



IAST

CONNECT #10

Spring 2017

INSTITUTE FOR ADVANCED STUDY IN TOULOUSE



NARRATIVE:
WHY DO
WE TELL
STORIES?

◀ Portrait of a life-cast of Matoua Tawai by Fiona Pardington, Aotearoa/New Zealand 2010. Archival photographic print courtesy of the artist and Starkwhite, New Zealand. With thanks to the Musée de l'Homme, Paris.

IAST has plenty to celebrate on its 5th birthday

The IAST, since its founding in 2011, has become a new center of interdisciplinary thought, gathering scholars in different fields from all over the world. IAST is celebrating its fifth birthday; and its founders should be proud of the volume and quality of interdisciplinary research it has produced. The Scientific Council is excited to participate this June in a conference in Toulouse, where Council members will present current research in the various fields that IAST sponsors.

A major IAST achievement is the "Distinguished Lectures in the Social Sciences". This public lecture series is given by internationally renowned scholars and has been extremely successful. This year's theme is judgment.

The current edition of our magazine, IAST Connect, has a particular focus on the field of law and economics, in which I work. IAST's law program, especially its program in law and finance, focuses on developing academic excellence in this field. The work of IAST scholars and scholarly affiliates has already placed IAST among the European leaders in law and economics; and the Institute is well on the way to becoming a leader worldwide.

I am also pleased to introduce in this issue an in-depth dossier on narrative, the theme of last year's Distinguished Lectures. Scholars are coming to recognize the increasing importance of storytelling, and the contribution narrative plays in understanding issues in human development, education, politics

and finance. Understanding the art of and the functions served by storytelling is necessary to understanding our community.

I wish you a pleasant read.
Alan Schwartz



Alan Schwartz
• Member of the IAST Scientific Council
• Yale Law School

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Biannual magazine of the Institute for Advanced Study in Toulouse, 21, allée de Brienne - 31 015 Toulouse Cedex 6 FRANCE - Tél.: +33 (0)5 67 73 27 68

- Commissioning editor: Paul Seabright
- Editor-in-chief: Jennifer Stephenson
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- Iconography: © Anita Butterworth - © Helen Edwards
- © Moorilla Estate - © Studio Tchiz - © Wikimedia
- © Fotolia - © Istock - © Shutterstock
- ISSN number: 2554-2141
- Graphic design, layout: Agence Yapak, www.yapak.fr
- Environmentally friendly printing in France by Indika Iso14001 - Imprim'Vert - 25 chemin du Chapitre 31100 Toulouse - France - www.indika.fr
- Circulation: 1 500 copies

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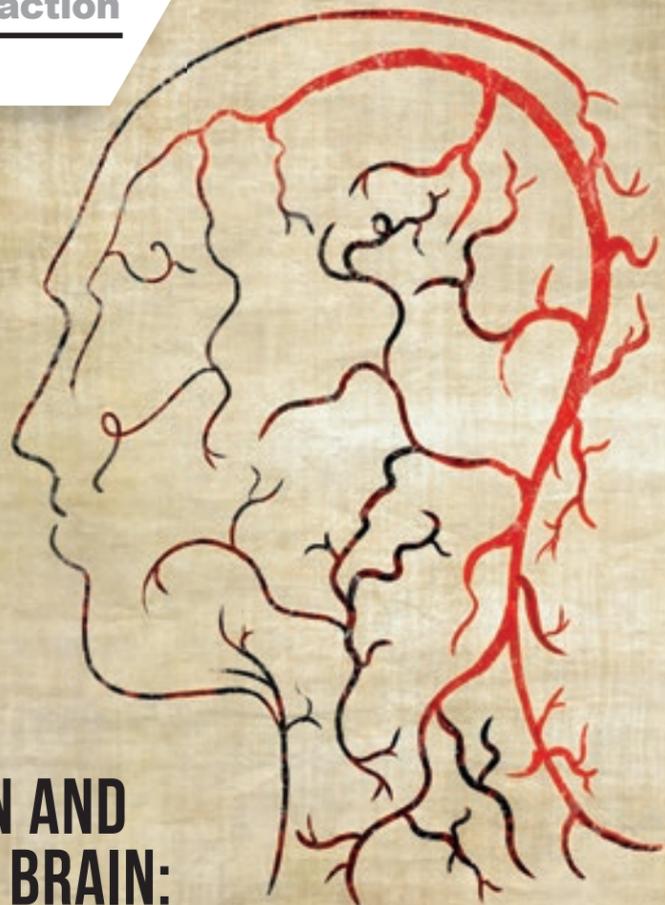
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FLASHBACK TO RECENT EVENTS

IAST
in actionPAIN AND
THE BRAIN:
FEARS AND
PHANTOMS

10 MARCH

PSYCHOLOGY

Nicholas Rawlins (University of Oxford) studies the experience and the anticipation of pain in humans. He aims to create new ways to develop and evaluate treatments, whether pharmacological or psychological.

MEDIEVAL SOCIAL
NETWORKS

24 FEBRUARY

ECONOMICS, SOCIAL SCIENCES

Bertrand Jouve (CNRS Senior Researcher and President of the Réseau national des Maisons des Sciences de l'Homme), presented his research on how classical and new tools of graph theory can be used for studying medieval sources.

RATIONALITY
AND OPTIMALITY

3 MARCH

BIOLOGY

Alex Kacelnik (University of Oxford) came to IAST to discuss different concepts of rationality in psychology, philosophy, economics and biology.

POSSESSION AS
THE ROOT OF TITLE

8 MARCH

ECONOMICS

Matteo Rizzolli (LUMSA University) studies the role of possession and presented his experiment on bourgeois behavior in the 'Hawk and Dove' game.

HOLDING POLITICIANS
TO ACCOUNT

24 MARCH

POLITICAL SCIENCE

Daniel Hidalgo (MIT) shared his research on political accountability in northeastern Brazil, focusing on incumbent mayors running for re-election.

IAST
PRIZEASTRID
HOPFENSITZ
AWARDED 2017
CNRS BRONZE
MEDAL

ECONOMICS, PSYCHOLOGY

Every year, the CNRS awards medals to researchers from a range of disciplines who have made exceptional contributions to science. IAST program director of psychology Astrid Hopfensitz works on the influence of emotions and psychological traits on economic decision-making and behavior. She uses psychological methods in economic experiments to analyze real-life situations.

TSIMANE PEOPLE
HAVE THE WORLD'S
HEALTHIEST HEARTSTHE GUARDIAN - THE WASHINGTON POST
- JONATHAN STIEGLITZ

ANTHROPOLOGY

Drawing on many years of research in the Bolivian Amazon, IAST program director of anthropology Jonathan Stieglitz and his colleagues have found that Tsimane forager-horticulturalists have the world's healthiest arteries. The coronary calcium scores (an indicator of the degree of plaque build-up in the coronary artery) of Tsimane men and women are lower than Japanese women's scores, which were previously considered to be the lowest in the world.

The Tsimane's excellent cardiovascular health is largely due to their physically active lifestyle and lean diet. Persistent immune activation from various pathogens, including helminths, may also be cardio-protective, by lowering cholesterol and altering immune function in ways that reduce inflammation or protect against its destructive effects. Tsimane are inactive only 10% of the day, and have a diet based on rice, plantain, corn, manioc, wild nuts, fruits, fish and wild game.

The researchers suggest that some key features of this lifestyle, such as a healthy diet and regular physical activity, can be readily incorporated in our daily lives.



Jonathan Stieglitz



Susan Athey



Arnaud Tognetti

IAST
in the press

BIG DATA AND ITS LIMITS

LE MONDE - PAUL SEABRIGHT

ECONOMICS, SOCIAL SCIENCES

IAST director Paul Seabright wrote in *Le Monde* about big data and the limits of its capacity to improve our understanding of human behavior. He states the pros and cons of the new tools available and warns of the risks linked to data-driven decision-making. Citing Susan Athey, Economics of Technology Professor at Stanford and winner of the Jean-Jacques Laffont prize 2016, he describes how big data and machine learning can pinpoint tendencies that are difficult to see from a purely human point of view. However, extra analysis is needed as there is always a gap between making a prediction and taking the correct decision.

