

Natural Selections

A NEWSLETTER OF THE ROCKEFELLER UNIVERSITY COMMUNITY

It's Christmas Time in the City

AILEEN MARSHALL

Like the old song says, the “city sidewalks, busy sidewalks” are “dressed in holiday style.” Besides the hustle and bustle of this busy shopping season, New York has many time-honored holiday activities. Here are just a few to help you feel that holiday cheer.

The gigantic tree at Rockefeller Center is an impressive sight for young and old alike. Every year a huge evergreen is picked from a remote location and transported to Rockefeller Center, on 5th Avenue between 49th and 50th Streets. The tree is set up behind the Prometheus sculpture next to the ice skating rink, strung with almost five miles of lights and topped with a Swarovski crystal star. The tree lighting ceremony is usually the Tuesday after Thanksgiving, and a few celebrities and a well-known figure skater typically attend. Even though the ceremony will have passed by press time, the tree is still lit daily from 5:30 a.m. to 11:30 p.m. except on Christmas Day, when the lights are on all day. The area can be very crowded with tourists, so the best way to see the tree is to go skating on the rink. Looking up at the beautiful tree and the tall buildings from the rink is an experience not to be missed. Adult admission ranges from \$5 to \$19, depending on the date and time. Sessions usually last about two hours, starting from 8:30 a.m. to 10:30 p.m. Call (212) 332-7654 for more information.

For generations it has been a New York family tradition to see the Christmas displays in several department store windows. Some displays are animated; some have a scene from a story in each window. Although there are not as many as in past years, the stores that still have holiday displays today are Bloomingdale's (Lexington Avenue at 59th Street), Barney's (Madison Avenue at 60th Street), Bergdorf Goodman (5th Avenue at 58th Street), Saks Fifth Avenue (5th Avenue at 49th Street), Lord and Taylor (5th Avenue at 38th Street), and Macy's (34th Street at Broadway). Be aware that there can be long lines on weekends. Macy's also has Santa Land on the 8th floor. Santa

is in residence from the end of November until Christmas Eve. Children can sit on his lap, make their request, and to get a photo their parents can embarrass them with in their teenage years. You can call Macy's at (212) 494-4495.

Another well-established holiday event is Balanchine's *The Nutcracker*. This well-loved ballet, with Tchaikovsky's score, is performed at the David H. Koch Theater at Lincoln Center. The story is of little Clara and her adored nutcracker that transports her to a dreamland filled with fantastical scenes, including the battle with giant mice and the dance of the Sugar Plum Fairy. Watch for the Christmas tree growing out of the stage! The New York City Ballet shows run from November 23 until December 30 this year. Ticket prices range from \$29 to \$137, depending on seat location and performance time. Go to www.nycballet.com for specifics.

Probably the most popular holiday event is the Radio City Christmas Spectacular. This holiday pageant is most known for the famous Rockettes with their precision legwork and march of the toy soldiers. In recent years the show has included a 3-D segment and skaters on stage on their own little ice pond. The show is at Radio City Music Hall, on 6th Avenue at 50th Street. Tickets range from \$49 to \$170 for performances through December 30. Go to <http://www.radiocity.com/eventcalendar/home> for additional information.

For some less crowded activities, one can go see the annual Christmas tree

and Neapolitan Baroque Crèche at the Metropolitan Museum of Art, on 5th Avenue at 82nd Street. Eighteenth-century Neapolitan angels and cherubs decorate this large and beautiful tree. Recorded music adds to the atmosphere. There is a lighting ceremony on Friday and Saturday nights at 7:00 p.m. The tree is located on the first floor of the museum, in the Medieval Art section, from November 23 until January 6. Recommended admission for adults is \$25; seniors \$17; students \$12; or pay as you wish. Members and children under 12 are free. There is also a concert series during the same time. More details about the display can be found at www.metmuseum.org.

Another off the beaten path event is the 33rd Annual Winter Solstice Celebration at the Cathedral of St. John the Divine, on Amsterdam Avenue at 112th Street. The Paul Winter Consort performs in one of the oldest churches in the city and the largest cathedral in the US. The concerts this year are on December 13 through 15 at 7:30 p.m. Tickets range from \$35 to \$80. There is also the A Ceremony of Carols on December 8. Tickets can be purchased at www.stjohndivine.org.

After all these activities, can't you just hear those “Silver bells... silver bells...?”

NATURAL SELECTIONS



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Improv Your Life

CHRISTINA PYRGAKI

Did you know that there is a Tri-Institutional improv group? Well, there is. A bunch of witty, quirky, and overall lovable improvisers gather every Tuesday in the Caspary music room and, for an hour and a half, improvise their way out of their everyday life and into an imaginary, irrational world of endless possibilities. But what is improv anyway?

The origins of improvisational theater, improv for short, can be traced back to the Commedia dell'Arte groups that roamed Europe in the sixteenth century and performed unplanned theater routines in the streets. The revival of this odd form of theater, with no script to direct the action, started in the early 1920s in Chicago when Viola Spolin, a recreational director, developed games to introduce theater to immigrant children. She developed a number of structures that bypassed any resistance a child might have and organically led children to perform a theatrical task without being directly told what to do. Spolin's son, Paul Sills, and David Shepherd expanded on some of Spolin's methods and developed a number of new ones. The outcome of their project was the "Compass Theater" that eventually evolved into "Second City." Alumni of these two groups are the virtual founders of sketch comedy in America in the last half of the twentieth century and include, among others, John Belushi and Joan Rivers. Improv has evolved since the 1920s and it is definitely not a kid's training in theater anymore.

It is still, however, a great way to reconnect with the child in you. The warm-up games in the beginning of improv meetings are not very different from the games children play in a circle in the school backyard, and the short scenes performed are not that far from our childhood make-believe games. Imagination, creativity, and a strong sense of humor are all necessary components of a successful improvisation session, but the key element is acceptance. Acceptance—saying "yes"—is the energy that fuels improv. In order to build a scene, you need to accept a suggestion, build on it and allow the scene to progress. By denying the others' premises on stage (what is called "block-

ing" in improv lingo) not only do you disrespect your fellow improviser, but you also barricade the progress of the scene, and the scene dies. This rule applies off-stage as much as it does on-stage. Accepting and building on something, whether that is a business project, a science project, or a life plan, can be a

much faster and more productive way to successfully move forward than abolishing and building from scratch. Not that there aren't times in life when abolishing and building from scratch are necessary, but those instances are few and far between and definitely more painful to go through.

