

Natural Selection

A NEWSLETTER OF THE ROCKEFELLER UNIVERSITY COMMUNITY

Science Blogs

EUGENE MARTIN

In the first days after the Deepwater Horizon disaster, I was more confused than most people because, rather than just being ignorant, I was learning and parroting unintentional misinformation. I recall telling my parents—who generally have reason to trust me—that “What’s upsetting is that BP can stop this spill, but they just don’t want to ruin the oil field for future drilling. Russia has successfully stopped deep sea oil leaks by nuking them.” What was insidious about my statement is that while part of it is novel and true—Russia has stopped some deepwater oil leaks using controlled nuclear explosions—the overall message is more sensationalism than fact. In reality, setting off a large explosion on the floor of the Gulf of Mexico carries unpalatable risk (based, in large part, on the unique hydrate-sediment composition of this section of the ocean floor). That said, there was a disconnect between what the media was reporting and what I wanted to know. When I couldn’t find facts, I apparently ate up the conspiracy theories. Thankfully, someone finally directed me towards a resource that was both informative and accurate.

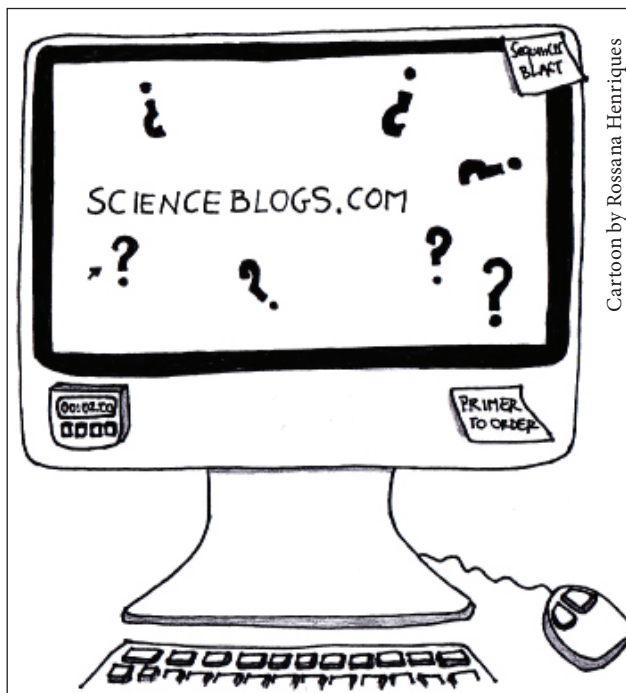
That resource is www.theoildrum.com. I like The Oil Drum (TOD) because it both fills the information void about the spill and it’s a great model of what scientific outreach can be. The Oil Drum is a blog populated by engineers, geologists, and other specialists within the oil industry. While much of the blog is devoted to determining whether there will be an oil shortage crisis in the future (the consensus is there will be), and how to deal with it (the consensus is that it is possible), the catastrophe at the Deepwater Horizon sent the blog’s regular contributors on a mission to evaluate what was going on and to inform the public.

The Oil Drum serves the important functions of listening to its laymen read-

ers and then answering questions, dispelling myths, and analyzing media reports. While BP CEO Tony Hayward was announcing that the top kill method had a 60 to 70% chance of working, the bloggers

nal to noise at a high level. What’s admirable is that they’re confident enough to write detailed answers on a broad range of questions, and the site is strong enough that other users can tactfully point out errors in thinking and offer corrections. Due to the oil leak, there’s now a constant influx of people with relatively simple questions, which has the excellent effect of making the community flesh out their answers and explanations. In short, it’s an important resource for the modern age, in part made possible by reaching a threshold number of professional and layman participation.

In part, it’s the satisfaction of reading TOD that has led me towards reading the science blogs that RU students and faculty are involved in¹. While the scopes of these blogs are substantially different from TOD, they’re doing the critical job of fostering people’s interest in science and laying the groundwork for more participation. What everyone there conveys is their interest in science, and it’s



Cartoon by Rossana Henriques

at TOD were explaining the physics of why this was a vast overstatement. As of the time I am writing this, there are threads stating the statistics behind how many relief wells should be drilled to ensure that one will work, a thread explaining the effects of erosion on the oil flow rate, a thread debating the worst case scenario that the casing of the well may be compromised, and a discussion about what can go wrong after the relief wells are drilled. In the background, there remain the discussions about the problem of our rate of oil consumption and how we can wean ourselves off of oil.