BIRDS OF A FEATHER

READER'S DIGEST - ARNAUD TOGNETTI

BIOLOGY

Arnaud Tognetti's research covers behavioral ecology, evolutionary anthropology and behavioral economics. As an IAST research fellow, he focuses on the evolution of cooperative behavior and whether cooperation is sexually selected. He is featured in a *Reader's Digest* article about the reasons why many human couples share similar traits. Arnaud's research shows the existence of mate preferences based on approachability, generosity and kindness and suggests that cooperative skills may constitute a signal of mate quality.

How humor helps us learn

• LAURIANE RAT-FISCHER •
LAUGHING MATTERS

A recent arrival from Oxford University, developmental psychologist Lauriane Rat-Fischer is already at work on a groundbreaking IAST project. With a strong background in biology and animal cognition, she recently published the first research to show that laughing can facilitate learning in human infants. In Toulouse, she plans to build on these findings with a series of experiments using eye-tracking equipment, electronic wristbands and other innovative techniques. By investigating the little-known mechanisms involved in children's social, emotional and cognitive experience of humor, she hopes to change the way we think about early education and human development.

Playful laughter is a behavior that humans share with great apes, so it is likely that humor and laughter evolved to serve important functions at both individual and group levels. Recent studies have shown that human infants are surprisingly sophisticated in their use of humor but mystery and controversy still surround questions about how and why we laugh, especially at an early age. Many authors have suggested that infants 'laugh to love', using humor to forge stronger emotional bonds, but Lauriane's research supports the complementary hypothesis that we 'laugh to learn'.

"Humor has been shown to facilitate learning in the classroom," she says, "through diverse mechanisms such as enhancing attention and motivation, or attenuating stress and anxiety. However, very little is known about how this happens, particularly at a younger age."

Lauriane's experiments with infants have centered on a task that requires using a simple rake to retrieve a toy. In a 2012 study, she found that infants spontaneously complete this task towards the end of their second year, but less than a third of 18-month-olds were successful, even after a demonstration.

In her most recent experiment in collaboration with Rana Esseily (Université Paris Ouest Nanterre la Défense), 18-month-old infants were shown a humorous demonstration of the task, in which the toy was thrown on the floor immediately after retrieval. About half the infants laughed at this, whereas the other half either stayed neutral or had various reactions such as frowning, surprise or a gentle smile. The percentage of non-laughing infants who successfully retrieved the toy using the rake was similar to that of the control group. Remarkably, all but one of the infants who laughed were successful in completing the task.

"Positive emotions in adults have been shown to improve creative problem-solving and facilitate cognitive flexibility. This may be because they stimulate endorphin release and increase brain dopamine levels"

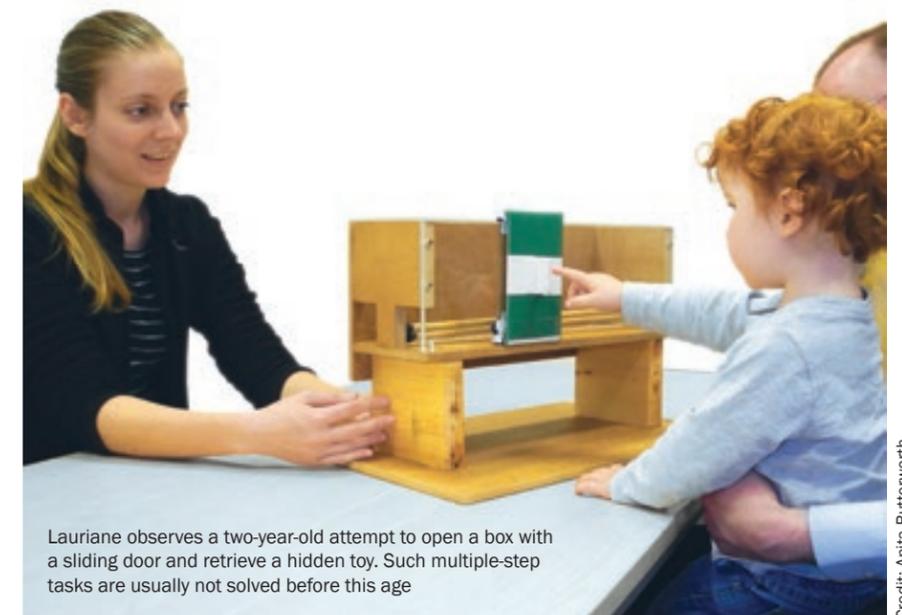
So is laughter a tool to improve learning, or are people with a sense of humor just better at learning? Lauriane insists that differences in personality cannot account for the improved performance of the infants who laughed: "It is possible that the laughing infants already had a lower threshold for laughing and smiling. Such temperamentally 'smiley' babies might be more likely to engage with the environment and therefore to attempt and succeed at the task. These 'smiley babies' may also have perceived the experimenter's smiles and laughs as encouragements. But the experimenter smiled at the object and looked at the infant in both humorous and control groups. And the experimenter who performed the demonstration and smiled at the infants was different from the one who tested them. If only individual differences account for the differences between laughing and non-laughing babies in the

humorous group, we would expect half of the control group to also perform better, but this is not the case."

Another possible explanation is that laughing babies have higher social skills, interacting more easily with others in different social situations. "In our case, laughing infants may have been more comfortable in the presence of strange adults and more disposed to reproduce others' actions. It could be that all infants learned in both groups but only those who laughed demonstrated that they learned by reproducing the action."

Research elsewhere has linked adults' sense of humor with their socio-emotional capacities. Backed by IAST, Lauriane hopes to replicate such studies on infants to better understand the relations between humor perception, social interactions and learning. She also wants to investigate the possibility that laughing babies have higher cognitive capacities, allowing them to grasp the incongruity which is known to be a key component of humor perception.

An alternative explanation for Lauriane's results is that it is positive emotion, rather



Lauriane observes a two-year-old attempt to open a box with a sliding door and retrieve a hidden toy. Such multiple-step tasks are usually not solved before this age

Credit: Anita Butterworth

than humor or laughter, that improves learning. "Positive emotions in adults have been shown to improve creative problem-solving and facilitate cognitive flexibility," she explains. "It has been argued that this is because they stimulate endorphin release and increase brain dopamine levels." She hopes to investigate whether this effect also occurs in infants, expanding on research by others which has shown the learning benefits of establishing a social connection with the infant.

To develop her experiments, Lauriane will be assisted by IAST psychology program director Astrid Hopfensitz and the collaborator from the original study, Rana Esseily. She will be using the state-of-the-art facilities at the Centre d'études toulousain du jeune enfant (Baby Lab Toulouse, supervised by Hélène Cochet). The project will focus on the internal and individual mechanisms of enhanced learning, with a series of behavioral experiments involving eye-tracking techniques, various physiological responses as well as questionnaires completed by the parents and measuring infants' socio-cognitive skills.

This exciting research has already had a significant impact among psychologists and people working in the educational system. Lauriane hopes that her efforts to understand the complex psychological processes of humor and laughter will help establish appropriate early learning environments, and improve mental health, education and well-being for children and adults. ■

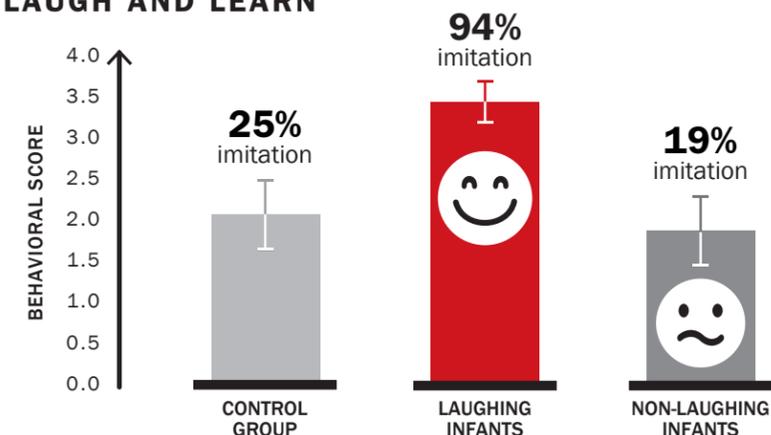
ART OF SCIENCE

Lauriane participated in the first Art & Science exhibition at the British Houses of Parliament last year, aimed at raising awareness of the importance of the 1001 first critical days in infancy. "We believe this kind of conversation and partnership between artists, scientists and politicians is an asset," she says, "in particular considering the impact our research could have on policies related to infant mental health and early parental education."



