

Natural Selections

A NEWSLETTER OF THE ROCKEFELLER UNIVERSITY COMMUNITY

OVER KHARDUNGLA PASS

TOM McDONAGH



Crossing the Snow Line. The mountains in the distance are the Saser Muztagh, the easternmost subrange of the Karakoram range, beyond which lies the Tibetan plateau. Photo by the author.

The driver is bouncing on the end of a giant wrench, trying to loosen bolts on the front wheel. We have just taken a puncture, not an auspicious start to our bus ride. We are venturing out of the Nubra Valley, the most northern part of the Indian subcontinent. To the northeast lies the Tibetan province and to the northwest is the disputed border with Pakistan. As we wait on the roadside in this serene mountainous area, it is difficult to imagine that a little farther up the valley is a battlefield. The Siachen Glacier, which feeds the fertile green outcrops in this barren landscape, is home to 3,000 Indian troops and an equal number of Pakistani soldiers. As these soldiers man their posts, the very surface they are fighting over is melting away due to global warming. Yet as the bus gets going again, I think how the view from my window has changed little since the age of the Silk Road when camel-riding merchants passed

through Nubra towards China via the Indus Valley. The trader's route was the same as ours, over Khardungla Pass. What is different today is that the pass has a motor road by which our bus makes its daily journey.

Very soon the winding route starts to tack higher and higher up the valley. The color of the rocky terrain changes continuously from a dusty light brown at the valley base, to jagged purple crags, then to smooth beige stones, which darken to a golden orange glow. We turn a corner and navigate a flat white expanse cut by small, chalky canyons. Despite this mountain palette before my eyes, I actually spend most of the time looking at the small piece of road between our bus and open edge of the road. It becomes apparent that as the slope we climb gets steeper, the road narrows proportionally. Soon the road tapers to a point where I can no longer see it at all and when I look

down from my window seat I am peering straight to the bottom of the valley. This produces the distinct sensation of traveling in a floating bus. It is at this point that the signs appear: "Falling is not a crime but a lack of effort is," "Speed is a knife that cuts life," and "If married, divorce speed." The gallows humor is not lost on me. Every so often we pass small memorials to dead drivers and several thousand feet below I can see a large green tanker lying broken and scattered. I'm very happy not to be driving.

In fact the driver seems oblivious to the peril and changes the tape to a different and yet indistinguishable collection of Bhangra hits. Worryingly, he has taken a shine to one of the girls in the front seat. One other passenger seems even less concerned about "the edge." He is a tall South Korean man dressed head to toe in the brightest local knitwear. As our self-appointed journey jester, he passes around bars of "Chocomaza" candy in a green wrapper complete with a curious Scottish piper logo. When the mood takes him, he leans out the window, over the edge, reaching for the distant clouds. Yet his style is strangely in keeping with our bus's decor: prints of leopards, garlands of fake roses, and a large central Buddha animated with flashing green and red LEDs.

The journey now enters a new phase. Snow is appearing, first as a dusting, then growing thicker until a wall of snow as high as the bus flanks our right side. Black crows circle overhead and a foul smell fills the air. The source of the stench is a truck containing several hundred chickens; it had overturned some days ago. The poor birds, trapped in their cages, were beginning to putrefy. I imagine myself trapped like them in my own cage under a flashing Buddha.

We stop at the Fighting Fourth Army checkpoint next to the "VIP" toilet shack. The jester and I show our passports to soldiers sporting puffer jackets and mirror sunglasses. It is here, in the highest and

most exposed terrain, that we see the true kings of the highlands, shaggy yaks that miraculously thrive in these conditions. After leaving the checkpoint, the road quickly deteriorates, potholes appear more frequently until the road surface turns into undulating ice and mud. From here on out it's tough going. The driver stops flirting with the front-seat girl and switches off the music. Everyone listens in silence to the groans from the suspension below. The jester lets out an "owww" as the nose of the

bus projects over the edge on a tight hairpin corner. My head grows lighter and lighter, and the sunlight on the snow makes it too blinding to look out of the window. Then we see it. The triumphant sign reads "Khardungla Top—18,380 feet—World's Highest Motorable Road."* And this terrifying, exhilarating experience is just 100 rupees, less than a metro pass.

*In fact, Khardungla is 17,582 feet high by GPS, and there are two slightly higher motorable roads in Tibet. ◉

Natural Confessions

CARLY GELFOND

Guys, I need to get something off my chest. I'm not proud, but what's done is done and the sooner I admit it, the sooner I'll be able to get past it. I made an impulsive purchase, albeit one I had been dreaming of for a while, but which I swore would never get the best of me. Until the other day. When I finally caved. Aahh-hhh. I feel better already! Like Martha Stewart's enormous new ten-pound book, *Martha's Entertaining: A Year of Celebrations*, had been taken off my shoulders. Or rather, taken into my living room. By me. Yep.

In my defense, or at least by way of explanation, I think it had something to do with all of this wedding planning I've been doing as of late. Here I am, newly engaged, standing at the edge of the expansive sea that is the pre-wedding year, dipping my toes in to feel the water. It's thrilling! And intimidating! Every bride wishes for a perfect wedding, and even those who claim to supposedly embrace the "imperfect" are secretly after a kind of perfect imperfection, or shabby chicness. And who can blame them?

