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Spring 2015

The Washington Post. Circulation: 20.8 million monthly unique visitors
Chabad.org
Jewish Voice
The Jewish Week
Features Binghamton University senior Don Greenberg, a triple major from Teaneck, N.J. with a 3.93 GPA. Greenberg is an Orthodox Jew who observes the Jewish Sabbath, which begins at sunset Friday and ends at sunset on Saturday.

The Today Show/NBC News. Viewership: 3.5 million.
Interview with Golden Globe winner Hugh Grant to discuss the film “The Rewrite.”
Hugh Grant mentions Binghamton University. Movie scenes shot on Binghamton University campus and locally.

How To Become a Morning Person
Features Meredith Coles, associate professor of psychology, and Jacob Nota, graduate student.

CNN Live. Viewership: 5.82 million.
Interview with Ricardo Larémont on Boko Haram
Features Ricardo Larémont, professor of political science and sociology.
Experience Leads Palmer to Study Black Males in Higher Ed
Features Robert T. Palmer, associate professor of student affairs administration.

GOP Candidates and the Educational F-Word
Commentary written by Adam Laats, historian in the Graduate School of Education at Binghamton University, and author of “Fundamentalism and Education in the Scopes Era: God, Darwin, and the Roots of America’s Culture Wars.”

Weather Sets the Stage for the 2015 West Nile, Lyme Seasons
Features Ralph M. Garruto, Ph.D., a professor of biomedical anthology and biological sciences at Binghamton University.

Harsh Northeast winter no hindrance to hungry ticks
Features Ralph M. Garruto, Ph.D., a professor of biomedical anthology and biological sciences at Binghamton University.

Experts warn of boom in tick population
Features Ralph M. Garruto, Ph.D., a professor of biomedical anthology and biological sciences at Binghamton University.

A Drug Trial’s Frayed Promise
Features Mark F. Lenzenweger, a professor at Binghamton University and Weill Cornell Medical College and an expert in borderline personality disorder

British Broadcasting Corporation (BBC). Listenership: 15.5 million.
Ten sinister parasites that control their hosts’ minds
Features Chris Reiber, Associate Professor of Anthropology and Department Chair at Binghamton University.

Free Throw Distraction: The Best Fans in the N.C.A.A.
Mentions America East: Binghamton University, change in opponents’ free throw percentage relative to home games -2.2.
*New York Town Threatens to Secede Over Cuomo’s Fracking Ban*
Features Thomas Sinclair, associate professor of public administration.

*Can towns legally secede from NY over fracking ban*
Features Thomas Sinclair, associate professor of public administration.

*How much of a risk is fracking to the environment?*
Features Rob Holahan, professor of environmental studies and political science.

The Wall Street Journal. Circulation: 2.3 million daily, including 900,000 digital.
*Are Prestigious Private Colleges Worth the Cost?*
Binghamton University listed as one of the “Best Public Universities for Returns on Investment,” with an annual ROI of 8.4 percent.

*“If You Think Your Boss is Horrible, You’re Probably Right”*
Features Seth Spain, assistant professor of management.

*SUNY professor indexes pharma companies’ impact*
Features Nicole Hassoun, associate professor of philosophy.

Marketplace.org. Listenership: 12 million unique listeners weekly.
*New effort ranks drugmakers by impact*
Features Nicole Hassoun, associate professor of philosophy.

*The Evolution of Altruism*
Features David Sloan Wilson, distinguished professor of biological sciences and anthropology.

*Always wondered how fast a pitch would be on the moon? Wonder no more*
Features Stephen Levy, assistant professor of physics.
*The Best Public Colleges in New York*
Highlights that Binghamton University is the top public four-year college in New York.

*Why Do Dogs Watch and React to TV?*
Features George Catalano, professor of biomedical engineering.

The Wall Street Journal. Circulation: 2.3 million daily, including 900,000 digital.
*A New Index Measures Impact Pharma Has on Infectious Diseases*
Features Nicole Hassoun, associate professor of philosophy professor.

*Sleep Early, Be Happy!*
Features Jacob Nota, a researcher at Binghamton University.

Prism Magazine. Circulation: over 12,000.
*Human Spare Parts*
Features Kaiming Ye, a professor of bioengineering at Binghamton University.

Psychology Today: Circulation: 301,779
Yahoo!News: 59.9 million monthly unique visitors
Science Codex: N/A
Phys.org: N/A
RedOrbit: N/A
Features co-author Seth Spain, assistant professor of organizational behavior at Binghamton University and his study about what cartoons tell kids about leadership skills.

College Magazine.com: N/A
AOL.com: 11.5 million.
CNN.com: Viewership: 5.82 million.
Features Binghamton University alum Stephanie Courtney, better known as Progressive Insurance’s “Flo,” who provided a speech at the University’s commencement ceremony.
How To Become A Morning Person

Annie Daly | December 29, 2014
Train yourself to love the a.m. (Photo: Getty Images)
It’s an all-too-common scenario: Your alarm goes off in the morning and you hit snooze, and then you hit snooze again, and then again. Before you know it, you’re late (as per usual) and you tell yourself the same lie you told yourself yesterday: “Tomorrow I will go to bed earlier and wake up earlier. I have to. I have to be a better morning person; I cannot go on like this.”

Not only does snoozing your way through your morning make you late for work, it may also impact your mental health — and not in a good way. A recent study from researchers at Binghamton University in New York, published in the journal Cognitive Therapy and Research, found that night owls are more likely to report negative thoughts such as worry and anxiety than chipper “morning people,” who are often more positive overall.

The good news is that it’s actually possible to train yourself to become a morning person — even if you love nothing more than staying up late and rising at the crack of noon. We checked in with Michelle Segar, PhD, a sustainable behavior change expert and director of the University of Michigan Sharp Center, who says there are three steps you can take to develop any “sustainable behavior change” — i.e. a change that you’ll stick with for the long haul. Check them out below.

Step 1: Do Some Mental Digging
Of course you know that waking up early is good for you. After all, you read the Internet, and you see all those chipper people bustling about in the morning being super productive while drinking their skim milk lattes in Spandex. But here’s the thing: Just because you know you should rise early like they do isn’t enough of a reason for you to do it yourself—you have to dig deeper.
“Your reason for changing your ways needs to be deeply compelling and specific,” confirms Segar, who is also the author of the forthcoming book “No Sweat: How the Simple Science of Motivation Can Bring You a Lifetime of Fitness.” “If your reason is simply that you know you should change, you won’t feel personally connected to it, and you won’t be motivated enough to carry through,” says Segar.

So ask yourself: Why do you want to be a morning person? Is it so you have time to exercise? So you have time to prepare a healthy breakfast? So you get to work on time? All of the above? Whatever it is, figure it out — that specificity will help you follow through with your goal later on.

Step 2: Make A Game Plan
Now you need to figure out how you’re going to make learning how to be a morning person a priority in your daily life. The first step is identifying the exact roadblocks in your way right now. Chances are, Segar says, you’re staying up too late in the first place. So take note of what you’re doing after 10 p.m.: Are you watching Netflix? Are you stalking your ex on Facebook? Are you scrolling through Instagram? Playing on Tinder? “Once you’ve figured out your bedtime weakness, start to set cues to cut yourself off,” says Segar.

For example: If you have a habit of watching Hulu or Netflix on your laptop in bed, set your alarm on your phone for 11 p.m. every night. When that alarm goes off, turn the computer off. Just do it. If you’re a social media night owl, tell your Facebook friends that you’re trying to go to bed earlier and ask them to help you out. That way, when they see you on late at night, they’ll tell you to go to bed — and you’re more likely to do so since they’re holding you accountable. There are even sleep apps you can use, like Zansors and Sleep Cycle, that analyze your sleep data, give you feedback on your lifestyle, and remind you to go to bed on time.
It doesn’t really matter what you choose to use as your cue to go to bed, as long as you choose something.

Step 3: Take Action — And Track Your Progress
Once you’ve formed a game plan, it’s time to actually walk the walk and do this thing. The key here is to track your progress as you go. It can be helpful to write down what time you got out of bed each morning so that you can go back and analyze your own data (or use one of the many sleep apps to do so). Then, be sure you set aside one day a week to actually go through your data to see how you’re doing.

“It’s really important to evaluate your strategies to see how they’re working. If they’re not working, make a tweak (say, go to bed half an hour earlier), and see if that works any better,” advises Segar. It’s going to be different for everyone, so the key is to play around to see what’s best for you.

Finally, Segar says it’s important to focus on one behavior change at a time. “If you’re trying to wake up earlier, don’t try to change your diet, too — it can be too overwhelming. Focus on one at a time so that you can really learn how to sustain this one behavior,” she says. And hey, once you succeed — which you will! — then you know you can do it, and your next behavior change will be that much easier.
Here Are Some Of The Big Names Giving Commencement Addresses In 2015

The Huffington Post | By Tyler Kingkade
Posted: 04/28/2015 12:30 pm EDT | Updated: 04/28/2015 12:59 pm EDT

It's almost May, which can only mean one thing: Commencement season is upon us.

Every year, colleges and universities book big name celebrities, business men and women, politicians and philanthropists for commencement addresses. It may be a way to garner publicity for the school, but as far as students are concerned, it's usually the most entertaining part of the sometimes prolonged commencement ceremonies.

As we do each year, The Huffington Post will be bringing you extended coverage of the best commencement speeches. But for those who can't wait, or are curious at who is scheduled this year, we have lineup of some of the biggest names below.
Stephanie Courtney, Better Known As Progressive Insurance's "Flo" - Binghamton University

ASSOCIATED PRESS
May 17, 2015
A different Obama speaks up on race

By Nia-Malika Henderson, Senior Political Reporter

Updated 0045 GMT (0745 HKT) May 12, 2015

Washington (CNN) — Democrats looking for a leader on racial issues are suddenly finding one: Michelle Obama.

The first lady is grabbing the attention of the political world after a commencement speech this weekend in which she spoke in strikingly personal tones about her experience of being viewed -- and judged -- through racial prisms.

In a 30-minute commencement address delivered at Tuskegee University, a historically black school in Alabama, Obama talked about the "nagging worries that you're going to get stopped or pulled over for absolutely no reason" along with "the fear that your job application will be overlooked because of the way your name sounds."

"As potentially the first African-American first lady, I was also the focus of another set of questions and speculations -- conversations sometimes rooted in the fears and misperceptions of others. Was I too loud, or too angry, or too emasculating? Or was I too soft, too much of a mom, not enough of a career woman?" she said. "Then there was the first time I was on a magazine cover -- it was a cartoon drawing of me with a huge Afro and machine gun. Now, yeah, it was satire, but if I'm really being honest, it knocked me back a bit. It made me wonder, just how are people seeing me."

First lady 'knocked back' by race perceptions 03:02

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READ: Michelle Obama says she was held to different standard in '08 campaign due to her race
Her comments come at a time when President Barack Obama has faced criticism for only reluctantly addressing the racial tensions gripping the country. The remarks not only helped the White House find its voice on race but could also establish the first lady as an important figure heading into 2016 -- a sought-after surrogate who might help Democratic candidates, including presidential contender Hillary Clinton, connect more deeply with African-American voters.

'Tremendous power'

"She has an opportunity to wield tremendous power and influence. That can't be overstated. I have seen firsthand how audiences respond to her, big and small," said Maria Cardona, a CNN contributor and Democratic strategist. "She is going to be a tremendous asset."

Indeed, at least one line of her speech seemed tailor-made for the campaign trail, and would fit very easily into any stump speech.

"And the first thing we have to do is vote. Hey, no, not just once in a while. Not just when my husband or somebody you like is on the ballot. But in every election at every level, all of the time," she said. "You've got to vote, vote, vote, vote. That's it; that's the way we move forward. That's how we make progress for ourselves and for our country."

The Obamas haven’t waded into the nascent 2016 presidential season yet and it’s unclear how often they might be out on the campaign trail. But Michelle Obama in particular could be in high demand as a surrogate for Hillary Clinton’s campaign.

"This would be a first lady supporting a former first lady," Cardona said. "She can do strategic targeted visits and campaign events, particularly with the Obama coalition as much as possible--young people, LGBT, Latinos, African-Americans."

READ: Will diversity help the GOP in 2016?

It’s that voting bloc that has been most energized by recent racial flare-ups and has sometimes been disappointed by the President’s even-handed approach.

For his part, the President has talked about his experiences with racial discrimination -- especially after the death of unarmed Florida teenager Trayvon Martin in 2013 and, more recently, the riots in Baltimore. The White House announced last week that My Brother’s Keeper, Obama’s racial justice initiative aimed at minority boys, would become a new non-profit organization and form the basis of his post-White House work.

Outsized expectations

But Obama's presidency came with outsized expectations about what he could do about the racial divide. Michelle Obama hasn’t had the same expectations and though her comments at Tuskegee drew attention, she’s often spoken more freely about race.

As her husband sought a Senate seat in 2004, it was Michelle Obama who served as his "racial validator," openly -- and sometimes playfully -- vouching for his "blackness."

"I've grown up in this community. I'm as black as it gets. I was born on the South side. I come from an obviously black family. We weren't rich. I put my blackness up against anybody's blackness in this state, ok?"," she said in an interview with a Chicago television station. "And Barack is a black man. And he's done more in terms of meeting his commitments and sticking his neck out for this community than many people who criticize him. And I can say that 'cause I'm black."

As first lady, she has often waded into race when speaking to young people of color, encouraging them to draw inspiration from her story and those of other African-Americans. She has talked about the challenges she faced growing up on the South Side of Chicago--her guidance counselors, for instance, said she would never get into a school like Princeton.
READ: How Rand Paul learned to talk to black people

At Maya Angelou’s memorial service in June of 2014, she talked about her journey “through lonely moments in ivy-covered classrooms and colorless skyscrapers...through long years on the campaign trail where, at times, my very womanhood was dissected and questioned."

"We would be wrong to say that this is a new Michelle, this is Michelle being true to the person she has always been," said Peter Slevin, who wrote "Michelle Obama: A Life," a recently released book. "If you listen to what each of them is saying these days, they are talking about inequality and how the deck is stacked, but they also talk about responsibility. She is saying, don’t wait for the cavalry, because there is no cavalry."

While acknowledging the kind of feelings of frustration and isolation that "are playing out in communities like Baltimore and Ferguson and so many others across this country," Obama said giving up was not an option.

"But, graduates, today, I want to be very clear that those feelings are not an excuse to just throw up our hands and give up," she said. Not an excuse. They are not an excuse to lose hope. To succumb to feelings of despair and anger only means that in the end, we lose."