For the last three decades, improv theater has claimed a number of unlikely fans among the upper management casts of the corporate and business world. Big corporations have been hiring improv performers to give seminars to their employees.

Natural Selections
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Credit: Joanna Loureiro.



Companies such as American Express and Harley Davidson, and even government agencies such as the postal service, are using improv seminars as a way to improve their employees' public speaking performance and to foster team spirit, creativity, and thinking outside the box. As Patricia Ryan Madson, Stanford professor, noted in a *New York Times* article just a few years back: "Executives and engineers and people in transition are looking for support in saying yes to their own voice. Often, the systems we put in place to keep us secure are keeping us from our more creative selves."

We are used to hearing the term improv paired with com-

very eloquently put it, *quod fere totus mundus exerceat histriorem* ("because almost the whole world are actors.") The play is unscripted and you share the stage with other actors, some of whom you like, some of whom you do not, and the rest you could not care less about. The fact of the matter, however, is that you are in the same scene as them and you have the option to either play nice, or pout because you do not get your way. In the latter case, the scene will either go on without you, or if you are particularly good at being difficult, it will die. There is no better way to test how much of a team player someone is than making them stand up on an improv stage and hav-

ing them build a scene with others. Building a scene requires overcoming your ego and accepting your fellow improvisers' suggestions. When the direction of the scene is not the one you wanted it to be, you need to let go and not let the fact that you did not get your way interfere with your enthusiasm. You not only have to accept the suggestion, but you have to build on it, and give it back improved, more detailed, with the same passion that you would your own idea. Improv, however, is not about being submissive and letting others assume the role



Credit: Joanna Loureiro.

edy, but in all honesty that is not the way I view improv. Not to say that improv cannot be funny, because it can, when it is done right by people embracing its rules; but as I will shortly explain, improv is not easy and neither is getting laughs from it. Improv is more of an exercise in ego control, self-discipline, and teamwork, an exercise that can drastically change your perspective on life. Stephen Colbert said in a commencement address a few years back: "Well, you are about to start the greatest improvisation of all. With no script. No idea what's going to happen, often with people and places you have never seen before. And you are not in control. So say 'yes.' And if you're lucky, you'll find people who will say 'yes' back." This statement truly captures the essence of improv and draws a parallel that, to me at least, was completely new and, I dare say, life-changing. Life is nothing short of an improv performance; the more effectively you can think on your feet, the better you play along with others, and the more fun you will have in the process. We tend to think of our lives as our own little plays, in which the protagonist has control over the script, but that is not really the case. As Gaius Petronius Arbiter (c. 27 – 66 AD)

of the leader; you need to work with others and create something enjoyable so that it's worth being part of it. This is a lot harder than one might think, as it requires discipline, respect towards your fellow improver, and faith in their ideas.

According to Creative Engineering, a company that offers improv training for businesses, the purpose of improv is to give people a task to complete within an unpredictable or unplanned framework. Well, if that is true, improv could definitely teach me a thing or two about how to improve my life, both on a personal and professional level! How about you?

For more information on the Tri-I improv group, contact: triiimprov@googlegroups.com. ◉

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- http://departments.knox.edu/newsarchive/news_events/2006/x12547.html
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On the Importance Of Fun

DAN GAREAU

Everyone likes to have a good time and “laughter is the best medicine,” but for scientists, having fun may serve a greater purpose. Science is a creative process, and that creativity can be seen in glimpses that make it into mainstream culture. Bad Project¹ got 3,000,000 hits, but *Gangnam Style*² got 300 times more. The difference is that (perhaps as a result of advisor floggings during Ph.D. programs) scientists are generally not inclined to be flashy. A paper in *Cell* or *Nature* and associated acknowledgment by scientific colleagues is typically where progress ends—where the threshold of success has been reached. However, there is another step that is rarely taken: when scientists polish and distill scientific content for broad understandability, the public generally receives it well.

If politicians pandered to this public sentiment by increasing National Institutes of Health and National Science Foundation funding, we would be in a better place, so there is a real value to science embodiments that are seductively shiny and maybe even a little fun. Outreach has long been a focus of many institutions, but on the horizon is a geek-chic revolution. It is important to prepare for the global phenomena by acting locally. On Halloween day of 2012, scientists at The Rockefeller University threw a party for scientists, providing an opportunity to let loose a bit and dance. A science-themed costume contest took place and the winners were the set of viruses shown in the photo below or above and their companion, a white blood cell. By a not so big leap of imagination, we could see these characters in an educational video for kids. Perhaps, if the production and scientific integrity were top-notch, parents would catch on and not only learn a bit, but also remember their appreciation when it came time to vote for science and education funding. The key to success may be interdisciplinary collaboration between science-friendly forces in Hollywood, such as George Lucas, and Hollywood-friendly science forces, such as Neil deGrasse Tyson.

Beyond our local aim to provide a good time and some release for the Rockefeller University community, there is a broader outreach goal to increase the public visibility of science. As a medium of choice, the music video can be an attractively viral vessel to deliver content. The recently launched Sound Science project (facebook.com/ScienceGroove) aims to combine sound didactic content with pop sensibility. Music about science has been around since Thomas Dolby’s “She Blinded me with Science,” but there is a bimodal distri-

bution: excellent songs that have little instructive content, and poorly written or produced songs that have great content. The songs that have poor composition and no real content never make it and the ones that hit both nails on the head don’t exist yet. Thinking back to the original science works like Dolby and Kraftwerk, buzzwords like “science” were thrown around to great success (demonstrating feasibility) but their songs lacked content that was scientific or educational. These works could have been executed in a way that also could have been peer-reviewed by the scientific community. Science music has largely fallen short of delivering high quality didactic content with the pop sensibility of, say, a Taylor Swift song, with a few notable exceptions. The 2009 release of *Here Comes Science* by They Might Be Giants featured the theme song from the hit TV show *The Big Bang Theory*. The show is evidence that pop culture is beginning to embrace science. The content of the theme song is

good and the quality of the music is excellent. Yet it remains a challenge to distill scientific content without “dumbing it down.” Scientists obviously need social skills, communication in particular, to disseminate findings—perhaps not at the top level, where the *Nature* paper speaks louder than words—but as a workhorse utility at conferences and lobbying in our nation’s capital. Furthermore, depicting fun and wonder in science is essential to getting young people into the educational pipeline that produces tomorrow’s scientists. Communication sometimes requires the use of analogy, which scientists resist for fear of compromising precision. However, the net effect of a combined ap-

proach that uses analogy to achieve the “aha, I get it!” moment, and then exploits the connection to deliver content with integrity can be much more useful than saying nothing at all. While there is nothing inherently wrong with being introverted, if we occasionally pause to polish a gem for public display, power and funding may follow. The goal of global prosperity through science-enabled technology may be funded through diplomacy and be associated with reduced war spending. This fiscally feasible paradigm to fix major problems like climate change while promoting peace can be aided by efforts to portray science more attractively. Nothing is more attractive to the public than fun. ◉

References:

1. [YouTube Fl4L4M8m4d0]
2. [YouTube 9bZkp7q19fo]



Melody Li, Dan Baker-Jud, Maria Vittoria Cannizzaro, Simona Giunta.

