

**A HISTORY
OF VIOLENCE**
WHAT ARE WE
FIGHTING FOR?

**COVID-19
PROJECTS**

WHO SHOULD GET
VENTILATORS?

THE HEAVY TOLL OF
US CRIMINAL JUSTICE

RISKS AND REFUGE
IN THE AMAZON



In this ISSUE

Biannual magazine of the Institute for Advanced Study in Toulouse

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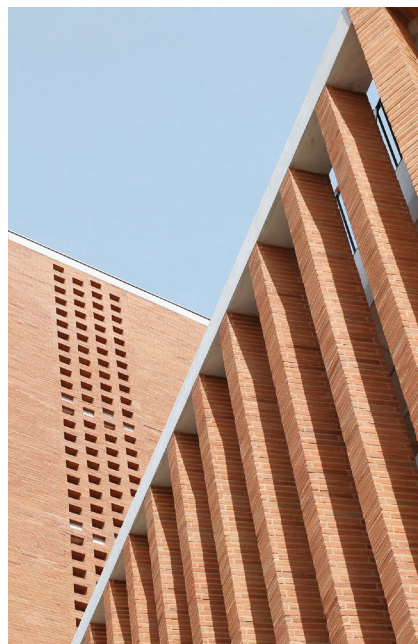
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OUR SCIENTIFIC VISION

The Institute for Advanced Study in Toulouse is a unified scientific project that aims to study human behavior.

Our ambition is to break down artificial disciplinary boundaries to unlock new ideas and address the challenges of the 21st century. We have a team of resident full-time researchers in Toulouse, meeting several times a week across all social-science disciplines.

IAST researchers also work in partnership with economists and mathematicians at Toulouse School of Economics, Toulouse 1 Capitole University, INRA and CNRS. Our methods focus on analytical and quantitative methods, including case-study evidence. We believe our work needs to spread across the oceans and therefore, year after year, we welcome some of the world's best researchers, including a network of visitors from 27 countries.

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Editorial

'We've had to adapt to the pandemic at dizzying speed'

The past few months have posed a formidable challenge for the social sciences. Researchers are trying to understand a major upheaval in our societies – from the way a tiny pathogen has spread across the globe, wreaking havoc on our bodies, to the way individual and social defense mechanisms have disrupted our normal lives. But we have been confined to our homes for much of the time, and severely limited in our ability to go out and observe the world the rest of the time.

Fortunately the same connected world that facilitated the spread of the virus has also greatly helped our response to it. If international airline networks did much to speed the epidemic, the internet has enabled international collaboration in a vast range of fields, as well as remote data collection by researchers. The work of IAST anthropologist Jonathan Stieglitz in facilitating a coordinated policy response to the threat posed by Covid-19 to indigenous communities in the Amazon is a telling example, since Jonathan has been unable to interact with these communities in person. The pandemic has required a dizzying speed of adaptation and we will still be figuring out how to respond for some years to come.

In this new issue of the IAST magazine we focus on some very up-to-the-minute questions about how our societies are responding to the Covid-19 pandemic, giving you a cross-section of some of the current research initiatives being developed by IAST researchers. The point is not to engage in short-term forecasting about how things will develop in the coming weeks and months, but rather to understand how some of the more deeply ingrained behavioral characteristics of modern societies are shaping the ways they respond to this new challenge.

So it is fitting that we also devote a dossier to one of the most ancient and troubling predicaments of human societies – their tendency towards violence. Violence is both very ancient in our evolutionary past, and also highly variable across societies, periods of history, and groups of people. For example, violence is far more commonly inflicted by men than by women. In the midst of the pandemic, we would also do well to remember that violence often surges when societies are under stress.

Curiosity about the origins of our behavior is often a fruitful way to make progress on understanding how to influence our behavior for the better. This combination of inquiry into ultimate causes and concern to understand proximate causes is typical of the interdisciplinary research that has marked IAST since its foundation. The coming months and years will provide many challenging questions for such research to address.



PAUL SEABRIGHT

IAST Director

Professor, Toulouse School of Economics



2020 Recent events



March
04

ENVIRONMENTAL ECONOMICS

ANNUAL CONFERENCE ON ANIMAL WELFARE

The JICA (Journée interdisciplinaire sur la condition animale) began in 2018 with the purpose of bringing together various academic disciplines (law, economics, ethics, ethology, English-language studies, German-language studies, genetics, literature, medicine, philosophy, veterinary sciences, sociology, etc.) around a single topic: animal welfare. This first IAST conference to be held on the new campus offered scientists the opportunity to discuss practical issues such as epistemology, fieldwork, nutrition, phytocentrism, animal experimentation, animal rights and veganism.

APPOINTMENTS & PRIZES



Macron invites IAST chairman to guide post- Covid-19 future

On May 29, French President Emmanuel Macron appointed IAST founder Jean Tirole (above right) and former IMF chief economist Olivier Blanchard to lead a special economic commission working on ideas for the world after Covid-19. The team of 26 international economists will focus on three major economic challenges: climate, inequality and demography. TSE director Christian Gollier (above left) will lead efforts to respond to climate change.



IAST building architects win Pritzker prize

The designers of our new building, Yvonne Farrell and Shelley McNamara of Grafton Architects in Dublin, have been awarded the prestigious Pritzker prize, widely considered to be the Nobel prize for architecture. The first two women to be jointly recognized for the award, Yvonne and Shelley were commended for their sensitivity to the natural elements, as well as their emphasis on collaboration. In May, *Architecture Record* magazine featured our new building on its front cover to highlight the prowess of the architects.

WORKSHOP

POWER AND INEQUALITY SUMMIT

The Pyrenean Interdisciplinary Research Event brings together IAST members each year to reflect on their experiences and discuss their latest findings. This year presentations focused on the theme of power and inequality.

Jan.
29-31



OPEN DOORS

EUROPEAN HERITAGE DAYS

As part of the European Heritage Days project, IAST and Toulouse School of Economics opened their doors for the first time to the general public. Students of the École Nationale Supérieure d'Architecture in Toulouse hosted guided tours for 300 participants over the weekend, discussing the genesis, engineering and architectural vision of the new IAST/TSE building.



Sept.
20-21

Upcoming Events in 2020 - 21

Tuesday Lunch seminars

with community members presenting their work to a multidisciplinary audience.

Friday seminars

given by special guests invited to discuss their latest research.

Weekly webinars

reporting the latest research on Covid-19 by TSE & IAST researchers.

Jan. 15

IAST Epistemology Workshop

Jan. 27-31

Pyrenean Interdisciplinary Research Event (PIREN)

May 3-4

8th IAST/TSE Conference in Political Science and Political Economy on Inequality, Migration, and Organized Interests

May 27-28

Big Data in Economic History Conference

For more details, see <https://www.iast.fr/events>

HIGH LIGHTS

THE FIRST WAVE

IAST rises to the challenge

The current pandemic has sent a shudder through the Anthropocene – it will be a long time before researchers have a sense of its true impact. As they seek to advance amid the upheaval, IAST behavioral scientists are already at work on a wide range of multidisciplinary projects that aim to inform policymakers’ response to the Covid-19 crisis. In this section, we present a preliminary snapshot of some of these efforts, ahead of more substantial reports in future issues.



JEAN-FRANÇOIS BONNEFON
ON LIFE-AND-DEATH ETHICS

WHO SHOULD GET VENTILATORS?

