Liste erstellt am 2012-06-09

Literatur

Aktuell

Amaral 2012

Olavo B. Amaral, Simon Nicholas Williams & Gregory Francis, *Replication Initiative: Dangerous Logic, Prioritize Publication, Beware Misinterpretation.* science **336** (2012), 801–802.

Reluctance to replicate data in a given field of science because it might harm the field's public image among other disciplines is symptomatic of a very dangerous logic. The fact that this logic has spread among scientists is probably a large part of the reason why systematic replication studies have become so urgent in the first place.

Such initiatives are important, not just to address scientific fraud, but to ensure that reliability-one of the key principles upon which the authority of science is based-is publicly upheld.

Because of random sampling, even experiments that measure true positive effects will sometimes fail to reject the null hypothesis. For example, an experiment that just barely rejects the null hypothesis (e.g., P = 0.05) is expected to yield insignificant results almost half the time in future replications with the same sample size. A failure to replicate an established finding often ignites a debate about the differing conclusions, but in many cases there is no real conflict. Given the relatively low power of most psychological experiments, a failure to replicate should be common.

Benjamin 2012

Daniel J. Benjamin et al., *The genetic architecture of economic and political preferences.* PNAS **109** (2012), 8026–8031.

Daniel J. Benjamin, David Cesarini, Matthijs J. H. M. van der Loos, Christopher T. Dawes, Philipp D. Koellinger, Patrik K. E. Magnusson, Christopher F. Chabris, Dalton Conley, David Laibson, Magnus Johannesson and Peter M. Visscher

Preferences are fundamental building blocks in all models of economic and political behavior. We study a new sample of comprehensively genotyped subjects with data on economic and political preferences and educational attainment. We use dense single nucleotide polymorphism (SNP) data to estimate the proportion of variation in these traits explained by common SNPs and to conduct genome-wide association study (GWAS) and prediction analyses. The pattern of results is consistent with findings for other complex traits. First, the estimated fraction of phenotypic variation that could, in principle, be explained by dense SNP arrays is around one-half of the narrow heritability estimated using twin and family samples. The molecular-genetic-based heritability estimates, therefore, partially corroborate evidence of significant heritability from behavior genetic studies. Second, our analyses suggest that these traits have a polygenic architecture, with the heritable variation explained by many genes with small effects. Our results suggest that most published genetic association studies with economic and political traits are dramatically underpowered, which implies a high false discovery rate. These results convey a cautionary message for whether, how, and how soon molecular genetic data can contribute to, and potentially transform, research in social science. We propose some constructive responses to the inferential challenges posed by the small explanatory power of individual SNPs.

genoeconomics | genopolitics | GCTA

Kress 2012

Moshe Kress, *Modeling Armed Conflicts*. science **336** (2012), 865–869.
Armed conflicts have been prevalent throughout history, in some cases having very great consequences. To win, one needs to understand the characteristics of an armed conflict and be prepared with resources and capabilities for responding to its specific challenges. An important tool for understanding these characteristics and challenges is a model-an abstraction of the field of conflict. Models have evolved through the years, addressing different conflict scenarios with varying techniques.

Lawler 2012

Andrew Lawler, *Near Eastern Archaeology Works To Dig Out of a Crisis*. science **336** (2012), 796–797.
In the wake of the Arab Spring, archaeologists in the Near East are locked in a struggle for the survival of their field
Morandi Bonacossi of the University of Udine in Italy, who has centered his professional life on the ancient western Syrian capital of Qatna, to which he cannot return for the foreseeable future. "It's getting hard to be a Near Eastern archaeologist," he says. That crisis is due not just to the immediate upheavals. After 3 decades of political instability, grant money is drying up, new students are wary of entering the field, and retiring professors are often not being replaced. But resourceful researchers are finding new places and ways to gather their data. Some have started work in a few stable and longneglected pockets in the region, such as Iraq's Kurdistan.

McNally 2012

Richard J. McNally, *Are We Winning the War Against Posttraumatic Stress Disorder?* science **336** (2012), 872–874.
The most methodologically rigorous epidemiological study on American military personnel deployed to Iraq and Afghanistan found that 4.3 % of troops developed posttraumatic stress disorder (PTSD). Among deployed combatants, 7.6 % developed PTSD, whereas 1.4 % of deployed noncombatants did so. The U.S. Department of Veterans Affairs has launched a program ensuring that all veterans with PTSD will receive evidence-based cognitive-behavioral therapy, and the Army has developed Battlemind postdeployment early interventions that reduce risk for the disorder.