Credit: artist Helen Edwards

LAUGH AND LEARN



Infants in Lauriane's experiment were independently graded (1-4) on their ability to retrieve a toy with a rake. Those who laughed at a humorous demonstration were far more successful

FIND OUT MORE

For Lauriane's research papers, see:
www.iast.fr/member/lauriane-rat-fischer

Homo Narrativus

The IAST Distinguished Lectures invite internationally renowned scholars to present their ideas to the public and engage with IAST researchers on the big questions facing contemporary society. Last year's speakers examined the ways narrative can both improve and distort our understanding of our place in the world.

In September, Nobel laureate **Robert Shiller** (Yale), spoke to a packed lecture hall about the influence of stories on financial decision-making, and warned that Donald Trump's sense of narrative makes him a tough man to beat.

In November, novelist and historian **Rebecca Stott** (University of East Anglia), talked about cross-pollinations in science and literature, drawing on her research for *Darwin's Ghosts*, which tells the story of the evolution of evolutionary ideas.

In December, **Brian Boyd** (University of Auckland), the world's leading expert on Vladimir Nabokov and author of *On the Origin of Stories*, discussed his ideas about why humans evolved as a storytelling species with a fascination for the arts. ▶

P10-11 **WHY DO WE TELL STORIES?**

Brian Boyd – On the origin of art

P12-13 **SCIENCE IN THE SHADOWS**

Rebecca Stott – How did Darwin's idea evolve?

P14-15 **TALES OF THE UNEXPECTED**

Robert Shiller – Trump, Brexit and other stories

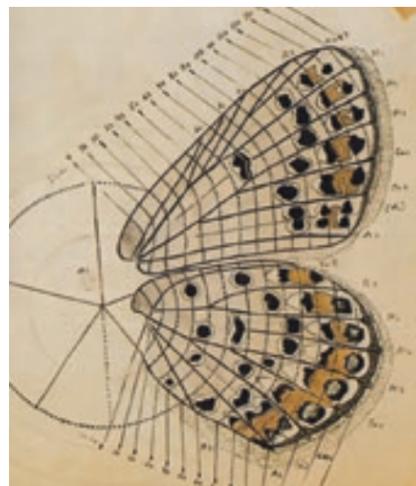
Why do we tell stories?

• BRIAN BOYD •
ON THE ORIGIN OF ART

Brian Boyd is the leading expert on one of history's greatest storytellers, Vladimir Nabokov, and has written on others from Homer and Shakespeare to Austen, Tolstoy and Joyce. But this English professor (University of Auckland) also has a secret life as an evolutionary cognitivist, with a particular interest in why humans engage in arts. Recently, he has been a guest curator at the Museum of Old and New Art in Tasmania, which inspires longer visits than any other art museum in the world. At the IAST in December, he argued that without narrative we might never have left the savannah, but modern science must resist our ancient predisposition to fit complex realities into neatly packaged stories.

Your interests range from Karl Popper to Homer, Jane Austen and Dr Seuss. What ties art and science together?

I'm fascinated by both the real and the imagined. Most of my literary work has been on Nabokov, also a world-class specialist in butterflies. In his art, he tries to recreate for his readers his sense of continual discovery as a scientist: hence the subtitle of one of my books, *The Magic of Artistic Discovery*, echoing Karl Popper's *The Logic of Scientific Discovery*. It's a natural part of human curiosity to want to know more about the actual



Butterfly map: Nabokov's drawing of a heavily spotted *Melipotis*, overlaid with the scale-row classification system he developed for mapping individual markings

world by turning it around within the larger space of possibility, and to see art make possible worlds in a sense concrete and actual.

Why have humans evolved to see the world through stories?

Our already ultrasocial forebears in late *Homo erectus* were trying to understand themselves and one another, and to communicate what they could of experience, even before language. Once language was invented, probably starting half a million years ago, we could use narrative to give us a far greater range of experience to think with than what we can glean by individual and shared action and observation.

.....
"Nabokov was also a world-class specialist in butterflies. In his art, he tries to recreate for his readers his sense of continual discovery as a scientist"

Through social report we can learn much more of the range of human behaviors and characters, desires and intentions, predicaments and solutions, norms and transgressions. In narrative, we are attracted not to the routine we already know but especially to what is surprising — to what extends our



sense of what to expect in human behavior — and to what is emotionally engaging, to what we know matters. Narrative helps us know better what it can be to be human, what risks we may face, what options we may have, so that we can cooperate and compete better through understanding one another more fully.

True social report, new gossip or old lore, can catch our attention, especially by its direct connection to individuals we know, or those in circumstances like ours. But it's limited by what has happened. Fiction isn't. It can construct its surprising events, characters, changes of fortune, and implications to hold us engrossed from first to last. We learn indirectly about predicaments and prospects, norms and exceptions, values and violations through real-life stories too, but fiction can invent characters and events and the acutest angles on them to involve us, make us remember, make us reflect and clarify what we understand and how and why we judge.

What are the limits and liabilities of our predisposition to narrative in the modern world?

Even around the campfire, stories were already a very powerful educative tool about human personalities, behaviors, predicaments and solutions, and a way of exploring the space of sheer possibility, and they still are. But nowadays we have so many stories available in so many formats—endless books, the internet, television, film and social media—that some people risk addiction, a kind of mental diabetes from a hyper-rich diet. Most people, though, respond less to something if the stimulus is repeated or continuous, and to counter that habituation, the entertainment industry tends to ramp up the depiction of sex and spectacular violence in ways that aren't socially beneficial.

.....
"We're used to mid-sized objects and to minds acting as causes. The gigantic scales of cosmic or even evolutionary history are not things we're attuned to"

To change tack, our predisposition to narrative was a necessary precursor to religion. Our brains evolved especially through the pressure to understand agents, ourselves and other animals. We over-read agency. In our long past, we explained the unknown in terms of unseen agents. That apparently deeper explanation was enough to allay our sense of uncertainty about what we did not know, but also made it hard for science to take root, since science explains without hidden agency and, rather than comfort us with a sense of sufficient explanation, keeps pushing for explanations behind explanations.



'Liquid' by Faig Ahmed. On the Origin of Art, Museum of Old and New Art, November 2016-April 2017. Photograph: Moorilla Estate

We're used to mid-sized objects and to minds acting as causes. The gigantic scales of cosmic or even evolutionary history are not things we're attuned to. We're also unused to lingering in uncertainty in the way that we must in this world of innumerable causes, with many new factors coming into play all the time, and the impossibility of predicting the future in any detail. We're almost pampered by our own stories, which resolve things for us so neatly and give us a sense of control despite life's mishaps and miscues.

Is this predisposition holding back scientific understanding?

Science is both helped and hindered by stories. Story offers a way of explaining things with all the causes and consequences neatly packaged together. Any good scientific explanation will have a story element, but if explanations sound plausible we don't test them hard enough to find out where they're wrong. That's why randomized field experiments are being used to weed

out causes we have assumed relevant and discover others we have overlooked. We have to resist our inclination to think that because something is neatly packaged in a story, it is valid.

As someone who is passionate about interdisciplinary study, what is your impression of IAST?

IAST is amazing. I'm so delighted to meet scholars here who are bringing all sorts of disciplines together. I was invited by Paul Seabright, whose knowledge of literature surpasses many of my colleagues in the high-ranked English department at Auckland. There's a curiosity about human problems that need to be solved from many different angles simultaneously. Compared with the silo effect in most academic institutions, it's exhilarating and productive. From my meetings with postdocs here I gained leads that have proved crucial in deepening what I can say about the evolution of stories. ■

Science in the shadows

• REBECCA STOTT • HOW DID DARWIN'S IDEA EVOLVE?

As 'Origin of Species' went to press, Charles Darwin was haunted by the fear that he had overlooked his intellectual predecessors. More than a century later, Rebecca Stott (Professor of Literature, University of East Anglia) set about improving his abandoned list. She tracked down evolutionists unknown to Darwin, using her skills as a historian and novelist, and reconstructed their fertile intellectual environments. In Toulouse, she presented "the evolution of evolution" as a story of radical free-thinking and the cross-pollination of ideas across borders, languages and centuries. For the sake of scientific progress, she insists, IAST researchers must continue to nurture this unruly spirit of enquiry.