Not me, it turns out. I like to think that most of us brides to be know that the perfect wedding is probably a fantasy, but for a year we nevertheless inhabit that fantasy in our minds anyway. In our whimsical wedding dreamland, all of the guests are amazed by the food. They can't believe we made it all ourselves! But how ever did you find the time? they ask. And still show up looking fit as a jungle cat and lovely as a Greek goddess (one of those benevolent and romantic ones, without the temper)? In the dream, our family and friends are

as impressed by our poise as by our pan-toasted mini bunny-shaped grilled cheese sandwiches (*Martha's*, page 100).

And so it was this kind of thinking that led me to a precarious position at Williams Sonoma, standing in far too close proximity to a display of *Martha's Entertaining*—a book that could hold its own in a heavyweight fighting match—unable to walk away. And let me tell you (in a very quiet voice that betrays my shame), this book was not cheap. But I was pining for it, or rather, some part of me was, the part that believed that the celebrations of ordinary domestic people could look like Martha's garden parties, minus David Rockefeller.

Can I tell you something else, though? I have used my Martha book so many times! To those newly nesting, it is Martha who sets the bar and sets it high. The trick is to remember that only Martha is Martha, and in the end, who cares about perfection as long as everyone has fun? One weekend in mid-May, John and I hosted a gathering of our family members for brunch. When the spinach quiche had all been eaten and the last leaves of salad clung to the sides of an empty bowl, I set down one last tray lined with clear cups, each filled with alternating stripes of golden pureed fruit and white whipped cream topped with toasted coconut—mango parfaits. Of all the guests, it was my 93-year-old grandmother (her years roughly equaling her weight) who leaned forward first and reached for a cup. Too full for much more, she would have only a taste with her spoon, leaving a large hole in the cream as she placed the partially eaten dessert back on the tray. "Delicious!" she cried. "Perfect," I said.

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MANGO PARFAIT

Adapted from Martha Stewart via various sources

The nice thing about this recipe is that it is extremely flexible. Nothing is exact here so feel free to adjust to taste, and adapt the proportions so that they make sense for your cups or glasses. For an even healthier version, substitute Greek yogurt for the whipped cream.

Ingredients:

For the mango puree:

4 large mangos, peeled and cut into cubes for easier pureeing

¼ cup sugar, or less, depending on the sweetness and ripeness of the mangos

For the fresh whipped cream:

1 cup heavy cream

¼ cup sugar

1 teaspoon vanilla extract

For the topping:

1/3 cup sweetened coconut flakes

Special Equipment:

Food processor, hand mixer

Puree the mango and sugar in a food processor until smooth. Set aside.

In a medium bowl with high sides to prevent splashing, beat cream until almost stiff. Add sugar and vanilla; beat until cream holds stiff peaks. Set aside.

In a small frying pan, heat coconut flakes over medium flame until lightly toasted. Set aside until cool.

In clear cups or glasses, spoon equal layers of alternating mango and whipped cream. When you get to within a half an inch from the top, sprinkle with toasted coconut. Serve immediately or refrigerate until ready to serve. ◉

Culture Desk Reviews:

***All Hands* (play performance: March 23, 2012 at St. Mark's Church)
Cindy Sherman (photography at the Museum of Modern Art, Spring 2012)**

John Cage: *Song Books* (performed by the San Francisco Symphony at Carnegie Hall, March 27, 2012)

BERNIE LANGS

Modern. Post-Modern. Experimental. Abstract. *Avant-garde*. I can hear the ghost of Chico Marx quipping, "Sure, sure, I-a got-a lots-a names for it." I'm speaking of those works of art and music that lead us on a path of aesthetic confusion and befuddlement as to how to react. At their worst, they are possibly history's worst and even downright most destructive art forms; at their best, they are innovative, exciting, and stimulating to the soul's core.

During the last week of March, I was bombarded by three shows of great experimental tendency: a play entitled *All Hands* performed at an intimate space at St. Mark's Church downtown; photographs by Cindy Sherman at the Museum of Modern Art (MoMA); and a showcase of music dubbed "American Mavericks," performed at Carnegie Hall by the San Francisco Symphony Orchestra, led by Michael Tilson Thomas and featuring John Cage's *Song Books*. All three were a fascinating study of the fringe-art experience and stimulated thoughts on what works and what doesn't in today's art scene.

All Hands is the brainchild of one Alec Duffy and theater company Hoi Polloi, and its large cast was graced by actor/vocalist Evan Greene of the Development Department at The Rockefeller University. *All Hands* is a truly ensemble endeavor and it was great to see that Evan had some choice moments in the action. One could also hear that his strong voice was anchoring the cast during times when they sang in forceful unison. The play is about the amusing, strange, and sometimes incomprehensible actions of a secret society and their meetings. The music by Dave Malloy stretched the gamut of everything from background drones to melodic bursts of energy accompanied by the cast. The strange musical tones matched the sometimes absurd dialogue of the actors and their odd moments of unified dancing. There are rituals, bizarre moments of question and answer, and Evan was tested at one point with a fast-moving slide show. A performer dressed as a lion was sacrificed and there was climatic action performed to a strobe light. To further confuse

the audience, *All Hands* concludes with an awkward meal of the cast gobbling pizza and other food at a long table, discussing what it all meant. I sensed in this play a theme of variations of an almost simultaneous societal inclusion and exclusion.