Scheffran 2012

Jürgen Scheffran, Michael Brzoska, Jasmin Kominek, P. Michael Link & Janpeter Schilling, *Climate Change and Violent Conflict*. science **336** (2012), 869–871.
Current debates over the relation between climate change and conflict originate in a lack of data, as well as the complexity of pathways connecting the two phenomena.

Anthropologie

Carretero 2012

José-Miguel Carretero et al., *Stature estimation from complete long bones in the Middle Pleistocene humans from the Sima de los Huesos, Sierra de Atapuerca* Journal of Human Evolution **62** (2012), 242–255.
JHumEvo62-0242-Supplement.doc
José-Miguel Carretero, Laura Rodríguez, Rebeca García-González, Juan-Luis Arsuaga, Asier Gómez-Olivencia, Carlos Lorenzo, Alejandro Bonmatí, Ana Gracia, Ignacio Martínez & Rolf Quam

Systematic excavations at the site of the Sima de los Huesos (SH) in the Sierra de Atapuerca (Burgos, Spain) have allowed us to reconstruct 27 complete long bones of the human species Homo heidelbergensis. The SH sample is used here, together with a sample of 39 complete Homo neanderthalensis long bones and 17 complete early Homo sapiens (Skhul/Qafzeh) long bones, to compare the stature of these three different human species. Stature is estimated for each bone using race- and sex-independent regression formulae, yielding an average stature for each bone within each taxon. The mean length of each long bone from SH is significantly greater ($p < 0.05$) than the corresponding mean values in the Neandertal sample. The stature has been calculated for male and female specimens separately, averaging both means to calculate a general mean. This general mean stature for the entire sample of long bones is 163.6 cm for the SH hominins, 160.6 cm for Neandertals and 177.4 cm for early modern humans. Despite some overlap in the ranges of variation, all mean values in the SH sample (whether considering isolated bones, the upper or lower limb, males or females or more complete individuals) are larger than those of Neandertals. Given the strong relationship between long bone length and stature, we conclude that SH hominins represent a slightly taller population or species than the Neandertals. However, compared with living European Mediterranean populations, neither the Sima de los Huesos hominins nor the Neandertals should be considered 'short' people. In fact, the average stature within the genus Homo seems to have changed little over the course of the last two million years, since the appearance of Homo ergaster in East Africa. It is only with the emergence of H. sapiens, whose earliest representatives were 'very tall', that a significant increase in stature can be documented.
Keywords: Body size | Limb bones | Fossil humans | Homo heidelbergensis | Spain | European hominins

DE WAAL 2012

Frans B. M. de Waal, *The Antiquity of Empathy*. science **336** (2012), 874–876.

The view of humans as violent war-prone apes is poorly supported by archaeological evidence and only partly supported by the behavior of our closest primate relatives, chimpanzees and bonobos. Whereas the first species is marked by xenophobia, the second is relatively peaceful and highly empathic in both behavior and brain organization. Animal empathy is best regarded as a multilayered phenomenon, built around motor mirroring and shared neural representations at basal levels, that develops into more advanced cognitive perspective-taking in large-brained species. As indicated by both observational and experimental studies on our closest relatives, empathy may be the main motivator of prosocial behavior.

Datierung

BAMFORTH 2012

Douglas B. Bamforth & Brigid Grund, *Radiocarbon calibration curves, summed probability distributions, and early Paleoindian population trends in North America*. Journal of Archaeological Science **39** (2012), 1768–1774.

Archaeologists increasingly examine summed probability distributions of radiocarbon dates to search for temporal trends in ancient human populations, including early North American population trends across the onset of the Younger Dryas climatic period (10,900 BC). We use both IntCal04 and IntCal09 to simulate and calibrate sequences of radiocarbon dates that represent evenly spaced calendar ages from 12,000 to 9000 BC and use IntCal09 to simulate two different demographic processes across this interval. The shapes of the calibrated summed probability distribution from our first set of simulations mirror many trends that have been interpreted in demographic terms and

this shape shows clear links to the shape of the radiocarbon calibration curve. This is true for both IntCal04 and IntCal09, although these different curves produce different probability distributions. The shapes of the calibrated summed probability distribution from our second set of simulations differ somewhat but show virtually identical trends at points where the actual frequencies of calendar dates are very different. We conclude that changing frequencies of radiocarbon dates over time probably do contain demographic information, but that extracting this information is more difficult than archaeologists have acknowledged.
Keywords: Radiocarbon | Calibration curve | Demography | Younger Dryas | Summed probability distribution | Paleoindian population