"It is probably the most important and most difficult book I've ever written. I'm 4th generation Brethren: my family, my cousins, were all raised in this separatist, puritanical, extreme Christian fundamentalist group. We had very few books and very little access to the outside world. My father was a brilliant man, but had been extremely strait-jacketed through this experience, and we left when I was eight."

Stott's resolve to write her family memoir was strengthened by the bravery of Darwin's predecessors, many of whom took enormous risks in the face of religious persecution. "People like Diderot, Erasmus and Darwin had to find ways of articulating their ideas without getting into trouble with the police or the church. They had to be inventive:

Stott leans on her sense of narrative to take us into people's minds, and her deft use of historical detail to bring their milieu to life. Her book *Darwin's Ghosts* is a series of vivid vignettes – conjuring up the fertile rockpools of Lesbos that fascinated Aristotle, the bustling markets of ninth-century Basra and Da Vinci's hunt for fossils in the Tuscan hills – that tell the story of a world-changing idea.

"When we make a great icon, we don't always see the people in their shadows. Newton was part of a network of alchemists but historians were embarrassed by this and didn't write about it"

GHOST HUNTER

"People are sometimes kind enough to call me a polymath," she explains, "but in truth I'm a maverick, a roamer. When I write a book I'm looking for explanations, for proof, to make arguments; but I'm also interested in storytelling. I'm a narrative writer and a narrative hunter. Writing crossover books, or narrative history, allows me to answer questions in a more complex, multifaceted way. I want multi-viewpointed narratives to carry my arguments."

Stott's work is full of specters – her current project is on the ghost city of Londinium abandoned by the Romans – and science. She is fascinated by great thinkers like Newton or Darwin, but often even more keen to shine a light on the ghostly figures lurking in laboratory corners: "When we make a great icon of someone, we don't always see the people in their shadows. For instance, Newton was part of a big network of alchemists who were part of his discoveries. Historians were embarrassed by this and didn't write about it. But I'm interested in the missing people whose conversations with great men have been erased."

HERETICAL HEROES

Religion is an important ghost at Stott's evolutionary feast, and one that she has struggled to exorcise from her own life. She's just finished writing *The Days of Rain*, a memoir about growing up in the Exclusive Brethren:

WHERE ARE DARWIN'S WOMEN?

Eager to bring the scientific contribution of women out of the shadows, Stott wrote *The Coral Thief*, a novel in which she invents a 19th-century cross-dressing female evolutionist who studies at Jardin des Plantes. "It's very frustrating for me because I'm a feminist, and 'Darwin's Ghosts' are all men. There were women everywhere in my story: sisters, wives, daughters working alongside the men, editing, illustrating books, running laboratories, assisting, provoking, debating. But none of them were publishing. They didn't have access to the formal salons and scientific societies, to the same training or education."

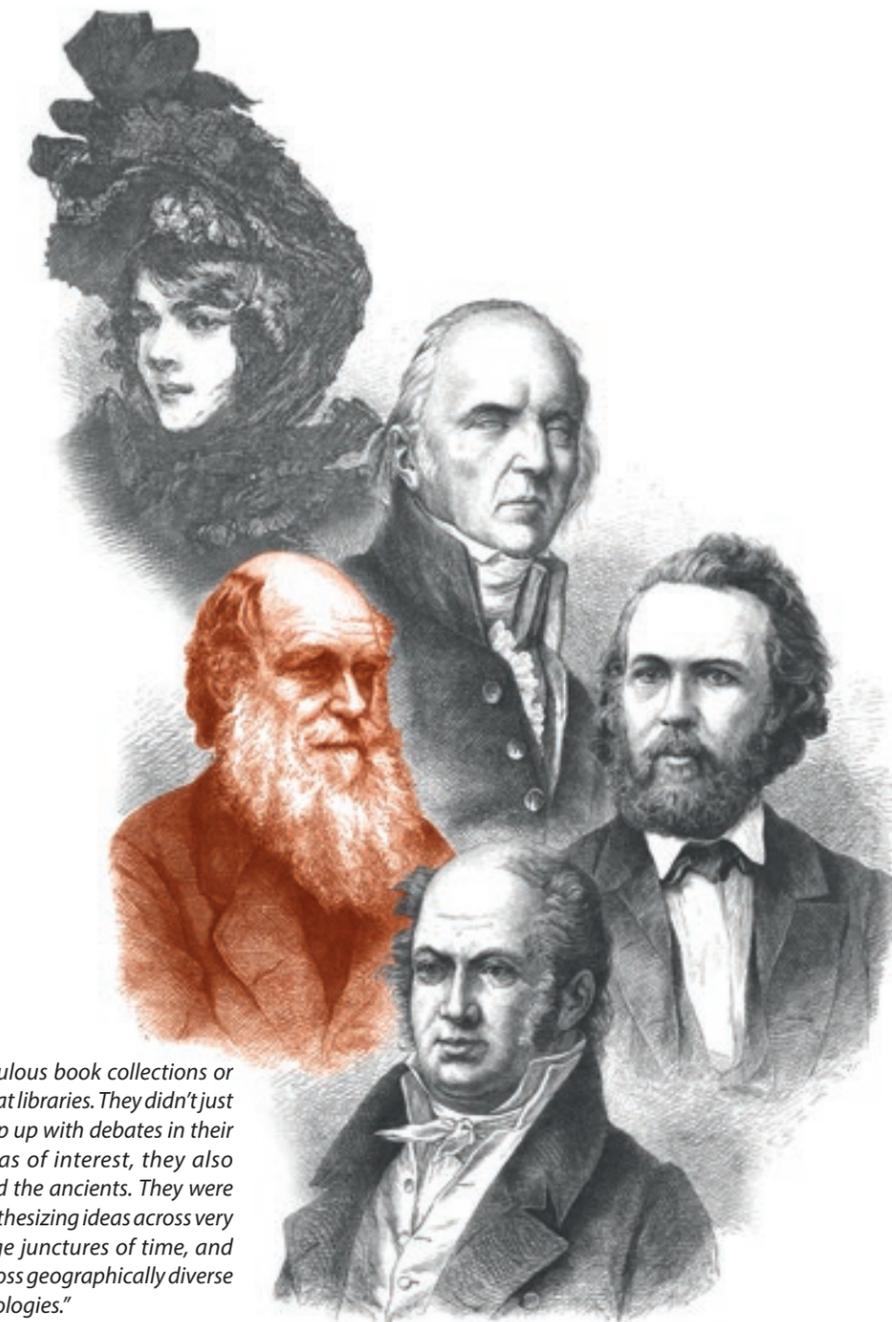
publishing posthumously, circulating manuscripts on secret networks. In the post-revolutionary period at Jardin des Plantes, scientists like Lamarck, Cuvier and St Hilaire were not under surveillance for the first time and evolutionary speculation and data collection accelerate."

"Diderot, Erasmus and Darwin had to be inventive to avoid trouble with the police or the church: publishing posthumously, circulating manuscripts on secret networks"

POLYMATHIC PERSONALITIES

Some of the burning questions in *Darwin's Ghosts* are also those that fuel the IAST project. From Al-Jahiz to Alfred Wallace, what traits do innovative thinkers have in common? And what are the common conditions for the flowering of big, bold, unorthodox ideas? "My book is a study of cross-pollination, it's a study of interdisciplinarity over 2,200 years. All the people in it were fairly eccentric, sometimes loners, obsessive, often veering from one project to another in quite extreme ways. They were all polymathic, reading very widely across lots of disciplines – for them, there was no such thing. They'd be reading Aristotle, Arabic science; they were very eclectic intellectually. Almost all of them spoke many languages. They were risk-takers, hugely imaginative, able to synthesize big ideas but also really good at detail."

"In terms of conditions, almost all of them travelled a great deal and worked in port cities, where there was a lot of intellectual traffic and ideological diversity. They had liberal patrons that funded their veering about without being too directive. They had access to



fabulous book collections or great libraries. They didn't just keep up with debates in their areas of interest, they also read the ancients. They were synthesizing ideas across very large junctures of time, and across geographically diverse ideologies."