Scientists dressed as their favorite viruses on Halloween. Needless to say, they went viral at the party. Infectious personalities help scientists to be remembered and remarkable. Photograph by the author.



This month Natural Selections interviews Alpha Greengard, from the Laboratory of Molecular and Cellular Neuroscience. Country of origin: Switzerland. As told to Carly Gelfond.

New York State of Mind

1. How long have you been living in the New York area? Arf arf arf arf arf arf. (In English please.)

Oh. I said I have been living in the area for twelve years, and no, this cannot be translated into “dog years.” It is nothing but a popular myth that “one human year equals seven dog years.” This is inaccurate for two reasons: first of all, the first year or two represents roughly eighteen to twenty-five years, and secondly, the ratio varies with size and breed.

2. Where do you live? On the Upper East Side. But I am a member of a distinct ethnicity—the Bernese Mountain Dog—which originated in Switzerland. So, my heritage is technically Swiss. I live with my assistant, Dr. Paul Greengard. He’s a great guy, but he’s always taking all the credit!

3. Which is your favorite neighborhood? All the credit. I said, “Paul, if you insist on accepting the Nobel even though you know signal transduction was my idea, well, fine. But to think you could bribe me with Chic’n Stix and ‘people’ food?” The fact is, he knows my weak spots and he goes for ‘em.

4. What do you think is the most over-



rated thing in the city? And underrated?

Overrated: Contrary to popular belief, it’s difficult to be brainy and single here. I’ve passed the same dogs again and again on my walks for years. Woof! But sometimes I’ll see this one gal, Taco, and I can just tell she’s different. She’s got a scientist’s mind when it comes to picking the cleanest places to squat. And when she sniffs you, she’s almost clinical, but also very polite and respectful.

Underrated: All-night bodegas. You can get

Chic’n Stix in the middle of the night! Also, people complain about the shortage of restrooms in this city, but look around and you see trees, shrubs, planters—two hydrants on every block! I don’t see what the problem is.

5. What do you miss most when you are out of town? Midnight Chic’n Stix.

6. If you could change one thing about NYC, what would that be? It is very difficult to get into Ph.D. programs if you are a dog here. I feel that the system is very biased towards filling slots with people. Also, I would make it acceptable to eat off the floor and still be taken seriously.

7. Describe a perfect weekend in NYC. What’s a weekend?

8. What is the most memorable experience you have had in NYC? The day I was adopted by Dr. Greengard. I remember thinking how lucky I was that I would live with an intellectual equal.

9. If you could live anywhere else, where would that be? Somewhere where everybody eats off the floor.

10. Do you think of yourself as a New Yorker? Why? To the extent that I can discern this without developing a true method of classification: yes. ◊

Life on a Roll



Boardwalk to Nowhere by Andrej Ondracka

For Your Consideration—And They're Off! Edition

JIM KELLER

Category	Warner Brothers	The Weinstein Co.	Fox Searchlight Pictures	Focus Features	Sony Pictures Classics	Universal Pictures	DreamWorks
Best Picture	<i>Argo</i> (3)	<i>Silver Linings Playbook</i> (4)	<i>Beasts of the Southern Wild</i> (7)	<i>Moonrise Kingdom</i> (11)	<i>Zero Dark Thirty</i> (6)	<i>Les Misérables</i> (2)	<i>Lincoln</i> (1)
	<i>The Hobbit: An Unexpected Journey</i> (10)	<i>The Master</i> (8)	<i>The Best Exotic Marigold Hotel</i> (15)	<i>Anna Karenina</i> (14)	<i>Amour</i> (12)		
	<i>The Impossible</i> (13)	<i>Django Unchained</i> (16)	<i>Hitchcock</i> (18)	<i>Promised Land</i> (17)			
Best Director	Ben Affleck - <i>Argo</i> (2)	David O. Russell - <i>The Silver Linings Playbook</i> (7)	Benh Zeitlin - <i>Beasts of the Southern Wild</i> (15)	Joe Wright - <i>Anna Karenina</i> (13)	Kathryn Bigelow - <i>Zero Dark Thirty</i> (4)	Tom Hooper - <i>Les Misérables</i> (5)	Steven Spielberg - <i>Lincoln</i> (1)
	(6) Peter Jackson - <i>The Hobbit</i>	Quentin Tarantino - <i>Django Unchained</i> (8)		Gus Van Sant - <i>Promised Land</i> (14)	Michael Haneke - <i>Amour</i> (9)		
		Paul Thomas Anderson - <i>The Master</i> (10)			Jacques Audiard - <i>Rust & Bone</i> (11)		
Best Actor	Clint Eastwood - <i>Trouble with the Curve</i> (14)	Joaquin Phoenix - <i>The Master</i> (2)	John Hawkes - <i>The Sessions</i> (4)	Matt Damon - <i>Promised Land</i> (13)	Jean-Louis Trintignant - <i>Amour</i> (11)	Hugh Jackman - <i>Les Misérables</i> (5)	Daniel Day-Lewis - <i>Lincoln</i> (1)
	Tom Holland - <i>The Impossible</i> (18)	Bradley Cooper - <i>Silver Linings Playbook</i> (7)	Anthony Hopkins - <i>Hitchcock</i> (6)				
		Jamie Foxx - <i>Django Unchained</i> (8)					
		Christoph Waltz - <i>Django Unchained</i> (9)					
		Brad Pitt - <i>Killing Them Softly</i> (17)					
Best Actress	Naomi Watts - <i>The Impossible</i> (6)	Jennifer Lawrence - <i>Silver Linings Playbook</i> (1)	Quvenzhané Wallis - <i>Beasts of the Southern Wild</i> (5)	Keira Knightley - <i>Anna Karenina</i> (7)	Jessica Chastain - <i>Zero Dark Thirty</i> (2)		
	Amy Adams - <i>Trouble with the Curve</i> (13)	Maggie Smith - <i>Quartet</i> (10)	Helen Mirren - <i>Hitchcock</i> (4)	Linda Cardellini - <i>Return</i> (16)	Marion Cotillard - <i>Rust & Bone</i> (3)		
			Judi Dench - <i>Best Exotic Marigold Hotel</i> (12)		Emmanuelle Riva - <i>Amour</i> (8)		
					Mary Elizabeth Winstead - <i>Smashed</i> (11)		
Best Supporting Actor	Alan Arkin - <i>Argo</i> (2)	Philip Seymour Hoffman - <i>The Master</i> (1)				Eddie Redmayne - <i>Les Misérables</i> (6)	Tommy Lee Jones - <i>Lincoln</i> (4)
	Matthew McConaughey - <i>Magic Mike</i> (9)	Leonardo DiCaprio - <i>Django Unchained</i> (5)				Russell Crowe - <i>Les Misérables</i> (11)	
	Jim Broadbent - <i>Cloud Atlas</i> (10)	Robert DeNiro - <i>Silver Linings Playbook</i> (3)					
	Ewan McGregor - <i>The Impossible</i> (14)	Samuel L. Jackson - <i>Django Unchained</i> (8)					
Best Supporting Actress		Amy Adams - <i>The Master</i> (3)	Maggie Smith - <i>Best Exotic Marigold Hotel</i> (4)	Alicia Vikander - <i>Anna Karenina</i> (10)		Anne Hathaway - <i>Les Misérables</i> (1)	Sally Field - <i>Lincoln</i> (2)
		Pauline Collins - <i>Quartet</i> (9)	Helen Hunt - <i>The Sessions</i> (5)	Frances McDormand - <i>Promised Land</i> (13)		Samantha Barks - <i>Les Misérables</i> (6)	
		Jacki Weaver - <i>Silver Linings Playbook</i> (11)	Scarlett Johansson - <i>Hitchcock</i> (12)				
		Kerry Washington - <i>Django Unchained</i> (14)					