Sadier 2012

Benjamin Sadier et al., *Further constraints on the Chauvet cave artwork elaboration*. PNAS **109** (2012), 8002–8006.
Benjamin Sadier, Jean-Jacques Delannoy, Lucilla Benedetti, Didier L. Bourlès, Stéphane Jaillet, Jean-Michel Geneste, Anne-Elisabeth Lebatard and Maurice Arnold
Since its discovery, the Chauvet cave elaborate artwork called into question our understanding of Palaeolithic art evolution and challenged traditional chronological benchmarks [Valladas H et al. (2001) Nature 413:419–479]. Chronological approaches revealing human presences in the cavity during the Aurignacian and the Gravettian are indeed still debated on the basis of stylistic criteria [Pettitt P (2008) J Hum Evol 55:908–917]. The presented 36Cl Cosmic Ray Exposure ages demonstrate that the cliff overhanging the Chauvet cave has collapsed several times since 29 ka until the sealing of the cavity entrance prohibited access to the cave at least 21 ka ago. Remarkably agreeing with the radiocarbon dates of the human and animal occupancy, this study confirms that the Chauvet cave paintings are the oldest and the most elaborate ever discovered, challenging our current knowledge of human cognitive evolution.
absolute dating | cosmonuclide | remote sensing | rockart | rockfall

Keramik

Rasmussen 2012

Kaare Lund Rasmussen, Guillermo A. de la Fuente, Andrew D. Bond, Karsten Korsholm Mathiesen & Sergio D. Vera, *Pottery firing temperatures: a new method for determining the firing temperature of ceramics and burnt clay*. Journal of Archaeological Science **39** (2012), 1705–1716.
JArchSci39-1705-Supplement.kmz
A new method for determining the maximum firing temperature of ceramics and burnt clay is presented. The technique relies on measuring the magnetic susceptibility on a step-wise re-fired sample. The validity of the method has been tested by determining firing temperatures of two sets of clay samples fired at temperatures ranging from 400 to 1000 °C. Aliquots of the same samples have been studied petrographically by optical microscopy on thin sections and analyzed by powder X-ray diffraction in order to monitor structural and mineralogical changes as a function of temperature. The method is demonstrated on samples from four geographically widely different sites and it is applied to a larger set of ceramics of Late (ca. AD 900–AD 1450) and Inca (ca. AD 1480–AD 1532) periods from the Northwestern Argentine region, dating to a limited period of time prior to the fall of the Inca Empire. The method is shown to be a powerful tool in revealing archaeological information about the change in firing technologies in the pre-Hispanic societies in the Andean area through time.
Keywords: Firing temperature | Ceramics | Burnt clay | Magnetic susceptibility | Late and Inca periods | Argentina

Klima

Berliner 2011

L. Mark Berliner et al., *Discussion of: A statistical analysis of multiple temperature proxies: Are reconstructions of surface temperatures over the last 1000 years reliable?* Annals of Applied Statistics **5** (2011), 45–98.

L. Mark Berliner, Alexey Kaplan, Richard A. Davis And Jingchen Liu, Stephen McIntyre And Ross McKitrick, Murali Haran And Nathan M. Urban, Gavin A. Schmidt, Michael E. Mann And Scott D. Rutherford, Lasse Holmström, Jason E. Smerdon, Doug Nychka And Bo Li, Martin P. Tingley, Peter Craigmile And Bala Rajaratnam, Eugene R. Wahl And Caspar M. Ammann & Jonathan Rougier

AnnApplStat05-0047-Supplement.zip, AnnApplStat05-0052-Supplement.txt, AnnApplStat05-0065-Supplement1.pdf, AnnApplStat05-0065-Supplement2.zip, AnnApplStat05-0071-Supplement.zip, AnnApplStat05-0076-Supplement.zip, AnnApplStat05-0083-Supplement.zip

Dezileau 2011

L. Dezileau et al., *Intense storm activity during the Little Ice Age on the French Mediterranean coast.* Palaeo **299** (2011), 289–297.

