science, we're getting somewhere. Because if they know that, then they'll never question its importance.

**DN:** As basic researchers who are entering the field in a hostile sociopolitical climate, there's a possibility that we will find ourselves having to defend our work to a public that doesn't understand its relevance. Given your experiences, what advice would you give us on how to approach and handle this? Are there steps we can take now to protect the future of basic research?

**PB:** Absolutely. I have many suggestions, and some of them are outlined in a paper in *Animal Behavior*. That article highlights specific strategies, and even provides bullet points of what to say to people. In terms of preemptive steps: educate yourself about some examples that are

really good at capturing people's attention immediately. An example I like to use is bird migration, and how research on that helped to increase airline safety. It's a connection most people have never made, but it's so clear – this is something important, that came from something most people would never think twice about. I mean who cares where the birds go? Well, if you want to get on a plane and not crash, maybe you do. I hadn't even thought about it when I came under attack myself – that's why I was like, oh my gosh, what am I supposed to say? Being responsible for knowing how you would answer your taxpayers when they ask you why their money should be spent on your research...you just have to think about it. You have to have your answers prepared. Just because everything's going great and no one is questioning you doesn't mean everything will always go great. If you can, make your own website – explain your project, using photographs from the field or your lab. Doing things like that is definitely helpful, if only because then you can direct people to those concrete places when questions do arise.

**DN:** At the time, we imagine you must have found yourself bombarded with criticism – from the media, from the public, from the people advising you on how to deal with the media and the public, and so on. How did you separate the useful criticism from the hurtful? How did you



determine the validity or credibility of the criticism you've received?

**PB:** Essentially, none of the personal messages were at all negative. I received one negative email, and that was it. Every other message was positive and supportive. The comments on the stories were awful, not only personally offensive but also completely misguided in every way, people who just didn't understand the science. They were the trolls, the kinds of people you cannot engage with positively. But I did read those comments, and some of them stuck with me. One person in particular asked: "I can't pay my electric bill and this woman gets \$400,000 to study duck penises?" That's an excellent question. What can I tell this person? It's a totally legitimate question, why the money given to the government in taxes by people who are struggling to pay their bills is being spent on something they consider trivial. This is something I really need to be able to address. But the vast majority of those comments were not even worth engaging in any way, shape, or form.

SCIENCE THE STATE OF THE UNIVERSE. APRIL 2 2012 10:26 PM

## Why I Study Duck Genitalia

Fox News and other conservative sites miss the point of basic science.

By Patricia Brennan



A ruddy duck and its penis.  
Courtesy of Patricia Brennan

In the past few days, the Internet has been filled with commentary on whether the National Science Foundation should have paid for my study on duck genitalia, and 88.7 percent of respondents to a Fox news online poll agreed that studying duck genitalia is wasteful government spending. The commentary supporting and decrying the study continues to grow. As the lead investigator in this research, I would like to weigh in on the controversy and offer some insights into the process of research funding by the NSF.

My research on bird genitalia was originally funded in 2005, during the Bush administration. Thus federal support for this research cannot be connected exclusively to sequestration or the Obama presidency, as many of the conservative websites have claimed.

**DN:** We think you're a brave and effective communicator, would you agree? What qualities enhance your ability to communicate effectively with a wide range of audiences? What

mistakes do you think you've made in communication?

**PB:** I think that the biggest mistake you can make, and certainly I have made this mistake, is to think that you have to answer something right away. It's totally ok to say, "You know what? I have to think about that and get back to you". If you don't take that time, you might miss an opportunity to make a point in a really good way. I think that when I talk to people it's clear that I'm incredibly passionate about what I do, and I think that that's a little bit contagious. It's very personal for me, the process of science. I try to just be me – talking about what I think is important, and if I can do that it becomes a story about stuff that's happened to me, and how I dealt with it. "Let me tell you a story about this thing that happened" – that engages people. Nobody wants to be lectured to, but once you capture their attention you can deliver the message that's important. I really believe in it; it's born of out my passion for what I do and my confidence that we can make a difference, but that such a difference takes work. I'm not cynical or jaded, but I do present the situation and ask how we can make it better.