The strain on medical resources in many countries has forced healthcare workers to confront gut-wrenching moral dilemmas. With the lives of patients hanging in the balance, how should hospitals allocate scarce resources? In search of answers, IAST psychologist Jean-François Bonnefon and his former colleagues at MIT have adapted their ‘Moral Machine’ online platform to build a crowd-sourced picture of human opinion.

If a hospital does not have enough ventilators, which patients (if any) should have priority? When should doctors withdraw a ventilator from one patient to give it to another? The researchers’ platform asks respondents about the importance of various factors, including the patient’s age, chance of recovery, arrival time, likely quality of life, medical qualifications and ability to pay.

The Moral Machine was originally designed to investigate the ethics of self-driving cars, and it is still being used to collect the views of millions of members of the public about how machines should make decisions when faced with moral dilemmas.

Take part in the Covid-19 survey at moralmachine.mit.edu



EVA RAIBER
ON POSTING PRAYERS

HOW DID CHURCHES REACT TO COVID-19?

Covid-19 forced churches to close their doors and find new ways to engage their communities. Did they respond in different ways? Taking advantage of the diversity of Christian denominations in the US, a new study by former IAST economist Eva Raiber (now at Aix-Marseille School of Economics) and IAST director Paul Seabright analyzes churches’ public Facebook posts. They find that the share of US churches posting at least one Sunday video more than doubled in April (when the death rate was at its peak so far) compared to the period before March. Early results indicate that mega and large churches were very quick to offer online alternatives and continue to do so. The proportion of smaller and more traditional churches offering Sunday videos also doubled but this response was slightly slower and these churches’ online activities seem to decrease over time.

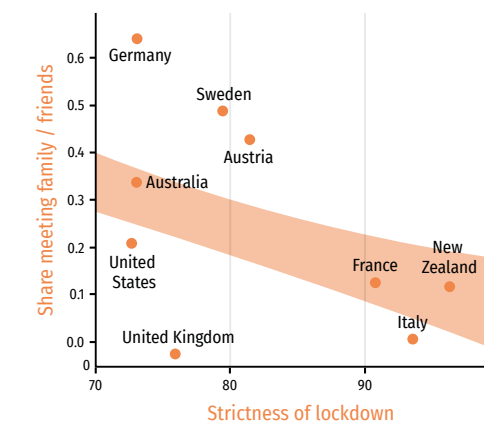
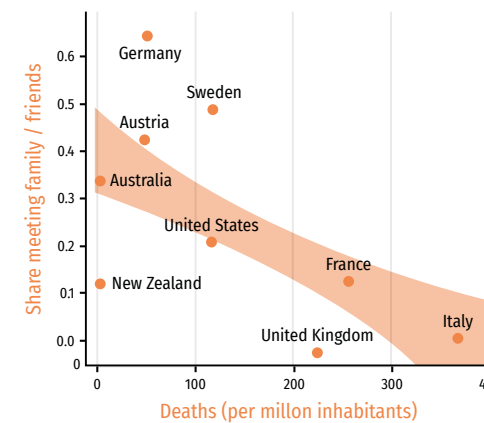


MICHAEL BECHER
ON PUBLIC OPINION

COVID-19 AND ITS DISCONTENTS

The success of policies to combat Covid-19 largely depends on their public acceptance. To help policymakers navigate the challenges raised by the pandemic for democratic governance, IAST political scientist Michael Becher has begun a project which has been selected for immediate funding by the French national research agency (ANR). Coordinated with Sylvain Brouard and Martial Foucault (both Sciences Po) and Pavlos Vasilopoulos (University of York), the Citizens’ Attitudes Under the Covid-19 Pandemic project will use online surveys and randomized experiments to investigate representations, attitudes and reactions in France and 17 other countries.

“Public authorities face hard choices concerning the allocation of scarce resources (e.g. tests) and how to balance economic versus health concerns,” says Michael. “This project provides a valuable public opinion barometer on individual wellbeing, attitudes toward public health recommendations and behavioral change over time and across countries. It will improve our understanding of how different publics cope with the crisis, identify groups less likely to adhere to public health measures and gauge the deeper political consequences.”



Comparative experimental evidence on compliance with social distancing during the Covid-19 pandemic by Michael Becher, Daniel Stegmueller, Sylvain Brouard and Eric Kerrouche, SSRN, 2020

Social distancing vs Covid-19 deaths and lockdown strictness

These figures plot the estimated fraction of individuals meeting family and friends against total Covid-19 related deaths in the week before the survey (above) and the strictness of lockdown measures (below). Each plot includes the linear fit from a robust regression estimated on 1,000 replicate data sets.



LEAH ROSENZWEIG
ON HEALTH POLICIES IN NIGERIA, SIERRA LEONE, AND UGANDA

INFORMING THE PANDEMIC RESPONSE IN AFRICA

Until a vaccine is widely available, the primary way to combat Covid-19 is encouraging voluntary cooperation with non-pharmaceutical interventions. A new research project by IAST political scientist Leah Rosenzweig aims to provide African governments with evidence on how best to do this. This project will build on multiple ongoing data-collection efforts designed to provide policy-relevant information for government decision-makers in Nigeria, Sierra Leone, and Uganda. Leah is also conducting research on the role of emotions in the belief in and spread of Covid-related misinformation in Nigeria with IAST colleague Bence Bago.

Her preliminary results offer insights into citizen compliance with health policies, the gap between individual attitudes and perceptions of peers’ behavior, and the dangers of fake news. Next steps include testing messaging to promote preventative behaviors, evaluating interventions to combat COVID misinformation, and conducting follow-up phone surveys to track attitudes and behaviors, such as mask wearing and social distancing, over time.



JONATHAN STIEGLITZ
RISKS AND REFUGE

How can indigenous people fight the pandemic?

A team of social scientists, physicians and tribal leaders have published a Covid-19 strategy for indigenous populations in the British medical journal *The Lancet*. Led by four anthropologists including IAST’s Jonathan Stieglitz, they hope to prevent devastation of the Tsimane in the Bolivian Amazon and provide a template for protecting other indigenous populations.

With higher rates of extreme poverty, morbidity and mortality, indigenous communities are especially vulnerable to epidemics. Even in high-income countries like the USA, indigenous groups like the Navajo have per capita Covid-19 infection rates rivaling those of major urban areas in New York and New Jersey. Limited access to information, sanitation and appropriate healthcare is part of the problem. Infection can also be catastrophic among populations like the Tsimane due to the prevalence of pre-existing immune conditions, including respiratory illnesses. *“In Bolivia, most attention is focused in the cities, where the pandemic first appeared. Indigenous communities have not been part of any organizational plan”*, said Daniel Eid Rodriguez, a Bolivian co-author and physician working with the Tsimane Health and Life History Project (THLHP) that is co-directed by Jonathan. *“Although resources in Bolivia and other countries are too limited to create the ideal response plan, there are many people and organizations ready to help. Finding and building collaboration is key for the success of any Covid-19 plan.”*

“The ability to produce subsistence foods and the possession of land and use rights may make it easier for rural communities to self-isolate”

PHASE I: EDUCATION AND PREPARATION

Building on 15 years of experience helping Tsimane access improved healthcare, the researchers began working on a multiphase plan with tribal authorities and other local officials, first to inform and prepare the population, and ultimately to act once Covid-19 appears in the Tsimane territory. The closest hospital in San Borja will likely be overloaded by the time Covid-19 reaches Tsimane villages, and existing remote health outposts are not yet equipped to diagnose or treat Covid-19. The researchers’ plan is adapted to a low-tech, low-density population. In Phase I, a mobile team of trained Tsimane visited over 60 villages for awareness campaigns. During village meetings, each community came up with a specific plan for collective isolation and quarantine for suspected cases. The team also identified and provided basic materials (such as mosquito nets, salt, soap and chains and locks for constructing physical barriers to block village entry) to help with collective isolation and minimize reliance on external trade.