AGAINST THE TIDE

Today, it's never been more important to encourage free-thinkers, says Stott, and she places IAST firmly within the great tradition of cross-pollination that *Darwin's Ghosts* aims to revive. "In neuroscience, artificial intelligence, behaviorism, people need that mental acrobatic facility to synthesize across disciplines. It's marvelous that IAST is brave

enough to stand against the tide of increasing specialization. I've heard new arrivals talk about opening up their projects and formulating much bigger and bolder questions. People here are able to be very skeptical about paradigms and the language of their own disciplinary center. The linguistic and conceptual flexibility, imaginative range, boldness and risk-taking – all these characteristics are nurtured to the nth degree."

Tales of the unexpected

• ROBERT SHILLER • TRUMP, BREXIT AND OTHER STORIES

Why did most economists fail to predict the 2008 financial crisis? For Nobel prize-winning behavioral economist Robert Shiller (Yale), there is a simple answer: traditional theory failed to pay adequate attention to the thought patterns that animate our ideas and feelings. Delivering the first IAST Distinguished Lecture of 2016 in September, he urged fellow economists to learn from other disciplines such as psychology and anthropology, by recognizing the power of narrative to shape the world.

You have written bestselling books that show how our economies are driven by irrational behavior and what Keynes called 'animal spirits'. Why is this such an important theme to you?

It's very important to try to figure out what is driving the economy, what's changing, and what's stable. The ability to forecast economic fluctuations depends on your understanding of what's behind it. Economists have found it difficult to isolate what is behind all these movements because our department is not well attuned towards understanding psychological phenomena. I wrote a book called *'Irrational Exuberance'*, which focused on these psychological drivers that hit the economy. Economists fail to forecast major events because many of them ignore psychology.

"Donald Trump is a tough man to beat on narrative: he has a sense of story quality"

Your talk focused on the role of narrative in financial decision-making. How does our fondness for stories both contribute to and distort the understanding of financial crises?

Traditional economics - for the last half century - describes people as responding to facts, exclusively, and acting rationally with regard to the facts. There are limits to the truth of that view. People often respond with emotions and with what seems to be a makeshift solution to vaguely stated or ambiguous economic problem.

For example, what is a recession? People stop spending: they cancel their vacation, or they don't buy a new home. But why? Is it careful calculation? Probably not. It's probably their worries, or fears, or some sense of what is the thing to do, what are other people doing. We can't assume that behavior is well described by optimization, as has been the norm in economics departments.

In that context, what makes one narrative more powerful than another? Why are stories important? For example, you've written about their impact on confidence.

Humans are very story-oriented. This is a human universal. Stories, especially human-interest stories, motivate them. If I recite some statistics to you, you won't be as motivated as if I read a story about someone who's made a lot of money, or a tragedy of some sort. These things get you thinking and acting. In describing the economy, we want to describe the actions that people take, and that requires some appreciation of narratives, because you don't take an action until you're motivated. You do it when it's personal. These decisions tend to be connected to stories about what other people are doing, or human interests.

You have used epidemiological models to explain how stories spread in a population. In any epidemic, there are certain individuals who are more contagious than others. Is there such thing as a superspreader of a narrative?

The term superspreader in medicine dates back to over 100 years ago and the famous case was 'Typhoid Mary', a woman who



"Brexit is a tragedy. The European Union has many advantages for everyone and this has damaged the sense of community"

caught typhoid. For some reason, she just spread it and spread it. And they wondered why she continued to be contagious. I think we have something like superspreaders in the realm of ideas: people who are good storytellers and have a sense of motion and stories. These people have extraordinary influence over public opinion; superspreaders can change the direction of history.

What does the rise of Donald Trump say about the importance of narrative?

The Donald Trump phenomenon is a beautiful example of the importance of narrative. In the primaries, there were many other Republican candidates who looked more plausible, and they just faded away. It was

his showmanship and the stories that he generated. The narratives spread by word of mouth about Trump powerfully swayed voters and continue to do so today. You cannot argue against a narrative with statistics. If Trump tells a story about Mexican immigrants committing crimes in America, you might counter it by saying that their crime rate is actually no higher. That's the statistic. But Trump just ignores that and continues to tell his stories. To counter that you have to form a narrative, another story, that outperforms his narrative. But he's a tough man to beat on narrative: he has a sense of story quality.

A narrative of panic preceded the Brexit referendum. Should the Bank of England, as well as other institutions and experts, have been more cautious in their roles as narrators?

I think that people really didn't believe Britain would exit. It was a surprise. And so maybe people didn't do enough to combat that. It's a tragedy. The European Union has many advantages for everyone and the

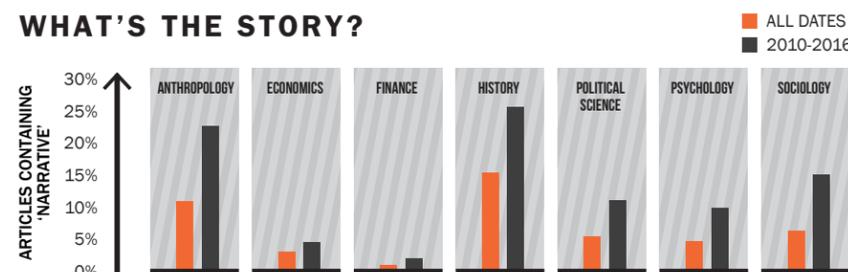
sense of community was damaged by this. Unfortunately, it was also a misinformation campaign for Brexit that exaggerated fears about immigrants or domination by Europe. I'm hopeful, despite this, that Europe and the UK will stay united in some spiritual sense.

Should there be a Nobel prize for interdisciplinary work?

The Nobel prizes are awarded to specific fields. That was a decision made long ago. Unfortunately, it compartmentalizes research a bit. Really creative research generally has some interdisciplinary dimension. My visit to Toulouse involved me with speaking to people with many different perspectives and I found it very instructive. You have some very smart people here working in different traditions and coming together. Interdisciplinary cross-fertilization is extremely important and I saw it happening here.

This interview was conducted with the assistance of TSEconomist editors José Álvarez and Marina Sánchez del Villar.

WHAT'S THE STORY?



The percentage of academic articles containing the word "narrative" varies considerably between disciplines. These JSTOR counts suggest that the role of narrative is largely unexplored in finance and economics.

Who controls digital free speech?

• JEN SCHRADIE •
SPEAKING OUT ON SOCIAL MEDIA

Sociologists, anthropologists, political scientists, economists and communication scholars arrived from around the world in October for a two-day IAST conference on 'Freedom and Control of Digital Expression'. Funded by the Jean-Jacques Laffont Digital Chair, the event brought together specialists on digital free speech and social media activism in such diverse contexts as the Paris terrorist attacks, the Gezi protests in Turkey and Australia's treatment of whistleblowers, and in popular movements such as Black Lives Matter and Hindu nationalism.

As the rise of far-right politics and "fake news" puts the spotlight on distributors of social media, Jen's research focuses on digital participants and challenges the belief that social media has been a boon for left-wing, grass-roots political movements. For example, using in-depth interviews, ethnographic observations and online metrics in North Carolina, she finds that groups with higher levels of digital engagement tend to be more conservative.

Conference organizer Jen Schradie is an IAST sociologist who uses empirical methods to investigate claims about digital democracy. The widespread use of social media in response to events such as the 2015 Charlie Hebdo massacre presents quantitative researchers with new perspectives on activism, public participation and power relations. But Jen is wary of the pitfalls of using big data and focusing on exceptional circumstances:

of freedom of expression and was one of the fastest-spreading political hashtags ever. This type of 'unity' was notably missing after the November Paris attacks."