On behalf of GWIS, I want to thank Patty for taking time out of her day to talk to us about this issue. I wasn't surprised when she agreed to give us an interview, because she's been incredibly passionate about this topic since I met her last September. She recently gave a Science Cafe as part of the OEB outreach program specifically defending the importance of basic research to members of the wider Pioneer Valley community, and you can find a video of that talk [here](#). We as a scientific community need to support each other, both privately and publicly. If there's one lesson we can learn from this story, it's that we cannot wait for the emergency - we need to act about this now.

# On Love, Power, and Scientific Communication

by Rachel Striker Koh

Among scientists I know, it is generally accepted that communication is important. This importance is evidenced by the emphasis placed on publishing and otherwise presenting our research, and by the popularity of workshops like “Networking for PostDocs” (CIRTL, last April) and “Developing Your Elevator Pitch” (GWIS Mentoring Committee, February event). In my 2.5 years at UMass, I’ve gone to at least five workshops titled “[Some type of advice] on how to do [some type of communication].” It’s obvious that we as a scientific community value communication. What interests me lies beyond words and phrases, though. While it is practical to learn that “saying X like Y will give me Z”, my interest lies in a bigger-picture idea. I believe that how we communicate is a direct result of why we communicate, and I’m not sure we always have conscious awareness of that “why” (I know I don’t). I wonder if trying to raise conscious awareness of that “why” would make us better communicators.

My adviser told me once that when giving an academic talk, I should aim for the material to be just barely above everyone’s heads. They should

mostly understand what I’m talking about, but the most complex ideas should go over the heads of even the most knowledgeable people in the room, in order to sufficiently demonstrate my academic merit. This seems silly to me. If the most complex ideas are out of reach for the most knowledgeable attendees, the average attendee is only getting less than half of the material. In debriefing research talks with fellow graduate students, we often compare how many slides we were able to follow before the material became too difficult to understand. In fact, the best academic talks I’ve attended have been the simplest ones. The goal of giving a talk should be to convey your research, not to prove your worth. This leads me to a key question which should frame a communication ethic: What is the purpose of communication in academia? What is the goal?

Before we dive into this idea, I’d like to introduce some terminology. Because many of these words could have different meanings given different contexts, I will begin this conversation by defining three key terms. I’ll borrow from Wikipedia to



**“Dominant culture has tried to keep us all afraid, to make us choose safety instead of risk, sameness instead of diversity. Moving through that fear, finding out what connects us, revelling in our differences; this is the process that brings us closer, that gives us a world of shared values, of meaningful community.”**

**Bell Hooks**





To be human, you must  
**bear witness to justice.**

Justice is what love looks like in public

- Cornel West, American author  
and professor

<http://daily-struggles.tumblr.com/>

define communication: "a purposeful activity of exchanging information and meaning across space and time." In the context of being a graduate student, examples include meeting with a research adviser, chatting with peers, giving a formal research talk, or speaking with an undergrad who works in your lab. I will also use the term ethic, by which I mean simply a set of guiding principles. Finally, I'd like to introduce the term power, which I will define here as possession of control, authority, or influence over others.

I'd like to introduce the idea of communication ethics, or principles which drive our interactions with one another, thinking specifically about experiences communicating as a STEM graduate student at a research institution. What do the conversations I have with my fellow graduate students, my advisors, professors, and undergraduates look like? One observation I've made is that there exists a power dynamic between these different groups of people, and that dynamic has a great influence over the structure and resolution of those conversations. Academia has a power-centric structure. We have learned this power-centricity from capitalism, which is hierarchical by definition and requires that we seek economic advancement as individuals, leaving room for only a few at the top. In academia, this hierarchy holds university deans and presidents at the top, followed by tenure-track professors, then lecturers, graduate students, and so on. I sometimes feel as though I am on a quest to make it as far up that ladder as possible, as quickly as possible. This quest is what I'm calling our power ethic.