The team has been active in transporting physicians, medicines, and personal protective equipment (PPE) to the Tsimane territory. Medicines, surgical masks, goggles and gloves have been purchased to donate to local health workers, THLHP personnel and villages. Training on appropriate use of PPE will be provided remotely.

PHASE II: CONTAINMENT AND MANAGEMENT

The more challenging Phase II began in mid-April when Covid-19 reached the Beni department where the Tsimane reside. By May 19, there were 679 confirmed Covid-19 cases in Beni and 47 deaths. This phase focuses on protecting the elderly, contact-tracing and patient monitoring. At the time of writing, no confirmed cases had been reported among Tsimane or in nearby towns but the THLHP mobile team has stopped visiting Tsimane villages. Instead, the team will conduct contact-tracing and continue information and coordination efforts using the Tsimane radio station, shortwave radio and cell phones. Drawing on the efforts of government health workers and Tsimane-speaking contact-tracers, as well as the team’s updated village census and GPS data, point-of-care molecular testing may be able to contain disease outbreaks.

The prevention and treatment of diseases other than Covid-19 is another urgent problem. The goal is for most medical care to be provided at the five rural health posts supported by the government, so that villagers will not have to leave the territory and risk infection in town or hospital. Given the invasiveness and potential added risk of intubation for Covid-19 patients, a more effective treatment may be to administer supplemental oxygen at the local health posts.

INDIGENOUS RESILIENCE

Despite the vulnerability of indigenous populations, a number of factors may make it easier for rural communities to self-isolate and resist. These include the ability to produce subsistence foods and the possession of land and use rights in native territories. Tribal sovereignty and cultural norms such as strong family bonds and community meetings may facilitate collective decisions and their enforcement, encouraging compliance with quarantine and other restrictions. Low population densities facilitate isolation and contact-tracing. Collaborative efforts that involve multiple stakeholders, adapt to local contexts and draw on indigenous communities’ unique sources of resilience can prevent disastrous mortality in indigenous communities. We must act now to prevent catastrophe.

370 Million INDIGENOUS PEOPLE

(around 5% of the global population) inhabit over 90 countries worldwide.

Source: World Bank

FIND OUT MORE

The Lancet report [doi.org/10.1016/S0140-6736\(20\)31104-1](https://doi.org/10.1016/S0140-6736(20)31104-1)

is available in English, Spanish, Portuguese and French.

For more on the threat to indigenous populations, > un.org/development/desa/indigenypeoples/covid-19.html

For more on the situation in Bolivia, > boliviasegura.gob.bo

The Tsimane Health and Life History Project team prepares to deliver salt and soap to be used in quarantining suspected Covid-19 cases.





DANIEL CHEN

THE HEAVY TOLL OF US CRIMINAL JUSTICE

Incarceration and infection

Jails and prisons are major sites of Covid-19 infection. In the first empirical paper of its kind, IAST law and economics scholar Daniel Chen and coauthor Eric Reinhart, PhD student at Harvard’s Department of Anthropology, analyze the relationship between US jailing practices and community infections. Recently published in *Health Affairs*, their findings underline the need for permanent shifts in policing and incarceration practices.

In the wake of the killing of George Floyd, the disproportionate intensity of policing and incarceration in black neighborhoods has been brought sharply into focus. Without yet establishing a causal link, Daniel’s results suggest that arrest and jailing practices are augmenting infection rates in highly policed neighborhoods. If so, the US criminal justice system may bear partial responsibility for the striking racial disparities noted in Covid-19 cases.

Using data from Chicago’s Cook County Jail, one of the largest known infection nodes in the US, Daniel and his co-author find that jail cycling accounts for 55% of the variance in SARS-CoV-2 case rates across zip codes in Chicago and 37% in Illinois. Jail cycling – the

flow into and out of prison – far exceeds race, poverty, public transit utilization, and population density as a predictor of variance. Cycling through Cook County Jail alone is associated with 15.8% of all documented infections in Illinois and 16.3% in Chicago as of April 19, 2020.

Soaring rates of arrest and incarceration have left US jails and prisons dangerously overcrowded. Given the infection risk to the general public as well as to those behind bars, Daniel’s research suggests that policing reform and alternative methods of criminal deterrence – such as citations, public service requirements, and supervised release – are not only ethical demands; they are also sound public health policy.

63%

OF ADDITIONAL COVID-19 CASES LINKED TO JAIL-CYCLING APPEAR IN BLACK-MAJORITY NEIGHBORHOODS

Daniel’s study addresses a major factor in American structural racism that is now manifesting in disease and death during the pandemic.

LAW IN THE TIME OF COVID-19

In other news, Daniel has received a World Bank grant to examine the impact of Covid-19 on access to justice in India. His research team expect their granular data will provide valuable insights on the experience of marginalized groups – including women, returning migrants and minorities – in criminal, domestic violence, and lockdown violation cases. Information may be shared with judges to facilitate better performance. At the same time, Daniel is collecting data to study the effects of the migratory outflow of India-trained doctors on health and healthcare in India, including Covid-19 outcomes.

Covid-19 is catalyzing innovation in legal systems around the world. Ad hoc experiments with virtual hearings, electronic filing, telework and automation may be adopted as permanent solutions in many countries. Daniel is currently advising an ongoing project on mobile “e-justice”. “This project uses a previously developed prototype in which people can arbitrate via chat to a binding agreement and appeal into the formal justice system. It would seem to de-densify – you are not litigating in person, and it has the possibility to scale.”

FIND OUT MORE

Learn more about Daniel’s work
www.tse-fr.eu/people/daniel-l-chen

Read Daniel’s paper ‘Incarceration And Its Disseminations: COVID-19 Pandemic Lessons From Chicago’s Cook County Jail’
<https://doi.org/10.1377/hlthaff.2020.00652>

ALICE MESNARD & PAUL SEABRIGHT

ACTIVITY APPS

Can smartphones ease lockdown?

Smartphone apps have been hailed as a tool to contain the spread of Covid-19 and soften lockdown restrictions. So far, their focus has been on contact tracing: rapidly identifying those who might have been infected by every person who tests positive. But a detailed record of all interactions is vulnerable to abuse by power-hungry governments, criminal hackers, or malicious users. Privacy concerns may also discourage participation, without which such apps are useless.

Alice Mesnard (City, University of London) and Paul Seabright (IAST) suggest a more modest approach. They propose “activity apps” that use indicators of the user’s infection risk and vulnerability based on relatively public information that changes only slowly over time: including age, addresses, and pre-existing health conditions. Supplementary information – a negative antibody test, for example – could be provided on an opt-in basis. Users would then be sorted into risk categories based on transparent criteria.

This information is easier to collect and allows for more activity than contact-tracing apps typically envisage. Public places could reopen for those with low-risk scores. Bluetooth technology could ensure users keep the regulation distance apart, with penalties for violations of behavioral rules (and exemptions for family members living at the same address). On leaving the venue, all data would be deleted. Separate times could be set for high-risk or highly vulnerable people.

Activity apps can be developed incrementally, on an opt-in basis. Those that work well can be scaled up, others can be withdrawn without threatening the whole venture. If more ambitious contact-tracing apps win public acceptance, this scheme would wither on the vine. In the meantime, many people would have enjoyed a respite from indiscriminate restrictions.