What worked for me was that through the darkness of the secret society, there was a general good feeling and humor to the whole experience. We were sharing something, actors and audience alike, especially being in the close confines of the performance space of St. Marks. The foreboding music had bursts of positive color and melody. When I left the theater, I felt vivacious, alive, and as if I'd been a part of something special. I couldn't pinpoint what the play was trying to convey, but that lent a nice mystery to it.

All Hands left me alive and the photos of Cindy Sherman on view at the MoMA left me musing on the term "dead eyes." Sherman is the subject and anti-heroine of her work as she parades in various thematic guises. She brought out feelings of fear within me, fear that her ultra-clear, often colorful portraits show her characters as unfeeling, unattached, and resigned from life, down to the eyes, which show a spirit that has been killed. One of the final photos in the show features Sherman in close-up as if she is a murdered plastic mannequin half-buried in the dirt. It confirmed the theme of removal that had been building in the entire exhibition. At first, I was mortified by the art and moved quickly through the galleries. I was about to exit hastily when I stopped in my tracks and proceeded back to the first room of photos and started again through the show, trying harder this time to see the art from the artist's and curator's perspectives.

The palpable alienation on display is just the window dressing. The more you look at Sherman dressed as a rich and emotionally withdrawn society woman or as a figure in exaggerated adolescent angst, the more you realize the depth of ideas in her work. One feels a slow infusion of tangential meanings, often hard to define and pinpoint in one's own thought process. One gallery was de-

voted to her in the costume of some of the world's most famous paintings, and although my first reaction to seeing some of my favorite iconic images in such a disturbing manner was anger and disgust, I could not deny the richness of her photographic palette and the power of the flowing ideas she was forcefully sending out to the viewer. You don't have to agree with it, I believe, to like it.

And those were close to the words out of my mouth to the friend who brought me to hear John Cage's *Song Books* played at Carnegie Hall. We both agreed that it was a monumental, important, stimulating, and once again, disturbing performance that could only be described as "great." But there was no way I could "like" it. *Song Books* was presented on the large stage with three video screens, a piano, and tables. Some of a cast of wandering musicians would occasionally sit, read, and tear up pages (including maestro Michael Tilson Thomas). One of the singers, Meredith Monk, would leave the stage to waltz through a row of people, and present a woman in the crowd with a gift. There were odd electronic sounds; singing distorted through synthesizer machines; and the famous opera singer Jessye Norman singing absurdities. There were moments of beautifully sung anti-political phrases by Joan La Barbara, and a video camera held by a strolling performer would blast its images on one of the screens. It was still a minimalist performance, with only the occasional phrases rendered by the handful of roaming musicians, like an old-fashioned performance art piece. Very few sections of the music were pleasant, yet the experience was exciting.

I know that there are *avant-garde* pieces of music and art that are much further "out" than these three, and Evan Greene told me that he believes that *All Hands* has enough established themes and narratives to escape some of the labels I've used, but all said, these are not your typical fare for the MoMA, Carnegie Hall, or downtown theater. All three left me thinking deeply about what one can learn from those who are trying to stretch the boundaries of the aesthetic experience. ◉

The Origin of Father's Day

AILEEN MARSHALL

Father's Day, the traditional day to honor one's father, will be June 17 this year. Officially, it is the third Sunday in June. The very first recorded celebration of a Father's Day in this country was on July 5, 1908. Mrs. Grace Golden Clayton, of Fairmont, West Virginia, wanted to honor all the fathers who died in the recent Monongah Mining disaster, in which 210 men were killed. She was also probably influenced by the first Mother's Day celebration in nearby Grafton, West Virginia.

The person credited with campaigning to make an official Father's Day in the United States was Sandra Smart Dodd of Spokane, Washington. She heard a Mother's Day sermon in 1909 and was stirred. Her father, William Jackson Smart, a Civil War veteran, was a widower who raised his six children by himself. She originally picked June 5, her father's birthday, for the celebra-

tion, but the local pastors said that they needed more time to organize so that first celebration happened June 19, 1910.

William Jennings Bryan, a popular politician at the time, was a promoter of Father's Day, and gave his immediate support to Mrs. Dodd. In 1913, the first bill was presented in Congress to make Father's Day a legal holiday, but did not pass.

In 1916, President Woodrow Wilson went to Spokane and spoke at a Father's Day celebration there. He wanted to make it official, but Congress feared it would become commercial and look self-congratulatory. Wilson recommended that states hold their own celebrations. In 1924, President Calvin Coolidge encouraged the day to be celebrated by the country, but stopped short of issuing a national proclamation on Father's Day.