On conservative blogs and in the twittersphere, the first lady was slammed for playing "the race card" over the weekend. The National Review accused her of wearing "racialized blinders" and having a perennial sense of grievance.

"I fear we are seeing now the tip of the Obama racialist iceberg, and in the remaining 18 months are going to witness far more polarization and alleged grievances against the supposedly culpable so-called majority culture," Victor Davis Hanson wrote.

Actor Robert De Niro addressed the class of 2015 during New York University's Tisch School of the Arts commencement ceremony on May 22, 2015. De Niro, who quit high school to pursue an acting career, told grads: "You made it — and, you're f—ed." Click through to see more big-name speakers at universities across the country.
2015's biggest graduation speakers

It's that time again. As colleges around the U.S. send their graduates off into the real world, they're using some high profile names to bid them farewell. Let's see who is showing up where this year.

President Barack Obama and First Lady Michelle are making multiple appearances this year.

Obama gave a commencement speech at Lake Area Technical Institute in Watertown, South Dakota on May 8 and he'll be speaking at the U.S. Coast Guard Academy in New London, Connecticut on May 20.
The First Lady spoke to graduates at Tuskegee University in Alabama on May 9 and she'll be flying to Ohio on May 25 to address students at Oberlin College.

A few of our favorite TV hosts are also making the rounds.

NBC's Craig Melvin is paying his alma mater Wofford University in Spartanburg, South Carolina this week. He graduated from there in 2001.

CNN's Fareed Zakaria plans to hit Macaulay Honors Collect at the City University of New York on June 2.

On June 16 graduates at the University of Wisconsin will get well wishes from Katie Couric.

And straight off the red carpet - Denzel Washington visited Dillard University in New Orleans last week.

And Matthew McConaughey will speak to graduates at the University of Houston on May 15. He's earning $135,000 for his words and is expected to give the money to his jk livin Foundation.

Stephen Colbert will no doubt give students at Wake Forest University in Winston-Salem, North Carolina a good laugh on May 18.

And Stephanie Courtney - you may know her as Flo from those Progressive Insurance
commercials - she'll be at Binghamton University on May 17 where she graduated from in 1992.

As if having famous and successful people presenting words of wisdom before you go off on your own isn't great enough - graduates can leave school with a little more hope than last year's.

According to a recent CareerBuilder survey, 65 percent of employers say they plan to hire new grads this year - that's up 8 percent from last year and on top of that they can expect higher salaries than in the past.

More on AOL:
Severe weather pummels US over weekend
Thousands turn up for Prince concert in Baltimore
Oil leak confirmed after nuclear plant explosion
Best Commencement Speakers of 2015

By Jiah Park | May 12, 2015

Everyone dreads the hours in which dean so and so and chancellor so and so reads a seemingly endless list of graduates. Yeah, you probably recognize maybe five people. Fortunately, an awesome commencement speaker can make the entire wait worthwhile. Here are the 10 coolest commencement speakers of 2015, which I’m sure universities had to shell out big bucks for.

1. NATALIE PORTMAN - HARVARD UNIVERSITY
She’s hot (Padmé). She’s wicked smart (B.A. in psychology from Harvard). She’s talented (*Black Swan*). She’s successful (Oscar-winning actress). And she’s an activist. Portman is an ambassador for the Foundation for International Community Assistance International, which helps finance businesses owned by women in developing countries. What a combination. Teach us how to do it all, please? The alumna will be speaking at Harvard’s Class Day.

**2. KENNETH COLE - EMMORY UNIVERSITY**

Aside from being a talented designer, Cole is also a social justice advocate. He’s initiated many AIDS awareness campaigns and invented the concept of a shoe drive—collecting shoes for donation. He believes business and philanthropy go hand-in-hand. Maybe he’ll speak about how to incorporate social service into our careers since we all have some responsibility to do good and give back. If not, he might give some tips on how to dress for work on a budget too. Cole, whose alma mater is Emory, will be speaking at its Class Day.

**3. DENZEL WASHINGTON - DILLARD UNIVERSITY**
Despite his current status as an A-list celebrity, Washington originally planned on a career in journalism. He began Fordham pursuing a journalism degree, but graduated with a B.A. in drama as well. I’m sure a lot of us can relate, entering college set on one major, but graduating with another. Washington has been a supporter of Dillard University’s theater program for the past decade. It’s the nation’s oldest Historically Black College and University Theater Program in the country.

4. MATTHEW MCCONAUGHEY - UNIVERSITY OF HOUSTON

“All right! All right! All right!” Guess how much this Houston alum is getting paid to speak? $135,000 plus travel fees and commission for his agent. But he’s expected to donate the money to charity. Regardless, it should be entertaining to hear what he has to say in his offbeat, stream-of-consciousness, metaphorical, lyrical style.

5. TIM COOK - GEORGE WASHINGTON UNIVERSITY

Apple has managed to invade our lives without us minding (#teamiphone). It should be pretty cool to hear from the man that’s keeping the company a major competitor in the technology field. Under his leadership, Apple has increased its charitable donations and made efforts to develop renewable energy activities. Cook will be receiving an honorary
doctorate of public service from the university.

**6. JASON KILAR - UNIVERSITY OF NORTH CAROLINA, CHAPEL HILL**

The founding CEO of Hulu and a Chapel Hill alum, Jason Kilar is the man who changed the way we view television forever. You can blame him for failing a test because you were up all night watching episodes, or thank him for providing a procrastination outlet. Any way graduates can get a free subscription to Hulu Plus?

**7. STEPHANIE COURTNEY - BINGHAMTON UNIVERSITY**

For most people, the name Stephanie Courtney doesn’t ring any bells. Tell them she’s Flo from Progressive, and she’s basically a household name. It’s pretty funny to think about the level of fame she’s received from some corny insurance commercials. Ad Age even named this Binghamton alum one of the top 10 female ad icons of all time, next to Rosie the Riveter and Betty Crocker. Can she teach us how to be that memorable?

**8. MAYA RUDOLPH - TULANE UNIVERSITY**
At an event that can be so bittersweet, it’ll be nice to have a commencement speaker who can make students laugh. The comedian and actress starred in the hit comedy *Bridesmaids*, and could be found on the *SNL* cast back when the show was actually funny. Wondering how Tulane scored Rudolph? I’m sure it helped that her father is an alumnus and her cousin is in the graduating class.

9. **BILL NYE - RUTGERS UNIVERSITY**

Bill Nye the science guy! Bill! Bill! Bill! Bill! Most of us grew up watching him in Nye Laboratories as he taught us cool science stuff and simple home experiments. Recently, he’s been in the spotlight a lot more, guest starring on television series and appearing on talk shows to speak on topics like global warming and clean energy. It’d be great if he could figure out the science behind success and explain that.

10. **SAMANTHA POWER - UNIVERSITY OF PENNSYLVANIA AND BARNARD COLLEGE**
Power doesn’t necessarily have the same celebrity status as these other speakers, but she should. She’s the U.S. Ambassador to the United Nations and has won a Pulitzer Prize for “A Problem From Hell: America and the Age of Genocide,” which describes and analyzes major genocides of the 20th century. She’s also an advocate of issues including women’s rights, LGBTQ rights and religious freedom. I might be biased naming her the coolest commencement speaker, but I can’t think of anyone better to hear from than a powerful, successful woman who’s an inspiration to many others.

Jiah Park

Born in Boston, raised in Virginia, only to return 18 years later for college. A senior at Boston College for a few more weeks, majoring in communication and minoring in journalism. Writing for CM because it’s the perfect enabler of my graduation denial.
College Magazine is the national daily guide to campus life. Our articles for college students feature university rankings of U.S. colleges, college guides, academic advice, college prep, career advice, student health and collegiate dating tips.

Written by students for students, by a team of journalists from universities nationwide, we’re on the pulse of the college experience.

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Colleges across the country are announcing their commencement speakers: the entertainers, politicians, military leaders, business executives and famous alumni who will be sharing a last few words of wisdom with graduating students.

2015's high-profile graduation speakers

By Jamie Gumbrecht, CNN

Updated 5:35 PM ET, Fri May 22, 2015

Actor Robert De Niro addressed the class of 2015 during New York University's Tisch School of the Arts commencement ceremony on May 22, 2015. De Niro, who quit high school to pursue an acting career, told grads: "You made it — and, you're f—ed." Click through to see more big-name speakers at universities across the country.

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What Would Optimus Prime Do?

More than meets the eye in leadership and followership

Post published by Seth M. Spain Ph.D. on Apr 26, 2015 in The Dark Side of Work

My colleague Peter Harms and I usually collaborate on research into the dark side of personality and work experiences. Sometimes we get to contrast that directly with the bright side. Recently, we worked together on a chapter set to appear in a book edited by Birgit Schyns on leadership lessons from compelling contexts.
We chose to examine the ways that narratives, especially those transmitted in popular media, could play a role in the construction of children's (and adults') stereotypes of good versus bad leaders. While we use examples from many places, including the *Iliad*, we focused on *Transformers*—why, you may well ask.

One of the major reasons was that the *Transformers* toys provide us with character data sheets listing each Transformer's standing on a variety of physical and mental traits, as well as the character's rank within his faction. For those who are not initiated, *The Transformers* is a franchise of toys, animated series, comic books, and live action movies about a species of sentient, shape-changing robots, originating from the planet Cybertron. Two factions, the "brutal" Decepticons and the "peace-loving" Autobots, have waged a civil war for eons. They eventually find themselves on present-day Earth, and continue their fight while trying to obtain enough resources to return home and end the war.

Each faction has a supreme commander: the Autobots are led by the wise and caring Optimus Prime, while the Decepticons are led by the cunning and cruel Megatron.
By examining how the character's ranks are distributed within each faction, and how rank is related to various traits from the data sheets, we are able to empirically identify the leadership and followership lessons that the manufacturers of the toys were communicating to their audience.

One thing worth noting was that rank was more flat among the Autobots. While the Decepticons were more hierarchically structured, with a small, elite group of leaders, the Autobots had slightly higher average rank and slightly smaller variability in rank. We believe that this communicates that "good" groups should be relatively flat, that their leaders, like Optimus Prime, should be seen as *primus inter pares*—first among equals. In contrast, "bad" groups are shown to be more vertical, with a supreme leader ruling essentially by fiat.

The second notable finding was that, just like in the real world, intelligence was an excellent predictor of rank. On the other hand, the magnitude of the association between leadership and intelligence was much larger than that of real-world studies. This is consistent with some other findings that Peter and I are currently working on, that seem to show that people are fairly good at getting real-world patterns of stereotypical beliefs correct, but greatly exaggerate the magnitude of differences.
(this seems consistent about a variety of possible beliefs). Interestingly, we found that courage was not particularly predictive of higher rank among the Autobots, but it was for Decepticons. The Decepticons are generally depicted as cowardly and self-interested, so it is possible that those displaying more stereotypically noble character, those that show a willingness to sacrifice for their group, are accorded more prestige, because it is so unusual. On the other hand, the Autobots are presented as “not being fighters.” As such, to fight when they’d prefer not to fight, all Autobots tend to display a fair amount of courage, meaning that there’s not a lot of variability in this trait, so there’s little explanation to be found in it for rank. In fact, the Autobots are more courageous than the Decepticons, on average, and 19 Autobots had the maximum courage rating, compared with just 4 Decepticons. The Autobots possess this attribute in abundance, but it does little work in determining who becomes a leader in their faction. This was part of a broader story. The two supreme commanders, Optimus Prime and Megatron, were generally exceptional characters, compared to the rest of their factions. Not only were they more intelligent and skilled, but generally surpassed the others (though, Megatron was not notably faster than his subordinates).
Since *Transformers* was aimed at children, the leadership schemas it presented were somewhat simplistic. We believe that both the *good* Optimus Prime and the *evil* Megatron are so-called paternalistic leaders. This means that their leadership takes the form of a parental authority figure to their followers. We argue that Megatron is an authoritarian leader, who rules his followers with an iron fist and demands (but does not always receive) strict obedience. Optimus Prime, on the other hand, is more benevolent, and can be viewed as an authoritative parental figure. His subordinates know that he cares for their well-being, and that his orders represent an attempt to achieve a greater good. We would expect this contrast in leadership styles to lead to the organization of the factions as described above (flat or horizontal for the Autobots and hierarchical or vertical for the Decepticons), since Optimus Prime readily shares his authority, while Megatron jealously guards his.

Further, the Transformers television show provides considerable models for followership. Two of the most popular Decepticons, Shockwave and Soundwave are presented as being loyal, constructive, industrious followers. On the other hand, Starscream is an opportunist, always looking for a way to overthrow Megatron.
Starscream is also the series' best example of an incompetent follower, as his actions directly precipitated the war beginning afresh on Earth (accidentally causing Optimus Prime and the rest of the Autobots to be revived). Most of the Autobots are presented as enthusiastic and loyal followers, but the Dinobots have their share of insubordination and incompetence – they’re good at fighting but not really at following. It’s easier to just aim them in the direction that destruction will help the cause than trying to reason with them or order them around.

We believe that *Transformers* presents three key lessons about leadership: 1) flatter groups are more successful—sharing power is more valuable than trying to use power for the selfish benefit of oneself, 2) in general, leaders tend to be exceptional people, and finally, 3) intelligence (cognitive ability and skill) is a particularly important attribute for a leader to have. These messages align well with the current academic literature about what kinds of individuals emerge as leaders and what it takes to be effective as a leader.

In terms of followers, we believe that *Transformers* shows how important it is for a leader to have good subordinates.
Even evil leaders need good workers, and the show clearly illustrates this by the sheer number of times that Megatron’s plans fail because of the insubordination, incompetence, and lack of loyalty among his followers. On the other hand, Optimus Prime is generally successful, in part because of the trust he can place in his followers. There may even be lessons about servant leadership. When the worst happened, a surprise attack by the Decepticons on the Autobots’ home base before they could raise their defenses, Optimus Prime sacrificed his life to stop the Decepticons (in *Transformers: The Movie* from 1986).

In general, we argue that the figures from stories that people encounter when they are children can be powerful guides to their understanding of social norms and their development of scripts and schemas of such concepts as leadership and followership. In addition to simply helping us to understand how these concepts develop for individuals, this process could help us to de- and reconstruct leadership beliefs—these stories can be useful examples and opportunities for education! For instance, I have recently tried to use Spider-man to help convey the importance of ethics in leadership.
Spider-man’s core lesson, which is well-known through the long publishing history of the character, the cartoon shows based on him, and the recent live-action movie franchises, is that “with great power comes great responsibility.” What is leadership, if not power? Such lessons are, if nothing else, evocative. We have similarly tried to use the narrative of “zombie apocalypse” stories, like *The Walking Dead*, and games built around that narrative, to examine leader behavior and decision-making.