L. Dezileau, P. Sabatier, P. Blanchemanche, B. Joly, D. Swingedouw, C. Cassou, J. Castaings, P. Martinez & U. von Grafenstein

Understanding long-term variability in the frequency of intense storm activity is important for assessing whether changes are controlled by climate evolution. Understanding this variability is also important for predicting present and future community vulnerability and economic loss. Our ability to make these assessments has been limited by the short (less than 50 years) instrument record of storm activity. Storminduced deposits preserved in the sediments of coastal lagoons offer the opportunity to study the links between climatic conditions and storm activity on longer timescales. In this study, we present a record of these extreme climatic events that have occurred in the French Mediterrannean coast over the past 1500 years. The identification of these extreme events is based on the analysis of sediment cores from Gulf of Aigues-Mortes lagoons that contain a specific sedimentary and geochemical signature associated with intense storms.

Overwash deposits do not show any evidence of intense storm landfalls in the region for several hundred years prior to the late 17th century A.D. The apparent increase in intense storms around 250 years ago occurs during the latter half of the Little Ice Age, a time of lower continental surface temperatures. Comparison of the sediment record with palaeoclimate records indicates that this variability was probably modulated by atmospheric dynamics. The apparent increase of the superstorm activity during the latter half of the Little Ice Age was probably due to the thermal gradient increase leading to enhanced lower tropospheric baroclinicity over a large Central Atlantic/European domain and leading to a modification of the occurrence of extreme wind events along the French Mediterranean coast. A complete understanding of the relationship between climate fluctuations, storm activity, and the coastal response will be crucial to predicting the impacts of future climate change.

Keywords: Lagoon | Storm | Little Ice Age | North Atlantic Oscillation | Mediterranean Sea | Risk assessments

McIntyre 2005

Stephen McIntyre & Ross McKitrick, *The M&M critique of the MBH98 northern hemisphere climate index: Update and implications.* Energy & Environment **16** (2005), 69–100.

The differences between the results of McIntyre and McKitrick [2003] and Mann et al. [1998] can be reconciled by only two series: the Gaspé cedar ring width series and the

first principal component (PC1) from the North American tree ring network. We show that in each case MBH98 methodology differed from what was stated in print and the differences resulted in lower early 15th century index values. In the case of the North American PC1, MBH98 modified the PC algorithm so that the calculation was no longer centered, but claimed that the calculation was "conventional". The modification caused the PC1 to be dominated by a subset of bristlecone pine ring width series which are widely doubted to be reliable temperature proxies. In the case of the Gaspé cedars, MBH98 did not use archived data, but made an extrapolation, unique within the corpus of over 350 series, and misrepresented the start date of the series. The recent Corrigendum by Mann et al. denied that these differences between the stated methods and actual methods have any effect, a claim we show is false. We also refute the various arguments by Mann et al. purporting to salvage their reconstruction, including their claims of robustness and statistical skill. Finally, we comment on several policy issues arising from this controversy: the lack of consistent requirements for disclosure of data and methods in paleoclimate journals, and the need to recognize the limitations of journal peer review as a quality control standard when scientific studies are used for public policy.

McIntyre 2005

Stephen McIntyre & Ross McKitrick, *Hockey sticks, principal components, and spurious significance*. Geophysical Research Letters **32** (2005), L03710. DOI:10.1029/2004GL021750.

GeoResLet32-L03710-Comment1.pdf, GeoResLet32-L03710-Reply1.pdf, GeoResLet32-L03710-Comment2.pdf, GeoResLet32-L03710-Reply2.pdf

The "hockey stick" shaped temperature reconstruction of Mann et al. (1998, 1999) has been widely applied. However it has not been previously noted in print that, prior to their principal components (PCs) analysis on tree ring networks, they carried out an unusual data transformation which strongly affects the resulting PCs. Their method, when tested on persistent red noise, nearly always produces a hockey stick shaped first principal component (PC1) and overstates the first eigenvalue. In the controversial 15th century period, the MBH98 method effectively selects only one species (bristlecone pine) into the critical North American PC1, making it implausible to describe it as the "dominant pattern of variance". Through Monte Carlo analysis, we show that MBH98 benchmarks for significance of the Reduction of Error (RE) statistic are substantially under-stated and, using a range of cross-validation statistics, we show that the MBH98 15th century reconstruction lacks statistical significance.