In 1957, Maine Senator Margaret Chase Smith criticized Congress for only honoring

one parent, claiming it to be an obvious and egregious oversight. Finally, in 1966, President Lyndon B. Johnson issued the first official proclamation, assigning the third Sunday in June. In 1972, President Richard Nixon signed it into law, making it official.

Father's Day is celebrated around the world in various forms and on various days, although many countries designate it in June. Catholic-dominated countries observe the Feast Day of Saint Joseph, the father of Jesus and the patron saint of fathers, in March.

Two interesting Father's Day facts:

- There are more phone calls made on Mother's Day, but more collect calls are made on Father's Day.

- The number of single fathers, defined as male headed households with children under 18, went from 400,000 in 1970 to 2.3 million in 2006. ◊

For Your Consideration—Ones to Watch Vol. 1 Edition

JIM KELLER

Following last month's Cannes Film Festival, we're off to a running start in this year's Academy Awards Race. In this edition, I'll examine some of the plum roles heading down the pipeline and the actors who inhabit them—some of whom may find themselves vying for a top spot come Oscar time. This will be the first installment of a four-part series, which will focus on actors potentially in the Best Actress (in this issue), Best Actor, Best Supporting Actress, and Best Supporting Actor races.

THE VERITABLE SHOE-IN: Nicole Kidman—*The Paperboy* (director: Lee Daniels):

FYC: In the film adaptation of Pete Dexter's 1995 crime novel, Kidman plays Charlotte Bless, a bottle-blond floozy who hires an investigative journalist and his younger brother (Matthew McConaughey and Zac Efron, respectively) to find evidence in order to exonerate a convicted murderer on death row (John Cusack). Bless has decided that she is in love with the inmate and plans to marry him upon release—all without ever having met him. The most pre-premiere chatter about the film has been centered on Kidman's performance and, as I've mentioned in this column previously, she is no stranger to the Academy Awards

race. The main question—outside of will she or won't she—is will she be a lead in the film or in a supporting role? By the time you read this, that much should be apparent as the film is set to bow at this year's Cannes film festival.

AMERICA'S SWEETHEART: Sandra Bullock—*Gravity* (director: Alfonso Cuarón):

FYC: Bullock portrays Dr. Ryan Stone, who becomes the lone survivor of a space mission to repair the Hubble telescope. Following the mission, Dr. Stone desperately tries to return to Earth and reunite with her daughter. Having only one other top billed actor (George Clooney), the film suggests something along the lines of *127 Hours* (2010), which made a serious case for James Franco's performance to win in the Best Actor category largely because of the film's "one man show" aspect. We'll have to wait and see if this is the case here, but Bullock, as you may recall, once managed to end a neck-in-neck Best Actress race with Meryl Streep with a win for 2009's *The Blind Side*.

THE PERIOD PERFORMANCE: Keira Knightley—*Anna Karenina* (director: Joe Wright):

FYC: In the latest film adaptation of Leo Tolstoy's classic novel, Knightley is once again united with Wright to helm a period drama

(Knightley previously held the reigns in *Pride & Prejudice* (2005) and *Atonement* (2007)). This time she acts as Anna Karenina—the title character of this epic love story, which unfolds in the late nineteenth century in high-society Russia, and examines a woman's capacity for love; everything from adulterers' passion to parental bonds. The story has Anna questioning her happiness, which promotes change in her family, friends and community. Knightley received a nomination for *Pride & Prejudice* and seems ripe for such a role—especially after her turn in last year's *A Dangerous Method*.

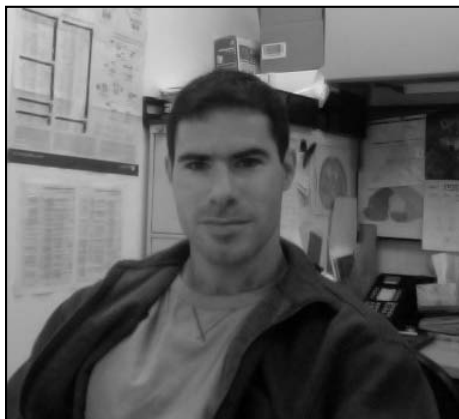
THE LONGSHOT: Nomi Rapace—*Prometheus* (director: Ridley Scott):

FYC: In *Prometheus*, Rapace plays archaeologist Elizabeth Shaw, a member of the spaceship Prometheus's team of explorers who discover a clue to the origins of humanity on Earth. This discovery leads the crew on a journey to the darkest corners of the universe where they discover a threat that could lead to the extinction of mankind. Although the film was conceptualized as a prequel to *Alien*, the end product takes place in the same universe as the *Alien* films, but explores its own mythology and ideas. I know you're wondering if a sci-fi film can birth a Best Actress contender. Affirmative, just look at Sigourney Weaver's



New York State of Mind

This Month Natural Selections interviews Yoav Litvin, Postdoctoral Associate in the Harold and Margaret Milliken Hatch Laboratory of Neuroendocrinology laboratory.
Country of origin: Israel



1. How long have you been living in the New York area? Three and a half years.

2. Where do you live? 70th Street Rockefeller-er housing.

3. Which is your favorite neighborhood? Williamsburg, Greenpoint, and Bushwick, all in Brooklyn.

is the most overrated thing in the city? And underrated? Overrated: Rockefeller University Faculty Club.