In the end, Optimus Prime is a character that many people know well. Well enough to come up with answers when faced with the question, “What would Optimus Prime do?” Thinking in this way should lead them to place trust in their followers and to place their followers’ well-being ahead of their own desires. This is a simple question that can generate helpful strategies for being a good leader, not just an effective or successful one. So, while none of us may be able to turn into a semi-truck, we can follow Optimus Prime’s lessons in other ways.
FIT TO PRINT

The new field of advanced biomanufacturing aims to make rapid prototyping of human organs and extremities a viable medical choice.
A new engineering discipline looks ahead to the manufacture of personalized organs for testing or replacement.

By Thomas K. Grose
A 3-D printer at Wake Forest Institute for Regenerative Medicine constructs a kidney prototype.

Researchers at the Wake Forest Institute for Regenerative Medicine are seeding bone cells onto scaffolds to engineer a finger bone.

**Tissues grown to order**

Implants and patches are likely to be the regenerative therapies that first come to market. “It is easy to see that happening within a few years,” says Christopher Bettinger, an assistant professor of biomedical engineering at Carnegie Mellon University. Tissues grown on scaffolds expressly designed to fit a patient’s needs could be used to treat cartilage or bone defects. Cell-infiltrated myocardial patches could be affixed to tissue damaged by a heart attack to help it regain normal strength. There is also hope that some types of spare parts could also be universal, off-the-shelf components, perhaps based on animal parts. That would clearly help reduce costs. But humans risk severe immune rejection from animal transplants, so researchers in recent years have developed methods to decellularize animal tissue, essentially cleansing it of living cells, so it can be used as scaffolds. Investigators at Britain’s University of Leeds, for example, helped pioneer a decellularization method a couple of years ago, and then used it on heart sacs and valves from pigs that have been used in clinical trials. That approach draws skepticism from Binghamton’s Ye, although he admits that “it is fantastic technology.” For one thing, he says, animal organs are often the wrong size for humans, and they also have different mechanical strengths. And even though they are decellularized, he says, they could still introduce dangerous pathogens into patients.

Ye thinks that organs built from scratch could be readily available within five to ten years, at least the most basic ones, like pancreases and hearts. Vessels are very complex, of course, and lab-grown artificial ones are likely a couple of decades away. There are at least three different methods to build organs from living cells. The one that gets the most attention is 3-D printing, which uses a cell-rich biological ink, or biogel, and builds an organ one ultrathin layer at a time, based on complex computerized three-dimensional models that include vascular systems. There is also the original method of building organs with cells on scaffolds, which is how Atala fashioned his bladders. His biodegradable scaffolds were formed from collagen, or a composite of collagen and polyglycolic acid. A third method, used mainly in Japan, is a two-dimensional construct that also grows in its own matrix and self-assembles into a three-dimensional organ.

Another possible technology is the so-called organ on a chip, a microchip onto which are embedded and wired cells culled from a patient to determine how a drug would uniquely affect one of his or her organs. Already there are companies working to commercialize this type of technology. “It is a great advance, but it is lim-

**Standardizing processes**

A new discipline is needed “in order to identify the critical challenges and barriers that need to be overcome to advance the field,” and to educate the engineers and scientists who would run it, explains Sambanis, who is also a professor of chemical and biomolecular engineering at Georgia Tech. Essentially, NSF is marshaling its influence and funding
Critical thinking: Sambanis says that while it can determine the impact of a drug on one or perhaps two organs, it cannot reproduce how it might affect the patient's whole body. To get around this, Ye says, researchers are working to compartmentalize the entire human body into individual modules, “like a functioning individual” and place and connect all those modules on one chip. NSF hopes to soon schedule a workshop to try to see if a consensus can be reached among investigators on criteria to eventually judge which method works best.

Cost-cutting potential

While ultimately researchers expect that human-made organs will be used for transplants, most likely they will first be used for drug screening, obviating the need for some animal and human trials. This would cut development costs. Indeed, the current high cost of bringing new therapies to market is one of the attractions of cellular medicine. How patients react to small-molecule and biologic drugs is hard to predict, which is why those drugs take, on average, 14 years to develop and have a failure rate greater than 95 percent. It can cost around $2 billion to successfully commercialize a new drug therapy. As the UCSF study noted, cell therapies are highly complex, but that complexity “might actually make these agents more predictable in the clinic than small molecules or biologics,” and therefore cheaper to develop.

For now, tissue engineering and cellular therapies are extremely costly. Nevertheless, some companies are already using patients’ immune cells to treat cancers. “There are advantages,” Sambanis says, mainly that unlike chemotherapy, there are no harsh side effects. But so far these therapies, besides being very expensive, do not perform spectacularly better than other drugs. That’s because the way they’re now manufactured and monitored is suboptimal. Currently, everything is done manually, so outcomes depend on who collects the cells and who alters them. “You need more quality control,” he insists. The goal is to devise standardized, automated systems that rely on good manufacturing prac-
tice to harvest and manipulate cells before they’re injected, embedded onto patches or implants, or grown into an entire, transplantable organ.

“We need to increase the efficiency of the processes,” asserts Bettinger. Another problem is how to scale up personalized medicine. If you are talking about transplanting hearts, for example, each person needs only one, but there may be a million people in need. So that’s one million hearts, all unique. And unlike traditional manufacturing, which relies on uniform types and amounts of raw materials, each personalized therapy will need different raw materials. And yet the final results have to have some unity — each heart may be a singular construct, but it must perform like a heart. It won’t be easy to accom-
plish these tasks, warns David Williams, a professor and director of international affairs at the Wake Forest Institute. Williams — who is also president of the Tissue Engineering and Regenerative Medicine International Society (TERMIS) — co-authored a paper last year in Science, Translational Medicine that pointed out the difficulties in trying to standardize and automate manufacturing processes that produce patient-specific treatments.

Industries also need supply chains. For this, one key suppliers would provide the building blocks of synthetic biology, which are often called “biobricks.” These blocks of DNA sequences are placed into living cells — human ones, but often E. coli bacteria cells — LEGO-like to rewire them to induce a function that does not exist naturally, say, perhaps stopping the overproduction of a protein that causes a disease. “It is the building of a whole system, up from the cellular level,” Leoneesa explains.

Also important to advanced manufacturing, but not part of it, will be more effective monitoring and imaging technologies that will better enable physicians to see how transplants are working. Non-invasive devices that monitor the creation of new tissue or organs also need to be invented. If you are brewing a new drug in a bioreactor, it’s possible to remove a small sample for testing. “But if you are growing a heart from stem cells, if you take one cell out, you stop the process,” Ye explains. Whatever it ends up being called, the burgeoning discipline might bring about a boost in funding for tissue-engineering research. “The creation of the new discipline will certainly help solicit and promote more funding for research in this area,” Ye predicts. For now, however, some advocates say funding has been too scant. In December 2013, the Virginia-based Methuselah Foundation launched a $1 million New Canaan Fund for tissue engineering. This brings the total amount of funding for tissue engineering in the United States, an insignificant sum compared with what NSF and the National Institutes of Health together spend on cancer and HIV/AIDS. In an email to Prism in response to that criticism, NSF stressed that it “has played an important role for several decades in the emergence of tissue engineering as a field,” adding “NSF continues to view advanced biomanufacturing as a critical area” and “an important investment area.”

While there is so far no estimate of how big a domestic or global industry could be built around advanced biomanufacturing, NSF staff say that the industry could give a significant economic boost to America’s economy. Recently a group of proponents traveled to Eu-
rope and Asia to assess the global status of advanced biomanufactur-
ing. “They [European and Asian researchers] are heavily in-
vesting in this area,” Sambanis says. “They think that this is the future, not only to treat patients, but an economic opportunity.” For example, a recent paper by Portuguese researchers outlined the advances made in biofabrication techniques to regenerate and repair damaged skin, and the challenges that remain; University of Edinburgh researchers will soon begin clinical trials on a cellular therapy to stimulate liver stem cells to form new, healthy tissue and repair damage caused by cirrhosis; and researchers at Sweden’s University of Gothenburg are pioneering efforts to bioengineer uteruses to treat infertility.

Any discipline that’s capable of overthrowing how health care is provided will undoubtedly be huge. And, Leoneesa says, major phar-
aceutical companies are paying attention, and many see a need to get involved. Big pharma produces and earns billions of dollars from a variety of drugs, including those to, say, treat diabetes. But if engineers eventually produce new, transplantable pancreases from stem cells, demand for insulin will disappear. “It will revolutionize what they [big pharma] do, or take them out of the market,” Leoneesa says.

A stigma, and words of caution

Advanced biomanufacturing’s proponents all agree that a key goal is to ensure that a new generation of engineers and scientists is educated to meet the discipline’s needs. But there is still debate over whether there should be degree programs in the discipline. “I think it is going to happen,” Leoneesa says, perhaps initially as a minor, advancing to a certificate, and eventually expanding into a graduate degree before becoming an undergraduate major. Williams says he applauds the ef-
fort to boost education for the discipline, adding that “this is some-
thing I am working on within TERMIS.” But Bettinger worries that the stigma of manufacturing could be off-putting to some students. “It sounds like blue-collar work, but it is not that at all,” Leoneesa agrees: “Manufacturing is a big word with a lot of baggage attached to it.”

There are, of course, words of caution. Williams organized a con-
ference on regenerative medicine in Xi’an, China, which highlighted some of the remaining barriers. They include difficulties in developing a systems-engineering approach to integrate all the new fast-developing technologies used in advanced biomanufacturing, such as stem cell sci-
cence, biofabrication techniques, and imaging of regenerated tissue; a lack of internationally accepted standards for testing engineered tissue; the conservative attitudes of many regulatory agencies; high costs and not enough funding; and ethical and “an important investment area.”

There will be worries if nonhuman cells are used in organs, and concerns about quality and production techniques, he said.

That is why it’s important to urgently grow an industrial base for advanced biomanufacturing that’s steeped in quality control, Ye says. Good manufacturing practice will help convince regulators — and the public — that cell-based treatments are safe and predictable, he argues. “It seems like a confident that the attraction of technologies that can cure ailments and not just treat them will prove irresistible. In marketing terms, that’s advanced biomanufacturing’s unique selling point — and it’s a strong one.”
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ADVENTUROUS ASIAN MEALS
(JAPANESE PANCAKE, ANYONE?)
To reduce stress (and overcome bouts of worry), hit the hay early. Or so says recent research conducted at Binghamton University in Binghamton, New York. During the study, researchers asked 100 college students to complete a series of questionnaires and tasks so that they could be measured on how much they worry or obsess about stressful issues in their lives. They were also asked whether they kept regular sleep hours or tended to stay up late. Those students who slept for shorter periods of time or went to bed later often had more repetitive negative thoughts than those who got a good night’s sleep (researchers say 8 hours is ideal for most). And, while scientists haven’t discovered a cause for this correlation, they believe that aligning one’s wake/sleep cycle and daily activity schedule with the body’s natural circadian rhythms may make it easier to dismiss negative thoughts throughout the day.

Sleep Early, Be Happy!

Having trouble opening that jar lid?

Save your wrists (and your sanity) by placing a thick rubber band around the lid for better grip... or, hit the gym more often.
A New Index Measures Impact Pharma Has on Infectious Diseases

By Ed Silverman

The pharmaceutical industry regularly boasts that its efforts to develop treatments for infectious diseases in poor nations are making a difference. But for those wondering how to gauge those efforts, a new metric has been created.

The Global Health Impact Index measures three factors: the need for several important drugs for three specific infectious diseases: tuberculosis, HIV/AIDS and malaria; the effectiveness of the available treatments; and the number of people who can access those drugs. The rankings estimate the amount of death and disability the drugs are alleviating.

So how did drug makers fare? Of 16 companies that were evaluated, Sanofi ranked highest, followed by Novartis and Pfizer. Kyorin Pharmaceutical garnered the lowest rating, with Bayer and Eli Lilly not far behind. We asked the drug makers for comment and will pass along any replies.

The index arrives as more pressure is being placed on drug makers to meet the needs of poor populations. In response, various companies have crafted deals with government agencies and public-private partnerships to bolster development, production and distribution.

But while there may be sufficient data available to track the need for such medicines, there is currently no way to determine the extent to which drug makers and their products are having a desired effect, according to Nicole Hassoun, an associate philosophy professor at Binghamton University, who developed the index.

“By better understanding the impacts of products on the burden of disease, the index gives researchers a tool for measuring impact, governments and donors can better target their efforts and companies can be incentivized to focus on impact,” she writes us in an e-mail.

There is another tool out there called the Access to Medicines Index, which assesses such factors as patenting policies, price reductions, involvement in public-private partnerships and charitable contributions. But Hassoun contends this doesn’t guarantee what she terms a good outcome.
By contrast, she hopes the index she devised can serve as the equivalent of a Good Housekeeping seal of approval. The idea is that highly rated drug makers would have incentive to promote their rankings on their products which, presumably, would appeal to consumers and healthcare providers.

As Hassoun sees it, such a system would foster more interest in corporate social responsibility and, perhaps, serve as a model for policy makers seeking to improve access to a variety of medicines, not just those for infectious diseases.

Such indices "encourage competition among biopharmaceutical companies, and they motivate us to improve our contribution to public health," says Francois Bompart, a Sanofi vp in charges of access to medicines.

A Lilly spokesman points out the drug maker does not sell any medicines for those three infectious diseases, but through foundation support has given away trademarks and manufacturing technology for two TB medicines, and launched a public-private partnership to discover TB drugs.

And a Pfizer spokesman sends us a note to say the drug maker "shares the goals of projects like these to measure activities and programs that improve access to medicines for people who need them."

[UPDATE: A Bayer spokesman sends us this: "As we are not familiar with the methodology of this report we need to review it to understand it better. Our company wants to improve people's health and quality of life with innovative therapies. We would like all people to share the fruits of medical progress, regardless of their origins or income. We support programs that provide access to innovative medicines and modern family planning, and take up the fight against neglected diseases. In this regard we work side-by-side with aid agencies, international bodies and policy makers.

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From the Albany Business Review

The best public colleges in New York

Feb 12, 2015, 9:11am EST Updated: Feb 12, 2015, 10:30am EST

Megan Rogers
Reporter- Albany Business Review
Email | LinkedIn | Twitter

Binghamton University, one of the State University of New York's four university centers, is the top public four-year college in New York, according to a report out today.