McShane 2011

Blakeley B. McShane & Abraham J. Wyner, *A statistical analysis of multiple temperature proxies: Are reconstructions of surface temperatures over the last 1000 years reliable?* Annals of Applied Statistics **5** (2011), 5–44.

AnnApplStat05-0005-Supplement.zip, AnnApplStat05-0045-Comment.pdf, AnnApplStat05-0099-McShane.pdf

Predicting historic temperatures based on tree rings, ice cores, and other natural proxies is a difficult endeavor. The relationship between proxies and temperature is weak and the number of proxies is far larger than the number of target data points. Furthermore, the data contain complex spatial and temporal dependence structures which are not easily captured with simple models.

In this paper, we assess the reliability of such reconstructions and their statistical significance against various null models. We find that the proxies do not predict temperature significantly better than random series generated independently of temperature. Furthermore, various model specifications that perform similarly at predicting temperature produce extremely different historical backcasts. Finally, the proxies seem unable to forecast the high levels of and sharp run-up in temperature in the 1990s either in-sample

or from contiguous holdout blocks, thus casting doubt on their ability to predict such phenomena if in fact they occurred several hundred years ago.
We propose our own reconstruction of Northern Hemisphere average annual land temperature over the last millennium, assess its reliability, and compare it to those from the climate science literature. Our model provides a similar reconstruction but has much wider standard errors, reflecting the weak signal and large uncertainty encountered in this setting.

McShane 2011

Blakeley B. Mcshane & Abraham J. Wyner, *Rejoinder*. Annals of Applied Statistics **5** (2011), 99–123.
AnnApplStat05-0099-Supplement1.zip, AnnApplStat05-0099-Supplement2.zip

Stein 2011

Michael L. Stein, *Editorial*. Annals of Applied Statistics **5** (2011), 1–4.
I would just like to raise one further issue, again related to something I tend to say in every class I teach: classical statistical hypothesis testing is overused in the scientific literature. I particularly object to the testing of sharp null hypotheses when there is no plausible basis for believing the null is true. An example of an implausible sharp null hypothesis would be that a large increase in the concentration of CO2 in the atmosphere has exactly zero effect on the global mean temperature. When a null hypothesis of no effect is untenable, emphasis should be on estimation and/or prediction along with uncertainty quantification. Thus, the testing and attribution questions for climate change seem to me to be irrelevant and the focus needs to be on prediction. Seen in this light, paleoclimate reconstructions on a range of time scales are more useful for estimating the effect of various climate forcings (e.g., solar variability, aerosols and trace gases) on the climate than for testing sharp null hypotheses. Appropriate assessment of uncertainties in reconstructions of both the climate and the forcings are, of course, critical to this endeavor.

Kultur

Bowles 2012

Samuel Bowles, *Warriors, Levelers, and the Role of Conflict in Human Social Evolutions*. science **336** (2012), 876–879.
The origins of such varied features of contemporary life as the national state and the desire to uphold generous and civic social norms are to be found in a combination of conflict between groups and attenuation of both inequalities and conflicts within groups. In contrast to the adoption of a better tool or a more productive crop, which can be adopted by a single individual, a new institution works only if most people adopt it. This explains why collective action against those benefitting from the status quo at the expense of others, as well as conflict between groups governed by different norms and institutions, figures so prominently in our capacity to adapt to changing circumstances and to harness new knowledge for human benefit.

Zapassky 2012

Elena Zapassky, Yuval Gadot, Israel Finkelstein & Itzhak Benenson, *An Ancient Relation between Units of Length and Volume Based on a Sphere*. PLoS ONE **7** (2012), e33895. DOI:10.1371/journal.pone.0033895.
The modern metric system defines units of volume based on the cube. We propose that the ancient Egyptian system of measuring capacity employed a similar concept, but used

the sphere instead. When considered in ancient Egyptian units, the volume of a sphere, whose circumference is one royal cubit, equals half a hekat. Using the measurements of large sets of ancient containers as a database, the article demonstrates that this formula was characteristic of Egyptian and Egyptian-related pottery vessels but not of the ceramics of Mesopotamia, which had a different system of measuring length and volume units.

Politik

Boehm 2012

Christopher Boehm, *Ancestral Hierarchy and Conflict*. science **336** (2012), 844–847.