20th Century Fox	Paramount Pictures	Lionsgate	Walmark Films	IFC Films	Kandoo Films/Forward Movement	Open Road Films	Summit Entertainment	Columbia Pictures
<i>Life of Pi</i> (5)	<i>Flight</i> (9)							
Ang Lee - <i>Life of Pi</i> (3)				Walter Salles - <i>On the Road</i> (12)	Ava DuVernay - <i>Middle of Nowhere</i> (16)			
Suraj Sharma - <i>Life of Pi</i> (12)	Denzel Washington - <i>Flight</i> (3)	Richard Gere - <i>Arbitrage</i> (10)	Bill Murray - <i>Hyde Park on Hudson</i> (15)			Jake Gyllenhaal - <i>End of Watch</i> (16)		
			Laura Linney - <i>Hyde Park on Hudson</i> (14)	Kristen Stewart - <i>On the Road</i> (17)	Emayatzy Corinealdi (9)			Meryl Streep - <i>Great Hope Springs</i> (15)
						Michael Peña - <i>End of Watch</i> (12)	Ezra Miller - <i>The Perks of Being a Wallflower</i> (13)	Javier Bardem - <i>Skyfall</i> (7)
	Kelly Reilly - <i>Flight</i> (8)							Judi Dench - <i>Skyfall</i> (7)

The Oscar race can be best thought of as a horserace in which each studio bets on their thoroughbreds and hopes that they can at least place in the end. In this analogy, the studio is the owner, the public relations department is the jockey, and the horse is the actor or film. Here, we examine the roles I've discussed in the three-part "Ones to Watch" edition and identify those

actors with serious playing power and those who have fallen by the wayside. I've also provided my predictions as they currently stand in all of the major categories.

Way back in June, I couldn't help myself and dove right into my favorite race, Best Actress. Here were the roles I discussed and where they are now:

The veritable shoe-in: Nicole Kidman—*The Paperboy* (director: Lee Daniels, studio: Millennium Films):

FYC: When we last left Kidman, before the Cannes Film Festival, we were unsure if she would go lead or supporting. The film left Cannes considered by many as a would-be cult classic, in that it was so bad that you had to see it. With that

said, Kidman's performance remains the only shining gem, but it won't be enough to get her a nomination—supporting or lead.

America's sweetheart: Sandra Bullock—*Gravity* (director: Alfonso Cuarón, studio: Warner Brothers):

FYC: The only blind side this time around is that the studio pushed the film back to next year. Sorry Sandy!

The period performance: Keira Knightley—*Anna Karenina* (director: Joe Wright, studio: Focus Features):

FYC: After bowing at the Telluride Film Festival and a subsequent screening at the Toronto International Film Festival, early reviews have been mixed for the film. It doesn't appear as though Knightley will make it into the top five.

The long shot: Noomi Rapace—*Prometheus* (director: Ridley Scott, studio: 20th Century Fox):

FYC: It was just that, a long shot, and after mixed reviews for Scott's *Alien* franchise revisitation of sorts, Rapace's performance, while good, suffered under the weight of a murky plot. No dice.

The foreigner: Marion Cotillard—*Rust and Bone* (director: Jacques Audiard, studio: Sony Pictures Classics):

FYC: Cotillard's performance is said to be second only to that which netted her a first Oscar in a leading role, when she portrayed Edith Piaf in 2007's *La Vie en Rose*. She has been making all the right appearances and accepting numerous honors, such as career tributes from the Telluride Film Festival and the Gotham Independent Film Awards. Things look very promising for Cotillard, indeed.

The singer: Anne Hathaway—*Les Misérables* (director: Tom Hooper, studio: Universal Pictures):

FYC: I mistakenly put Hathaway in lead initially—due to the fact that I haven't seen the musical production (for shame!) See below in the Supporting categories.

The 'it' girl: Carey Mulligan—*The Great Gatsby* (director: Baz Luhrmann, studio: Warner Brothers):

FYC: Similar to Sandra Bullock in the aforementioned *Gravity*, Mulligan is a casualty this year in that the studio has chosen not to bow *Gatsby* until next year.