Conflict and violence in our deep past and present

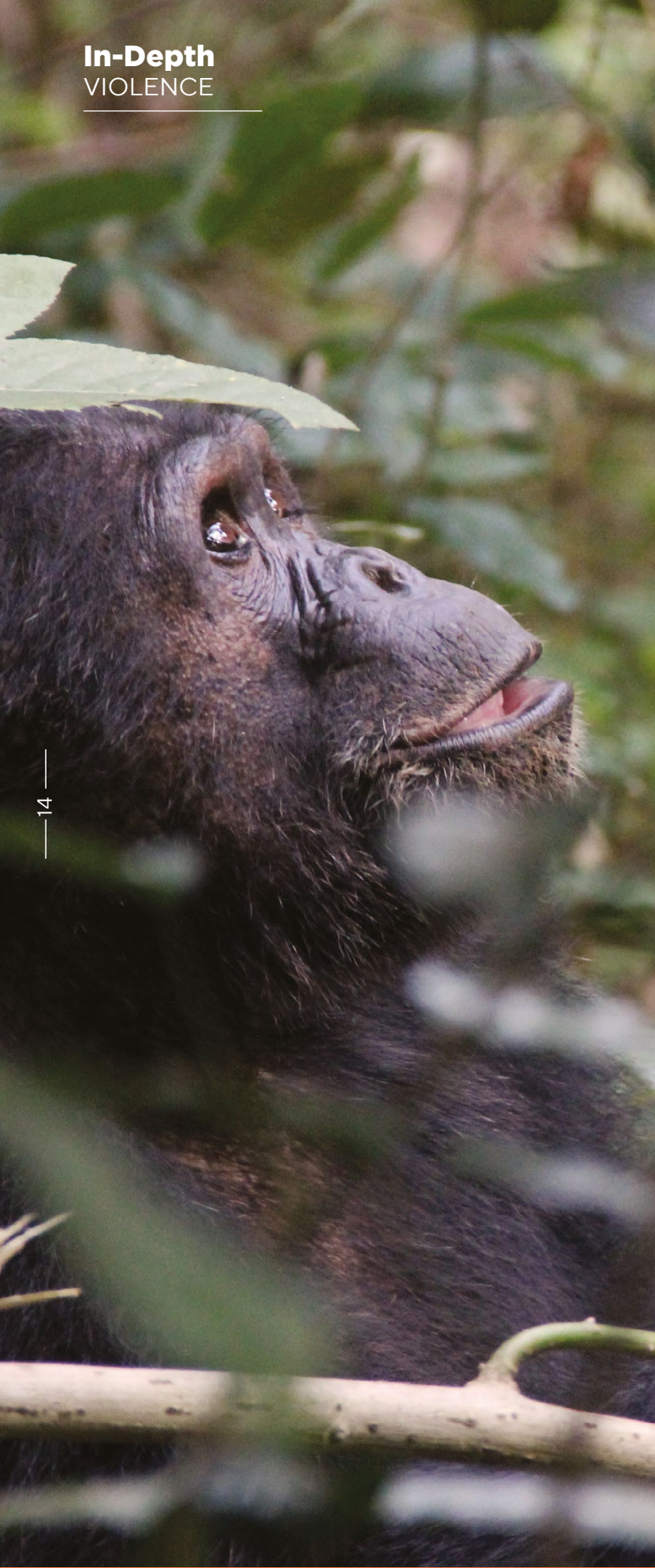
In this section, IAST researchers and visitors utilize a variety of theories from the social and behavioral sciences to explore wide-ranging questions about the evolution of conflicts in humans and their present manifestations.

- > How can looking at our close chimpanzee relatives' behavior help us understand our own human past?
- > Under what conditions does conflict promote cooperation and altruism?
- > Why don't women go to war?
- > Do the harsh stances of far-right political parties push immigrants toward extreme responses?

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MICHAEL WILSON

MURDEROUS COUSINS

Chimpanzees and the origins of war

Like humans, chimpanzees sometimes work together to kill members of their own species. Does this shared brutality suggest that we are innately violent? Or is human nature better reflected by our equally close cousins, the peace-loving bonobos? Following in the footsteps of Jane Goodall at Gombe National Park in Tanzania, behavioral ecologist Michael Wilson (University of Minnesota) has compiled comprehensive data on chimpanzee killings across Africa. His research with former IAST anthropologist Luke Glowacki shows how our primate relatives can help us look deeper into humanity's blood-stained past.

IS IT ACCURATE TO USE 'WARFARE' TO DESCRIBE OTHER SPECIES' BEHAVIOR?

Because warfare involves many uniquely human aspects, such as weapons, symbols of group identity, and the use of language for planning and giving orders, it is possible to define war in ways that exclude other species, such as "lethal armed combat," or by requiring an understanding of intentions that are unknowable for other species. However, one aspect of war that can be operationalized across species is coalitionary killing.

WHAT SPOILS ARE ON OFFER FOR KILLER CHIMPANZEES?

Killing rival males reduces the size of rival groups, increasing the odds of winning future encounters, and improving the killers' ability to acquire territory, food, and/or females. Several studies have found that winners of intercommunity conflict expand their territory at the expense of the losers. Increasing territory size provides

reproductive benefits, including increased body mass, shorter inter-birth intervals and higher infant survival.

WHY IS INTERGROUP KILLING LESS COMMON IN OTHER PRIMATES?

Coalitionary killing of adult conspecifics is unusual and appears mainly in social insects such as ants, social carnivores such as lions, wolves, and spotted hyenas, and a few primates. The best supported reason that chimpanzees kill their opponents, rather than simply chasing them off, is the 'imbalance of power' hypothesis. Troop-living species, like gorillas, travel together all the time; intergroup encounters typically involve many individuals on both sides, so attackers have little opportunity to concentrate lethal force on any one individual. In contrast, chimpanzee communities will often fission into smaller groups to look for food. This creates opportunities for attackers to isolate and kill victims with very little risk.

DO BONOBOS SUFFER FROM IMBALANCE OF POWER?

Bonobos defend group territories and have fission-fusion societies, but no intergroup killings have been reported and peaceful mingling sometimes occurs when groups meet. This may be due to differences in feeding ecology: bonobos and western chimpanzees appear to spend less time traveling and feeding alone, and are thus less frequently vulnerable. My comparison of data from long-term studies found that coalitionary killings occurred most often among eastern chimpanzees, less often for western chimpanzees, and never for bonobos. Mathematical modeling suggests that the regular presence of multiple females in bonobo foraging parties may deter raids. Bonobos may also have evolved a more peaceful temperament due to other factors driven by social ecology, such as female strategies that

reduce the effectiveness of sexual coercion by males.

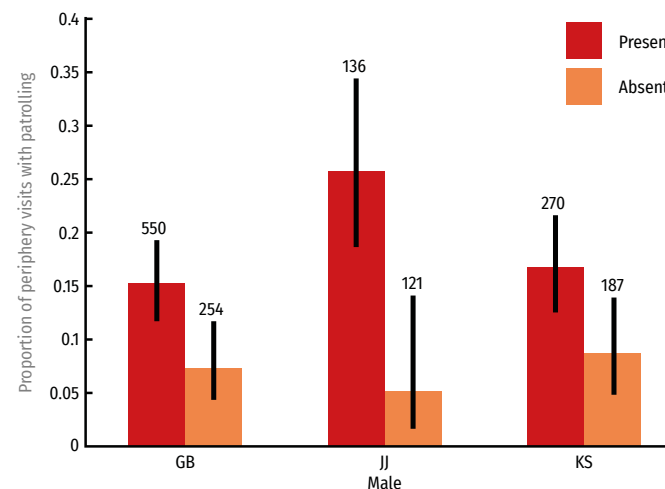
Bonobos live only in the Democratic Republic of Congo (DRC), and have been studied less intensively than chimpanzees. My graduate student Maud Mougnot is one of those trying to learn more about why bonobos differ so strikingly from chimpanzees. She is working at the fieldsite run by Martin Surbeck in Kokolopori, DRC.