Among the 484 colleges ranked across the nation, Binghamton, located in New York's Southern Tier, placed at No. 18.

Three other SUNY schools, Stony Brook University, Geneseo and the University at Buffalo, cracked the top 50 list, at No. 32, No. 35 and No. 47, respectively.

See Also

• Exclusive: Here are the best public colleges in America

University at Albany, the fourth university center for the nation's largest public university system, was No. 64 nationally and sixth among New York schools. UAlbany is the largest research university in the Albany area, enrolling more than 17,000 students.

The report from the American City Business Journals, the parent company of the Albany Business Review, does not include SUNY Polytechnic Institute, the newest SUNY campus, formed last year.

The top five public colleges in the nation were University of Michigan, University of North Carolina, University of Virginia, the College of William and Mary and University of California. As college costs and student debt rise, public colleges are increasingly in the spotlight.

The ranking was determined with a 19-part formula that considered admissions processes, retention and graduation rates, affordable tuition and housing costs, the diversity of faculty and student bodies and the economic strength of the college's community.

Binghamton University, which enrolls more than 16,605, has an admission rate of 42.87 percent and a four-year graduation rate of 68.67 percent. In the surrounding community, 35.61 percent of all local jobs are classified as management, business, science or arts jobs. The national MBSA average is 36 percent.

Comparatively, University at Albany, which enrolls more than 17,000 students, has an admission rate of 55.45 percent and a four-year graduation rate of 55.64 percent. In the surrounding community, 41.32 percent of all local jobs are classified as management, business, science or arts jobs.

GETTING IN: ADMISSION RATES

Looking at the percentage of first-time undergraduate applicants who were admitted to the school.

- 55.45% University at Albany
- 42.87% Binghamton University
- 39.48% Stony Brook University
BACHELOR’S IN FOUR YEARS (OR LESS)
Graduating on time? That was one of the factors in the study. Here is the share of undergraduates who began school in the fall of 2007 and graduated:

- 55.64% University at Albany
- 68.67% Binghamton University
- 45.09% Stony Brook University

IT’S CALLED THE MBSA SECTOR (THINK WHITE COLLAR)
The study considered the job market students enter if they opt to stay on after graduation. Here is the share of local white-collar jobs in management, business, science or the arts. The national average is 36 percent:

- 41.32% University at Albany
- 35.61% Binghamton University
- 40.11% Stony Brook University
METRO UNEMPLOYMENT RATES FOR YOUNG ADULTS (20)
Again, the job market students graduate into matters for retaining to avoiding a brain drain. Below are the unemployment rates for 25-to-39 the regions surrounding these schools.

8.71%
University at Albany

9.65%
Binghamton University

9.68%
Stony Brook University

Megan reports breaking news and covers education.
After starring in "The Rewrite", Golden Globe winner Hugh Grant went on television and public radio to discuss shooting the film at Binghamton University with alumni Marc Lawrence. He even went as far as saying that he, himself, is an "honorary bearcat."
I think a lot about space baseball, or sbaseball, if you will. After all, beyond the fact that, duh, it's space and that's super cool, who doesn't want to imagine Mike Trout leaping dozens of feet in the air to rob a home run? Or just think of how far a Giancarlo Stanton home run would fly? Or imagine the mind-blowing speeds of an Aroldis Chapman fastball in an atmosphere-free environment?

Well, wonder no more. Thanks to 10-year-old Joe Miller who asked "Would a baseball pitch travel faster [on the moon] or on Earth?" we now have our answer. According to one of the faculty members at Binghamton University, a ball that leaves a pitcher's hand at 90 mph on Earth arrives at the plate at about 80 mph, having dropped about three feet thanks to gravity along the way.
Thanks to the lack of atmosphere on the moon, there is no "drag force" slowing the pitch down on the way to the plate, so it will hit the catcher's mitt at the same speed -- while also only dropping about six inches.

Which means that this would be even harder to hit:

That's also why we need to pour hundreds of billions of dollars into NASA funding -- so we can start the outer space World Series immediately. And don't tell Buzz Aldrin that it's impossible. He wouldn't like that very much.

This story was not subject to the approval of Major League Baseball or its clubs.
It’s one of my favorite Darwin quotes—"He who understands baboon would do more toward metaphysics than Locke"—scribbled furtively in a notebook between visits to the London Zoo in the summer of 1838. Twenty-one years would pass before On the Origin of Species would shock the world, but Darwin already knew: If man wanted to comprehend his mind, he’d need to train an unflustered gaze into the deep caverns of his animal past.

The issue at hand was whether knowledge was innate or based entirely on experience, two doctrines referred to as rationalism and empiricism, between whose partisans, wrote John Stuart Mill, "reigns a bellum internecinum [in which] even sober men on both sides take no charitable view of each others' opinions." Ahead of his time, Darwin sought to combine the two—a helping of Kant with a scoop of Locke—in man as much as in the animals. But there was a crucial consequence: Morality is a matter of biology as much as tradition, religion, or law.

Ever since Darwin glimpsed virtue’s natural origins, cooperation and altruism have been the provenance of natural scientists as much as economists, philosophers, and students of culture. Colorful characters have been the norm: from the Russian anarchist prince and naturalist Peter Kropotkin, to the British Marxist geneticist J.B.S. Haldane, to the enigmatic American George Price, who, as a homeless drifter who’d given away all his possessions to the poor, slit his throat in a London squat in 1975 over an equation he had written regarding the possibility of genuine kindness.

The altruism game is as alive today as it has ever been. Evolutionary theorists, brain scientists, animal behaviorists, child psychologists—all are alight after the Holy Grail: to put to rest millenniums of debate concerning the nature of man, good or bad. Christianity may have it that Original Sin is redeemed by Christ’s sacrifice, but biology probes the evolutionary paths and, increasingly, the neurons and hormones that render good will and
giving part and parcel of who we are, whether free thinkers or believers.

What have the scientists learned?

A new book by David Sloan Wilson provides some thoughtful answers. Wilson is a professor of biology and anthropology at Binghamton University, and one of the leading evolutionary theorists of his generation. He has written scholarly and popular books on the evolution of altruism, religion as a multilevel adaptation, and, in The Neighborhood Project: Using Evolution to Improve My City, One Block at a Time (Little, Brown and Company, 2011), on applying evolutionary principles to better the quality of life in Binghamton, N.Y. His new book, Does Altruism Exist? Culture, Genes, and the Welfare of Others, is part of a series of little books on big ideas from Yale University Press, and a concise summary of his life’s work.

A cottage industry has grown in recent years around theories purporting to explain how our brains produce empathy, morality, and good will.

Like Darwin, Wilson begins with the animals, specifically bees, which, when their colony splits by swarming, send out scouts to search out a new nest cavity. Miraculously, when the individual scouts return, each having visited a cavity or two at most, and therefore lacking the requisite big picture to "argue" their case, a collective decision about the best option is nonetheless made based on their dancelike interactions. This collective process is uncannily similar in pattern to the one observed between individual neurons in the brains of rhesus monkeys that are trying to determine the principal direction of movement of haphazard dots on a screen. The "group mind" of the bees seems to work in almost identical ways to the single, multimillion-neuron mind of the monkey.

And that is not all. Before sunset on the African plains, female buffaloes determine where the herd will graze next by pointing their heads distinctively in a certain direction; somehow each nod is integrated and the direction with the most "votes" chosen. Pelicans form half-circles, paddling in unison to trap coastal fish. Tadpoles communicate via surface waves to make collective
decisions about which food sources to tap. Even bacteria use quorum sensing to coordinate gene expression according to the density of their population. How does such seemingly incredible group functionality come about? According to Wilson, the answer can be found in a few basic evolutionary principles.

All of evolution, he argues convincingly, can be stated on one foot, akin to Rabbi Hillel’s condensation of the Bible ("Do unto others as you would have them do unto you"). It goes like this: "Selfishness beats altruism within groups. Altruistic groups beat selfish groups. All else is commentary." Here’s the reason: Since natural selection is based on relative fitness rather than absolute fitness, all that matters for an organism is that it be in better shape than its neighbors; jumping highest or eating the most in an absolute sense is meaningless. Except that "putting out" for the group, in the form of costly cooperation or outright sacrifice, necessarily reduces the relative fitness of the individual.

So there is a conflict: Should one look out for oneself or the tribe? The conflict is complicated by the fact that cooperative groups do better than less altruistic ones. Group functionality will therefore almost invariably evolve by natural selection working between groups rather than within them. The organism-like quality of groups of bees and buffaloes and pelicans and tadpoles and bacteria have the successful suppression of individual urges to thank.

Figuring out the mechanisms that give birth to group cohesion by blocking individual selfishness is therefore an important evolutionary agenda. It helps to explain the origin of life, how single cells came together to form multicellular creatures, and why, among social insects like bees, ants, wasps, and termites, but also mammals like the blind African mole rat, entire castes forgo reproduction, devoting their lives instead to the greater good. It is also a key to fighting cancer. There is a tradition, going back nearly a century, of biologists’ searching out the secrets of the "superorganism," and D.S. Wilson has been one of its prominent modern practitioners.

His has been an uphill battle. Ever since the 1960s, biologists have ridiculed so called "group selection." Countering such arguments, Wilson provides the clearest explanation I have seen yet of how selfish-gene theorists, evolutionary-game theorists, and kin selectionists all employ group-selection logic without realizing or
admitting it. All of these competing approaches merely represent different ways of looking at the same problem, accounting mechanisms rather than distinct ontological descriptions.

Kin-selection theory explains sterility in social insects, for example, by claiming that the workers are improving their own fitness by assisting reproduction in the queen, whereas multiselection theory understands sterility as providing a collective benefit to the colony. The explanations may sound different, but, unlike competing paradigms, the alternative renderings deserve to coexist, since they needn’t be incommensurable. It’s just like arranging expenditures by date versus arranging them by dollars, or describing a mountain peak from two different angles.

Understanding this helps to clarify how a behavior that looks altruistic from one perspective can seem selfish from another. It also demands that the controversy over group selection go the way of the debate over Copernicanism, Darwinism, and continental drift. Does altruism exist? Of course it does, replies Wilson, with regard to the theory of multilevel selection, and it has done no less than to shape our planet.

Things get more complicated when we graduate to man. That’s because biological altruism is defined by the result of an action, while psychological, or human, altruism, is all about intent. An amoeba, by a certain action, confers a fitness benefit on another while incurring a fitness cost and so is considered an altruist. But a person can act altruistically for many a reason: moral rectitude, gratification from another’s pleasure, to put someone in one’s debt, to better one’s reputation, to receive an ultimate reward. With the many-to-one relationship between intent and action governing the human condition, how is one to make out a true altruist from a masquerading narcissist?
Wilson doesn’t know, but he doesn’t much care, either. The important point is that the same dynamic governing the birth of altruism in nature applies to man. Because of the demands of child care and hunting and gathering, along with the need to defend against predators and fight against competing human groups, between-group selection superseded within-group selection, rendering our species evolution’s latest major transition. Developing the biological and cultural mechanisms that suppressed disruptive within-group competition and fostered empathy and trust, our ancestors became the sole primate, in Wilson’s words, to "cross the threshold from groups of organisms to groups as organisms." Like all major transitions in evolution, it was a rare event with major consequences. All else is commentary.

But if Wilson pulls back from entering the mind, focusing instead on evolutionary dynamics, a cottage industry has grown in recent years around theories purporting to explain how our brains produce empathy, morality, and good will. One recent example comes from Donald W. Pfaff, a professor of neurobiology at Rockefeller University. Stepping, as he says, out of his "comfort zone" studying steroid hormones’ effects on nerve cells in mice, Pfaff argues that recognizing our inborn goodness can add to our capacity for benevolence. "If a person simply realizes that he is wired for good, altruistic behavior and behaves accordingly," he promises, "and if the person toward whom he is about to behave does the same thing, then everything is likely to come out OK." Happily, "science now knows that we are wired to empathize." Really, it isn’t all that complicated.

In *The Altruistic Brain: How We Are Naturally Good*, a self-described "perfect storm of audacity, awareness, and insight," Pfaff promises a revolution. "We are accustomed to this kind of storm in, say, the humanities, when suddenly there is Modernism or the French New Wave. Well, the same kind of sudden actualization can happen in science as well." The actualization? "After centuries of debate over whether humanity is fundamentally flawed (as blamed on Eve) or particularly benevolent (as proposed by the philosopher David Hume), neuroscience is ready to provide an answer: We are good." What a relief.

Yes, we have the biological apparatus that allows us to act altruistically. But it
also allows us to be cruel, manic, or plain solipsistic.

What Noam Chomsky did for language, Pfaff claims to do for kindness (never mind that Chomsky’s wall is being torn down these days). Since all social behavior is the product of the brain, if we just understand how the brain works, he writes, "we can design a rational system of ethics having more predictable outcomes. ... Technical neuroscience can be applied to actual social problems that until now have seemed intractable." Domestic bliss, social harmony, and world peace are within our grasp. Welcome, all, to a brave new world.

How does it work? Pfaff presents ABT—altruistic-brain theory—a simple five-step recipe for good behavior, accomplished in a few hundredths of a second mostly below the radar of our consciousness. First, the central nervous system registers the act you are about to perform toward another—say, running into a burning building to save someone. Second, you mentally picture the person who will be the beneficiary of your action, say, a child stuck in her flaming room. Third, the image of that child blurs and meshes with an image of yourself—you literally see yourself as a beneficiary of your own action. Fourth, neurons in your prefrontal cortex vote "thumbs up" or "thumbs down" on the intended action, translated emotionally into feelings of "good" or "bad." Finally, if the vote was positive, you act; if the feeling was disturbing, you demur. What Pfaff argues is that the default of our brains is to act in ways that are altruistic toward others. Choosing self over other is secondary and less "natural."