The Oil Drum has become a well-functioning community. A small nucleus of people tend to be the most trustworthy, and they both start topics for discussion and moderate the forums to keep the sig-

infective. From Joe Luna’s descriptions of the trials and tribulations of historical scientists to Jeanne Garbarino’s personal stories of how science impacts family life, the bloggers at the Incubator are planting the seed for a community that discusses science and its impacts. While biomedical science has not, and hopefully never will, had a disaster anywhere near the scope of the Deepwater Horizon catastrophe, there certainly are factual gaps between what we know and what the public knows about important issues. The Oil Drum is currently filling an informational void about modern energy; the current crop of science blogs can fill informational voids about modern science. ☉

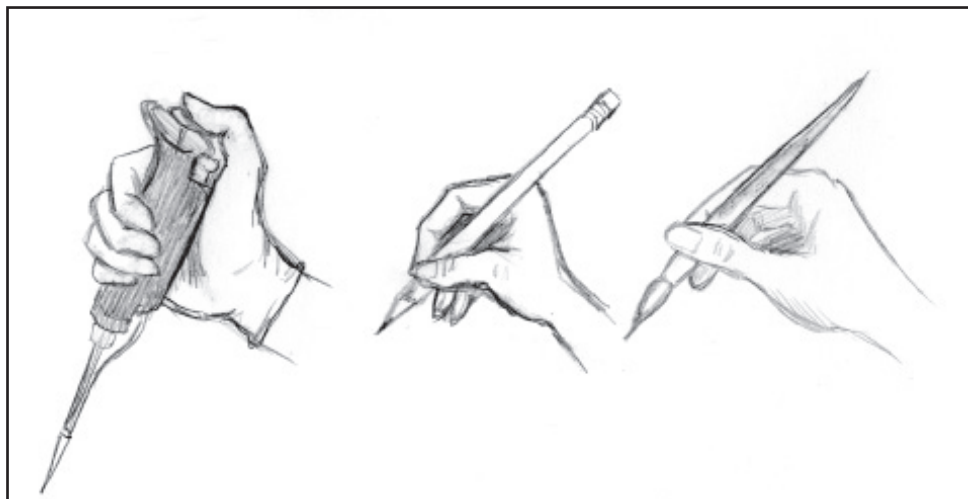
Reference:

1- The Rockefeller blog is at: incubator.rockefeller.edu

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The many hands of a scientist. Cartoon by Adria LeBoeuf

The Creative Gene

BERNIE LANGS

It almost goes without saying that there are many creative people at Rockefeller University (RU) and many have interests in areas outside of the primary mission of the university. There are actors at RU who have staged plays, photographers snapping shots of the beautiful campus (and other locations), and musicians utilizing the music room. In addition, the Sounds of Science project mixing lab tones to music is flourishing. Many people might feel that they want to begin writing stories or poetry or songs, and I'd like to offer some advice on how to start and how to find inspiration for these endeavors.

When I first toyed with writing fiction as a hobby, I asked a friend of mine who was serious about his work how he found the time to write while working full time. He literally snapped at me and said, "If you wrote just one page almost every day for a year, you'd have over 300 pages by the end of the year." Later, when I began to write short stories, I found that everything had to be just right for me to be creative and sit down and type out some work. My mood had to be perfect, my day had to have been a good one, and so on. At that time, I took a writing course at The New School. The very first thing the professor told the class was, "Many of you procrastinate when deciding whether or not to write. The chair has to be in the right place. You have to feel good. Sit down and write, just do it!" I never had a problem getting in the mood after that.

Dreaming of publishing success is a poor motivator in becoming a writer. I once approached the famous late novelist Jerzy Kosinski at a drinking establishment and asked him

if he had really known the biologist Jacques Monod, who had appeared as a character in one of his books. We fell into a lengthy conversation and when I told him that I wanted to write full-time, he told me, "Forget about being published. It's impossible. Everyone is writing. The chances are next to none." Although it was discouraging to hear this, over the years I've found it is the process of writing novellas and the absolute joy in seeing a work come together in plot and style that keeps me going. I'd love to have more readers, of course, who could bounce ideas off of me about what they think the meaning my stories convey, but I've always realized that Kosinski was right on the money with his assessment of the competitive publishing market. It's probably even more difficult now than when I chatted with that author in the 1980s.

People often ask me where I get ideas for my novellas. I'm reminded that some famous bloke once quipped that every single person alive has a novel in them waiting to be told. I also think of a scene in the movie "Shakespeare in Love" where Will Shakespeare sits down in a pub and is faced with his rival, Kit Marlowe. The frustrated Shakespeare, blocked for ideas, mentions his project, and one sees the wheels turn in Marlowe's head as he methodically and slowly recites a more exciting plot line. In other words, one needs just one spark of an idea to begin with, and then one has to "run with it."