Ancestral Pan, the shared predecessor of humans, bonobos, and chimpanzees, lived in social dominance hierarchies that created conflict through individual and coalitional competition. This ancestor had male and female mediators, but individuals often reconciled independently. An evolutionary trajectory is traced from this ancestor to extant hunter-gatherers, whose coalitional behavior results in suppressed dominance and competition, except in mate competition. A territorial ancestral Pan would not have engaged in intensive warfare if we consider bonobo behavior, but modern human foragers have the potential for full-scale war. Although hunter-gatherers are able to resolve conflicts preemptively, they also use mechanisms, such as truces and peace pacts, to mitigate conflict when the costs become too high. Today, humans retain the genetic underpinnings of both conflict and conflict management; thus, we retain the potential for both war and peace.

Conflict 2012

Guy Riddihough, Gilbert Chin, Elizabeth Culotta, Barbara Jasny, Leslie Roberts & Sacha Vignieri, *Human conflict – Winning the peace*. science **336** (2012), 818–843.

Eliot Marshall: Parsing Terrorism
Terrorism research has expanded rapidly since 9/11, shifting its focus from human pathology to the analysis of how rational people interact with violent groups.
Eliot Marshall: Tribal Roots in South Sudan
Elizabeth Culotta: Roots of Racism
Humans everywhere divide the world into “us” and “them.” Why are we so tribal?
Elizabeth Pennisi: Preening the Troops
Andrew Lawler: The Battle over Violence
Under the long shadow of Rousseau and Hobbes, scientists debate whether civilization spurred or inhibited warfare-and whether we have the data to know.
John Bohannon: Tweeting the London Riots
Andrew Lawler: Civilization’s Double-Edged Sword
Recent archaeological finds from the Near East to Southeast Asia of ancient massacres raise questions about how violence changed as societies became more complex
Ann Gibbons: The Ultimate Sacrifice
Seeking to impress both gods and humans, early state societies across the globe displayed their power by ritually killing human victims
Elizabeth Pennisi: Fighting Rituals
Mara Hvistendahl: Gender and Violence
Researchers are probing links between the status of women in a society and its propensity toward war
Elizabeth Pennisi: From War to Peace
Greg Miller: Drone Wars
Are remotely piloted aircraft changing the nature of war?

Crisp 2012

Richard J. Crisp & Rose Meleady, *Adapting to a Multicultural Future*. science **336** (2012), 853–855.

Humans have an evolved propensity to think categorically about social groups. This propensity is manifest in cognitive processes that have broad implications for public and political endorsement of multicultural policy. Drawing on these principles, we postulate a cognitive-evolutionary account of human adaptation to social diversity. This account explains broad social trends marking a resistance to multiculturalism, while providing an important reorienting call for scholars and policy-makers seeking intervention-based solutions to the problem of prejudice.

Ellemers 2012

Naomi Ellemers, *The Group Self*. science **336** (2012), 848–852.

Although people often tend to consider themselves and others as unique individuals, there are many situations in which they think, feel, and act primarily as group members. This can bring out the best in them, as when they are inspired to help fellow citizens in need, or the worst, as when they show hostility against others simply because they represent another religious or ethnic group. Understanding when and why the group self becomes more important than the individual self, and how this affects people's thoughts, feelings, and behaviors, can help to prevent and redirect unwelcome aspects of human behavior by addressing them at the appropriate level of self.

Esteban 2012

Joan Esteban, Laura Mayoral & Debraj Ray, *Ethnicity and Conflict: Theory and Facts*. science **336** (2012), 858–865.

Over the second half of the 20th century, conflicts within national boundaries became increasingly dominant. One-third of all countries experienced civil conflict. Many (if not most) such conflicts involved violence along ethnic lines. On the basis of recent theoretical and empirical research, we provide evidence that preexisting ethnic divisions do influence social conflict. Our analysis also points to particular channels of influence. Specifically, we show that two different measures of ethnic division-polarization and fractionalization-jointly influence conflict, the former more so when the winners enjoy a "public" prize (such as political power or religious hegemony), the latter more so when the prize is "private" (such as looted resources, government subsidies, or infrastructures). The available data appear to strongly support existing theories of intergroup conflict. Our argument also provides indirect evidence that ethnic conflicts are likely to be instrumental, rather than driven by primordial hatreds.

Fry 2012

Douglas P. Fry, *Life Without War*. science **336** (2012), 879–884.