How does he know? Well, he doesn’t really. The evidence Pfaff provides is mainly inferential. Yes, the same nerve cells that command muscles to contract send a second, identical message back to the brain’s sensory systems—a phenomenon called "corollary discharge," which accounts for Step 1. But what evidence exists that we absolutely cannot act toward another person unless we visualize that person—or at the least a generic human being? Very little. And how does the image of the little girl in the burning room merge with our own? Pfaff’s answer is that an increase in the excitability of cortical neurons takes place such that the nerve cells representing the child fire at the same time as those representing oneself. Why? Because there exist three cellular mechanisms correlated with excitability.
But is there evidence that they, in fact, do what he claims, superimposing one image over another? None that I know of—it’s just a theoretical possibility. Perhaps aware of the shakiness of his argument, Pfaff throws "mirror neurons" into the mix, like an extra log meant to stoke his fire, but seems unaware of the many serious critiques of the hype they’ve engendered. The neuroscientist Vilayanur Ramachandran may have predicted that "mirror neurons will do for psychology what DNA did for biology," but the notion that they play a causal role in allowing us to understand the goals behind people’s actions, and hence to empathize, is strongly challenged by the fact that we are perfectly able to understand actions we ourselves can’t perform—like flying, or speech by the mute. And when Pfaff claims that since blurring the image of the recipient of the altruistic act is de facto a loss of information, ergo energetically cheap, ergo plausible, hence confirmation of Step 3, he reduces the standard of scientific argument considerably. Things aren’t true because they’re plausible. They become true when they are observed, and even then not always.

Pfaff cites the work of the Harvard neuropsychologist Joshua Greene as evidence for Step 4. Using functional magnetic resonance imaging, Greene has devised a number of clever experiments to tease out the anatomical correlates of specific moral judgments, like deciding whether to steer an out-of-control trolley into one person in order to avoid killing five. Greene has zeroed in on a part of the brain called the dorsolateral prefrontal cortex, showing its association with rational judgments made in the context of competing emotional responses. What precisely such correlations mean is argued by thoughtful interlocutors, some of whom refer to today’s use of fMRI as a "21st-century phrenology." Seemingly oblivious to such debates, Pfaff proposes an as yet unseen "emotional switch" somewhere in the neural circuitry between the prefrontal cortex and the amygdala, a switch that determines whether or not one will act altruistically toward another human being.

All we need to do to "increase the performance of the brain’s neuronal circuitry" is to create the right environments—small classrooms, fewer vagrants walking the streets, less corruption and bullying, more women in positions of power, after-school games, curfews, self-aware politicians—and the sought-after physiology will appear. With the right amounts of oxytocin, vasopressin, and corticotropin-releasing hormone, a benevolent brew baked into our brains by evolution, the switch will be flicked on, he writes, so
as "to help us do the job of making an ethical decision."

There's nothing wrong with offering a guess and calling it a theory; the history of science teaches that this is a preferred method for gaining insight into ourselves and the world. Unfortunately, many popularizers of brain research slip imperceptibly between arguing for theoretical possibilities and stating them as fact. Many lack humility. You could do worse than arming yourselves with Sally Satel and Scott O. Lilienfeld's *Brainwashed: The Seductive Appeal of Mindless Neuroscience* (Basic Books, 2013) to train yourself to recognize what has been termed "brain overclaim syndrome" when you see it. As reductionist caricatures infiltrate the medical, educational, and legal systems, we should all be on the lookout.

Not that we haven't learned a great deal in recent years about the neurochemistry of behavior. Oxytocin, for one, is a fascinating little molecule. This tiny neuropeptide, which is more than 700 million years old, was gradually co-opted from regulating water and mineral levels in the bodies of terrestrial animals to being involved in the function of the placenta and the workings of lactation, in uterine contractions, and in suckling and attention in female mammals. Evolution being the master tinkerer, the ambit of such caring behavior was eventually extended from kin to kith.

We now know that complex social behaviors, whether pair bonding or promiscuity, are strongly related to the density of receptors for oxytocin in the brains of voles, marmosets, titi monkeys, and the California deer mouse. In humans, cocaine-using mothers have lower levels of oxytocin and display less maternal behavior, while healthy fathers injected with the molecule via a nasal spray show markedly more affection toward mothers and kids. Even the business world has taken notice: Subjects administered sniffs before playing an economic game in which trust plays a decisive role in success were found to be more trusting in others and hence more successful. Various companies are already advertising oxytocin nasal spray on the Internet.

This is fascinating stuff, but it's far from a Holy Grail. For one thing, single genes rarely have large effects, more often than not playing a role in a host of bodily functions. The relatively simple physical trait of height, for example, is known to be associated with 54 alleles (DNA codings), which collectively account for only 5 percent of heritability—the rest's a mystery. And, of course, mental traits like depression and empathy are enormously more
complicated. As the philosopher Patricia Churchland shows nicely in her book *Braintrust: What Neuroscience Tells Us About Morality* (Princeton University Press, 2011), the molecule serotonin, for instance, figures in cardiovascular regulation, respiration, circadian rhythm, sleep-wake cycles, appetite, aggression, sexual behavior, sensorimotor reactivity, pain sensitivity, and reward learning. And oxytocin, after a point, suddenly triggers the weakening of mate attachment in female prairie voles rather than the reverse. Drug developers know that the notion of linking a particular gene or gene product to a particular phenotype is at best naïve and usually plain wrong. Neuroscience deserves our public funds, to be certain, but there is much work yet to do.

Which brings us back to David Sloan Wilson. Humans became functionally organized, he and others argue, through child care, food acquisition, predator defense, and trade and warfare with other groups. Each of these required mutual aid and the suppression of the interest of individuals, which meant the creation of brains that know both how to empathize and how to make moral judgments, including when to punish someone who steps out of line. A likely scenario is that as a neural reward-and-punishment system became linked to internalizing social practices in human evolution, it created a feedback loop bonding culture to biology. Our brains do not arrive ex nihilo. They’ve been shaped by thousands of generations of gene/culture evolution.

And so, yes, bodies are crucial for understanding behavior: There exist no human traits divorced from biology, and without our bipedalism and larynx and prefrontal cortex suffused in molecules like oxytocin, we would not be who we are. But figuring out our biology is both absolutely necessary and completely insufficient. That is because we were forged in a collective caldron, our species the result of interactions among our progenitors. And as agriculture made us sedentary, and our numbers grew, so too did the importance of language and culture. Human populations spread across the globe and invented different ways of life. Unique geographic environments produced unique solutions to such problems as sharing resources, dividing labor, and living together peacefully.

To understand how different solutions came about, we need to study the construction of entire social environments, not just what motivates individuals, much less the biology of individual brains. Margaret Thatcher may have believed that "there is no such thing
as society," and an entire social philosophy, "methodological individualism," may have taken over economics and sociology for a time. In neuroscience, a certain cast of mind may now interpret different religions' advocacy of the Golden Rule as evidence of a common underlying biology. But the truth is that ethics is a collective property, not a denizen of any particular mind—"Art is myself, science is ourselves," Claude Bernard quoted Victor Hugo on Shakespeare—and so is morality.

What this means is that history and culture matter. No, Modernism didn't suddenly materialize in "a storm," nor should we take seriously anyone who promises that Congressional squabbles or Middle Eastern conflicts will miraculously dissolve because of the parties' realization of Pfaff's altruistic-brain theory. Neuropeptides and cortical ananomies are no replacement for the deep, multilayered contextualizations of history, anthropology, or international relations. The historian of Victorian England G.M. Young once wrote: "My aim is to read in a period until I can hear its people speak." When we approach our past, trying to put our finger on cooperation and trust, besides literatures we should use archaeological remains, weather models, linguistic analysis, and careful study of custom and material culture to aspire to a similar standard.

But what about our present? The world is complicated, full of violence and warfare. At times our "superorganism" seems on the verge of disintegrating. In The Paradox of Generosity, the Notre Dame sociologist Christian Smith and his student Hilary Davidson argue alongside Jesus and Muhammad and Ecclesiastes that through giving we receive. "Help your brother's boat across," they quote a Hindu proverb, "and your own will reach the shore." What's new, they claim, is that science now corroborates the sages: According to five measures of well-being tabulated in a nationwide study, the Science of Generosity Initiative, misers are indeed miserable and the generous are happier, as long as giving is a basic part of their lives; onetime donations of blood and even organs fail to spark the feel-good magic.

Never mind the problem of reverse causation. What the authors find, to their astonishment, is that despite the obvious perk, Americans are lousy altruists. Only 2.7 percent tithe, while 41 percent donate something less than 2 percent of their earnings, and 45 percent give nothing at all. Less than a quarter volunteer, and 42 percent have never taken care of someone else's children.
Religions promise an afterlife, but according to the Notre Dame authors, science can do better: "If Americans want to be happier, healthier people who live with greater purpose, suffer less depression, and enjoy more personal growth, [they should] learn to be more generous."

Hold on a minute. Isn’t sacrifice the point of altruism? Maybe it is, and maybe it isn’t. I’m not really sure. More interesting is the possibility that despite all the madness and just plain egoism around us, there might exist rules of cohesion to help us stick together. The late economist Elinor Ostrom won a Nobel Memorial Prize in Economic Science in 2009 for showing that there are universal design principles that help different cultures find solutions to managing common resources like pastures and forests, fisheries and irrigation systems. Strong group identity, an agreed-upon system for rewarding members for their contributions, collective-choice arrangements, monitoring, graduated sanctions, conflict-resolution mechanisms, and the authority to run their own affairs all figure in the subversion of the economist Garrett Hardin’s "tragedy of the commons." They are as crucial to groups as organs are to individuals. What is interesting about this list is that cooperation and altruism are not simply born out of fuzzy good will. They require action that itself is not altruistic, like punishment and ostracism, the crushing of personal whims, the selfish exercise of authority. Sadly, they often also require a reviled "other" to sustain intergroup togetherness—a legacy, it would seem, of our clannish beginnings. That is a hurdle we have yet to learn to overcome, and maybe our greatest challenge.

But there are many ways to foster identity, fortify authority, and fabricate "others," drawing on different norms and social conventions. That is the good news, a tonic against universalists. David Sloan Wilson is president of the Evolution Institute, the first think tank to formulate public policy from a modern evolutionary perspective, and he has turned Binghamton into a citywide experiment. Like a conservation biologist trying to figure out how to help plants grow, he and his team are using evolutionary logic, and Ostrom’s principles, to build local "ecological niches" that nurture cooperation and trust. What they are beginning to learn is the precise opposite of the Notre Dame conclusion: Those who receive, give. It seems a better verdict. But the task won’t be easy, and I wish him luck.
And so the altruism game continues. Darwin was right: There is much to learn about metaphysics from baboons. Peering into our evolutionary past and our brains, we will doubtless learn more in the future about the physical elements and social arrangements that allow us to slip, mentally, into someone else’s shoes, feel guilty about turning away a beggar, or indignant over free riders. But we will need to be smart about which tools we use to summon our better angels. Looking at the history of life on our planet, one lesson we can learn is that the groups of today might be the organisms of tomorrow, an invisible hand selecting us all for a higher calling. Looking at human history, we perceive that fate is more than biology. At least for the moment, we have ourselves alone to help us be good.

*Oren Harman is chair of the graduate program in science, technology, and society at Bar-Ilan University, in Israel, and the author of The Price of Altruism: George Prince and the Search for the Origins of Kindness (W.W. Norton, 2010).*

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**Books Discussed in This Essay**

**Does Altruism Exist? Culture, Genes, and the Welfare of Others**
by David Sloan Wilson  
(Yale University Press, 2015)

**The Altruistic Brain: How We Are Naturally Good**
by Donald W. Pfaff  
(Oxford University Press, 2014)

**The Paradox of Generosity**
by Christian Smith and Hilary Davidson  
(Oxford, 2014)

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Altruism is in fashion now. Altruism means that children are not taught self control, so the stronger can bully the weaker. To stop the bullying is cruel to the bullyer, so nothing can be done. Altruism means no more solitary confinement as a punishment for abusing fellow prisoners. So the abuser can continue his work because stopping him is mean. There was a time when prison authorities could stop rape, but now altruism has led to prisoners' rights. Altruism and empathy are defined by liberals and the viewpoint is narrow, based on the idea that the people that liberals like deserve the generosity of
New effort ranks drugmakers by impact

This podcast on January 23, 2015 featured Binghamton Professor Nicole Hassoun.

by Dan Gorenstein (/people/dan-gorenstein)

Friday, January 23, 2015 - 05:00

Pharmaceutical companies have one very obvious reason to avoid developing drugs and vaccines for infectious diseases like malaria and tuberculosis: There’s basically no money in it.

That’s because most people with those conditions are poor and have little means to pay. So what kind of incentive do you need to get drugmakers to take on global health epidemics? The answer may be a new index (http://global-health-impact.org/index.php) that ranks companies by who has the most effective drugs.

Click the media player above to hear more.


About the author

Dan Gorenstein is the senior reporter for Marketplace’s Health Desk. You can follow him on Twitter @dmgorenstein.
A SUNY college professor who developed an index ranking the world's largest pharmaceutical companies according to their impact on global diseases is presenting the project today at a conference in Geneva, Switzerland.

Professor Nicole Hassoun, an associate professor of philosophy at Binghamton University, is at the World Health Organization (W.H.O.) headquarters to launch the index, which she hopes will influence pharmaceutical companies and legislators to invest more in treatments for malaria, tuberculosis, and H.I.V./AIDS.

"This is the first rigorous evaluation of actual amount of death and disability the companies’ drugs are alleviating, and it can hopefully motivate these pharmaceutical companies to do more to address these needs," Hassoun told Capital.

The Global Health Impact Index assesses the companies on the need and effectiveness of their drugs, and the number of people who can access the drugs. The index takes into account the findings of the Global Burden of Disease study from Seattle’s Institute for Health Metrics and Evaluation, which analyzed the needs for treatments globally between 1990-2013.

Ultimately, the index aims to calculate how much impact the companies have on preventing deaths and disabilities from the three diseases worldwide. The amount that pharmaceutical companies spend on treatments for diseases that largely affect poorer nations has come into focus lately in the wake of the Ebola crisis.
"We would like it to guide health care policy and incentivize new innovations that will help extend access to essential medicines around the world," Hassoun said. "I do think that corporations have human rights responsibilities to address the access to medicines issues, along with governments and international organizations."

Hassoun’s project, which has been in the works for five to six years, got its start through a $10,000 grant from Binghamton University, along with smaller grants including one from Carnegie-Mellon University. Hassoun said part of the launch at the W.H.O. headquarters would involve trying to garner more funding for the project.

The index, which will will be made publicly available by the W.H.O., shows that Sanofi, Novartis and Pfizer are at the top of the index, while Eli Lilly, Kyorin Pharmaceuticals and Bayer Healthcare are at the bottom.

A spokesperson for Eli Lilly said the company does not manufacture drugs for any of the diseases included in the index. "But Lilly continues to play a leading role in addressing many global health issues—including tuberculosis—that wouldn’t show up in Global Health Impact Index," said David Marbaugh, communications director for Corporate Responsibility at Eli Lilly. "Our largest philanthropic effort addresses multidrug-resistant TB through the Lilly MDR-TB Partnership. Through this innovative partnership, we have committed more than $170 million."