I was recently at an exhibit of medieval drawings at a museum and I saw a huge map of what was imagined to be the entire world in the year 1190. What was interesting was that the map resembled a crude drawing of a cell. I ran with that idea and am now in the process of writing a book about a secret society of monks who communicate with modern

scientists through time. I once combined a dream I had, which involved a famous religious leader, with the thread of a Bob Dylan Song "Seven Days." In the novella, a young man is given a "Biblical week" to sort out his tangled relationships in order to progress to whatever is mysteriously going to occur on Day Seven. If one just finds a simple catalyst, one can build an entire edifice around that initial inspiration. It just takes a bit of imagination and the discipline to just sit down and write at the end of a long day. I never write for more than an hour (usually less). I have written well over a dozen novellas since 1995.

Writing songs is more difficult, but also easier than one would think. I started writing pop music songs at the age of 15. I'd had some piano lessons as a kid and decided as a teenager to learn to play simple guitar chords. I would strum various chords together to try to get a continuity of sound. One evening, I was strumming back and forth between two chords that sounded good together and I began to sing some nonsense words. I searched for a bridging chord and then found two other chords for a chorus. As I learned more and more guitar, the songs and switches grew in complexity. I think a lot of people who play just the basics of piano and guitar can teach themselves to write songs this way. Writing a really, really good tune—that's another matter. I think it's easier to write a good short story that many people will find interesting than it is to write a decent original song.

Frank Zappa once put out an album called "Shut Up and Play Your Guitar." To all the would-be writers and musicians out there: Inspiration's where you find it. ©

HAVE YOU BEEN SALANDERIZED?

JERRY MELCHOR

The Girl... Trilogy

By Stieg Larsson

Translated from Swedish by Reg Keeland

The final installment of *The Girl...* trilogy from Sweden's Stieg Larsson has finally been released in the US. It does not disappoint fans that have followed Lisbeth Salander and Mikael Blomkvist since *The Girl With The Dragon Tattoo* and have enjoyed the addictive books that are fast-paced and full of action. *The Girl...* books are a real trilogy in the sense that they are hard to separate, and maintaining the chronology makes them more understandable and enjoyable for the reader. Larsson wrote and submitted the books in this series to a publisher and died of a heart attack shortly thereafter, never seeing how popular they became. An unfinished fourth manuscript supposedly exists on his computer which is now the subject of an ownership battle between his partner and his family, and will probably never be read by Larsson's fans.

The first book in the trilogy introduces Mikael Blomkvist, a liberal, investigative journalist, who is losing a trial that will both bankrupt him and send him to jail after being sued for libel by a powerful financier. Needing money for both personal and professional reasons, he accepts an assignment to help solve a case of a girl's disappearance that happened almost 40 years before. The man who hires Blomkvist is Henrik Vanger, a rival financier willing to expose secrets that will destroy the man who sent Blomkvist to jail, rescue the fallen journalist's integrity, and pay him a lot of money. Henrik hires Blomkvist only after a thorough background check done by Milton Securities' Lisbeth Salander, *The Girl*. Salander is a Goth-looking bisexual waif—complete with tattoos, piercings, and anti-social logoed T-shirts—who also happens to be a world-class computer hacker and investigator.

The missing girl is Harriet Vanger, the favorite niece of Henrik Vanger. Her disappearance occurs on an island, where the entire family lives, on a day when an accident occurs and blocks the only exit out. Under the cover of writing a family history, Blomkvist moves to the island and interviews Vanger family members present during the

disappearance. For help, he employs Salander and her investigative skills to answer the question of what happened to Harriet. There is quite a bit of action here, including violence (sadism, car chases, and murder) and a lot of casual sex. Suffice it to say, the odd pairing of an older, truth-seeking journalist and younger female hacker with a don't-talk-to-me attitude, not only solves this mystery and other related murders, but mostly pulls in the reader to a book and trilogy that are fun and quick reads.

The second in the series, *The Girl Who Played With Fire*, is what I consider a "bridge" book. Larsson's improvements as a writer are evident and he introduces characters here that will be important in the final book. However, with all the characters and plot-forwarding additions, the story is burdened with over-the-top action. Salander is framed for three murders and there is even more violence than in the first book, including investigations into a sex trade ring, gunfights, a bad biker gang, and someone being buried alive. We learn about Salander's history, including her father, Alexander Zalachenko, a former Russian spy who became Sweden's biggest counter-intelligence property after the Cold War. A secret group within Sweden's Security Police (SAPO) protects her father, and cleans any mess that Zalachenko gets into, in order to ensure that his identity is not revealed. "Zala", however, has a mean streak and a terrible habit of beating up his lover: Salander's mother. Lisbeth decides to take matters into her own hands when she tires of the police not listening to her complaints. She threatens to expose "Zala" and the group conspires to land her in a mental institution at the age of 12, being declared legally incompetent and needing to have an advocate who controls her life. Advokat