Academic values are very much in line with the power ethic. We worship busy-ness, applauding our colleagues and friends for putting in 50+ hour work weeks, [even at the expense of their health](#). In the process of thinking about what I really want out of my academic career, I've started to call this

power ethic into question. I've noticed myself thinking (falsely) that I need a Ph. D. to make real change in my own and my students' experiences in academia, that somehow having a doctorate will make my opinion more valid. But then I think about what's after graduate school and I realize that the academic hierarchy doesn't end with a Ph.D. That in fact, it doesn't end...ever. So when is the best time to effect change? The best time to effect change is all the time.

I wonder what academic communication would look like if we prioritized an ethic of love. My use of the word love might be different than what we are used to, so I'll insert one last definition. Borrowing from bell hooks and Erich Fromm, let's define love as the will to extend one's self for one's own or another person's growth. A love ethic, then, is comprised of respect, recognition, trust, care, commitment, affection, and honest and open communication. For me, this definition is just the right amount of nonspecific and succinct. Like what Cornel West meant when he said that "justice is what love looks like in public." That kind of love.

I've recently become attached to an idea inspired by bell hooks' book *All About Love*. She proposes replacing our power ethic with a love ethic: "Awakening to love can happen only as we let go of our obsession with power and domination. Culturally, all spheres of American life—politics, religion, the workplace, domestic households, intimate relations—should and could have as their foundation a love ethic." I wonder what a love ethic would look like in academia, and particularly how it might change academic communications for the better. Imagine what it would be like to walk into a faculty interview where your interviewer started the conversation with "We have been following your work and are excited to have you on campus," rather than with "So you know, it's been a competitive application

process with X many people invited for on-campus interviews." The first scenario contains aspects of a love ethic, especially recognition and respect. The second scenario contains threads of a power ethic, undermining and using intimidation.

In her thesis on gender differences in communication styles, influence tactics, and leadership styles, Karima Merchant asserts that "The biggest difference between men and women and their style of communication boils down to the fact that men and women view the purpose of conversations differently. Academic research on psychological gender differences has shown that while women use communication as a tool to enhance social connections and create relationships, men use language to exert dominance and achieve tangible outcomes (Leaper, 1991; Maltz & Borker, 1982; Wood, 1996; Mason, 1994)." I would expand upon her evidence of this effect as it relates to binary gender, and argue that these disparities in communication exist across power dynamics based on all types of social identity (race, socioeconomic class, etc.) and social status (in this case I refer specifically to the academic hierarchy). In conversations with a dominant-subordinate power dynamic, (say, a faculty-student dynamic, or a man-woman dynamic) each participant may have different motives and goals for that conversation. These goals can frame a communication ethic, and naming them can transform the ways we interact as scientists and academics.

As educators, prioritizing love by leaving our egos at the door would allow us to empower students

for success. One of my undergraduate collaborators shared with me that having a professor make mistakes on the board during class, then have to go back and correct them in front of the class, empowered this student to take risks without the fear of making mistakes. In the classroom, she is less afraid to ask questions; she previously feared asking questions would portray her self-perceived ignorance. As a researcher, her critical thinking skills are invaluable.

Moreover, a love ethic would dismantle systems of power which oppress groups of people with historically marginalized social identities. One [engineering education study](#) showed that student empowerment through liberative pedagogies has a disproportionately positive effect for women and students of color. This should be no surprise when we consider the capitalist (and therefore sexist, racist, and heteropatriarchal) roots of higher education.

Communicating with a love ethic in academia would threaten systems of power and oppression. It would be radical. It would be transformative. And it isn't even that hard. Compassion, respect, recognition, and honest and open communication are not that hard. For me, these values started showing up when I asked why I was communicating in the first place. And the answer showed me that if given a choice, of course I want to empower my students for success. Of course I want my research to be understood. Of course I want someone to leave a conversation with me feeling valued, respected, and cared for. Don't you?