Underrated: Rockefeller University Faculty Club.

5. What do you miss most when you are out of town? NYC's plu-

ralistic and cosmopolitan nature, the people, food, art, and music.

6. If you could change one thing about NYC, what would that be? I'd move NYC somewhere in the middle of the Pacific Ocean; that would remedy both my first problem—the lack of good surf—and my second problem, namely winter.

7. Describe a perfect weekend in NYC. Friday evening: Faculty Club, dinner, Faculty Club. Saturday: late brunch, stroll around town with my camera, concert or party. Sunday: later brunch, stroll around town with my camera, concert or party.

8. What is the most memorable experience you have had in NYC? A homeless man coughed on me the other day just as the subway doors closed behind me.

9. If you could live anywhere else, where would that be? Maui.

10. Do you think of yourself as a New Yorker? Sure, because I am pretty much oblivious to other humans unless they are invited into or invade my space. ◉

FYC, continued from page 4

nomination for *Aliens* in 1987 for her portrayal of Ellen Ripley in arguably one of the best sequels ever made. Incidentally, Mr. Scott directed the original *Alien*. Take that and add in Rapace's searing, BAFTA-nominated turn as Lisbeth Salander from *The Girl with the Dragon Tattoo* Swedish film series and you can see where I'm going. Though it should be said Rapace has dismissed comparisons to the role of Ellen Ripley.

THE FOREIGNER: Marion Cotillard—*Rust and Bone* (director: Jacques Audiard):

FYC: In this film, based on Craig Davidson's shared title short story collection, Cotillard plays Stéphanie—a killer whale trainer who suffers a horrible accident and who develops a relationship with a man of modest means. The Academy is notorious for rewarding performances of individuals who beat the odds, whether it'd be fame from poverty (see Sissy Spacek's win in 1980 for *The Coal Miner's Daughter*), a physical defect (see Mary McDonnell's win in 1992 for *Passion Fish*), or an addiction, etc. This performance, at first look, appears to fit the bill (it's no secret that Stéphanie loses both of her legs in the film). Given that Cotillard surprised many with her 2007 win, when she portrayed Edith Piaf in *La Vie en Rose*, there's no reason to think that she can't find similar acclaim here. As I mentioned in a previous edition of FYC, the Academy has no problem with honoring foreign

actors, while the films they appear in often fall to the wayside.

THE SINGER: Anne Hathaway—*Les Misérables* (director: Tom Hooper):

FYC: Hathaway plays Fantine in this adaptation of the stage musical based on Victor Hugo's classic novel set in nineteenth century France. The film tells the story of paroled prisoner Jean Valjean, who becomes mayor of a French town. Valjean agrees to take care of the illegitimate daughter of Fantine (Cosette), while avoiding being recaptured by police inspector, Javert. Hathaway's career has come a long way. From *The Princess Diaries* (2001) to having been nominated for *Rachel Getting Married* (2008)—a role that had her portray the more reckless of two sisters—she's been on her way up. When Hugh Jackman hauled her on stage (literally) for his opening song as host of the 81st Academy Awards, Hathaway proved that she could sing as well as act. A lethal combination when done successfully (see Jennifer Hudson's Best Supporting Actress win for *Dreamgirls* in 2007), it will be interesting to see if Hathaway delivers in an adapted stage production of this magnitude.

THE "IT" GIRL: Carey Mulligan—*The Great Gatsby* (director: Baz Luhrmann):

FYC: In this film adaptation of F. Scott Fitzgerald's classic novel, Mulligan plays Daisy Buchanan—an attractive and effervescent, yet

shallow, young woman whose relationships with two men (Jay Gatsby and her husband Tom) form one of the central story conflicts. Incidentally, Daisy is widely believed to have been inspired by Fitzgerald's youthful romance with his wife and fellow novelist, Zelda Sayre. At 25, Mulligan first burst onto the Hollywood scene with her 2010 Oscar-nominated performance as Jenny Mellor in the film adaptation of Lynn Barber's memoir *An Education*. Since then, her name almost always comes up when one speaks of Oscar—whether it'd be playing a disillusioned "carer" in *Never Let Me Go* (2010), a single mother in last year's *Drive* or most recently, the sister of a sex addict who lacks a modicum of self-esteem (also 2011) in *Shame*. All of these performances were well received by the critics, even if the films themselves didn't warrant an equal response. At just 27 years old, Mulligan has carved a name for herself, and one would be remiss not to include her in this year's Oscar sprint. Next up, she'll star in the Coen brothers' *Inside Llewyn Davis*, which could find equal footing for the actress if it were to come out this year.

These aren't the only makeshift categories that critics have used, nor is it a complete list of those in contention, but it does give an idea of the types of roles that are thought of as Academy fodder. Further, the list will grow and shift as the season presses on and begins to take shape. ◉

Capitalism, Part 3: The Deadly Sins of Economic Theology

BENJAMIN CAMPBELL

Recently, a highly polarized political debate has broken out in the pages of *Natural Selections*. This is unfortunate, as the dominant meta-ideology impresses on everyone the need to stay close to the reasonable center, even on a ship that has recently capsized. So perhaps a word of explanation is in order.