Following on the heels of the ladies in October, both Supporting ladies and gents were discussed in the special double edition. Let's see how they fare now:

~The Ladies~

The singer: Anne Hathaway—*Les Misérables* (director: Tom Hooper, studio: Universal Pictures):

FYC: Fear not, Hathaway is a strong contend-

er in the Supporting field for not only a nomination, but a win—especially with the early glimpse we've received via the film's trailer.

The dutiful wife: Sally Field—*Lincoln* (director: Steven Spielberg, studio: DreamWorks Studios):

FYC: The film bowed at a surprise screening during the New York Film Festival and has revealed Field to be a strong contender in this race—she may even out-muscle Hathaway for the win.

The golden girl: Judi Dench—*The Best Exotic Marigold Hotel* (director: John Madden, studio: Fox Searchlight Pictures):

FYC: Don't look for Dench in the Supporting category as she is very much the lead actress. The problem is, the field is stacked this year and subsequently stacked against Dench. She may end up with a Supporting nomination for *Skyfall*, but that is a very hard sell and remains to be seen.

The comeback kid: Pauline Collins—*Quartet* (director: Dustin Hoffman, studio: The Weinstein Company):

FYC: Little has been said about either Collins' performance or Hoffman's film since the Toronto Film Festival premiere, which yielded awards chatter for Collins. At this stage in the game, no chatter can kill an Oscar bid, and the Supporting Actress race is finally starting to take shape—without Collins.

The transformer: Olivia Williams—*Hyde Park on Hudson* (director: Roger Michell, studio: Walmark Films):

FYC: While critics had some praise for Williams' portrayal of Eleanor Roosevelt, the film itself is said to have a lot of problems. It is a difficult thing to earn a lead nomination, let alone a supporting one, on a sinking ship.

The newcomer: Kerry Washington—*Django Unchained* (director: Quentin Tarantino, studio: The Weinstein Company):

FYC: Early word on the film is that Washington's part is rather small in Tarantino's latest, so I've taken her out of the running.

~The Gents~

The veritable shoe-in: Philip Seymour Hoffman—*The Master* (director: Paul Thomas Anderson, studio: The Weinstein Company):

FYC: Early on, there was discussion as to which field (lead or supporting) Hoffman would be in, but it seems likely he'll stay in supporting. Unlike Nicole Kidman in the ladies' category, who was in the same boat early on, Hoffman is very much still in this race.

The pretty boy: Leonardo DiCaprio—*Django Unchained* (director: Quentin Tarantino, studio: The Weinstein Company):

FYC: A less sure bet, but still to be considered, DiCaprio's hat remains in the ring. Though

I maintain, should he land a nomination, a win is unlikely.

The Washington man: David Strathairn—*Lincoln* (director: Steven Spielberg, studio: DreamWorks Studios):

FYC: Often I hear information on films in the making that ends up not to be entirely true. Such is the factoid about Strathairn being the strongest supporting role here—that honor goes to Tommy Lee Jones. So go ahead and look for Jones, but Strathairn is unlikely.

The wild card: William H. Macy—*The Sessions* (director: Ben Lewin, studio: Fox Searchlight Pictures):

FYC: Having seen the film, I can tell you, Macy hits all the right comedic notes, but outside of a few minutes sitting in a church pew with John Hawkes' Mark O'Brien, we don't see much from Macy's priest. Not gonna happen.

The foreigner: Michael Fassbender—*Prometheus* (director: Ridley Scott, studio: 20th Century Fox):

FYC: As I mentioned, this film hit hard, but left critics divided, and with most unable to ignore the somewhat murky plot. While Fassbender gives arguably the best performance of the film, I've already discussed the unlikelihood of a nomination culled from a sci-fi film, and, in this instance, the film sealed his fate. No go.

The TV vet: Bryan Cranston—*Argo* (director: Ben Affleck, studio: The Weinstein Company):

FYC: Yes, *Argo* is this season's juggernaut by far, but the film plays as more of an ensemble piece and while the acting is good, there isn't too much that stands out. The big story from this film, acting-wise, is Alan Arkin, so I place my money on him over Cranston. It's not likely that they would both feature here.

Just last month I concluded the series with a look at the Best Actor race. The one race of those I covered over the past six months that remains well intact and, to me, the most exciting of all this year.

The done deal: Joaquin Phoenix—*The Master* (director: Paul Thomas Anderson, studio: The Weinstein Company):

FYC: Despite some minor comments about wanting no part in the Oscar game, Phoenix will have no problem securing a nomination and may even take it home.

The square jaw: Daniel Day-Lewis—*Lincoln* (director: Steven Spielberg, studio: DreamWorks Studios):

FYC: Many critics and Oscar prognosticators were nervous as to whether or not Day-Lewis' performance would fly, but after the surprise screening in New York, that chatter has been laid to rest and we have in our hands a second bona

fide contender.

The Ken doll: Bradley Cooper—*Silver Linings Playbook* (director: David O. Russell, studio: The Weinstein Company):

FYC: Perhaps the biggest surprise of the season, Cooper is said to give a career-defining performance here. While I have to admit I was skeptical about his chances, i.e. I didn't take this chatter seriously—it is a plum role that is well handled and could go over well with the Academy. The question remains whether or not he can weather the Oscar heavyweights he's up against.

The Indie hero: John Hawkes—*The Sessions* (director: Ben Lewin, studio: Fox Searchlight Pictures):

FYC: Hawkes is very much still in this game, though his film may be the smallest of those anchored by leading men. The film will likely earn him and Helen Hunt nominations in Lead and

Supporting, respectively, but the film itself doesn't have much life outside of those two. This could hurt Hawkes' chances slightly, since other vehicles will also have Best Picture bids.

The constant: Denzel Washington—*Flight* (director: Robert Zemeckis, studio: Paramount Pictures):

FYC: Now that the film has been released, the ether is abuzz with nothing but acclaim for Washington's performance. Look for him in the top five, front and center and fighting Joaquin Phoenix and Daniel Day-Lewis for the win.

The dark knight: Anthony Hopkins—*Hitchcock* (director: Sacha Gervasi, studio: Fox Searchlight Pictures):

FYC: Early word suggests that the film paints Hitchcock into a man that he may not have been. Also, like Phoenix, he has spoken out against the Oscars recently—these points could spell trouble

for Hopkins' Best Actor bid. But, he is Anthony Hopkins, and if anyone can overcome such a hurdle, it's him. The more likely nomination for the film, however, is Helen Mirren.