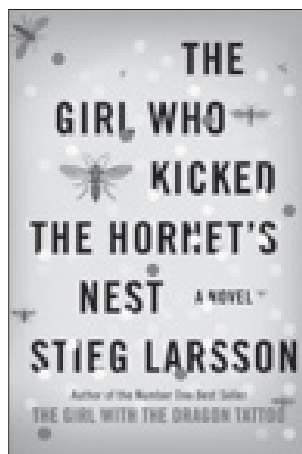
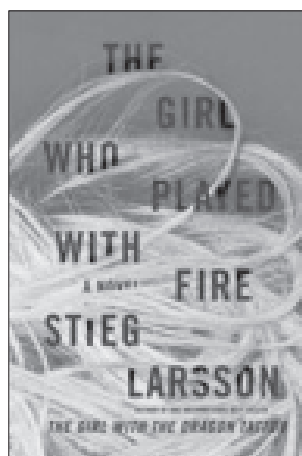
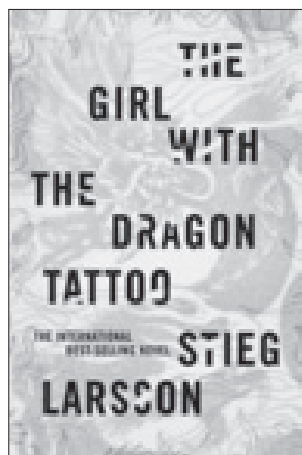
Bjurman abuses Salander and in revenge she sets him up and turns the table on him. Bjurman, to get back with Salander, gets in touch with "Zala", leading to the last book.

The Girl Who Kicked The Hornet's Nest is the last and best of the series. Larsson's writing style and plot construction has matured throughout the three books and here he does an excellent job of tying up loose ends. The book starts where the second one left off: Salander is

rushed to the hospital due to several bullet wounds including one in her brain after she tries to finish off Zalachenko (he got an axe in the face during this fight). While recovering in a limited-access hospital room, Salander's (and Blomkvist's) resourcefulness is once again on full display. Blomkvist sneaks in a handheld computer to Salander and installs a blue-tooth-enabled cell phone in the vent, enabling her online investigation and efforts to clear her name. The group within SAPO brings in retired members of the Zalachenko group and tries to clean up the mess for the last time. Again this group works to declare Salander mentally incompetent and institutionalized. Salander, however, will work to get her retribution.

Lisbeth Salander's actions make you side with, even sympathize, and ultimately cheer for her. Here is an anti-social hacker who is also mathematically brilliant—who works to solve Fermat's theorem in her spare time (Andrew Wiles anyone?)—and is a byproduct of a system that prevents her from trusting authority (police, government, psychiatrists). Her ability to solve problems and get herself and Blomkvist out of binds is remarkable, and yes, even at times eye-rolling, but

enjoying these books means taking it all in and going with the flow. So if you want something to read on the beach this summer, look no further than this trilogy. ☺



Day Out for Dim Sum

CARLY GELFOND

John and I waited for Carl and Peggy in a wide marble lobby on East Broadway in Chinatown. A few floors above us, contented diners were lifting steamed roasted pork buns to their mouths with smooth wooden chopsticks. Waiters pushed trolleys through a bustling dining room, ferrying buns as well as items less recognizable to the non-Chinese visitor, like steamed bean curd skin rolls, pan fried taro and turnip cakes, and sticky rice with chicken in a lotus leaf. Spirits were high and so was the noise level. This was the culinary experience of dim sum.

A Cantonese term meaning “to touch the heart,” dim sum involves small individual portions of food, such as a variety of dumplings and steamed dishes, usually served in a small steamer basket or on a small plate. The roots of dim sum are linked with the older Chinese tradition of drinking tea. Rural farmers in southern China, exhausted from a day in the fields, as well as travelers on the ancient Silk Road looking for a place to rest, would stop at teahouses along the roadside for a relaxing cup of tea. In time, teahouse owners began offering various snacks with the tea, which was found to aid in digestion. Over centuries, the culinary art of dim sum was transformed from a tradition of relaxing respite to a boisterous and happy dining experience.

For John and me, our first dim sum experience was going to be at the Golden Unicorn Restaurant, where we were to meet John’s co-worker, Carl, and his girlfriend, Peggy, at 11:30 in the morning. But, as our bike ride into Manhattan from Brooklyn had been unusually quick, we arrived early. To make use of the extra time, we wandered into a little apothecary at another end of the lobby. The store was a little odd, or maybe just a little unfamiliar to us. The shelves were filled with various dried teas and herbal supplements all claiming to boost this and aid that, to improve parts of us we never even knew could be better or worse for wear.