HOW COMMON IS INTERGROUP VIOLENCE IN CHIMPANZEES?

Chimpanzees live in low-density communities, which average around 40-60 members. They rarely interact directly with neighboring communities. Most encounters involve "shouting matches" with rival parties far out of visible range. Parties of mostly male chimpanzees also engage in border patrols: any sign of strangers provokes apparent fear and hostility. When rival parties come within visual range, the outcome hinges on the number of males on each side. If evenly matched, interactions involve mainly loud calls, charging displays and occasional chasing. If one side greatly outnumbers the other, or if chimpanzees manage to isolate an individual, severe gang attacks may result. The great majority of intercommunity killings occur when attackers have an overwhelming numerical advantage, with a median ratio of eight to one.

HOW DOES CHIMPANZEE WARFARE COMPARE WITH HUMAN WARFARE?

Humans and chimpanzees resemble one another in having fission-fusion societies, intergroup hostility, male coalitions, territorial behavior, and coalitionary killings. At the same time, humans differ strikingly from chimpanzees in many ways, including weapons, the kinds of benefits gained by aggressors, multilevel societies, and language.



IMPACT MALES

Analyzing long-term data collected on chimpanzees in Gombe National Park (1976-2007), Michael's team noted that border patrols were more likely in the presence of three particular males (GB, JJ and KS). Numbers indicate sample sizes.

Source: Gilby et al., 'Ecology rather than psychology explains co-occurrence of predation and border patrols in male chimpanzees' *Animal Behaviour* (2013)

152
KILLINGS

(58 observed, 41 inferred, and 53 suspected) by chimpanzees in 15 communities over five decades.

MEDIAN RATIO

of attackers to victims was

8 to 1

92%
OF ATTACKERS
WERE MALES

73%
OF VICTIMS
WERE MALES

66%
OF KILLINGS WERE
INTERCOMMUNITY
ATTACKS

Source: Wilson et al., 'Lethal aggression in Pan is better explained by adaptive strategies than human impacts.' *Nature* (2014)

Converging evidence suggests lethal intergroup violence was common among ancestral hunter-gatherers. About 12% of chimpanzees die from violence; among hunter-gatherers and small-scale horticulturalists, the level is about the same. But while intergroup interactions among chimpanzees are always hostile, hunter-gatherer groups also engage in peaceful intergroup relations.

WHAT WAS IT LIKE TO BE AN ANCIENT WARRIOR?

Warfare among hunter-gatherers or small-scale farmers follows a strikingly similar pattern and tactics resemble those of chimpanzees. Killing occurs mainly when a small group of males ambush and kill members of a rival group at minimal risk to themselves. Strangers tend to be distrusted and attacked.

Larger “battles” also occur between hunter-gatherer groups, usually throwing spears or shooting arrows. Most battles consist of similarly matched groups and result in just a few injuries or deaths, but massacres can occur if one side is greatly outnumbered. Unlike state societies, hunter-gatherer conflict does not involve chains of command or formal leaders.

In humans, numbers matter. But weapons matter even more. People race to develop the best weapons and use this military advantage to conquer, just as chimpanzees use their numerical advantage. As well as making attackers more dangerous, weapons also make potential victims capable of inflicting serious harm.

In chimpanzees, the benefit from warfare is primarily territory, but humans may reap

additional benefits including captives, transportable goods, and intangible rewards such as status and prestige. These pathways may lead to reproductive benefits which justify the increased risk of conflict with armed individuals.

WHEN DID HUNTER-GATHERERS MAKE PEACE?

Marriage can build kinship ties across groups and create reciprocal obligations, closely related to those involved in the exchange of goods through gifts and trade. These interactions may not have been possible before the evolution of language. In chimpanzees, intergroup encounters are always zero-sum events: any territory gained by group A represents a loss for group B. With trade, however, intergroup interactions can result in mutual benefits.

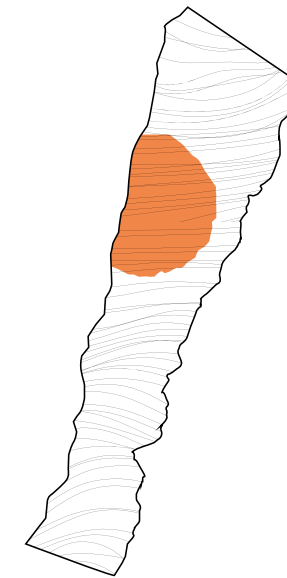
ARE WE HARDWIRED TO BE WARLIKE?

Historical variation in patterns of warfare has led many scholars to view warfare as entirely the result of contingency and cultural inventions, such as weapons, agriculture or population growth. But despite recognition that particular instances of warfare depend on many specifics of history and technology, the ubiquity of human warfare suggests that it has deeper evolutionary roots.

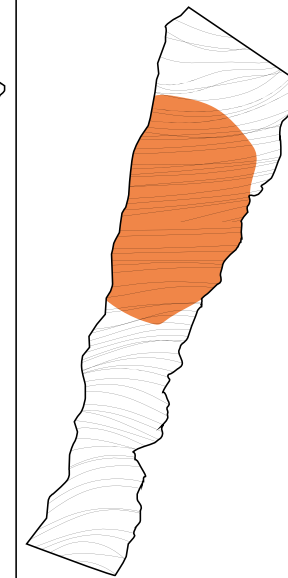
Complex traits can result not just from biological evolution, but also cultural evolution, or some combination of the two. In contexts (especially among pastoralists, mounted foragers, and sedentary societies with food storage) where warfare is widespread, it is likely to be adaptive: people who teamed up to seize and defend resources aggressively did better than those who did not. This argument does not require any differences in the genetic predispositions of people in warlike versus pacific societies. Instead, cultural traits, including social institutions such as warfare and the socialization of boys to be warriors or peace-leaders, affect survival and reproductive success.

Warring behavior clearly does not represent a single psychological mechanism or instinct, coded for by one or a few genes. Instead, war likely emerges from a combination of psychological adaptations, under the influence of demographic, ecological, and cultural factors. These evolved predispositions may include tendencies towards xenophobia, parochial altruism, a desire for intergroup dominance, aptitude for numerical assessment, and a motivation to seek out low-cost opportunities to attack rivals.