The boy from Oz: Hugh Jackman—*Les Misérables* (director: Tom Hooper, studio: Universal Pictures):

FYC: Critics who have seen Hooper's production, which employs live singing as opposed to a recorded soundtrack, have said that it doesn't miss a beat, which leaves room to consider Jackman's performance. He's a heck of a singer and in this role, he could really do some damage Oscar-wise. Musical adaptations can be tricky, but it looks like this one is primed to go over like gangbusters.

The preceding table reflects my predictions as they currently stand (see table on pages 6-7. The numbers in parentheses indicate the prediction ranks.). ◉

Natural Confections

CARLY GELFOND

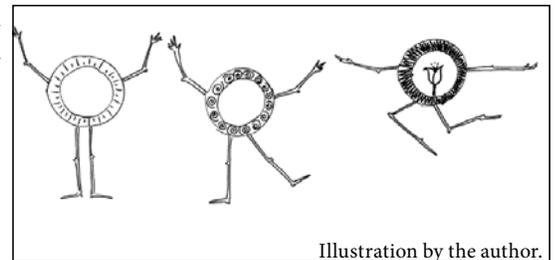
Pretend something with me for a minute. You are 28 years old. It's August and you're standing in Bloomingdale's, a department store you rarely set foot in except for the occasional free spritz of perfume in the cosmetics department. On this particular visit, however, you are on a specific mission. You are 28 but trying to envision yourself in middle age, serving a meal to guests during the holidays—say, brunch on New Year's Day. Now, this is important: What do your plates look like? Are they fine china? Bone? Casual? Are they Villeroy & Boch "French Garden" dinnerware or are they Kate Spade "Library Lane" platinum? Are they the plates you eat on every day, or a separate fancy set? Are they easily broken by your children? Do you even have children? You snap your gum. You go back for another free cookie in the Wedding Registry office.

All of which is to say, creating a wedding registry can be baffling for some people, in particular for those of us who are loyal patrons of Ikea. The whole lot of the dishes that John and I own probably costs less than a child's ticket to the movies. And yet, this is not to say that we don't take presentation seriously. (Or rather, as the owner of a set of squirrel-shaped candle holders, "seriously" might be the wrong word.) After all, presentation is the fun part of entertaining. It's kind of like you're creating a show, one in which the audience will participate. As a host, you have the ability to set the mood. You design the set, the music, the lighting, your own costume. And of course, this is a show in which food will be part of the story, so you decide what will be served and how, and then you prepare it. The main event, of course, is improv, with all of the guests taking part.

But to return to the dishes. We like ours—simple and white, inexpensive but making for a clean and uncluttered table setting. We like the way food looks on them.

The way you entertain is—or should be—a reflection of who you are. Which brings us back to Bloomingdale's, where we are standing in front of the Wedgwood "Renaissance Gold" five piece place setting, envisioning a Christmas Day ham served on it twenty years from now. The way you entertain is a reflection of who you are—but the challenge is that who you are changes.

So, how does this story end? The suspense is killing you, right? Well, some things are better left private



when it comes to getting personal in a writer's monthly column, but I will say that we did ultimately come to a decision. Before we committed, we bought two test plates and two test bowls. We used them for everything, from morning cereal to salmon with a side of minty smashed peas. They were indeed versatile. Sitting down to dinner one night—just the two of us—our peas looked striking, a brilliant shade of bright green against the test plate. I took a bite. Buttery but also sweet and minty fresh. The plate passed its audition, and so did the food on it, a side dish worthy of being served to company. Will our dinnerware continue to please in twenty years? It's hard to say. We can only hope for them what we do for ourselves: that we will all age gracefully.

MINTY SMASHED PEAS

Adapted from *Happy Days with the Naked Chef* by Jamie Oliver

Ingredients

3 10-ounce packages of frozen peas

4 tablespoons butter

1 large handful fresh mint leaves

Sea salt and fresh ground pepper

Place peas in a saucepan with $\frac{3}{4}$ cup of water. Bring to a boil, then reduce heat, simmering for about four to five minutes. Drain and immediately return peas to pan. Add butter. Stir until butter is melted and distributed. With either an immersion blender or potato masher, mash peas, leaving a few peas whole. Chop mint and stir into peas. Season with salt and pepper to taste. Serve on whichever plates make you happy. ◉

Political Polemics

DANIEL BRISKIN

With the ultimate mandate of giving a select few the power of making decisions for the masses, politics carry an inherent nature of polarity, as differing viewpoints compete for legislative, executive, and judicial power. However, in the current era of hyper-partisan American politics, elected officials can appear more interested in denigration of their opponent than in the advancement of domestic and foreign affairs. During election season, political attacks reach an apex as candidates clamor for voters. The competitiveness of election season, drawn out over a year-and-a-half presidential campaign, forms a divisive, counter-productive atmosphere that stymies the already troubled American political system. Ultimately, the drawn-out elections and political negativity create a legislative branch unwilling to compromise between opposing parties within it, or with the executive branch. All of this simply harms the American people, whose country doesn't adjust to the ever-changing arena of global politics.

Harkening back to the start of the global recession, not much major legislation has been passed with bipartisan support. The first bailouts under President Bush were some of the last examples of major legislation supported by both parties, and that was only when the major financial institutions, both in the United States and throughout the world, were on the brink of collapse. Since then, most other major legislation has been blocked by the uncompromising attitude of the House and Senate. Healthcare reform was passed, in what could be called a weakened form (as it offers no public option for providing health care) only thanks to a Democratic super majority in Congress. Legislators have been forced to abandon other potentially groundbreaking legislation, such as attempts to regulate emissions via a cap and trade program.

One piece of legislation that has been passed is the raising of America's debt ceiling. While this is a rare example of a law receiving bipartisan support, it is not a shining example of American do-

mestic success—America's credit rating was downgraded for the first time ever. The Budget Control Act (passed in conjunction with raising the debt ceiling), combined with the expiration of Bush-era tax cuts, ultimately created the so-called fiscal cliff looming on the horizon, which has the potential to wreak havoc on the economy. The fiscal cliff could have been avoided if the specially formed bipartisan committee could have found compromise on financial issues. Instead, America races full-force toward a round of automatic budget cuts and concomitant economic pandemonium.