I picked up a bottle and held it out to show John just as he held one out to show me. “Lamb Placenta,” I read from the label of my find. (A quick Google search conducted at a later date describes lamb placenta as a supplement “used in China for over 1400 years,” and having a “wide range of health benefits including enhancing body energy, skin complexion and stopping aging process.” Source: www.vitadigest.com/vitamins-supplements-lamb-placenta.) “Meal In A Glass,” read John from his bottle. (Per Google searching at a later date, this is a “metabolically balanced

weight control meal replacement. Superior taste with added flax seed. Includes a balance of fiber for proper gastrointestinal function.”) Probably not a big-seller for a place downstairs from a dim sum restaurant, I thought.



Photograph by Jessica Wright

Carl and Peggy appeared through the door of the lobby. We greeted one another and were corralled into an elevator by a woman whose job this seemed to be. We arrived at the third floor, where the doors opened to reveal a large dining room lined with red curtains. Giant golden dragons were mounted to the back walls. The crowded room was filled with a mostly Chinese crowd, and we followed behind our host to a large round table.

Traditionally, tables order dim sum dishes family-style. Trolleys loaded with food items are wheeled around by servers, and once a desired item is in sight, the diner will flag down the server and point out what he or she wants for the table. The idea is that diners choose various dishes throughout the meal, rather than having the food served all at one time. The cost is calculated at the end by plate tallies or stamps the server has noted on the bill as each dish is ordered.

Peggy is Chinese, and an old hat at navigating the unfamiliar wilds of the dim sum trolley, intimidating territory for the American novice. Thus, we left ourselves in Peggy’s hands as she ordered dishes

filled with pork and prawns, vegetable rice noodle rolls, steamed meatballs, various dumplings, and something called “phoenix talons”—chicken feet, deep-fried, boiled, and marinated in a black bean sauce. I didn’t try the chicken feet (“strange consistency,” warned Carl, who is not Chinese), but I did have more than my share of sweet egg tarts—soft baked dough with an egg custard filling.

The “art of collective dining” is something somewhat new to those of us who grew up in an individualist Western culture, and one could argue that there is hardly a city in the U.S. more individualist than New York. Our dim sum outing at the Golden Unicorn was an interesting foray into the dining experience of a collectivist culture. We resisted the temptation to eat only what was familiar and to be suspicious of dishes containing odd or unusual ingredients. We took advantage of the experience and knowledge of others.

We paid the bill, split equally amongst us, and rose from the table to leave. “I’d say that was better than meal in a glass,” said John. “I agree,” I said, “although we never tried the chicken feet.” ☉



This Month Natural Selections interviews Gen Murakami, a Postdoctoral Associate in the Laboratory of Neurobiology and Behavior
Country of origin: Japan

New York State of Mind

1. How long have you been living in New York? Almost 2 years.

2. Where do you live? Faculty House.

3. Which is your favorite neighborhood? Faculty club.

4. What do you think is the most overrated thing in the city? And underrated?

The most overrated thing is NYC's public transportation. Trains and busses suddenly change their routes, they aren't on time, etc... The most underrated thing is the oysters here. There are a lot of oyster restaurants and their food is very delicious. Many Japanese people wouldn't know that Americans eat raw oysters.

5. What do you miss most when you are out of town? I miss the different ethnic cultures, particularly for their foods. There are various kinds of towns for the Chinese, Indians, etc... it's great to be able to eat real foods from various countries.

6. If you could change one thing about



tauk, Greenport, or Rhode Island with my friends (from a fishing club). Recently I even started fly fishing in the Catskills (the original place where fly fishing started!).

NYC, what would that be? NYC

needs to be kinder to its bicyclists.

7. Describe a perfect weekend in NYC.

The perfect weekend is going fishing. I rent a car and go to ports in Mon-

The fly fishing would be even more perfect if I caught a fish.

8. What is the most memorable experience you have had in NYC? I was going deep-sea fishing in NJ. I spent about 10 hours on the ship to get to the fishing point. In total, I spent more than 24 hours on the boat. Only three people (out of 30) had caught tuna on the trip—the fish were not biting. I was waiting, sitting on the bench, watching the surface of the sea, and suddenly my reel is spinning very fast. I spent 30 minutes reeling the fish in. Now, only four people had caught tuna on the trip.

9. If you could live anywhere else, where would that be? NYC is great and I want to stay here for a while. Afterwards, I'd like to live in a southern island of Japan.