For his part, I am unable to explain what first compelled Jacob Oppenheim to use our scientific community's newsletter as a platform with which to promulgate his attacks on labor unions, environmentalists, and the state income tax. I imagine there must be a local Young Republican chapter that would be a better venue for such diatribes, even in this festering liberal Gomorrah of Gotham. Even so, it may be unclear why I felt compelled to respond, and it may seem like an overreaction to attack the entire global economic system. As a scientist, perhaps I should have simply observed Oppenheim and classified his behavior as an exemplar of the reactionary end of the human phenotypic spectrum that psychologist Jonathan Haidt has so well described.

Indeed, had Oppenheim merely expressed his views as personal preferences, say, for hierarchy over egalitarianism and material wealth over biodiversity, then I likely would have done just so. After all, we are all entitled to our values, even if it is unclear why we must share them. However, Oppenheim went much further than this, couching his values in pseudoscientific jargon, suggesting that "the educated" would agree with him if only they would apply their "understanding of statistics" and "experience with empirical methods" to the study of "economic and sociological data." Oppenheim appears to have since retreated from his certainty, but it remains to address the serious issue of what could cause someone to believe that a retrograde value system is an objective scientific truth.

The answer is the pseudoscience of modern economics. As scientists, we have a duty to intervene when we see nonsense being peddled in the name of science, whether it is creationism, mysticism, Lysenkoism, or economics. However, just as one cannot really discuss Trofim Lysenko's bizarre heritability theories outside of the context of the degenerate Stalinist state, one cannot really understand today's economic charlatans without first understanding the rampant idiocy of the capitalist system that continually rewards their failure with ever increasing prominence. Such was the purpose of my preamble.

Reactionary Chic

Before beginning, it is important to note the extent to which the econo-think has taken over our governments, universities, and our culture, more generally. In fact, it has become so dominant that it has coincided with an extended period of Western intellectual decline, the "Me" decades of reactionary chic and kowtowing to the backscratcher. During this period, intelligent public intellectual discourse has all but disappeared, replaced by a legion of horn-rimmed econoworks who combine business speak and "market solutions" to opine on issues they know nothing about, while pretending to have invented mathematics. Thus, an entire generation has now been raised by the intellectual malnourishment typified by Freakonomics, Malcolm Gladwell, and *The Economist* (a periodical whose name is a clear indication of how divorced its contents are from reality).

Observing the current cultural malaise, the reactionaries of yesteryear must no doubt consider their victory over left academia rather Pyrrhic. In his excellent recent book, *The Reactionary Mind*, Corey Robin recalls asking the former voice of conservatism, William F.

Buckley, Jr., what his politics would be if he were reborn as part of the millennial generation. Buckley replied: "A Mike Harrington socialist. I'd even say a communist."

For, whatever one thinks of them, the right-intelligentsia of an earlier generation at least had to think, whereas, today, the economic groupthink has become so hegemonic that their successors require no intellectual effort. So it's about time that a younger generation takes Buckley up on his advice, and in the process injects some critical thinking back into our discourse. And where better for the *enfant terrible* to begin than by exposing the intellectual fraudulence of the economic system that the grown-ups can't control?

The Modern Pythagoreans

Thankfully, I have never been trained in economics, but post-2008 one needs no more training to discredit economics than one might require neurological expertise to refute phrenology. Fortunately, there remain a few reasonable economists who are sufficiently ashamed by the outrageous mendacity of their discipline that they have extensively documented the fraud that every horrified onlooker must by now suspect. Examples of excellent recent books by heterodox economists include *Modern Political Economics* by Yanis Varoufakis, Joseph Halevi and Nicholas Theocarakis and *Debunking Economics* by Steve Keen. Since most Rockefeller University employees are overworked laborers with little time to read thick volumes about economic nonsense, I will present just a small fraction of the damning case in both this article and the next.

What Varoufakis describes as the "Econo-bubble" is probably best understood as part of a fourth great awakening of religious revivalism. Strictly speaking, I will be speaking of neoclassical economics, since this is the mainline religion that nearly all prominent economists now adhere to. Their only resemblance to scientists would appear to be some rather impressive mathematical legerdemain, and as Keen aptly points out, in this sense they resemble the Pythagoreans of ancient Greece, who used state of the art mathematics to justify a world view that was fundamentally insane. And like any religion bent on world domination, the true believers set out to drown the infidels who mention annoyances like irrational numbers, as they attempt to remake the world in the image of their collective hallucination. Thus, as we will see, their econo-religion comes complete with a moral code, centered around seven deadly sins.

The Holy Trinity

Perhaps the central tenet of modern economics is that the world can be described by intersecting supply and demand curves. In this profoundly religious worldview, the Father and Son, supply and demand, meet at equilibrium, which is the Holy Spirit completing the Trinity of their theology. It is a central goal of their religion to "prove" that not only does this econo-God exist, but that as prophesized by Adam Smith, his "invisible hand" is also benevolent. Thus, they preach that if we all just live the virtuous life of self-interested consumption then we can reach something approaching Heaven on Earth. In this way economics begins from a rather inauspicious premise resembling Calvinism filtered through Ayn Rand. Restraint and altruism are direct challenges to their worldview, and are thus the first of their deadly sins.