Political parties bear perhaps the greatest share of the blame for a lack of legislative success. The problems arising from having multiple parties quickly make themselves evident. George Washington, one of the least divisive and most beloved political figures in American history, knew these perils and used his farewell address to urge nascent America to avoid forming political parties:

“In contemplating the causes which may disturb our Union, it occurs as matter of serious concern that any ground should have been furnished for characterizing parties by geographical discriminations, Northern and Southern, Atlantic and Western; whence designing men may endeavor to excite a belief that there is a real difference of local interests and views. One of the expedients of party to acquire influence within particular districts is to misrepresent the opinions and aims of other districts. You cannot shield yourselves too much against the jealousies and heartburnings which spring from these misrepresentations; they tend to render alien to each other those who ought to be bound together by fraternal affection.”

Washington's vision for a unified government almost immediately vanished as John Adams and his vice-president, Thomas Jefferson, were of opposing political parties. From that time forward, there have generally been two political parties dominating the realm of American politics. This centuries-old division has created a system in

which one party can easily apportion blame to their opposition for any crisis that should befall America. In the past few years, the willingness of Party A to blindly blame Party B has destroyed civil dialogue.

A tremendous catalyst for negative rhetoric is the recent Supreme Court ruling, in the case of *Citizens United v. Federal Election Commission*, more commonly referred to simply as *Citizens United*. This ruling states that corporations can spend unlimited money on elections. Because of the equation of money with free speech, to restrict money (such as donations to political organizations) would be to restrict free speech as granted to people under the First Amendment. The question may arise as to why, if it is people who are protected under the first amendment, corporations can spend unlimited money. The answer lies in the notion of corporate personhood: that corporations have some of the same rights as people. This syllogism—that spending money is speech, people are granted unlimited free speech, corporations are people, corporations are granted free speech, and therefore corporations can spend unlimited money to espouse their views—is probably not what the founding fathers intended when drafting the First Amendment.

This ruling, combined with super PACs, has changed the landscape of American politics. Political action committees (PACs) are a well-established vector through which interest groups voice their opinions. However, super PACs (technically called independent-expenditure-only committees) are able to receive unlimited contributions from both individuals and corporations. These funds may then be spent in unlimited amounts to advocate for an opinion or viewpoint. This unlimited spending contrasts with regular PACs, which are bound to stricter regulations on donations and spending. Whereas super PACs are not allowed to corroborate with candidates, often times a member of a candidate's staff will quit the official campaign and go to work for

a super PAC. So, although collaboration is not direct, or in technical violation of the law, it undoubtedly exists. Effectively, Citizens United and super PACs give candidates' campaigns much more power in the form of money, while giving them much less accountability in their technical lack of association with their super PAC.

The array of problems in America's political system has become engrained in the system so that fixing it will prove a massive challenge, but there is perhaps some light at the end of the tunnel. Even though billions of dollars were spent in total this past election, the super PACs did not always prevail, and spending

doesn't always equate with success. President Obama faced more than \$375 million in negative spending from super PACs and other organizations. Democrats, although more successful than Republicans in this election, also spent vast sums of money, with little to show, barely maintaining the status quo.

Perhaps with the heat of the elections over, both sides can see that spending so much money doesn't necessarily produce results. As some politicians fall victim to negative advertising of super PACs, those politicians have voiced their dissatisfaction with the super PACs. Thus, perchance, politicians will be motivated to pass campaign re-

form acts and to work together on legislation. However, real and effective campaign reform would take bipartisan legislation, and, in this current environment, such reform seems unlikely. Rather, next election, corporations and individuals may double-down, increasing their donations to campaigns, in hopes of buying their candidate electoral success. In the meantime, America will continue to stagnate on the global stage and American politics will remain plagued by petty, partisan bickering. In the end, it is the electorate, the American people, who suffer, and who are responsible for electing these unproductive legislators. ◉

CULTURE CORNER

Book Review: *The Sense of an Ending* by Julian Barnes

BERNIE LANGS

The three current kingpins of British literature are, in my opinion, Martin Amis, Ian McEwan and Julian Barnes. In the past I have enjoyed novels by all three, reveling in their tragedies and comedies filled with satire, sarcasm, wit, fine prose, elegance, and decadence, all in the continued tradition of masters such as Saul Bellows and, dare I say, the mighty Vladimir Nabokov. Then I threw all three under the bus and turned away from fiction completely, with the exception of the writings of the Austrian Thomas Bernhard.

I find myself wondering if my complete turn to non-fiction is related to my having worked a decade at The Rockefeller University. Non-fiction is a compilation and compounding of facts—pure, simple (or not so simple) truths, or at least educated hypotheses. But when a friend mailed me a copy of *The Sense of an Ending*, by Julian Barnes, I did feel, in the words of Monty Python's John Cleese, "a bit pokish" about reading it. If there was one recent novel that had intrigued me, it was this one, since it had garnered very good notices from the press.

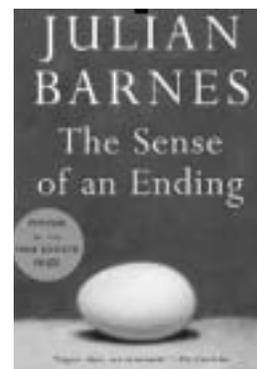
I don't know if it's fair to put the genre of fiction itself on trial here based on reading one book, but as I read, that was

what I continued to do. I read Barnes's book in one day, sitting at home, without power, during the recent hurricane. As I read, I continuously wondered if the fact that I couldn't put the book down meant that I liked it. Maybe that's the rub. After years of struggling with non-fiction, was this book a comparable meal of easy fast food in contrast to the gourmet multi-course banquets upon which I've been recently feeding? Was this intellectual Doritos?

A Sense of an Ending is a tale and a moral examination of the act of remembrance. The protagonist, Tony Webster, now middle-aged, is looking back on his life; mysteries of life and death and relationships emerge, at first, in a very casual manner. I was struck by how his reminiscences were colorless and lacking in detail, not realizing that Barnes was playing with me, toying with his reader. In the later portion of the novel, he begins to fill in the details; as his sentences grew in texture and color, I began to turn the pages faster and faster to figure out the truth of Tony's life.

So, after a casual saunter, the book takes off at a full gallop and comes to a complete crescendo in the last pages. Is there anything wrong with this? What's the problem? My disillusionment with

novels began with Ian McEwan's *Amsterdam*, also a page-turner. I resented how everything folded together like a *Seinfeld* episode at the end, especially since I had adored



another book of his, *Atonement*. Many years ago, I read Kazuo Ishiguro's tale of a repressed English butler, *The Remains of the Day*. The main character, Stevens, tells his story in a perfectly proper British tone, but that tone breaks at the end in one perfect sentence on love. I was absolutely amazed at that turn of style in the book. This was accomplished by the prose itself, not by a plot element. That was a much more fulfilling artistic peak.