An emerging evolutionary perspective suggests that nature and human nature are less "red in tooth and claw" than generally acknowledged by a competition-based view of the biological world. War is not always present in human societies. Peace systems, defined as groups of neighboring societies that do not make war on each other, exist on different continents. A comparison of three peace systems-the Upper Xingu River basin tribes of Brazil, the Iroquois Confederacy of upper New York State, and the European Union-highlight six features hypothesized to be important in the creation and maintenance of intersocietal peace: (i) an overarching social identity, (ii) interconnections among subgroups, (iii) interdependence, (iv) nonwarring values, (v) symbolism and ceremonies that reinforce peace, and (vi) superordinate institutions for conflict management. The existence of peace systems demonstrates that it is possible to create social systems free of war.

von Pistorius 1931
Theodor von Pistorius, *Gemeindefinanzen und Steuern, Ein Vortrag*. Zeitschrift für die gesamte Staatswissenschaft **90** (1931), 561–581.
Außerordentliche Ausgaben und außerordentliche Einnahmen hängen insofern zusammen, als jedenfalls außerordentliche Einnahmen (Darlehen) nur zur Deckung von außerordentlichen Ausgaben flüssig gemacht werden dürfen, niemals zur Deckung ordentlicher, d. h. laufender Einnahmen. Leider geschieht das Gegenteil heute nur zu oft und das ist für jede Finanz Wirtschaft der Anfang vom Ende.

Sambanis 2012
Nicholas Sambanis, Jonah Schulhofer-Wohl & Moses Shayo, *Parochialism as a Central Challenge in Counterinsurgency*. science **336** (2012), 805–808.
s336-0805-Supplement.pdf
Current U.S. practice in Afghanistan may reify social divisions, which undermines institutions critical to postwar stability.

Religion

Atran 2012
Scott Atran & Jeremy Ginges, *Religious and Sacred Imperatives in Human Conflict*. science **336** (2012), 855–857.
Religion, in promoting outlandish beliefs and costly rituals, increases ingroup trust but also may increase mistrust and conflict with outgroups. Moralizing gods emerged over the last few millennia, enabling large-scale cooperation, and sociopolitical conquest even without war. Whether for cooperation or conflict, sacred values, like devotion to God or a collective cause, signal group identity and operate as moral imperatives that inspire nonrational exertions independent of likely outcomes. In conflict situations, otherwise mundane sociopolitical preferences may become sacred values, acquiring immunity to material incentives. Sacred values sustain intractable conflicts that defy "business-like" negotiation, but also provide surprising opportunities for resolution.

Dietrich 2012
Oliver Dietrich, Çigdem Köksal-Schmidt, Jens Notroff, Klaus Schmidt & Cihat Kürkçüoğlu , *First came the temple, later the city*. Actual Archaeology **2012**, ii, 32–51.
Göbekli Tepe is one of the most fascinating Neolithic sites all over the world. It is a "Tell", an artificial mound formed by the construction work of man. But it is not a place for people to live; it consists of several sanctuaries in the form of round megalithic enclosures. It is clear that after a period of time, these sanctuaries were intentionally and rapidly buried, a process which seems to have been a fixed part of their useful lives right from the beginning.
Göbekli Tepe was a religious central place for a hunter-gatherer community with a highly developed and differentiated transcendental belief system. The early appearance of monumental religious architecture at Gobekli Tepe is also profoundly changing our image of one of the key moments in history, the emergence of agriculture and animal husbandry.
From Göbekli Tepe there are also several life-size human heads made of limestone. They show a broken edge in the head area and therefore it is quite probable that they originally were part of larger statues as well. Interestingly, some of these heads were found in the filling of the enclosures, placed there intentionally beneath the central pillars during the process of backfilling – burying – of these places.

Pulling all these hints together, it becomes clear that Gobekli Tepe was a religious central place for a hunter-gatherer community with a highly developed and differentiated transcendental belief system. The early appearance of monumental religious architecture at Göbekli Tepe is also profoundly changing our image of one of the key moments in history, the emergence of agriculture and animal husbandry. “First came the temple, later the city” (and also the food-producing way of life) now seems to be an appropriate description of these processes.

Legare 2012

Cristine H. Legare & André L. Souza, *Evaluating ritual efficacy: Evidence from the supernatural*. Cognition **124** (2012), 1–15.