The economists then set out to prove their seemingly ludicrous hypothesis that everything will work out optimally if we don't plan anything. Naturally, they are forced to make a number of assump-

tions as they attempt to ascertain deterministic laws for the entire social universe. To have any hope of proceeding, the central theorems of economics generally begin by assuming fantastic properties of people, including that they know everything, are never satiated, can rank all possible preferences, and never change these preferences.

Not only are several of their initial assumptions absurd (it gets much worse), but many of their assumptions have been experimentally contradicted by the few enlightened Galileans operating under the heading of behavioral economics. It is unclear why these scientists do not simply refer to themselves as psychologists to distance themselves from the crackpots, but at any rate the neoclassicals have come to tolerate them uncomfortably. There appears to be a tacit agreement whereby the scientists agree to keep quiet that their experiments invalidate the entire religious orthodoxy, lest they wind up like Giordano Bruno.

The Electric Kool-Aid Acid Test

Although their assumptions bear little resemblance to properties of humans, let's carry on assuming that they are a reasonable model for some distant species, *homo economicus*. The first major problem the economists encounter occurs in attempting to expand their equilibrium analysis from one individual to an actual society. This requires the aggregation of the demand curves of individuals, which it turns out is completely intractable. In fact, it has been theoretically proven that any polynomial can arise from the aggregation of monotonic demand curves. In other words, even if all individuals live up to their assumptions, the market will not. This complication should be unsurprising, since even if individuals can order their preference for rocks, paper, and scissors, the group preference may well be circular.

Such complexity is deeply problematic to the quest to discover simple laws that govern everything, so it is brushed aside by assuming that there is only one person in their economy, who they take to represent everyone cumulatively. This person is often named Robinson Crusoe, but since he represents a world where everyone acts the same I prefer to think of him as Jim Jones. Thus, after assuming away the complexity of the brain in a manner that makes B.F. Skinner look nuanced, they assume away all interactions between people in a manner that makes Ted Kaczynski look sociable.

Even after simplifying to one individual in a Skinner Box, the econos require further assumptions to make their mathematical parlor trick tractable. They must assume their *übermensch* has fixed commodity preferences that do not change when his income changes, which is logically equivalent to assuming that there is only one commodity that is consumed endlessly (naturally, Kool-Aid). Simplifying everything to one commodity is convenient, because if you were to consider a reasonably sized basket of goods the problem would be swamped by a curse of dimensionality, such that it would take forever for people to compute optimal decisions. Economists generally consider the dimension of time to be a huge nuisance, and thus consider change a deadly sin.

Incidentally, note that I use the masculine pronoun for both econo-God and econo-Superman, and for the high priests of their religion, who are all male. Males have an inherent advantage in matters of economics and capitalism because, as Larry Summers has demonstrated, evolutionary asymmetry has concentrated the phenotype of reckless disregard for consequence in the gender that, coincidentally, owns the vast majority of capital.

The World is Flat

So far we have only focused on demand, but there are also major problems with the supply side of the Trinity. To generate a tractable

supply curve, the economists must assume perfect competition such that economies of scale do not matter, no firm is large enough to influence the market, and thus nobody attempts to outguess what anyone else might do. Of course such a fantasy can never actually be achieved in any finite world, let alone in reality, which is dominated by corporate behemoths fighting for market share. As Keen puts it, by assuming perfect competition, economists essentially assume the world is flat by ignoring all curvature.

This is an example of a larger issue, that the projection of capitalism in the econo-plane bears little resemblance to its actual form. When faced with such a glaring discrepancy between their fantasy of capitalism and the ugly image of actual capitalism, economists and Jacob Oppenheim refer to the failings of the real world as "crony capitalism," as if we have fallen from some mythical Eden. In fact, capitalism has always been "crony capitalism" and will always be just that; despite the ramblings of Thomas Friedman, the world is not flat.

The Dismal Scientologists

The reason why this discussion of supply and demand curves matters is that without their intersection at a single point, the economists' Holy Grail of equilibrium will not arise, and their Holy Trinity is thus shattered. In other words, they cannot even show that there is an equilibrium, let alone that we will reach it, or that it has any desired properties. In fact, they just assume it, via something called "ergodicity", which is their version of the Immaculate Conception. It allows them to assume that there is a God, that there is only one God, and that He is benevolent. Ergodicity also allows them to assume away any dependence of the economy on its initial conditions with a religious audacity rivaled only by L. Ron Hubbard.

Eventually, if you play this intellectual Jenga game for long enough you arrive at a mathematical "proof" of their religious faith formulated by two latter-day saints, Kenneth Arrow and Gérard Debreu. They arrived at this proof by starting with the assumption that everyone is an omniscient prophet with perfect knowledge of the future, or in other words, by assuming away their sanity. For their efforts, Arrow and Debreu were awarded the "Nobel" Prize of Economics, which is the euphemism given to a dubious honor that more closely resembles Scientology's Freedom Medal of Valor.