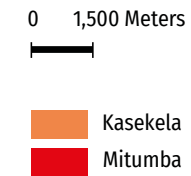
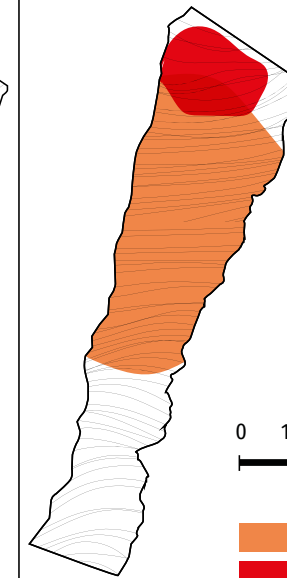
1980-81



1990-91



1998-99



LAND GRAB

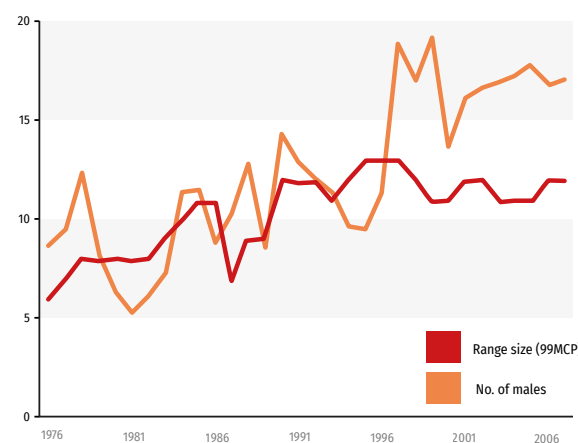
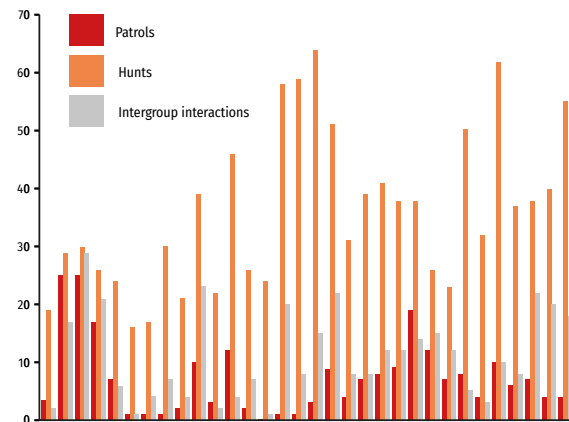
Home range of the Kasekela chimpanzee community for selected years. Previous studies of this community found that larger home range was correlated with heavier body mass and shorter interbirth intervals. Source: Wilson and Glowacki, ‘Violent Cousins: Chimpanzees, Humans, and the Roots of War’ (2017)

WE’VE GOT MALES

Patrols, hunts and intergroup interactions in Gombe National Park’s Kasekela chimpanzees.

(b) Number of adult males and yearly size of the community’s range (km²).

Source: Gilby et al., ‘Ecology rather than psychology explains co-occurrence of predation and border patrols in male chimpanzees’, *Animal Behaviour* (2013)



WILL ‘THE BETTER ANGELS OF OUR NATURE’ PREVAIL?

Warfare itself has evolved rapidly, growing exponentially in its destructive power. At the same time, declining rates of death from warfare raise the tantalizing hope that it may eventually follow institutions such as feudalism and slavery into extinction. Our species has demonstrated a remarkable ability to forge peaceful intergroup

relations across increasingly large geographic and political scales. Researchers have variously found that warfare is less common among states that are democratic and have economies that are market-based and contract-intensive and/or regularly trade with one another. When warfare is not adaptive as a cultural strategy, it disappears; as among tribes such as the Semai, and among friendly neighboring

nations, such as within the EU. Changes in political structure, economics, and technology have all reduced the payoffs for the small-scale warfare that once prevailed across the world. An important goal of the behavioral ecology of warfare should be to identify and encourage the conditions under which war does not pay.



Primatologists Jane Goodall and Michael Wilson.

ON THE WAR PATH

A line of male chimpanzees cautiously emerged from the undergrowth, looking for rivals to kill. “They looked over at me,” recalls Michael Wilson. He was alone in the forest, and had just played a recording of a call from a stranger chimpanzee. “I remember it vividly: their footsteps, their hair raised. But they knew who I was.” Cleared by the patrol, Michael was able to safely continue his research. “In these experiments, we found that it was the number of males that mattered. If there were one or two males in the group, they stayed quiet; if there were three or more males, they would quickly approach the speaker. For much of the data, we use the same methods Jane Goodall developed in the 1970s, by following a chimpanzee through the forest from when it wakes up to when it goes to bed. This framework is helping us to learn interesting things that nobody could have imagined.”

FIND OUT MORE

For selected publications by Michael Wilson,

> See cbs.umn.edu/contacts/michael-wilson

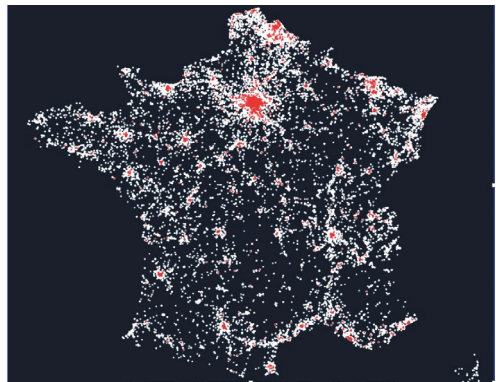


ELIZABETH DEKEYSER
POLICIES FOR PEACE

Immigration, the far right and religious extremism

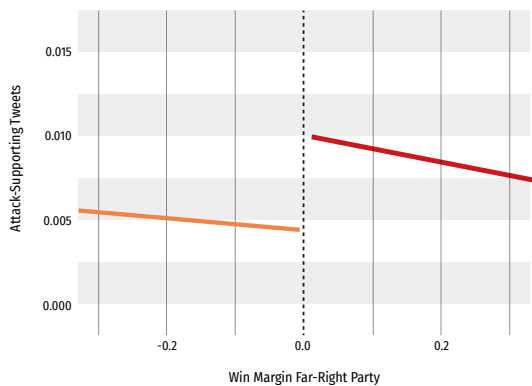
In 2015, France suffered the bloodiest terror attacks in its history: at the offices of the satirical newspaper Charlie Hebdo in January, and at the Bataclan concert hall and other public spaces across Paris in November. IAST political scientist Elizabeth Dekeyser's analysis of the online reaction shows that state policies and far-right politicians can influence support for religious extremism.

In the wake of the 2015 attacks, the vast majority of France's Muslim community condemned the killing and expressed solidarity with the victims, often using their religious identity as a reason for their response. But a small minority expressed, if not outright support, sympathy for the attackers and their motivations, also citing their religious identity. To examine this rhetoric, Elizabeth scraped over 1.6 million geolocated tweets posted in the 48 hours following the two attacks. Using a supervised machine-learning model, she classified non-attack-supporting tweets. Following the Charlie Hebdo attack, attack-sympathetic responses primarily blamed the newspaper's disrespectful depictions of the prophet. For example, "But they provoked this through mocking Islam for years... they should have expected a massacre like this." Others bemoaned the lack of attention paid to deaths in Muslim societies. Following the November attacks, tweets sometimes pointed to Western actions, such as, "We should have as much disgust for the jihadists as for the leaders who provoked the Muslims of the world, #Iraq #Syria #Libya #Palestine".



TROUBLE ON TWITTER

White points indicate all tweets in Elizabeth's study, red points are attack-supporting tweets.



Extremist backlash

The effect of far-right council members on attack-supporting tweets.

By merging the geographic information in the tweets with administrative data, Elizabeth was able to gain a clearer understanding of the places the tweets were coming from. These towns were significantly poorer on a range of metrics, as well as slightly smaller. Measuring the number of Google searches in a town, Elizabeth finds they also had lower levels of connectivity. Meanwhile, data from Google maps reveals that these towns were more likely to have mosques and other community religious structures.