10. Do you think of yourself as a New Yorker? Why? I heard Carrie from *Sex in the City* say that it takes 10 years to be a New Yorker. Ask me again in 8 years. ☺

REVIEW OF THE 4TH ANNUAL NYC BREWFEST

JEANNE GARBARINO

On Saturday, June nineteenth, I attended the 4th annual NYC Brewfest presented by Heartland Brewery. The festival, which was set on the exquisite Governor's Island in the NYC Harbor (a place that you must visit), is an exciting concept, featuring the ability to taste both large-scale and micro-brewed beers from around the world. My \$55 ticket provided transportation to and from the island (via water taxi), festival entry, and a 3 oz. tasting cup. Although the beer was the real star, the festival boasted live music, brewing seminars, and some casual food.

The event was sold out for the 4th year in a row. This was quite apparent by the enormous, and sometimes impatient, crowd at every step. When I first arrived at pier 11 on the lower east side of Manhattan, I expected a brief wait for our ferry. However, this was not the case—we walked for about five minutes before finding the end of the line. Although it seemed as if the boats were continuously picking up people, the urge to moo was overwhelming. After finally making it up to the boarding area, we learned that there was a huge line to get into the festival so the rate of ferry pick up was slowing down in order to help thin the crowds on the island. Luckily, I was armed with sun block, as there was no shade.

As we eagerly stood waiting for something to happen, we caught sight of a ferry. The mood of the crowd picked up and a huge round of applause, that probably could have been heard from the Brooklyn shoreline, drew our ship near. The six-minute ride was surprisingly rough, but I welcomed the breeze after waiting in the heat. Once arriving on Governor's Island (after one hour and

fifteen minutes of waiting), we had about a quarter mile walk to the festival site. Luckily, their tactic to slow down the ferries in order to control the crowds on site worked, and we walked right in, cups in hand. The festival was arranged as a rectangle with a row of brew-tents lining the entire length. At every tent, there was a line about forty people deep making the wait to taste a bit long. We learned that once you got your taste from one tent, you had to immediately get on line for the next if you did not want to have huge intervals with a dry mug.

To be quite honest, the waiting for everything (beer, food, bathroom) started to get old. We were at the festival for about two hours when we made the decision to try and beat the big crowd and get on a ferry. It turns out that we were not the only ones with that idea. Once again, we waited in a mosh-pit without music to board the ferry, but this time there were more than a few of us who had had their fair share of beer (although I am not sure how they managed to reap the benefits of beer, given the 3 oz. serving size and the long waits). What should have been about ten minutes travel time morphed into an hour, and finally stepping foot onto Manhattan's shores never felt so good. Given my experience, I do not think I would attend another Brewfest; however, I would most certainly visit Governor's Island again (on a non-festival day of course). Perhaps for the true beer connoisseurs, this was the Mecca of NYC events. But, if you were hoping to tie one on (I may or may not have fallen into this category), you are better off using your \$55 in your favorite pub (ferry not required). ☺

SYNOPSIS: POSTMODERNISM AS A THREAT TO ENLIGHTENMENT

ENGİN ÖZERTUĞRUL

I always liked the word enlightenment as it brings to mind images of heroic figures from the history of science who firmly believed that science progressed through individual discoveries that would contribute to an accumulating body of knowledge that gets closer and closer to the way the world really works.

This fundamental faith in science has been under attack by a group of people (e.g., social scientists, philosophers) who are commonly referred as Postmodernists. Perhaps Kuhn's *The Structure of Scientific Revolutions* (1970) has been the most influential cornerstone of the Postmodern skepticism about scientific truth. Kuhn argued that ideas that seemed to derive from scientific minds were actually shaped by, and dependent on, paradigms of knowledge that were socially constructed and enforced through a group consensus. Kuhn insisted that without the focusing effect of agreed-upon constructs, investigators would not be able to engage in research. A fully "open" mind would not be able to focus on details necessary to engage in "normal" science, that is, testing specific propositions derived from theory or scientific paradigm. He further asserted (and showed with natural science examples) that communities of scientists, like ideological or religious communi-

ties, were organized by certain traditions that periodically came under strain when new problems arose that could not be explained by old ideas. According to Kuhn, these competing explanations or ideas were not always discarded or revised (sometimes sweepingly) by mere intellectual endeavors; the leaders of scientific communities wielded power in support of their positions just as political leaders do.

Postmodernist discourse is precisely the discourse that denies the scientific inquiry and its methods in the attainment of truth. This is a direct assault to Modernism's faith in science, which assumes that knowledge increases over time and that such accumulation constitutes continuous progress toward deeper and deeper truths. Postmodernists argue that because there is not a truth that exists apart from the ideological interests of humans, discontinuity of knowledge is the norm, and a permanent pluralism of cultures is the only real truth that humans must continually face.