The Bonfire of Sanity

At one point in the past a group of heretics challenged the high church of economics on its basic assumptions, which prompted Pope Milton I to issue a papal bull, in which it was communicated that an economic model should not be judged based on its assumptions, but based on "whether it yields sufficiently accurate predictions." Thus, for decades the bishops of economics referred all skeptics to this church doctrine. However, they have since stopped referencing this bull, after the vast majority of their models were unable to identify the gargantuan housing bubble that was obvious to anyone with access to critical thinking, a calculator, and Craigslist.

How do they possibly explain themselves after this breathtaking failure? It's actually quite simple, and herein lies the glory of their religion. It is a dictum of their orthodoxy that it is never the model's fault, but rather it's the world's fault for not living up to the model. That is, when the humans are blessed with prosperity they should praise the econo-God, whereas when the humans suffer they should blame themselves for disappointing the Almighty. The humans are taught to work for their salvation with fear and trembling, for the econo-God is a vengeful God. His wrath is known as "austerity," and consists of a bonfire of the vanities in which workers' possessions and livelihoods are set ablaze with the fury of Savonarola on steroids. The workers

are told to blame themselves for not working hard enough, for as the high priests continually remind the Greeks and Spaniards, leisure is a deadly sin.

The Children's Crusade

Thus, every time economists venture out of their abstract plane they draw all the wrong conclusions from their brief encounters with reality. When their predictions fail, they conclude that reality is not correct enough, and set out on a crusade to remake the world. Thus, after each successive failure they are rewarded with greater and greater power, and over time this failing upwards has led to increasingly insane policy prescriptions.

For instance, unlike Arrow and Debreu's *homo economicus*, actual humans do not in fact have perfect information about the future. Rather than considering this a limitation, the economic engineers use this shortcoming to justify the creation of elaborate financial derivative markets to remake humanity as omniscient. When these derivative markets implode because humans are not omniscient, they ignore the blasphemous possibility that they might have erred. Rather, they are given the green light for whatever further tinkering is needed to perfect the world, such as privatizing everything.

Unsurprisingly, there are even theorems that discredit the entire econo-crusade on its own premises. For instance, Richard Lipsey and Kelvin Lancaster's 1956 "Theory of the Second Best" demonstrates that if one is unable to meet an economic optimum, the second best solution may well exist nowhere near the optimum in parameter space. In other words, since these crusading children can never make it to the Holy Land, they can't even be sure in which direction to set out to bring them closer. Naturally, this gives them no hesitation as they charge headlong into their expeditionary war against reason.

The one bright spot in all of this is that these religious fanatics don't actually exert as much power as it appears, since they are the faithful servants of global capital. They would be instantly relegated back to academia if they attempted to implement those parts of their models that are against the capitalist interest, say by attempting to flatten their oligopolies. Of course this isn't exactly reassuring, because it means that there are not really any sentient beings in charge of the world. There is simply blind capital accumulation and blind faith.

These are the foundations of the current religious revival. Space dictates that I defer more advanced theology, and the final three deadly sins, until next month. But first, a conclusion.

Losing My Religion

When one points out that the emperor has no clothes, one is bound to encounter a backlash. A great number of people have invested enormous energies in this pseudoscience, and therefore have no other marketable skills outside of advanced mathematical nonsense. Within the university, they are thus most closely related to string theorists, with the difference that the string theorists' mathematical fantasies haven't been empirically discredited.

When faced with criticism, the first defense mechanism of the economist is to classify their opposition politically and ignore anybody who is not a neoliberal, that is, who is not a member of their religious flock. In my case this would be easy, since as an objector to capitalism I can be easily ignored alongside other heathens like Marx, who we will meet next month. In fact, my critique of economics does not stem from my opposition to capitalism, but rather my opposition to capitalism followed my startling realization that the econo-crats seemingly in charge of the world have no idea what they are doing. Because without its econo-veil, capitalist society stands nakedly exposed

as an irrational and uncontrollable greed engine that just happens to be destroying the only planet we have.

Unknowing the Unknowable

The nature of a short satirical polemic means that naturally I simplify, and I direct interested readers to the referred texts for greater depth. But far from attacking an oversimplified straw man, I am challenging the very foundation of orthodox economics. This is the attempt to simplify the world so as to ascertain deterministic mathematical laws for a system that, as Varoufakis puts it, is "radically indeterminate." As we will see, this was an insight made by Keynes that was subsequently ignored.

Amazingly, Jacob Oppenheim now appears to agree with this point, speaking of the "large error bars on our ability to control the economy," despite having previously berated everyone who had a different policy prescription than he. What he and the Austrian sect apparently do not realize is that what is euphemized as the "free market" is an economic policy, and there are rather large error bars on the belief that this particular policy will lead to beneficial outcomes. The error bars are so enormous that it requires religious faith to actually believe so in the face of all evidence to the contrary.

Thankfully for the capitalists, religious faith is one commodity for which both supply and demand appear to be limitless. ◊

Life on a Roll



Reflex by Carolina Prando