Marbaugh said the company’s investment includes giving away the trademarks and technology to make two drugs used in the treatment of multi drug resistant tuberculosis, the Lilly TB Drug Discovery Partnership which focuses on finding new tuberculosis drugs, and training health workers in areas hard hit by the disease.

Officials from Kyorin Pharmaceuticals could not be reached for comment, while a Bayer Healthcare spokesman responded but did not provide a comment.

Hassoun said tools exist to track company policies on drug accessibility—specifically, the Gates Foundation’s Access to Medicines Index—but that her system could be used in conjunction with other databases to arrive at a more well-rounded picture of the kind of impact companies can have on public health globally.

"If you look at it and compare it to the Access to Medicines Index, or other measures of what kinds of policies that the companies have in place, so you might be able to figure out what is it that causes some companies to have a greater impact than others," she said.
If You Think Your Boss Is Horrible, You’re Probably Right

Martha C. White  |  Feb. 3, 2015

Here's how you can fight back

According to research, as many as 36 percent of American workers have a boss whose leadership style could be described as “dysfunctional.” So, if you've long suspected that your boss is nuts, you might be right — and you've got a lot of company, to boot.

“The cultures that exist in organizations may, in some ways, enable these individuals to remain in, and even advance within, the workplace,” explains Kevin Rose, an assistant professor of organizational leadership and learning at the University of Louisville, and the lead author of a recent study on bad bosses.

Seth M. Spain, an assistant professor of organizational behavior at Binghamton University, State University of New York, studies what social scientists call the “dark triad” of personality traits: psychopathy, narcissism and Machiavellianism. He says any combination of these can turn up in bad bosses.

Spain says narcissism is likely the most common bad boss personality trait because studies show that narcissists tend to get ahead. They're so full of themselves and so sure they're right that they project the kind of confidence that's often mistaken for leadership capability. Machiavellian types — the ones who can manipulate other people without batting an eye — also turn up in leadership roles because they're ruthless at convincing other people to do what they want. If they don't care whose hands they step on along the way, they can ascend the corporate ladder more easily. And once they claw their way to the top, bad bosses stay there by running roughshod over their underlings and creating a climate where no one wants to risk making them angry by bringing up their flaws.

And these flaws are myriad. Rose and his co-authors developed a detailed taxonomy of bad boss behavior, from crummy to crazy to criminal. In the most egregious cases, you get the ones who yell and scream, throw things or even make physical threats. This one advantage here is that it’s easy to recognize this behavior as inappropriate.

Low-level bad behaviors like disrespect, taking credit for underlings’ work and undermining others are much more common and can slide under the radar in many organizations, says Aoifa O’Donnell, CEO at HR consulting company National EAP and an expert in workplace bad behavior. “These types of dysfunction are more subtle,
“It is often the small things that are not only most common, but also most devastating over time,” Rose says. Things that might seem insignificant — like focusing on an employee’s weaknesses rather than strengths, taking credit for their work or setting unrealistic expectations, can have a cumulative negative effect on workers.

If the boss picks on everybody, Spain advises seeking support from your co-workers. Since they know what you’re going through, they can empathize with you. And if you bring it up, you and your colleagues might discover that the boss’s behavior is more widespread than believed. “Finally, it may help build a political alliance that could help protect you from the bad boss,” he says.

Having someone else, whether a colleague or another supervisor, in your corner is one strategy the experts suggest for dealing with a bad boss. It’s also important to try to get enough sleep, eat well, practice relaxation exercises like yoga or meditation and seek support from family and friends. “Although none of these self-care tips will directly change how your boss acts, it will help you to feel better about yourself and enable you to cope better with the stress and negative emotions when you are at work,” O’Donnell says.

The experts are divided on when, or even if, you should confront a bad boss. “If the boss’s dysfunctional actions are a result of lack of managerial skill rather than malevolence, constructive feedback could help fix the problem,” Spain says.

“Take a couple of days to reflect on the points you want to communicate, jot down some notes as reminders, and then approach [them] in an assertive, respectful and professional manner,” O’Donnell recommends. She also suggests going to HR or your company’s employee assistance program. “Remember, It is OK to ask for help,” she says.

But if your boss is boorish or bullying just because they feel like it, confronting them might be counterproductive and might just make you more of a target for their bad behavior. In this case, especially if you’ve exhausted any options available through your HR department, your best option might be to keep your head down and quietly update your resume.
Fox Business interviewed Binghamton professor Rob Holahan on March 5, 2015 about fracking in the area.
Fox Business interviewed Binghamton professor Tom Sinclair on March 5, 2015 about fracking in the area.
New York Town Threatens to Secede Over Cuomo's Fracking Ban
By Adam Shapiro
Published March 05, 2015 | FOXBusiness

The road to prosperity runs through Conklin, New York -- but people here say the good times keep passing them by.

Kenny Brown works at a local pizza shop and says the economy is struggling and depressed.

"There's barely jobs left. There's no one left to spend the money, and we need something to bring money in and people to stay in the area," Brown told the FOX Business Network. That something, according to Kenny, is fracking.

Just a few miles from Conklin, across the border in Pennsylvania, thousands of wells are fracking the Marcellus Shale, deep below the ground, releasing valuable natural gas. Fracking has created 30,000 jobs in Pennsylvania over the last ten years, and will add roughly $26 billion annually to Pennsylvania's economy by 2020, according to IHS Global Insight.

But New York counties and towns on the Pennsylvania border, an area called the Southern Tier, can only watch as their neighbors reap the rewards of fracking. New York Gov. Andrew Cuomo decided recently to extend a statewide ban on high volume fracking, despite estimates fracking would create 15 to 18,000 jobs in economically depressed areas like the Southern Tier.

Dan Fitzsimmons owns 185 acres of land on the New York side of the border and says fracking would bring his family millions of dollars in royalties from leases with gas companies. But Fitzsimmons can't earn one penny extracting the gas from his land because of the ban. He says Gov. Cuomo made a political decision that hurts people in the Southern Tier.

"We had a lot of dreams for our land. I can't do those things, that income is there, I could have it -- but the governor stopped us," Fitzsimmons said.

People in Conklin wonder what they can do to create jobs without fracking. Big businesses like GE and IBM left long ago and today unemployment in the Southern Tier runs higher than the rest of New York. More than 17% of the people in Broome County, home to Conklin, live in poverty-- which is also higher than the New York average. Conklin town supervisor Jim Finch has proposed that his town and others secede from New York and join Pennsylvania. Tom Sinclair, a professor of public administration at Binghamton University just north of Conklin, says it would be possible to secede.

"If the state of New York legislature and the state of Pennsylvania's legislature agree to this transfer it could happen. As a practical matter it would be much more difficult," said Sinclair, adding that he doubts the New York general assembly would ever approve it.

In Conklin they hope Gov. Cuomo changes his decision. Furniture restorer Al Fortunato is tired of watching people lose their jobs and move. He says Gov. Cuomo "needs to pay more attention to the Southern Tier and forget about New York City and get some money, income up here and help us out."

Without fracking, Fortunato and the other people in Conklin worry their future will be like Dan Fitzsimmons' plans for his land, just a dream.

URL
http://www.foxbusiness.com/economy-policy/2015/03/05/new-york-town-threatens-to-secede-over-cuomo-fracking-ban/
Free-Throw Distraction: The Best Fans in the N.C.A.A.

By Kevin Quealy and Justin Wolfers

Who are the most effective fans in college basketball — and which fans aren’t effective at all?

Part of the appeal of college basketball is the creative and spirited fans who do everything in their power to rattle the visiting team, especially during free throws. Duke has the Cameron Crazies. Michigan State has The Izzone. And the most inventive fans — and the single most effective in the country — appear to be the ones who deploy the so-called Curtain of Distraction at Arizona State, which The Upshot covered in detail last month.

Fans are so central to the college basketball experience that they’re often called the sixth man. What has long been unclear is whether this sixth man was actually helping the home team, or whether opposing players were focused enough to shut out rowdy distractions.

And so we analyzed free-throw data over the past five seasons, comparing the free-throw percentages of visiting teams in hundreds of Division I arenas in men’s college basketball. We focus on free throws because this is when the sixth man is arguably the only relevant defensive player.

Our interest was to establish which teams had the best “defensive” free-throw percentage. To ensure that we compared like with like, we compared the free-throw percentage of visiting teams at each arena with their percentage when shooting in their home arenas.
America East

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Ten sinister parasites that control their hosts' minds

Some of the creepiest species on Earth are experts in getting their own way. Meet 10 parasites with the power to control their hosts' behaviour

Zombie ant fungus (Ophiocordyceps unilateralis)

Ants are great navigators, following highly efficient paths as they forage for food. But in the rainforests of Thailand, Africa and Brazil, Camponotus leonardi ants get pulled off course by Ophiocordyceps unilateralis, a parasitic fungus (pictured above).

A spore first infects an ant foraging on the rainforest floor, then spends 3-9 days developing inside its body. When the fungus is ready to complete its life cycle, it manipulates the worker to plod blindly away from safety, like a zombie.

A study in 2009 found that the ants always went to similar locations: around 25 cm up a tree, in a spot with just the right amount of humidity for the fungus to grow. The ant then clamps down on a leaf with its mandibles, and dies.

Within 24 hours, fungal threads emerge from the corpse. Finally, a stalk pushes out of the ant and begins raining spores onto the rainforest floor, where they can infect more ants. It's a bit like the chest-bursting scene from Alien, except that the ant is mercifully dead when the fungus explodes out of its head.
Influenza virus

Yes, that’s the flu. In 2010 Chris Reiber of Binghamton University in New York and her colleagues found evidence that the influenza virus makes people more sociable.

They found that people given a flu vaccine interacted with significantly more people, and in significantly larger groups, in the 48 hours after being exposed, compared with the 48 hours before. The infected hosts were more likely to head out to bars and parties.

It’s only one study, and quite a small one, but it does make a certain sinister sense. It would benefit the virus if its host passed it on to as many people as possible, before the symptoms started and they became bedridden.

Schistoscephalus solidus

Parasites are everywhere. Most species will be living with more than one parasite, and even parasites may have their own parasites. So in
A Drug Trial’s Frayed Promise

By KATIE THOMAS  APRIL 17, 2015

Last fall, an article in The American Journal of Psychiatry caught the attention of specialists who treat borderline personality disorder, an intractable condition for which no approved drug treatment exists.

The article seemed to offer a glimmer of hope: The antipsychotic drug Seroquel XR reduced some of the disorder’s worst symptoms in a significant number of patients. “It was an exciting development,” recalled Mark F. Lenzenweger, a professor at Binghamton University and Weill Cornell Medical College and an expert in borderline personality disorder.

In the realm of clinical trials, however, reality is sometimes far messier than the tidy summaries in medical journals. A closer look at the Seroquel XR study shows just how complicated things can get when a clinical trial involves psychiatric disorders and has its roots in intersecting and sometimes competing interests: a drug company looking to hold onto sales of a best-selling drug, a prominent academic with strong ties to the pharmaceutical industry and a university under fire for failing to protect human study subjects.

The trial was paid for by AstraZeneca, the maker of Seroquel XR, and was conducted by Dr. S. Charles Schulz, the head of psychiatry at the University of Minnesota. Two of the study participants were living in a residential treatment facility for sex offenders and may have lied about their diagnoses to qualify for the trial. One of those men slipped the drugs to unwitting treatment center residents and staff, an alarming development that nevertheless did not seem to ruffle the university oversight board that is charged with looking into such episodes.

The University of Minnesota’s clinical trial practices are now under intense scrutiny. In February, a panel of outside experts excoriated the university for failing to properly oversee clinical trials and for paying inadequate attention to the
protection of vulnerable subjects. The review, commissioned by the university after years of criticism of its research practices, singled out Dr. Schulz and his department of psychiatry, describing “a culture of fear” that pervaded the department.

In March, after another critical report by Minnesota’s legislative auditor, the university announced that it would halt all drug trials being conducted by the psychiatry department until outside experts could review them. And this month, the university announced that Dr. Schulz would step down as head of the psychiatry department. The dean of the medical school, Dr. Brooks Jackson, said in a statement to reporters that Dr. Schulz’s decision “was completely his own” and that he would “remain a valued member of our faculty.”

“Medical research involving drugs like this — involving potentially vulnerable human subjects — shouldn’t be done sloppily,” said Dr. Michael Carome, director of the health research group at Public Citizen, a consumer advocacy organization. “Because when we do things sloppily, we do things where people could potentially be harmed.”

**Spiked Oatmeal**

One morning in May 2010, residents and staff members at Alpha Human Services, a residential treatment facility for sex offenders in Minneapolis, sat down to breakfast and noticed something strange about their oatmeal. It was pink.

Later in the day, several people reported feeling unusually tired. One employee approached the director, Gerald T. Kaplan. “There’s something going on here,” he recalled being told. “I’m a morning person, and I can’t keep my eyes open.”

After some digging, Mr. Kaplan discovered that the facility’s cook, a resident, had crushed up a large quantity of Seroquel, which has sedative effects, and mixed the pink pills into the morning oatmeal.

The director’s alarm deepened when he learned that the man, as well as another resident, had secretly enrolled in a clinical trial at the University of Minnesota. Their motivation, Mr. Kaplan said, was most likely financial: The trial promised participants up to $300 for completing the study.

Participating in a drug trial was prohibited by the rules of Alpha, which is licensed by Minnesota’s Corrections Department. Most of the people living there were fulfilling the terms of parole or probation. Prescription drug use is closely monitored, and residents are not permitted to take unapproved medications.

But even more concerning, Mr. Kaplan said, was that the men did not have a
diagnosis of borderline personality disorder. Somehow, he said, they were able to bluff their way into the study.

At that point in the trial — over a year after enrollment had begun — the researchers were well behind in their recruitment goals.

Borderline personality disorder, which is estimated to affect 1 percent to 2 percent of Americans, is characterized by extreme mood swings, impulsivity and fears of abandonment. Studies have shown that the most successful treatments are specialized forms of talk therapy, but finding practitioners who are trained in these methods can be difficult. Many doctors prescribe antipsychotics and antidepressants to help with some symptoms.

Studies have examined the use of antipsychotics, including Seroquel, in patients with the disorder, but they have been small and did not measure patient progress compared with a placebo, which is considered the gold standard for clinical trials.