ELECTION OF FAR-RIGHT PARTIES

Far-right parties have increased their electoral presence throughout the West over the past decade. Central policy tenets often include harsh stances on immigration and concern about the cultural threat posed by Islam and immigrant-origin communities. Do these harsh stances push immigrant-origin individuals toward extreme responses, such as sympathy for terror attacks?

Elizabeth uses a regression discontinuity design to compare towns where a far-right party member barely won or barely lost a municipal election. This tool is based on the assumption that such results could be considered as-if random and so allow for examination of causal effect. The results show a significant increase in attack-supporting tweets – from about one in every 200 tweets, to one in every 100 – in towns that elected far-right parties. This finding has important implications for far-right parties, which often claim their hardline stances will lead to less, not more, social fracturing.

“Do the harsh stances of far-right parties push immigrant-origin individuals toward extreme responses, such as sympathy for terror attacks?”

COMMUNITY ENGAGEMENT

France has spent heavily for many years in impoverished communities, which are often densely populated with immigrant-origin individuals. Politicians and pundits sometimes argue that these policies have failed yet they have no counterfactual: it is unclear if outcomes would have been worse if no investment occurred. Elizabeth examines the effect of Quartiers Prioritaires, a policy that has poured resources into associational life and public housing in marginalized communities. Uniquely, inclusion in this community-development scheme was based on strict income and population

“Politicians and pundits sometimes argue that community investment policies have failed yet it is unclear if outcomes would have been worse if no investment occurred.”

thresholds and the policy was implemented between the two terror attacks. This allows her to use a “difference-in-differences” design that produces an impressive result: towns that received funding had on average 20% fewer attack-supporting tweets – and after only 11 months of investment.

This effect functions through a similar mechanism as the election of far-right parties, she argues. Investment signals to individuals that their community matters, decreasing perceptions of rejection and support for terror attacks. Taken together, these findings have important implications for how the state can help to integrate marginalized communities. Far-right politics can provoke a significant backlash. Policies meant to encourage social and economic integration, however, appear to have the desired effect.



Jumeirah Mosque - Dubai - United Arab Emirates

US AND THEM

Recent decades have seen a resurgence in sectarian tensions within Islam, especially in the Middle East. Together with coauthors at MIT and Princeton, Elizabeth has conducted the first systematic, large-scale evaluation of hypotheses about sectarian animosity among Shi'a in Iran and Iraq. Combining their survey of over 4,000 devout Shi'a with numerous datasets, she finds that sectarian animosity is almost exclusively domestically oriented, resembling ethno-nationalist animosity. She also identifies a new mechanism, religious socialization – the transmission of non-religious norms through religious practice – that explains crucial differences between male and female beliefs and behavior.

See “The Nature and Origins of Sectarian Animosity” (MIT, 2019).



ALBERTO MICHELETTI

MEN AT WAR

Was altruism worth fighting for?

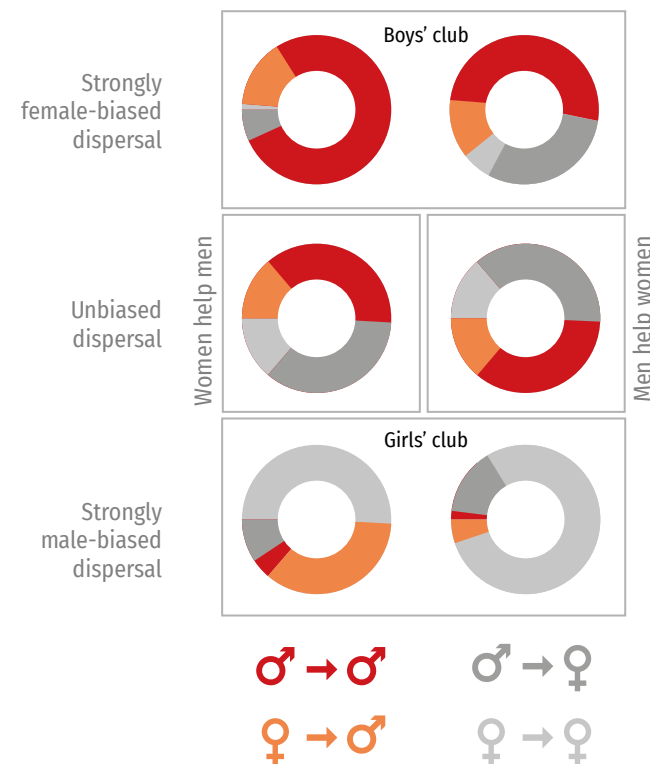
Did our ancestors forge altruism in the fires of conflict? IAST evolutionary anthropologist Alberto Micheletti studies the evolutionary-ecological factors driving human warfare and their impact on the development of cooperation and complex societies, and on human health. For his latest paper, he teamed up with researchers at the University of St Andrews to investigate the role of warfare in shaping interactions between the sexes.

In recent years, scientists have shown great interest in how warfare between human groups might have encouraged high levels of cooperation in our societies. But until now, research had neglected the possibility that warfare might have influenced which sex is more altruistic and which sex receives more help. Alberto and his coauthors used evolutionary models to investigate these sex differences and discovered that warfare can play a key role. “Cooperating with others in your social group can be advantageous, as these people are often your genetic relatives,” he explains. “At the same time, relatives living together compete harshly over resources and this discourages altruism. Warfare offers men the opportunity to compete in other groups, with non-relatives. Women do not have this chance because they generally do not go to war, so we found that it can be advantageous for both sexes to help men more than women.”

The study also found that patterns of migration can influence “the lion’s share” of altruism. While both men and women migrate, one sex tends to move more than the other in our species. Some evidence suggests that in prehistory, women migrated more while men stayed in the settlements where they were born. “This migration pattern would have resulted in groups where men were surrounded by close relatives. We found that this would have encouraged them to help others more than women. And, given the impact of warfare on competition, these groups could have acted as ‘boys’ clubs’, where men were both more altruistic and received more altruism than women.” But this is not the only possible outcome: the study also found that the reverse pattern – a girls’ club – could have evolved if women moved to defeated groups or migrated less than men. Interestingly, some smaller non-state societies seem to show similar patterns.

Boys’ club: Alberto’s research suggests that warfare and migration can create groups in which men help each other more than they help women.

Illustration: General Officers of World War I (1922) by John Singer Sargent © National Portrait Gallery, London



THE SPOILS OF WAR

Each pie chart shows potential for in-group altruism – from men to men (red); men to women (dark grey); women to men (orange); and women to women (light grey) – for different combinations of dispersal rates and scale of competition. Warfare may have lowered this scale for men by increasing opportunities to reproduce outside the group.

Source: Figure 3 (modified with permission from the author) in Micheletti et al (2020) doi:10.1017/ehs.2020.5 © Cambridge University Press 2020 licensed under CC BY 4.0

Why don't women go to war?

Battlefields throughout history tend to be soaked with the blood of men. Previous hypotheses have suggested this is the result of fundamental biological differences between the sexes. In his 2018 paper ‘Why war is a man’s game’, Alberto uses a mathematical model to show that none of these differences fully explain why women almost never participate. Instead, the ubiquity of male armies might have more to do with chance.

“Surprisingly, we find that exclusively male or exclusively female warfare may evolve in the absence of any sex differences. Instead, our model showed that what was important was how many members of a person’s sex were already taking part in warfare, and how that affected sexual competition for mates with other people of the same sex. For example, if lots of men are already fighting, then the risks to an individual man would be lower and the potential rewards higher, but there would be much less incentive for a woman to take part.”