"Groups with higher levels of digital engagement tend to be more conservative"

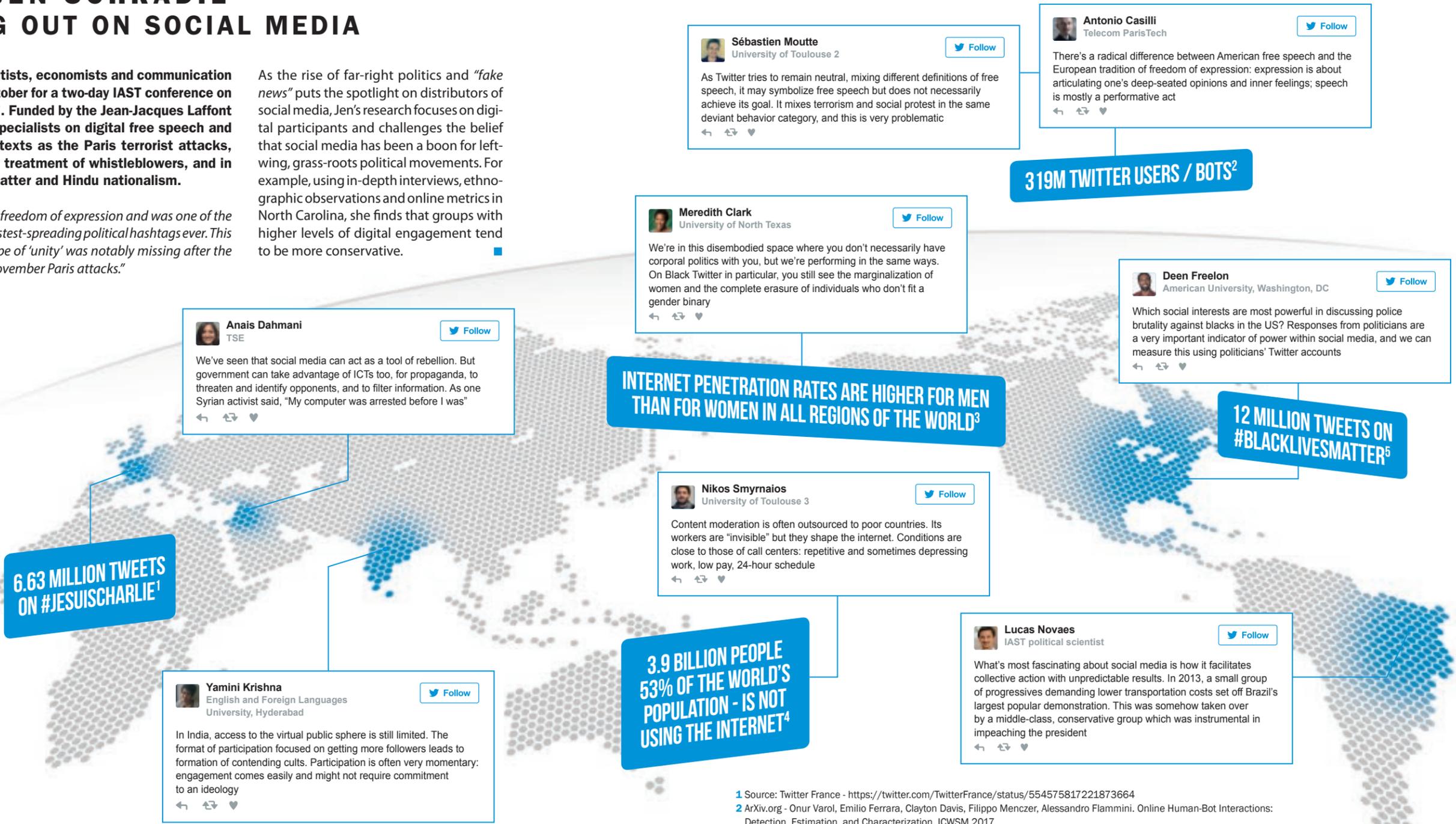
"My research demonstrates how little Twitter represents everyday political practices of civic and social movement groups, yet in times of crisis and events, Twitter can be a useful tool to understand trends. The #JeSuisCharlie hashtag was very vague but nonetheless had some 'unity' around this multi-layered idea

FIND OUT MORE

About Jen's work at www.iast.fr and www.schradie.com

All comments featured here are taken from presentations and discussions at the IAST conference.

For actual tweets from the participants or to join the debate, see [#freedomcontrol](https://twitter.com/freedomcontrol)



1 Source: Twitter France - <https://twitter.com/TwitterFrance/status/554575817221873664>
 2 ArXiv.org - Onur Varol, Emilio Ferrara, Clayton Davis, Filippo Menczer, Alessandro Flammini. Online Human-Bot Interactions: Detection, Estimation, and Characterization. ICWSM 2017.
 3 Source: ITU. Note: * Estimates. Penetration rates in this chart refer to the number of women/men that use the Internet, as a percentage of the respective total female/male population. CIS refers to: Commonwealth of Independent States. <https://www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2016.pdf>
 4 While almost 75% of people in Africa are non-users, only 21% of Europeans are offline. Source ITU. www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2016.pdf
 5 www.pewinternet.org/2016/08/15/the-hashtag-blacklivesmatter-emerges-social-activism-on-twitter/ (PewResearchCenter)

Are CEO salaries justified?

• SIMONE SEPE • RETHINKING CORPORATE GOVERNANCE

Director of the IAST law program, Simone Sepe is a specialist in law and economics. Developed to supplement the traditional doctrinal analysis of law, in which the major task is simply to interpret the law, the research method used by Simone and other scholars in law and economics is to analyze problems using economic modeling and focusing on implementation. Following this approach, we must first identify our goals for society, then design legal mechanisms to pursue those goals efficiently.

EXECUTIVE PAY

You organized the IAST conference on Inequality, Law and the Social Sciences in December. What were some of the highlights of the event?

This was the second joint conference held by Notre Dame Law School and IAST, which saw the participation of top scholars from different fields — including legal scholars, economists, and philosophers — consistent with IAST's goal of promoting interdisciplinary research.

You gave a talk at the conference titled 'CEO Pay Redux,' drawing on your earlier research into corporate governance and the balance of power between shareholders and boards (recently published in the *Journal of Financial Economics*). Are CEO salaries justified?

The dominant view in law and economics — referred to as managerial power theory — is that the disproportionate explosion of CEO pay is due to the growing power of managers and their ability to determine their own compensation because the board is dominated by the executives. The normative claim to improve executive compensation proposed by most law and economics scholars is thus to empower shareholders.

“To reduce inequality, taxation may be more desirable than regulating executive compensation”

Yet, prominent economic theories suggest that the problem of executive compensation is not a problem of the organization, but rather a reflection of optimal contracting given some market constraints — essentially, competition. In other words, the rise in CEO pay would be largely a reflection of increased competition for scarce managerial talent. Further, if one can realistically assume that the executive compensation

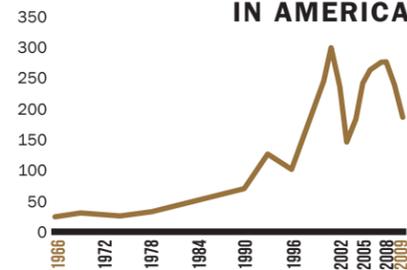
contract is 'dynamic' — that is, it develops across multiple periods rather than just one period — paying executives high rents might provide them with a continuation value that efficiently bonds executives to long-term firm value creation. Hence, to answer your question, CEO salaries do seem to be economically justified.

“Boards are quite good at designing incentives, as higher executive pay is associated with higher firm value”

How did you test these different hypotheses?

In several ways. First, I show that the adoption of defensive measures — which epitomize entrenched boards for managerial power scholars — does not impact executive compensation. Second, I show that competition for managerial talent has a major impact on executive compensation levels and structures. Third, to address endogeneity concerns, I looked at the effect of a 2005 change in accounting rules.

GROWTH OF CEO PAY IN AMERICA



Ratio of average compensation of CEOs and production workers, 1965–2009. Source: Economic Policy Institute. 2011. Based on data from Wall Street Journal/Mercer, Hay Group 2010.



This change leveled the playing-field between the use of stock and options from an accounting perspective. I found that firms that were granting more options after this change suffered a reduction in value. This suggests that if there is a problem with executive compensation, it lies with the structure of pay arrangements, as boards seem to have overused options over stocks to provide equity incentives. This result goes strongly against the entrenchment hypothesis, which suggests that equity incentives should take the form of options, because stocks would leave managers excessive rents (as to some extent stock payoffs are independent from performance).

So what is your advice to policymakers? Why should we halt what you describe as 'the shareholder empowerment crusade'?

There is no clear empirical basis to support the idea that empowering shareholders is an efficient way to improve executive compensation. In fact, boards emerge as quite good at designing incentives, as higher executive pay levels are associated with higher firm value. So it's plausible that the explosion of compensation for executives is not a problem of governance. Rather, the problem seems to be that the marginal product of CEOs exploded in the past 20 years, while the marginal product of labor remained essentially the same. To reduce the current inequality from labor income, traditional redistributive policies such as taxation may thus be more desirable than regulating executive compensation, as governments have done in the aftermath of the financial crisis.