Dr. Schulz said he had hoped that a larger, placebo-based trial — involving about 100 patients followed over eight weeks at three study sites — would help clarify whether antipsychotics such as Seroquel could help people with the disorder, and he proposed the trial to AstraZeneca.

He already knew the company. He had served on one of AstraZeneca’s scientific advisory boards, and from 2002 to 2007 he received more than $112,000 from AstraZeneca in speaking and consulting fees and other payments, according to records collected by the Minnesota Board of Pharmacy. Dr. Schulz said that the relationship did not affect his objectivity and that, in any case, he ended his financial ties to the company after the borderline personality disorder trial got underway.

The trial was expected to take about two years, but soon after enrollment began, one of the three clinical sites, McLean Hospital in Massachusetts, essentially dropped out, citing lack of interest from patients. That left the University of Minnesota and the University of Iowa, the other site, to find more study subjects.

In April 2010, one month before the resident spiked the oatmeal at Alpha, a report from the study’s safety officer noted that enrollment was “less than half of what it is expected to be” and that it was now expected to take five years instead of two.

Dr. Schulz said that AstraZeneca was disappointed to learn of the delay.
Seroquel was a top seller for the company, bringing in billions of dollars a year. But by the time Dr. Schulz proposed the borderline disorder study in 2007, the company knew that Seroquel’s blockbuster days were limited: It stood to lose its patent protection in 2012. When that happened, a flood of cheap generic alternatives would cause sales to plummet. Seroquel XR, the extended-release version and the subject of Dr. Schulz’s study, would keep its patent protection until 2017, but with generic competition for the standard version, sales were unlikely to be robust.

“I know that they wanted things to be done quicker,” he said, “but they said we could keep our grant and finish the study.”

Questions Raised

The man who drugged his fellow Alpha residents was sent back to prison, and Alexis Kindelspire, one of the therapists at the facility, called the university to let them know what had happened.

“They were mortified,” Mr. Kaplan said, and the men were removed from the study. But no one ever followed up with a more detailed investigation, he said.

A university spokesman said in a statement that the institutional review board, which is charged with overseeing all medical studies, did not investigate because the men had already been terminated, and it was not clear the investigators could have done anything to prevent it.

But while some outside ethics experts acknowledged that the story appeared to be a bizarre fluke, they also noted that the episode revealed evidence of lax reporting practices.

The man who drugged the oatmeal, for example, had failed to return his pill bottle at his previous clinic visit, which was necessary so investigators could see if doses were missed. The claim that the two men may have faked their way into the trial should have also raised eyebrows, some said, as well their being under court supervision.

Under guidelines governing federally funded clinical trials, the men would have been considered prisoners and their participation given special scrutiny, several outside ethics experts said. Although the trial was not federally funded, many universities follow similar rules for research involving human subjects. (The university asserts the men were not prisoners.)

Other concerns about the study were raised even before the oatmeal drugging. The study’s safety officer, Dr. Scott Crow, noted in a memo that not a single patient
had failed the screening process for enrollment in the study, even though outside experts said it was unlikely that everyone who applied would meet the criteria. Dr. Schulz said the failures were not recorded because the patients were formally screened only after undergoing initial telephone interviews that eliminated unlikely candidates.

“What a sloppy trial,” said Nancy Dubler, a bioethicist who served for years on the Institutional Review Board, or I.R.B., at Montefiore Medical Center in the Bronx. She is an expert on the inclusion of prisoners in clinical trials and said closer attention should have been paid to the events at Alpha. Dr. Schulz said he was disturbed and upset about what had happened at Alpha, but he remained convinced the men had the disorder but had not previously been diagnosed. “We felt we had been screening the people very well,” he said, “but we were also aware that these are patients that do have a lot of impulsive, aggressive behavior.”

After the episode, he said, he reviewed the study protocol with the trial’s project coordinator. They decided not to make changes but to be more careful about whom they enrolled.

Others said that the event was troubling, given the recent scrutiny of research practices at the university.

“If I’m on an I.R.B. and I see problematic studies and public controversy coming up again and again,” said Dr. Carl Elliott, a bioethicist at the University of Minnesota, “I’m going to look carefully at those studies. And yet our I.R.B. seems to do the opposite.”

Dr. Elliott obtained documents relating to Dr. Schulz’s borderline personality disorder trial through a public-records request and made them available to a reporter. In January, he filed a complaint with the Food and Drug Administration about the university’s research practices in the trial.

Dr. Elliott has spent years calling on the university to overhaul the way it conducts research on patients. His activism began after the death of Dan Markingson, a psychiatric patient who committed suicide in 2004 while he was a participant in a clinical trial of Seroquel. Last year, the university commissioned an external review of its research practices, and the report that came out in February was unsparing, taking the university to task for paying inadequate attention to securing the consent of vulnerable patients.

The experts had harsh criticism for the department of psychiatry, as well as for Dr. Schulz and another researcher, whom it described as “two investigators whom
faculty and staff do not trust and who fail to communicate a set of priorities that align their own research agenda with the best interests of patients and patient care.”

The outside committee recommended that Dr. Schulz and the other investigator “receive supervision, coaching in leadership, and advanced training in human subjects protections.”

Dr. Schulz’s name was not on the public copy of the report, but an unredacted version was provided to The New York Times by a member of the external review committee.

In an interview, Dr. Schulz painted much of the criticism as stemming from years of campaigning by Dr. Elliott. He said that under his leadership, the department was thriving.

When the university announced that Dr. Schulz was leaving his post as head of psychiatry after 16 years, it said he would continue to serve as the executive medical director, which “will allow him to focus his time more exclusively on patient care.”

“I felt it was time for me to step down in order for the medical school to make a recruitment for a new chair,” Dr. Schulz said, “so the department can continue its excellence.”

**Still No Treatment**

In March 2013, four years after recruiting the first patient, the investigators closed the trial after enrolling almost 100 patients. A statistically significant number of participants who took a lower dose of the drug, the researchers concluded, saw their symptoms improve over eight weeks.

But even as some said the study offered a new treatment option, others questioned spending so much on a trial that was unlikely to lead to major improvements in the way the condition was treated.

Dr. Lenzenweger, the borderline personality disorder expert who cautiously praised the trial, also noted that the short time period limited its applicability.

“This trial only lasted eight weeks, and personality disorders last for years,” he said.

And even during that short period, about one-third of the participants — many citing the sedating effects of the Seroquel — dropped out.

“There is something phony — wrong — about doing a study that can only run for eight to 12 weeks in what’s basically a long-term condition, and where the side
effects of the drug are really the big issue,” said Dr. Ross McKinney, director of the Trent Center for Bioethics at Duke University. “Unless you have an immediate plan to take it into something long term, I’m skeptical that it’s of any value at all.”

But Dr. Donald W. Black, the investigator at the Iowa site, said short-term trials were the norm for testing drugs for psychiatric conditions.

“Ideally, these studies would last six months, one year, two years or longer, but who’s going to do it, who’s going to pay for it, and what patient is going to stay in a study that long?” he said.

The study of Seroquel XR was valuable, he said, because even with about 100 patients, it was larger than the previous trials.

“Bottom line,” he said, the drug “seems to work in borderline patients, who improve in many different ways.”

People with borderline personality disorders, meanwhile, do not appear to be any closer to getting an approved treatment for their condition. After five years and the $700,000 that AstraZeneca paid for the trial, it seems the company has no plans to market Seroquel XR for use in borderline personality patients.

Michele Meixell, a spokeswoman for the company, said that while trials like this one were once approved “in areas where the company may have had a therapeutic interest,” she added, “we do not currently have a further interest in borderline personality disorder.”

**Correction: April 26, 2015**

An article last Sunday about problems in clinical trials that may compromise their results misidentified the person who notified the University of Minnesota that a man participating in a clinical study run by the university had put a drug from the study into the food of staff members and other residents at a residential treatment center. She is Alexis Kindelspire, a therapist at the treatment center — not Gerald Kaplan, its director.

**Correction: April 20, 2015**

Because of an editing error, an earlier version of the article misattributed, at one point, a quotation about the reaction to learning about one study participant who drugged other residents at a treatment facility for sex offenders. The comment was by Mr. Kaplan, not by Dr. Kindelspire. Also, because of an editing error, an earlier version of the article referred incorrectly to Alexis Kindelspire. Dr. Kindelspire is a woman.

Jack Begg and Christina Capecchi contributed reporting.
After snowy winter, experts warn of boom in tick population — and not just in the woods

By Meredith Engel / New York Daily News / Wednesday, April 15, 2015, 5:31 PM

Adult male (left) and adult female (right) deer ticks can spread Lyme disease and a host of other pathogens.

HARSH winters, like the one that recently ended, have a chilling side effect: more ticks than usual.
Heavy snow acts as insulation, protecting the Lyme disease-carrying creepers from the cold, leading to a spike in tick populations in the Northeast, experts warn.

“Snow acts as a great blanket. If they’re kept cozy with lots of snow, there shouldn’t be a big kill-off,” Prof. Ralph Garruto, head of the tick-borne disease program at Binghamton University, told the Daily News.

And while you may think you’re safe in the city, the little critters are popping up in semi-urban areas in places like playgrounds and other green spaces, says Garruto.

Ticks are sometimes borne on deer.

"The risk of contact and infection is at least as high as you would find in the wilderness, and maybe higher," he told the Daily News.

Deer ticks, which are most common in the Northeast, can spread Lyme disease and a host of other life-threatening illnesses, like the powassan virus, which was recently found in Connecticut.

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Harsh Northeast winter no hindrance to hungry ticks

By Mary Esch|AP  April 16

ALBANY, N.Y. — Think you’re safe from ticks because the harsh winter froze them or because you haven’t been trekking through the woods?

Think again. Researchers focused on ticks and the debilitating diseases they spread say the heavy snow that blanketed the Northeast this winter was like a cozy quilt for baby blacklegged ticks that are now questing for blood as the weather warms up. And a researcher at New York’s Binghamton University said Lyme disease-infected ticks aren’t just in forests and fields.

“We’re finding plenty of infected ticks in built environments, places like city parks, playgrounds, work campuses, college campuses,” said Ralph Garruto, head of the school’s tick-borne disease program. “What makes the problem worse is that people don’t perceive of these environments as risky. If they were planning a camping trip, they’d think about how to prevent ticks. But they don’t have the same consciousness when they’re in town.”

Blacklegged ticks, also called deer ticks, are susceptible to cold, and February was the coldest month on record for many Northeast and Midwest locales. But it was also an unusually snowy winter — the snowiest ever for Boston, which had 108.6 inches. That snow may have protected ticks from freezing.

“We know snow insulates,” said Rick Ostfeld, an ecologist who has been studying ticks for two decades at the Cary Institute for Ecosystem Studies in the Hudson Valley town of Millbrook, New York. “So it makes sense that it would be protective for ticks. That leads to the hypothesis that more snow cover will lead to a higher abundance of ticks in the spring. But we need a long-time data set to test that hypothesis.”

A recent study by a group of Connecticut researchers found a higher number of ticks following winters with heavy snow cover, Ostfeld said. But Ostfeld’s research has found a better predictor of the abundance of tick nymphs is the number of white-footed mice the previous summer. Tick larvae are infected with Lyme disease when they feed on infected mice. Larvae turn into poppy seed-sized nymphs and lay dormant until spring, when they can infect the host of their second blood meal.
“Based on last summer’s mouse population, we’d expect a moderate to low abundance of nymphs this spring,” Ostfeld said.

University of New Hampshire entomologist Alan Eaton said the heavy snowfall this winter could mean more ticks, but a dry spell later in the spring or summer could kill them off. How big a problem looms depends both on the size of the tick population last fall and future weather, he said. The tick population was strong in most of New Hampshire last fall, he said.

“We have the potential for a bad year, or it might not be bad at all,” Eaton said. “It heavily depends on what happens from here on out.”

In addition to Lyme disease, which causes flu-like symptoms that can progress to joint pain, fatigue and other debilitating symptoms, blacklegged ticks can also transmit other diseases like babesiosis, a bacterial infection similar to Lyme, and rare Powassan virus, which attacks the brain.

Garruto said his field research teams in the Binghamton area near the Pennsylvania border have recently found more ticks living around buildings, backyards, parks, and outdoor benches at shopping centers than in the deep woods. They found a third of 1,500 ticks tested were infected with Lyme.

“The quizzical thing is, we’re not seeing the number of confirmed cases of Lyme disease in humans that we expect to see, based on the entomological risk,” Garruto said. “We think that’s because Lyme is way underreported here.”

According to the Centers for Disease Control and Prevention, there were more than 27,000 confirmed cases of Lyme disease and 9,000 probable cases in the U.S. in 2013, with the greatest risk of infection in New England, the mid-Atlantic states and upper Midwest.

The CDC recommends daily tick checks after being outdoors, even in your own yard; using repellents; showering soon after being outdoors; and calling a doctor if you get a fever or rash.

Associated Press writer Holly Ramer contributed to this story from Concord, N.H.

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Weather Sets the Stage for the 2015 West Nile, Lyme Seasons

By Annie Hauser
Published Apr 21 2015 07:08 AM EDT
weather.com

What Happens When Lava Meets Ice?
As the seasons shift toward summer, insect-carried diseases such as West Nile and Lyme become among the top environmental health concerns.

Just recently, the state of California announced that 2014 was a record-breaking year for West Nile. The Golden State recorded the second-highest number of human cases of West Nile virus in 2014, 801. (In 2005, the state reported 880 cases.) But in 2014, 561 of the recorded cases were neuroinvasive, the most serious form of the disease, which can be deadly. All told, 31 individuals died, the highest number ever for the state.

Although these numbers sound small compared to California's population of more than 38.8 million, Dr. Jorge Parada, an infectious disease specialist at the Stritch School of Medicine at Loyola University Chicago and an advisor to the National Pest Management Association, told weather.com that 75 percent of West Nile victims don’t feel sick enough to seek medical attention or warrant a West Nile blood test, so the actual disease burden is much, much greater.

Hot, dry weather is known to help insect-borne diseases spread (though mosquitoes also need water to survive), but Dr. Parada said, contrary to some reports, California's drought is not solely to blame for this deadly disease spike.

"I wouldn't expect a year with a drought alone to have a record number of cases," he said. "It's multifactorial."

West Nile in humans spikes or wanes depending on the presence of the virus among an area's birds and mosquitoes. "Increases and decreases in illnesses] have everything to do with the birds," Dr. Parada said. It's cyclical — once the infections rates are high enough among birds, either a large
population will die off or become immune to the virus, which in turn drops rates among mosquitoes and humans.