In fact, Postmodernist discourse rejects the notion of "objective reality" and claims that no world view is uniquely determined by empirical or sense data. All of our understandings are contextually embedded, interpersonally forged, and necessarily limited.

Any notion of "truth" then becomes a matter of consensus among informed and sophisticated constructors, not a correspondence with an objective reality.

Of course, Kuhn's analysis and other Postmodernist views are heavily critiqued and ridiculed on the basis that they took seriously the existence of things, events, structures, people, meanings, and so forth in the environment as independent in some way from their experience with them. And they regarded society, institutions, feelings, intelligence, poverty, disability and so on as being just as "real" as your eyes reading this text and the chair you sit on.

The debates between Modernists and Postmodernists are of concern to scientists who are busy with their daily endeavors. Yet these deliberations require a good understanding not only for those who plan a career in scientific writing but also for individuals who wish to make a strong case against a postmodernist attack that scoffs at the scientific enterprise. ©

Reference: Patton, M. Q. (2002). Variety in qualitative inquiry. In *Qualitative research and evaluation methods*. (pp. 75–142). Thousand Oaks, CA: Sage Publications, Inc. Reprinted by Permission of Sage Publications, Inc

APPROPRIATENESS OF CLITORAL SENSITIVITY TESTING—AN OPINION PIECE

AMY WELLS QUINKERT

In the world of intersex patients, there are a host of genital ambiguities, underlying causes, and methods to differentiate between the sexes. Often these methods include plastic surgery on the genitalia before the patient reaches puberty. In the case of clitoromegaly (a larger-than-normal clitoris), the current surgical practice, when surgery is performed at all, is called "nerve sparing ventral clitoroplasty." This surgical technique removes ventral clitoral tissue while attempting to preserve the dorsal nerve bundle. The idea is to "correct" the size abnormality while leaving functional sensation intact. Leaving behind the issue of whether this surgery is necessary, how should the medical community go about testing the hypothesis that this surgery is successful in preserving sensation?

In a study published in 2007 in the *Journal of Urology* (Vol. 178, pp. 1598–1601), Yang, Felsen, and Poppas describe testing the clitoral sensation of 10 patients who, prior to the study, underwent the aforementioned clitoroplasty. Poppas examined these 10 patients, who were at least 6 years old, by using a cotton swab to stimulate their thigh, major and minor labia, vaginal introitus, and clitoris. Patients were asked to score the amount of sensation (0 = no sensation, 5 = most sensation). Additionally, 9 of these patients underwent similar testing with a "vibratory device."

There are at least three major problems with this study. First and foremost is the moral objection. In any other situation, a fully

grown man touching an underage girl's clitoris would be considered sexual abuse. Children under the age of consent should not be subjected to this sort of inappropriate touching. Full stop. The fact that their parents sat with them while this inappropriate touching was going on does not mitigate the abuse. In actuality, since these parents gave their presumably informed consent to this test, they are just as culpable as the medical personnel who perpetrated the abuse. If the parents were, however, not fully informed, that mitigates their culpability. And this idea of informed consent leads us to the second objection.

Tied in with the moral objection is the legal one. Federal regulations stipulate that medical research involving human subjects must be approved by an institutional review board before being conducted. Special protections for children are also stipulated and generally include minimizing risk to the child and asking for the child's assent when possible. While Poppas et al. do report IRB approval for their retrospective chart study of patients who underwent clitoroplasty, it is unclear from the publication if they also have approval for the clitoral sensitivity testing. (And if they do have IRB approval, the question then becomes: What was the IRB thinking?) Since the purpose of the testing is to accrue data and has no direct benefit to the patient, this is clearly medical research and must be supervised by an IRB. This brings up questions about

how this research was conducted. How well were these parents informed? Did they understand the psychological risks to their children before the testing? Did they know they could refuse to participate? Were the children informed and asked for their assent? Without knowing the exact details of the IRB's involvement prior to this study, it is hard to say where the legal culpability lies, but for this to have happened at all, somebody dropped the ball.

Beyond the moral and legal appropriateness of this study, my final objection is scientific. This study does not represent sound science. This subjective scale is unreliable in and of itself, and is even more so when you consider that a child is the one giving the subjective score. In addition to this unreliability, this "measure" of clitoral sensation in a clinical environment in a child who has no idea about sex is completely irrelevant to the sexual functionality of the clitoris. We have no idea what is "normal" clitoral sensation for a child this age, nor do we know what any level of sensation means

for the child once she grows to adulthood. If the goal of the study is to ask the question of whether this sort of surgery preserves clitoral sensation and sexual function, then the authors should ask the question after these patients have become consenting adults who have sexual experience.