SIMONE SEPE ON IAST LAW

How does the law program contribute to the IAST mix?

The understanding of legal problems almost always requires us to cross boundaries and think across a vast range of disciplines. The IAST law program addresses this need by promoting joint research and teaching programs in law and several other fields, including economics, political science, philosophy, history, sociology, and psychology.

The IAST law program has a special focus on law and economics. What are the advantages of joint research in this area?

The application of the economic method to the study of law is a well-established interdisciplinary field. Nowadays, economic theory is used in almost all areas of law to assess legal issues from a normative perspective. At the same time, there is a growing recourse to empirical economics as a method to evaluate the positive impact of existing legal rules.

Are collaborations with other disciplines (besides economics) bearing fruit?

Yes! The IAST law program has recently expanded its interdisciplinary collaboration to both political science and philosophy. In particular, last year, we have finalized a visiting position for Professor **Thomas Christiano**, from the Department of Political Philosophy at the University of Arizona.

What does the future hold for law at IAST?

One of our objectives is the integration of teaching and seminar programs at the Toulouse Law School with the programs offered by the Toulouse School of Economics. Graduate courses that we aim to offer in the future include Game Theory and the Law, Law and Economics of Financial Regulation, Contract Theory and Contract Law, and the Economics of Organizational Law. The IAST law program also aims to serve as an international forum for law and economics scholarship.

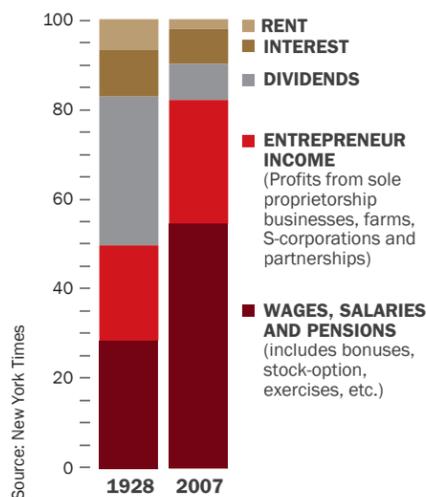
Making the modern elite

• DANIEL MARKOVITS • MERITOCRACY AND ITS DISCONTENTS

Meritocracy in America is a sham, says Daniel Markovits. Coupled with soaring salaries for elite jobs, the Yale Professor of Law argues, US education is now a massive intergenerational system for reproducing wealth and privilege dynastically. In these edited excerpts from his talk at the IAST Inequality, Law and the Social Sciences conference in December, he suggests that recent political dysfunctions stem from the enforced idleness of the middle class, which has been left far behind by the working rich.

Over the past 70-80 years, there's been a U-shaped pattern in the income share of the top 1%. You see this everywhere to some degree, although the US is an extreme case. Thomas Piketty and others have argued that rising inequality is caused by the return of capital – in Europe that's almost certainly true; in the US, it's not the case. But it's likely that Piketty's capital story is coming to the US, and the labor story I'm telling is coming to Europe.

THE WORKING RICH INCOME SOURCES OF THE TOP 1% US EARNERS



The share of national income controlled by the US elite has returned to levels not seen since before the Great Depression. Now, however, their money comes more from skyrocketing paychecks rather than unearned income.

For both conservatives and progressives in the US, the 1960s are viewed as a period of shared prosperity. In fact, poverty was probably five times as prevalent in the 1960s as it is today. In 1935 the absolute poverty rate may have been as much as 75%; in 1950 it may have been as much as 40%; in 1960 it may have been as much as 30-35%. These were people in grinding material deprivation. When Michael Harrington wrote *The Other America* (1962), he described a third of the population who lacked basic access to food, clothing, shelter. Poverty has since fallen, even as top-end inequality has risen dramatically.

In 1900, Thorstein Veblen wrote that leisure was constitutive of elite status. In *The Theory of the Leisure Class*, he argued that the elite learned to signal that it had leisure: elaborate chivalric rituals were designed to be useless and incredibly effort-intensive, so that only someone who didn't have to work could master them. Today, the rich work harder than the rest.

In 1979, fully employed US men in the highest wage quintile were about two-thirds as likely as those in the lowest quintile to work over 50 hours a week. By 2006, the highest wage quintile were about twice as likely to work 50 hours a week. So the relationship has flipped: long hours are now a marker of high wages. Even as average weekly work hours have fallen since 1940 for the bottom 40% of the income distribution, they have increased by 15% for the workers in the top 1%. This data almost certainly underestimates the change, because it does not account for forced unemployment.



The rich owe their incomes to labor. In US firms today, middle management has been largely eliminated; and most production workers are now really subcontractors. In the mid-century firm, the marginal value of a better CEO was relatively low because the firm could run itself without him, and he couldn't affect much because there were all these other managers in the way. Today, the CEO can turn the firm on a dime and all the returns to management go to elite managers.

“Economic inequality in the US today produces a bigger schooling gap than apartheid”

In finance, a smaller cadre of elite workers is performing the entire function and producing a greater share of GDP, and getting paid more individually. The same thing is happening in manufacturing: we've lost about 11 million jobs since the 1970s, we've gained 2 million jobs for people with college degrees, masters or PhDs. Manufacturing's

share of GDP has not gone down, and you have much more highly paid manufacturing workers, but fewer of them.

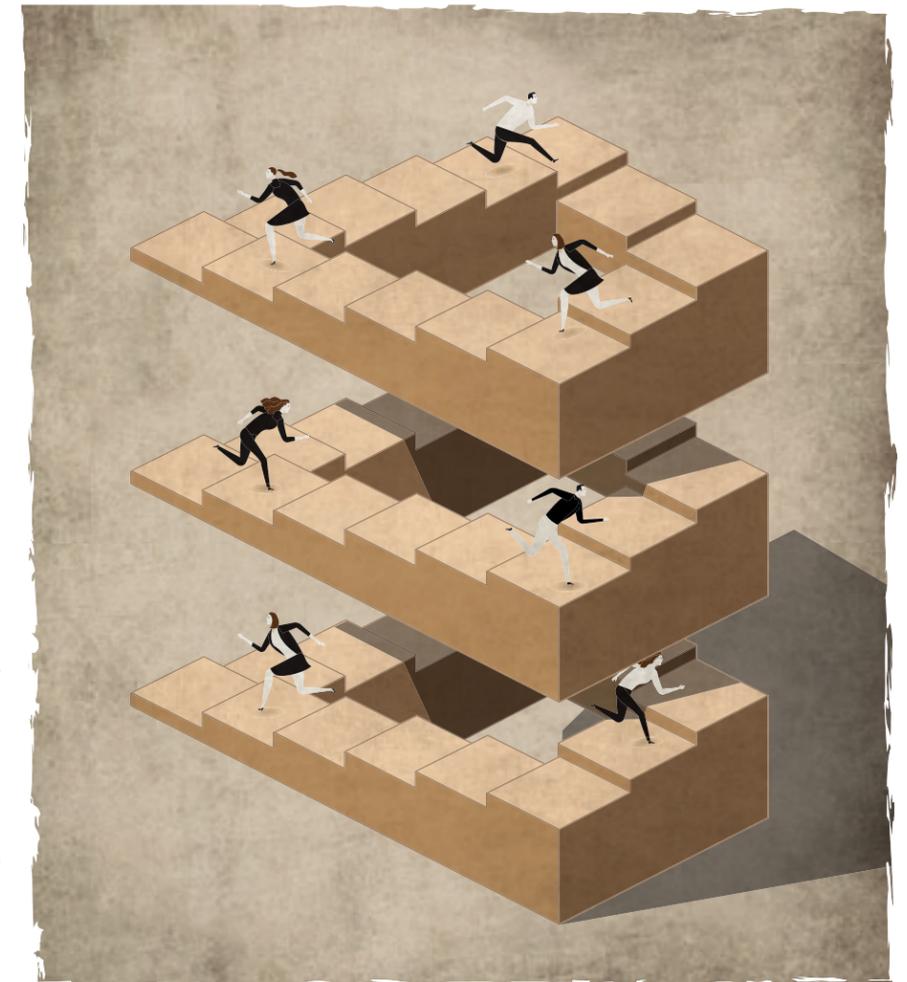
During each of the past three decades, the employment share of mid-skilled routine jobs (clerical and manufacturing jobs, travel agents, switchboard operators) has gone way down; unskilled non-manual jobs (landscape gardeners, home health aides) have gone up; but super-skilled cognitive jobs (elite, managerial, professional jobs) have seen massive growth and higher wages.