So, if both outcomes are equally plausible, why is warfare almost exclusively male? “Our study suggests that male competition over mates and resources might have caused men to evolve to be more aggressive than women. This was probably enough to make men more likely to go to war from the outset. And our model explains why this would ultimately lead to male-only war parties. Greater physical strength, together with lower costs and higher genetic links to the rest of the group, may have helped reinforce this pattern.”

For more on this research, see Alberto’s article at theconversation.com.



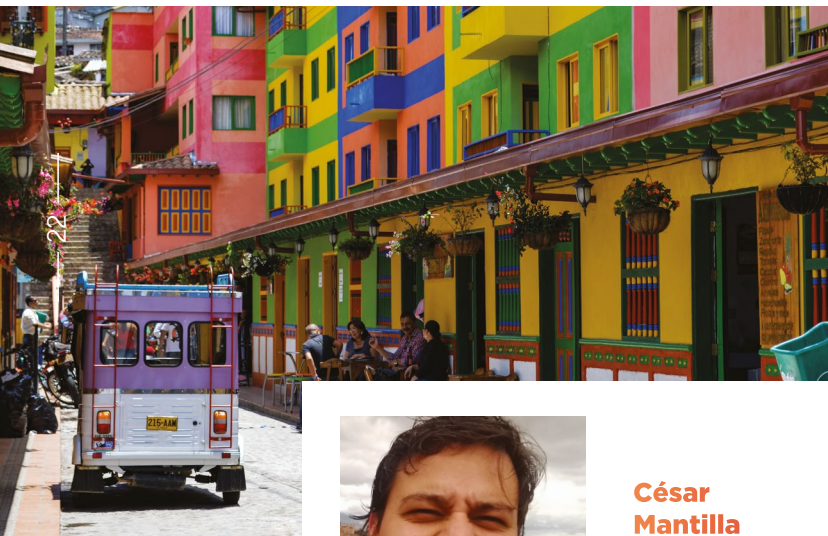
FIND OUT MORE

Alberto’s paper ‘The Demography of Human Warfare can Drive Sex Differences in Altruism’ was published in February. His 2017 paper ‘Intrafamily and Intragenomic Conflicts in Human Warfare’ explains why fathers often encourage reluctant sons to go into battle.

‘IAST inspires new questions’

Urban sociologist Jordanna Matlon and development economist César Mantilla were IAST research fellows from 2012 to 2016. Now based in the US and Colombia, they are both involved in research that seeks to understand informal economies and today’s challenges such as the Covid-19 pandemic and the crisis of black masculinity.

“Understanding human behavior from an interdisciplinary perspective shaped my identity as a researcher”



César Mantilla

Associate Professor in the Economics Department at Universidad del Rosario

COULD YOU TELL US A BIT MORE ABOUT YOUR CURRENT WORK?

I co-direct the Rosario Experimental and Behavioral Economics Lab (REBEL), and I am the Director of the master’s in economics of public policy. I am working on the understanding of how human preferences shape outcomes in dual markets. In Colombia, about half of the working population is part of the “informal” sector, meaning that they are self-employed or have informal contracts without pension benefits (and do not contribute to the public health system). My lab and field experiments are typically applied to development and environmental economics issues.

WHAT DID YOU LEARN FROM IAST?

I greatly benefited from the stimulating academic environment at IAST; this might sound like a cliché, but it is entirely true. I became more self-critical and gained a much clearer idea of high-quality research. Understanding human behavior from an interdisciplinary perspective shaped my identity as a researcher. The exposure to different disciplines gave me a “bigger picture” of scientific production, and openness to new methods. It also equipped me with better tools to supervise non-economist students.

At IAST, I started working with Astrid Hopfensitz on the use of facial recognition software, we produced a paper and are now working on a related project. Seven years ago, I would have not thought that you can host a full conference on “The Human Face in Economics”, as IAST did. This type of research can be very inspiring and let you think about new questions. For instance, “smile design” is a huge business in Colombia – something as simple as your smile can trigger discrimination in labor markets.

IN THE CONTEXT OF COVID-19, YOU HAVE BEEN INVESTIGATING THE ROLE OF PHARMACIES. CAN YOU TELL US MORE ABOUT YOUR PROJECT?

Community pharmacies are often criticized for not adhering to guidelines, but they are also relevant actors in areas where health services are limited. My colleagues and I implemented an audit study in which we call the pharmacies and report the symptoms of a (fictitious) sibling. In one treatment, we listed common symptoms (headache, sore throat and fever) that are hard to diagnose; in the other treatment we added anosmia, a symptom that had recently been linked to COVID-19. Mentioning this fourth symptom induced more cautious recommendations: pharmacists’ adherence to WHO guidelines increased by about 60%, prescriptions fell by roughly 25%. These results have helped to open up the debate on giving community pharmacies a more active role in pandemics.

“The time and resources that IAST provided allowed me to publish, deepen my expertise, and raise my scholarly profile. And I fell in love with Toulouse!”

Jordanna Matlon

Assistant Professor School of International Service – American University

WHAT ARE YOUR NEW RESPONSIBILITIES?

I teach urban development in SIS’s international development Master’s program, and undergraduate courses that I created: Race in the World Political Economy, Seeing Africa, and The Postcolonial City. My book, *A Man among Other Men: The Long Crisis of Black Masculinity in Racial Capitalism*, has recently received contract offers from The University of Chicago Press and Cornell University Press. Expanding on my ethnographic fieldwork with men in the informal economy in Abidjan, Côte d’Ivoire, I have spent the past several years building up the book’s historical context and theoretical contributions.

HOW DID IAST HELP IN YOUR WORK?

I was very lucky to be in the first cohort of research associates at IAST. It was an invaluable preparation for my career. I was able to turn several of my dissertation chapters into articles, culminating in “Racial Capitalism and the Crisis of Black Masculinity”, which appeared in my discipline’s flagship journal, *American Sociological Review*, and received three awards from the *American Sociological Association*. This article was a years-long effort, and could not have been written under the pressure of a tenure clock. At IAST I also immersed myself in key French texts about Côte d’Ivoire and participated in numerous conferences across Europe, the United States and Ghana. The time and resources that IAST provided allowed me to publish, deepen my expertise, and raise my scholarly profile. And I fell in love with Toulouse!



Jordanna in Toulouse

YOU RECENTLY JOINED THE EDITORIAL ADVISORY BOARD OF THE CORONA TIMES BLOG. CAN YOU TELL US MORE ABOUT THIS PROJECT?

As an intellectual response to Covid-19, social anthropologist Divine Fuh and colleagues around the world founded the Corona Times blog, a HUMA (Institute for Humanities in Africa at the University of Cape Town) public engagement project. Corona Times seeks to offer detailed, rigorously researched, ethical expert commentary that humbly explores ways to grasp the various facets of the current moment, proposes ways forward and evaluates social, economic and public health interventions on multiple temporal scales. I am proud to have joined this truly exceptional group of scholars. The editorial team, as they describe on their website, aims to “offer detailed, rigorously researched, ethical expert commentary that humbly explores ways to grasp the various facets of the current moment, and proposes ways forward and evaluates social, economic and public health interventions on multiple temporal scales.”

FIND OUT MORE

Cesar’s research
> <https://sites.google.com/site/cesarmantilla/>
Jordanna’s research
> www.jordannamatlon.com
Corona Times Blog
> <https://www.coronatimes.net>

César is now in Bogotá but holds memories of Toulouse close to his heart.



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