Rituals pose a cognitive paradox: although widely used to treat problems, rituals are causally opaque (i.e., they lack a causal explanation for their effects). How is the efficacy of ritual action evaluated in the absence of causal information? To examine this question using ecologically valid content, three studies (N = 162) were conducted in Brazil, a cultural context in which rituals called simpatias are used to treat a great variety of problems ranging from asthma to infidelity. Using content from existing simpatias, experimental simpatias were designed to manipulate the kinds of information that influences perceptions of efficacy. A fourth study (N = 68) with identical stimuli was conducted with a US sample to assess the generalizability of the findings across two different cultural contexts. The results provide evidence that information reflecting intuitive causal principles (i.e., repetition of procedures, number of procedural steps) and transcendental influence (i.e., presence of religious icons) affects how people evaluate ritual efficacy.

Keywords: Causal reasoning | Ritual | Supernatural cognition | Cognitive science of religion | Cross-cultural research | Cognition and culture

Story or Book

Adida 2012

Claire L. Adida, *Schooling Violence?* science **336** (2012), 804.

Educations in Ethnic Violence Identity, Educational Bubbles, and Resource Mobilization by Matthew Lange. Cambridge University Press, Cambridge, 2012. 254 pp. $90, £55. ISBN 9781107016293. Paper, $26.99, £16.99. ISBN 9781107602373.

Controlling for factors typically associated with ethnic violence-such as a country’s regime type; levels of economic development, ethnic diversity, and political discrimination; total and youth population sizes; and geographical characteristics that facilitate rebellion-he . nds education significantly positively correlated with the level of ethnic violence. In these case studies, educational achievement precedes ethnic violence; participants in ethnic violence (particularly violence entrepreneurs) are highly educated; and several mechanisms emerge that show how education affects the motivations and capacities of individuals to participate in violence.

Lange recognizes this limitation and struggles with it throughout the book. Early on, he notes that “education is rarely an independent cause of ethnic violence but is usually a background condition that exerts its effect when combined with other factors.” And he insists that “[w]hile suggesting that education is rarely a proximate or ultimate cause of ethnic violence, my conclusion in no way denies that education contributes to ethnic violence in influential ways.” As a result, we are left with a compelling story about an important correlation, not a causal link.

Book 2012

The Creation of Inequality. nature **485** (2012), 443.

The Creation of Inequality: How Our Prehistoric Ancestors Set the Stage for Monarchy, Slavery, and Empire. Kent Flannery and Joyce Marcus. Harvard Univ. Press 544 pp. £29.95 (2012)

The extreme disparities in prosperity and status that plague societies and spawn empires had their roots 4,500 years ago, argue anthropological archaeologists Kent Flannery and Joyce Marcus. Drawing on ethnography and archaeology, they reveal how societies create elites and tyrants. High rank for the ambitious and talented, for instance, becomes problematic when translated into hereditary rights, and competition among the privileged can lead to despotism.

Hechter 2012

Michael Hechter, *Violence Tamed*. science **336** (2012), 803–804.

A History of Violence From the End of the Middle Ages to the Present by Robert Muchembled; Jean Birrell, Translator. Polity, Cambridge, 2011. 383 pp. $79.95, £60, E72. ISBN 9780745647463. Paper, $29.95, £19.99, E24. ISBN 9780745647470.

In contrast to claims by others, Muchembled argues that social control over male aggression preceded the rise of the state. Because the fortunes of towns depended on trade, civic authorities had an interest in preventing disorder as it discouraged commerce. If trade was responsible for the initial supply of sanctions, then population pressure, which increased all over Europe around 1520, had much to do with the demand for social control. Due to larger cohorts, young men had to wait longer than usual to attain their fathers' positions in the social structure. For their part, the adults deflected responsibility for punishing their children onto the authorities, who imposed respect for the law. In these conditions, the support of older generations increased the effectiveness of previously enacted laws against homicide and infanticide.

Scherrer 2012

Robert Scherrer, *The Common App, It's in the blood*. nature **485** (2012), 540.

Vanessa glared at her husband. "Well," she said, "it's just that college admissions these days – it's really all a question of the right breeding, isn't it?" Vanessa fingered the strand of pearls around her neck. "And your husband – I would never speak ill of the dead, mind you, but your late husband was a ..." Vanessa paused briefly before delivering her coup de grâce. "He was a plumber."