“Invented to promote equality of opportunity, meritocracy has become its single greatest obstacle”

Today, the dominant component of both 1% and 0.1% income is labor. It's astonishing. There has never been a civilization in which the richest person out of every 1,000 overwhelmingly works for a living.

How do these superordinate workers get made? An average public school district spends roughly \$12,000 per pupil per year; the richest district is Scarsdale and spends \$28,000; and the richest 20 to 40 private schools spend on average \$60,000 to \$70,000. A typical private kindergarten in New York city costs \$42,000 a year; these are schools that advertise on their websites where their graduates go to college.

This concentration of training and investment in the children of rich parents produces massive differences in achievement. By 2000, the rich-poor achievement gap for middle school exceeded the white-black schooling achievement gap in 1954 – so economic inequality today produces a bigger schooling gap than apartheid. The big story is again the gap between the rich and



the middle class, which is twice as big as the gap between the middle class and the poor.

Rich families used to pass on economic privilege via bequests. Today, it's done through lifetime transfers of educational resources that amount to the equivalent of a traditional inheritance of between \$5 and \$10 million per child. This educational system, coupled with the labor market and high salaries for elite jobs, is a massive intergenerational system for reproducing wealth and privilege dynastically.

Meritocracy came to the US in the 1960s to open up the elite. Universities were self-consciously thinking, “We're going to replace breeding with a measure of academic achievement as the admission criteria, and construct a new elite.” It worked because the old hereditary elite lacked the interest or the capacity to

teach its children. But once they were made by this machine, there's one thing meritocrats know: how to educate their children. Invented to promote equality of opportunity, meritocracy has become its single greatest obstacle.

In *The Right to Be Lazy*, Marx's son-in-law imagined that technology and workers' movements would dramatically shorten the working week. Keynes and others thought that the non-elite would acquire dignified, high-caste, high-status ways of spending their time. Instead, the relationship between leisure and status flipped, and industry became the badge of honor. The middle class and below were left not with leisure, but enforced idleness. Today, this idleness of the middle class, combined with the super industry and elite status of the working rich, is producing the widespread political dysfunctions that we've seen.

The age of inequality

• CHARLOTTE CAVAILLÉ •
WHY DON'T THE POOR ASK FOR MORE?

After two and a half years at IAST, political scientist Charlotte Cavallé has taken up a new role as assistant professor at Georgetown University. Much of her work looks at the political effects of free trade and immigration, such as the rise of the radical right, and she is currently writing an ambitious book, titled 'Asking for More: Support for Redistribution in the Age of Inequality', which takes on the complex issues underlying recent political upheaval in Europe and the US.



Charlotte uses a comparative perspective to understand how people think about the welfare state, redistribution and where they fall on the political spectrum. "These are big debates for western democracies. Part of my work is to find out if these beliefs are systematically distributed in the population so we can predict who has them, and how much they matter. The overall outcome is the structure of public opinion. So why do the French support redistribution more than Americans? Why is income a better predictor of certain redistributive attitudes in the US than in France? As inequality increases, why aren't the poor asking for more?"

data. For example, if I know that you're rich, I don't know whether you'll be in favor of taxes and social spending. However, if I know your beliefs about the deservingness of the poor – Do you think poor people ought to work harder? Or do you think the system is to blame? – now I can start predicting."

"At IAST I was exposed to ideas that no one in my field is exposed to. I was constantly on the verge of falling, because I was pushed hard"

Her book is an attempt to answer such questions, and Charlotte says her IAST experience has enriched its content. "In Toulouse, I started reading all this literature from economics and evolutionary psychology on perceptions of individual responsibility, deservingness and reciprocity, and that shed a light on patterns I saw in the

One of the messages of Charlotte's book is about the redistributive consequences of morality. "Ideology is more complex than self-interest, there's all these other moral worldviews that matter. Education and attitudes to gay marriage, gender equality, law and order – all these things we usually think

of as cultural, non-economic preferences – are all strongly correlated with perceptions of the poor. IAST gave me a theoretical foundation to bring morality into political economy, which usually doesn't want to consider these things."

The rise of Trump has shaken the foundations of US political science, believes Charlotte, but demand for her research has never been higher. "Four or five years before Trump, I remember saying to my advisor, 'This is weird. There's no populist movement in the US of the kind we've seen in Europe. Hasn't free trade affected the US?' American political scientists should be in crisis right now and they are. They have refused to study the US in comparison to other countries – that's changing, and that's for the best. The current situation is great for me because my book is all about how this electorate is shifting to a cleavage between bleeding-heart liberals vs the radical right. That's why 'rural vs urban' and education were the best predictors of Trump."

Charlotte has been flooded with requests for references from her work on the rise of populist movements in Europe. One example of this research is a paper that looks at how

immigrants might trigger a vote for the radical right: "The mechanism here is competition for scarce resources; in this case, social benefits. We went to Austria and found a quasi-natural experiment: a change in the legislation where suddenly immigrants were allowed to apply for public housing. We saw that areas that had a lot of immigrants and public housing were where the vote for the radical right increased the most. The welfare state is this channel through which immigrants affect natives."

IAST pushes people towards more interesting questions, says Charlotte. "At IAST I was exposed to ideas that no one in my field is exposed to. I've been reading so much, it's been frantic. I've had important interactions with anthropologist Heidi Colleran, great conversations with Patrick Le Bihan and Karine van der Straeten on formal modelling. Dominik Duell, Astrid Hopfensitz and Boris van Leeuwen were big on experimental stuff, Paul Seabright on the evolutionary stuff – mostly to disagree with him, which is always helpful! And Jean Tirole is so efficient at saying the right thing that you need. I've been forced to step back and think theoretically about objects that I hadn't even thought of."

It's not easy to do interdisciplinary work, says Charlotte, but IAST has been an invaluable experience. "I'll miss IAST, going to these seminars. Intellectually, I was constantly on the verge of falling, because I was pushed hard. I don't think I'll get that as much at Georgetown. However, IAST taught me to just go and see someone from another field and say 'Explain this to me.' I'll miss the cheap, delicious wine too. I also love hiking in the Corbières area, the Languedoc – it's so beautiful."

COLLABORATIVE RESEARCH

"I met Charlotte at IAST in 2015 and she was enthusiastic about getting together to discuss various issues. She is very friendly, outgoing and takes the initiative. We are working on a project to improve measures of preference intensity. Survey questionnaires are possibly misleading due to cheap talk, which may be one reason political polls sometimes mispredict elections. We are considering large-scale deployment of our survey tool in discussions with government officials"
Daniel Chen (IAST research fellow, law and economics)

SAVE THE DATE

June 1-2, 2017
 Economics & Biology workshop: Family

June 15-16, 2017
 IAST Scientific Council 5th Anniversary Conference

June 26, 2017
 Philosophy and the Social Sciences: Inequality, Fairness and Markets

DISTINGUISHED LECTURES

September 28, 2017
 "Intuitive Judgment in Public Policy"

Eldar Shafir
 (Princeton University)

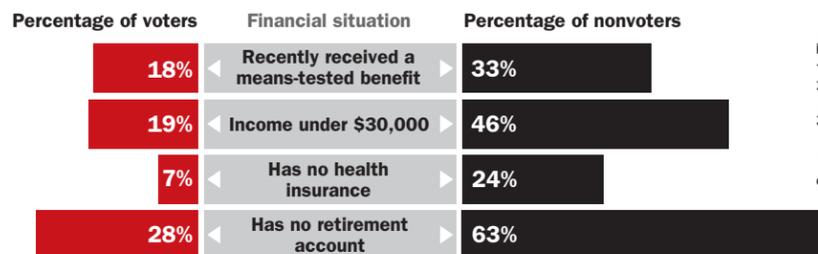
November 16, 2017
 "The Gender of Crime"

Nicola Lacey (London School of Economics)

December 7, 2017
 "Passing God's Judgment: Women in 16th Century Languedoc"

Suzannah Lipscomb
 (New College of the Humanities)

DOWN AND OUT



Source: New York Times

How the finances of likely nonvoters, 57 per cent of whom are white, compare with likely voters in the US in 2014. Rather than voting for or against their own interests, the poor are not voting.

MORE IAST EVENTS

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