All this said, are there more novels in my future to be read? Of course. Novels educate on the vagaries, the depths and whims of life, and help round out our emotional dictionaries in ways that non-fiction can't. And yes, they are more than an intellectual snack. I look forward to more books from our friends across the pond. ◉

Marx Was a Neuroscientist, Part 4: Dance Dance (Cognitive) Revolution

BENJAMIN CAMPBELL

These petrified relations must be forced to dance by singing their own tune to them! Karl Marx

In November, *The Atlantic* published an interview with Noam Chomsky on the state of contemporary cognitive science and “Where Artificial Intelligence Went Wrong.” Chomsky, a central figure in the “cognitive revolution”, lamented what appeared to be today’s reversion to the behaviorism that he so strongly critiqued over half a century ago.

This interview was timely, as I have recently likened Chomsky and the cognitive revolution to Immanuel Kant’s philosophical reaction against empiricism. Today, Chomsky expresses concern about the increasing reliance on advanced statistical techniques and data-mining approaches in machine learning, as though we have taken a step backwards to a naïve empiricism. In contrast to such modeling approaches, Chomsky invokes the perspective of the theoretical neuroscientist David Marr. Marr, in studying the visual system, famously suggested that one must study a system at multiple levels, including the highest computational level, asking what is it that a system does? While Chomsky’s objection to contemporary theory might seem like a sharp rejoinder to today’s vulgar quants, in fact, it merely begs the question: what if the ultimate computational goal of an organism is to model its environment?

Long before Chomsky’s generation was launching the tradition of cognitive science, there existed a significant current of theoretical research known as cybernetics. Cybernetics was a term coined by Norbert Wiener from the Greek for “steersman,” for as the polymath Wiener put it in *The Human Use of Human Beings*: “We are but whirlpools in a river of ever-flowing water. We are not stuff that abides, but patterns that perpetuate themselves.” Cybernetics was briefly dominant in the post-war era, but was soon displaced by A.I. approaches that seemed more practical and were thus better funded. Where A.I. would emphasize computation, internal representation, and symbolic logic, cybernetics stressed the connections between control, communication, information, and thermodynamics. Life was seen as a homeostatic process, existing in enclaves of negative entropy where organisms regulated their environment by navigating the surrounding streams of disorder. And as the pioneering cyberneticist W. Ross Ashby would publish, *Every Good Regulator of a System Must Be a Model of That System* (1970). Thus, even if we examine the computational goal of an organism from Marr’s top-level perspective, we eventually come back to the conclusion that, as a homeostatic process, the computational goal of an organism must be to model its environment.

Chomsky is correct that certain manifestations of machine learning and neuroscientific theory have the feel of a reversion to behaviorism, including much of reinforcement learning theory. Yet a broader perspective would recognize that the last two decades have seen a qualitative paradigm shift in our understanding of the brain. It is not that data-modeling is a repudiation of Kantian “forms of thought,” but merely a recognition that the forms of thought cannot be considered independently of the empirical data that they process. Recall Hegel’s criticism: Kant was to be commended for making the forms of thought a matter of study, but “there soon creeps in the misconception of already knowing before you know.” Forms of thought are not merely a priori constructs through which the world is viewed, but both act on their content and are acted on by that content, dynamically and dialectically.

This interdependence of form and content would find a more quantitative expression in principles of efficient coding, in which the brain learns

dynamic representations that depend on the statistics of its inputs. This view has since led to approaches termed “Bayesian,” after the subjectivist approach to probability pioneered by Thomas Bayes. In this prominent view, the brain learns a statistical model to represent its environment, continually predicts that environment, and updates its internal model when these inferences are contradicted—a process known as Bayesian inference.

This now-familiar procedure of priors adjusted by new evidence to form posteriors bears an uncanny resemblance to that famous quasi-Hegelian triad: thesis, anti-thesis, synthesis. Today, however, Bayesian inference seems much more scientific than the historically obscure dialectic, raising the question of why anyone would concern themselves with Hegel out of anything other than antiquarian (or masochistic) interest. Importantly, however, while Bayesian models represent a significant advance over previous theory, they remain only approximations. A mere application of Bayes’ rule updates the prior belief in a proposition to a posterior belief in that proposition, but neglects to consider that the propositions themselves are dynamic. These forms of thought, through which we see the world, are never quite enough to adequately represent that world, leading to what Nicholas Georgescu-Roegen referred to as “qualitative residuals,” which manifest themselves as contradictions in our present understanding of the world. Thus, a Bayesian conception of the brain remains only an approximation to a dialectical understanding of the brain, and indeed a dialectical understanding of life, in which the organism comes to know its environment through a continual process driven by the resolution of contradictions between the world and the forms of thought used to represent it.

The fact that Hegelian philosophy speaks so clearly to biology should be unsurprising. Hegel was greatly influenced by the natural philosophy of his day, and as Frederick Beiser points out in his introductory *Hegel*, “the purpose of Hegel’s *Science of Logic* is indeed to develop a logic of life, a way of thinking to understand life.” Unfortunately, the correspondence between Hegelian philosophy and biology has been historically obscured by the degeneration of “Marxism” into farcical state ideologies. As a result, an anti-Hegelian scientism developed in the West, perhaps best exemplified by Jacques Monod’s tendentious and reductionist screed, *Chance and Necessity*. Recent decades, however, have seen a renaissance of Hegelian thought in philosophy, particularly in American pragmatism, and it seems inevitable that the intractability and absurdity of the present crises of capitalism will give rise to a renewed interest in Marxism. An understanding of the relation between the Hegelian dialectic and contemporary biology thus seems a necessary prerequisite for any real “consilience” of the two cultures, as well as any rebirth of the left.

Thus, contrary to Chomsky, I suggest we interpret the emerging conception of the brain not as a return to empiricism, but as analogous to the Hegelian advance beyond Kant. The work of the last two decades can thus be considered as “revolutionary” as that of Chomsky and his colleagues, even if the fragmentary and atomized research of late capitalism makes it difficult to identify the contemporary Zeitgeist.

However my analogy here remains incomplete, for just as Hegel critiqued Kant, so too was Hegel relentlessly critiqued by the “young Hegelians” who followed him. I have thus far presented the brain as passive observer coming to know its environment. To paraphrase the young Marx in the most famous of his *Theses on Feuerbach*: we have thus far only interpreted the world; the point is to change it! ◊



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