"I think that the drought may have, in certain areas, augmented the amplification of the [virus in] birds and mosquitoes because maybe they had fewer places to congregate [for water]," he said. "But even without the drought, we would expect there to be an increase in human cases given the multiyear increase in infected birds and infected mosquitoes."

Dr. Parada explained that humans merely get in the way of this infection cycle; we are not the intended target for the virus.

Ralph M. Garruto, Ph.D., a professor of biomedical anthropology and biological sciences at Binghamton University in New York who studies Lyme disease in ticks, agrees with this assessment.

"Humans are in the way," he told weather.com. "They're dead ends for the [Lyme] virus."

Ticks, not mosquitoes, transmit Lyme, a disease thought to infect upwards of 300,000 in the U.S. annually, according to the U.S. Centers for Disease Control and Prevention. Some patients and doctors also believe the disease can be chronic, causing crippling neurological symptoms for years or even decades. (Although this view is controversial.)

Dr. Garruto said there's a misconception that the Northeast’s brutally cold winter might usher in a more mild Lyme season. Lyme is "endemic" among the tick population across pockets of the region — more than 75 percent of all ticks in some areas carry the virus, he said. Weather patterns won’t ease this incidence, either.

"For most of the time you've had subzero weather [this winter], you've also had heavy snow pack, and that snow pack serves as a blanket to protect ticks," he said. "Once you have a nice blanket of snow in the winter, everything's protected."

Because of the warming climate across the globe, plus the urbanization of formerly wooded areas, other emerging insect infections are also a concern, such as chikungunya and dengue (both from mosquitoes), and powassan, a rare, but increasingly worrisome tick-borne infection found in the Northeastern U.S.

"Cases [of powassan] seem to be picking up, and I certainly wouldn't be surprised if in the future, we're threatened by a much higher risk of these tick-borne illnesses than we are now, or than we have been in the past," Dr. Garruto said.

But all of these infections, Dr. Parada pointed out, are largely preventable. "You can't catch West Nile if you don't get bitten by a mosquito," he said. "That states the obvious, but eliminating or reducing mosquito breeding sites around the home ... wearing long sleeves, long pants ... all of these things can be done to reduce the likelihood of [infection]."
HISTORY  EDUCATION

GOP Candidates and the Educational F-Word

History News Network  Apr 6, 2015

This post is in partnership with the History News Network, the website that puts the news into historical perspective. The article below was originally published at HNN.

Like Rick Perry in 2012, the Republican contenders for president this time around will also attack the education department and the Common Core. For generations, conservatives have attacked federal leadership in education as the ultimate big-government imposition. It wasn’t always this way, and we might just be on the cusp of another historic shift.

In the lead-up to 2016, GOP hopefuls will burnish their conservative credentials by bashing any federal role in education. In January, Mike Huckabee dramatically resigned his Fox News job, fueling chatter of a potential presidential bid. To prepare, Huckabee backed away from the Common Core, calling the new standards “hocus.” Bobby Jindal has long been out front, loudly and proudly using the federal government for its role in the Common Core standards. The standards, Governor Jindal accuses, will “coerce” states into accepting federal leadership in education. Most recently, Jindal released his presidential-sounding plan for education reform, denouncing any “federal meddling” in education.

Even conservative candidates who like the Common Core carefully recite their loathing of any federal role in education. Jeb Bush, for example, supports the standards. But as Karl Rove noted a few weeks ago, Bush has had a hard time convincing conservatives that those standards will not impose a federal stranglehold on state and local control of schools. In recent appearances, Governor Bush has downplayed his support for the Common Core.

This script has been in place for as long as there has been an Education Department. In the 1980 campaign, candidate Reagan promised to abolish the just-created department. To conservatives like Reagan, centralized education meant more than just another arm of big government. To Reagan, centralized federal control meant control by suspiciously leftist intellectuals. It implied too much influence for the likes of John Dewey and Jonathan Kozol. For later generations, it would mean too much influence for lefties such as Bill Ayers and Linda Darling-Hammond.

Reagan was not the first conservative to worry. Conservative activists have battled furiously against any role for the federal government ever since the New Deal. In the 1940s, for instance, Allen Zoll swayed conservatives around the country with his dramatic pamphlets.

Zoll loomed large on the rightward fringe of conservatism back then. He had influence with grass-roots conservatives nationwide as well as with emerging leaders such as William F. Buckley Jr. Zoll did not mince words when he denounced federal leadership.
The government, Zoll warned, wanted to install pernicious “progressive” models in schools nationwide. Progressive education, Zoll wrote, “produced millions of little victims who know next to nothing and who have never been taught even how to learn anything.” But that was not all. The “infiltration and control of American education” by means of federal leadership was “communism’s number one goal.” The truth was plain for anyone to see. Federal control meant communism.

It was not always this way. Back in the 1920s, leading conservatives actually led the campaign for the creation of a federal department of education. Most prominently, Hiram Evans backed a program to invest $100 million in a new cabinet-level education department. At the time, Evans headed the resurgent Ku Klux Klan. And though today’s conservatives might not like the company, in the 1920s Evans’s organization was wildly popular with conservative white Protestants.

Unlike later conservatives, Evans felt confident that federal control would push education in firmly conservative directions. Also unlike later conservatives, Evans trusted the national education leaders of his time. It makes sense. The experts in his day included the hysterical war-time leadership of the National Education Association in 1918. Leaders of the NEA wanted new funding for schools, they said, to impose a uniform Americanization on German-speakers and other suspect groups.

Evans promised that public schools with conservative federal leadership could “build a homogenous people.” In the crude language of the 1920s Klan, Evans gushed, “we will grind out Americans like meat out of a grinder.”

No politicians these days would embrace Evans’s racist vision of proper Americanism. But some conservative thinkers have begun to temper their ideas about the role of the federal government. If the experts are pushing conservative ideas, some conservatives say, then maybe more centralization is a good thing.

Bill Bennett, President Reagan’s second education secretary, has lamented the “federal overreach” that accompanied the roll-out of the new Common Core standards. “But the federal intrusion into Common Core,” Bennett concluded, “however unwelcome and unhelpful, does not change a basic truth: Common, voluntary standards are a good, conservative policy.”

Bennett’s support of the standards fits the historical record. As Michael Petrilli of the Fordham Institute has argued, the thinking behind these standards started back when Bennett was in charge of the federal education bureaucracy. When conservatives are the experts, the thinking goes, more federal support means more conservative schools.

Could this become the new normal for conservatives? If dominant educational experts embrace conservative ideas, might conservatives become once more the party of federal leadership in education? If conservative thinkers like Bennett and Petrilli can be in charge instead of lefties like Ayers and Darling-Hammond, could conservatives change their tune?

If so, it won’t happen in 2016. This sort of conservative thinking has not trickled down to the electoral level yet. Every GOP candidate this time around will have to oppose any federal leadership in education in order to prove his conservative bona fides. But we might just be witnessing the beginnings of a revolution in a long conservative tradition.

Adam Laats is an historian in the Graduate School of Education at Binghamton University (SUNY). He is the author, most recently, of The Other School Reformers: Conservative Activism in American Education (Harvard University Press, 2015). He blogs about history, conservatism, and education at I Love You but You’re Going to Hell.

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Experience Leads Palmer to Study Black Males in Higher Ed

January 13, 2015 | :

by Jamal Eric Watson

Thinking back to his childhood, Dr. Robert T. Palmer, a *Diverse 2015 Emerging Scholar*, describes his upbringing as turbulent and "dysfunctional." Raised by his grandmother, Palmer didn't have a close relationship with either of his parents.

As a youngster, he often missed school, was socially promoted to the fourth grade and was even placed in special education for about six months in fifth grade "until the school realized I was too smart," he says.

Still, his rocky home life impacted his schooling and Palmer quickly became insecure about his ability to excel. As he was finishing high school, the possibility of attending college seemed even more remote.

"I didn’t even think college was a goal," says Palmer, 36. "I didn’t think I was academically prepared to go to college. I thought I needed to work on my academic skill set."

By chance, he learned about the ACT 101 Program at Shippensburg University—a state-funded initiative—and enrolled in a remedial summer program for incoming freshmen.

"At the time, it seemed like hell because it was over the summer for five weeks," Palmer recalls. "But it gave me the confidence and efficacy to realize that I had the skills to be successful."

Palmer majored in history education, with the goal of becoming a high school teacher. But he quickly became a fierce critic of academic tracking while student teaching during his senior year of college. Palmer became interested in Black male success, in particular, because of his own experience in the K-12 system as a Black male.

"I realized that I still wanted to make a difference in terms of helping Black males succeed and, I thought, if I’m not teaching maybe I can do research," he says.

Palmer enrolled in a master’s program in counseling at West Chester University of Pennsylvania, but by then he had already developed an interest in historically Black colleges and universities (HBCUs).

"I had this tremendous appetite to learn," he says, adding that during his free time he would devour research publications and journals. It was then that he began to think seriously about pursuing a career as a professor and researcher.

When it was time to choose a doctoral program—after working for a year as a caseworker for a Philadelphia-based nonprofit called Blacks Educating Blacks About Sexual Health Issues—he knew that he wanted to attend an HBCU.
“One of the reasons why I decided to pursue a Ph.D. at (an) HBCU was that I felt that many of my professors at the PWIs (predominantly White schools) stereotyped me,” he says. “They did not think that I was there to learn and, after a while, that took a psychological toll.”

Palmer enrolled in a Ph.D. program in higher education administration at Morgan State University and wrote a qualitative dissertation that examined success and graduation rates for Black males at HBCUs.

“Not enough people are doing research on Black people in general and Black males in specific,” says Palmer, who has since carved a niche writing about the experiences of Black males at HBCUs. “For me, it’s my core focus and I believe I am making a meaningful contribution to the literature.”

Now, as an associate professor of student affairs at Binghamton University, Palmer has become an expert on the subject, pumping out articles and writing and editing publications with prominent thinkers in the field of education.

“I greatly admire Robert because he is down to earth, cares about the work, and focuses on students and students’ lives at HBCUs,” says Dr. Marybeth Gasman, a professor of higher education at the Graduate School of Education at the University of Pennsylvania. “His work tells us much about the day-to-day experiences of African-American students, their peer relationships, their relationships with faculty, their backgrounds and their reasons for success.

“Far too few researchers doing work related to HBCUs take the deep dive into students’ lives that Robert does. I am grateful for all that he does and for having the opportunity to mentor him for many years.”

Though he just earned tenure, Palmer says that he’s aggressively putting in the work to secure a full professorship in the future, even as he broadens his ambitious research agenda. “I started off doing Black men and will always do Black men,” he says matter-of-factly. “But I have to grow my agenda. If you stay on the same topic you can get stagnant as a researcher.”

Jamal Eric Watson can be reached at jwatson1@diverseeducation.com You can follow him on Twitter @jamalericwatson.

Semantic Tags: Binghamton University • Dr. Robert T. Palmer • Faculty • Morgan State University
CNN interviewed Binghamton professor Ricardo Larémont about the situation in Boko Haram.
Here’s Yet Another Good Reason to Go to Bed Early Tonight

In case you stopped counting

BY ALI EAVES, IMAGE FROM THINKSTOCK

**Night owls, take** note: People who stay up late worry more, finds a recent study from Binghamton University.

Researchers surveyed participants on their sleep habits and how often they dwelled on their problems. The results: People who slept less and went to bed later both had more negative thoughts.

“It’s not just how much sleep you get, but *when* you go to sleep that matters,” says study author Jacob Nota.

The researchers aren’t sure yet how shuteye and worrying are connected, but suggest that it could be a vicious cycle. Bedtimes that aren’t aligned with the natural light-dark cycle outside may confuse your brain, Nota says, impairing your ability to control your thoughts, emotions, and moods. And other research suggests that worrying can make it take longer for you to fall asleep, which may perpetuate the problem, he says.

(For more motivation to get your sleep schedule in order, find out **How Sleep Problems Can Increase Your Risk of Death.**)

If you want to break the cycle, where can you start? Follow a relaxing bedtime routine at the same hour every night, Nota advises, and make sure your bedroom is conducive to sleep: dark, a comfortable temperature, and only being used for hitting the hay.

If your mind races the second your head hits the pillow, you might be better off going to bed *later*: Getting up and doing something else until you’re ready to fall asleep can help set the stage for a relaxing slumber, he says. If you’re seriously concerned about sleep or anxiety, see a physician or a psychologist.
DROPPING 2 SIZES

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ANNA FARIS HAS A SEXY WORKOUT SECRET

10 MINUTES TO A BEAUTIFUL BUTT

STOP PAIN
Facebook Can Heal You P. 97
DO WHAT YOU LOVE, WIN AT LIFE

Yeah, yeah—you know you should make time for yourself, but finding space on your to-do list is easier said than done. The good news is that you don’t have to carve out hours to see real benefits. Just doing something that you truly enjoy (for any length of time) improves your psychological well-being and your work-life balance, according to a British study. “The key is that quality time is more important for happiness than quantity,” says lead study author Almuth McDowall, PhD, a psychologist at Birkbeck University of London.

{ONE WORD}

BOUDWAR

(boo-DWORE), n. An argument originating in the bedroom. Avoid a fight by talking about what’s bugging you prior to dinnertime.

SOURCE: That Should Be a Word, by Lizzy Shuey

PUT YOUR WORRIES TO BED

Can’t stop thinking about that looming work deadline? Your lack of shut-eye could be to blame. A recent study in the journal Cognitive Therapy and Research found that people who slept for shorter amounts of time worried, ruminated and obsessed more. The study, participants got anywhere from 4 to 1 hours of sleep a night and went to bed between 10 p.m. and 5 a.m. The problem, of course, is when your worries are what’s keeping you awake in the first place, leading to a vicious sleepless cycle. If that’s you, you may actually benefit from spending less time in bed. For example, if your mind is racing, get up and read a book, suggests study co-author Jacob Nota, a researcher at Binghamton University in New York. Still can’t snooze much? Ask your doc for a referral to a sleep specialist.

YOUR FRIENDS CAN HELP YOUR MARRIAGE

BY BETHENNY FRANKEL

“I’ve learned that even the greatest guy in the world can’t fulfill all your needs. So it’s important not to expect your husband to be everything to you. Take a problem at work that you have to vent about again. Why not meet a friend for coffee? She’ll be eager to help, and you’ll get a fresh perspective. Relying on your friends, too, can make relationships stronger in the long run.”

Bethenny Frankel is the author of It’s Not About the Money: Smart Women’s Guide to Relationships So You Don’t Have to.