The issues surrounding intersex patients and their medical regimens are varied and myriad. Relevant to this discussion, the debate on the appropriateness and timing of reconstructive surgery on the genitalia is currently unresolved. There is no evidence that plastic surgery like clitoroplasty improve psychosocial outcomes in patients; there is no guarantee that the sex assigned will correspond to adult gender identity; and the removal of any clitoral or phallic tissue might impair future sexual function. We should not burden the patients, families, and medical personnel involved in these intersex dilemmas by allowing this morally abhorrent, illegal, and scientifically meaningless research to continue. ☉

PDA NEWS

ISABEL KURTH

It has been one of the busier times for us as we are planning the fifth annual post-doc retreat! Our goal is to organize a two-day retreat at a resort off campus that is open to all post-docs at RU. This "mini-symposium" traditionally includes a mix of post-doc presentations, a talk and formal discussion with our keynote speaker, and social activities. It really helps to finally meet with and talk to the people that one usually only crosses paths with in the elevator or on the way to a seminar. And it is a way to find out what people are doing on a daily basis while hidden behind their benches. Registration closed early July, and we are happy to count approximately eighty registered participants.

This year's retreat will be on August 4th and 5th. This is much earlier than the traditional fall retreats that we have had in the past. There is a reason for this: our President's busy schedule! Paul Nurse has been very supportive of, and eager to join, our retreats in the past, but couldn't make it due to prior engagements. This time, we turned it around and had him suggest dates that would work for him. Unfortunately, it turns out that Paul won't be able to join us, a fact that he deeply regrets. On the good side, we will have nobel laureate Richard Axel from Columbia University as our keynote speaker and we are looking forward to an exciting lecture. We will also have Mike Young join our retreat to extend the panel of outstanding faculty for our roundtable discussion (we also heard rumors of a talk show!)

The first big task during these past months was to find a great retreat location. This was not easy, as this year we were

picky: First of all, we wanted to have a location near a water body. We all know how hot August can be and to be able to jump into refreshing liquid between talks would just be great. Second, we wanted to get somewhere reasonably close. We prefer spending time for science and fun rather than being stuck in a bus for hours. We also wanted to be close to a bus or train station for those who could not come for two days and need to arrive late or leave early. And the final factor was the cost. The drastic budget cuts in recent years forced us to find something that was affordable without eating up the whole year's budget! Water, distance, costs and off we went, calling around to find our dream place.

We quickly figured out that we were not the only ones to plan a trip during this time of year—it is summer vacation high season, after all. With that comes the fact that resorts are already booked, prices are significantly higher than in the off-season, and managers are less flexible in accommodating our needs. But finally, we came down to our top three: Skytop Lodge in PA, Mohonk Mountain House in Upstate NY, and The Shawnee Inn in PA. But which one? Luckily, Memorial day weekend was around the corner, which allowed one of us, Ruchi, to go on an adventure to check out the places. Her advice: if you have ever considered The Shawnee Inn for a get away—don't! The rooms are small, the service is not friendly, and the food was not only inedible, but they served completely different dishes than those we were offered in their quote. So, Shawnee Inn was out very fast. The decision between Mohonk and Sky-

top was not so easy. Both places are really beautiful, with nice rooms, fully equipped seminar rooms, great service, delicious food, water for a swim, and space for partying at night. Ruchi was happy. The difference was that Mohonk is more of a family vacation place than a retreat center and that it was approximately \$10,000 more expensive than Skytop. We could not argue with that—Skytop won.

Currently, we are planning the details. The registration has opened and we are hoping for upwards of 100 participants. The applications will help us decide if we should resurrect the poster session. Besides the talks, the traditional games-at-the dinner-table, the round-table with the three faculty, and the party with DJ and Karaoke at night, we also hope make time for social activities. There are lakes and waterfalls for swimming and kayaking, and for those that like to move a bit more, there are plenty of opportunities for hiking and running.

Finally, while it takes up a good chunk of our spare time, the retreat is not the only thing we are working on. We are trying to work on some issues that came up regarding the Childcare and Family Center (CFC). It appears that waiting lists for people are extremely long and it seems that getting a spot is challenging. To really gauge the situation objectively (none of us on the PDA have kids!), we conducted a survey in June to assess the situation. The results will help us to approach the administration to negotiate possible solutions and changes. The outcome of the survey and what we will be doing with it, will be the subject of the next issue. ☉



The Nth Dimension
(Grand Teton National Park) by Daniel Andor

