

References

Aktuell

DOWLATI 2017

Yekta Dowlati, Arun V. Ravindran, Zindel V. Segal, Donna E. Stewart, Meir Steiner & Jeffrey H. Meyer, *Selective dietary supplementation in early postpartum is associated with high resilience against depressed mood*. *PNAS* **114** (2017), 3509–3514.

Medical research is moving toward prevention strategies during prodromal states. Postpartum blues (PPB) is often a prodromal state for postpartum depression (PPD), with severe PPB strongly associated with an elevated risk for PPD. The most common complication of childbearing, PPD has a prevalence of 13 %, but there are no widespread prevention strategies, and no nutraceutical interventions have been developed. To counter the effects of the 40 % increase in monoamine oxidase A (MAO-A) levels that occurs during PPB, a dietary supplement kit consisting of monoamine precursor amino acids and dietary antioxidants was created. Key ingredients (tryptophan and tyrosine) were shown not to affect their total concentration in breast milk. The aim of this open-label study was to assess whether this dietary supplement reduces vulnerability to depressed mood at postpartum day 5, the typical peak of PPB. Forty-one healthy women completed all study procedures. One group (n = 21) received the dietary supplement, composed of 2 g of tryptophan, 10 g of tyrosine, and blueberry juice with blueberry extract. The control group (n = 20) did not receive any supplement. PPB severity was quantitated by the elevation in depressed mood on a visual analog scale following the sad mood induction procedure (MIP). Following the MIP, there was a robust induction of depressed mood in the control group, but no effect in the supplement group [43.85 ± 18.98 mm vs. 0.05 ± 9.57 mm shift; effect size: 2.9; F(1,39) = 88.33, P < 0.001]. This dietary supplement designed to counter functions of elevated MAO-A activity eliminates vulnerability to depressed mood during the peak of PPB.

Keywords: postpartum blues | prodrome | prevention | monoamine oxidase A | monoamine

Significance: Postpartum blues is a healthy range of sadness that peaks on day 5 after giving birth in most women. Severe postpartum blues is a high-risk state for postpartum depression. A dietary supplement was designed to compensate for a temporary rise in a brain protein, monoamine oxidase A, which occurs on postpartum day 5. This study tested whether this dietary supplement reduces the sadness associated with the postpartum blues. Total levels of tryptophan and tyrosine in breast milk are not affected by this dietary supplement. Women received the dietary supplement over postpartum days 3–5 or received no supplement. This dietary supplement dramatically reduced the vulnerability to sadness on postpartum day 5, the peak of the postpartum blues, eliminating the prodrome of postpartum depression.

Biologie

FROESE 2017

Duane Froese et al., *Fossil and genomic evidence constrains the timing*

of bison arrival in North America. [PNAS 114 \(2017\), 3457–3462.](#)

Duane Froese, Mathias Stiller, Peter D. Heintzman, Alberto V. Reyes, Grant D. Zazula, André E. R. Soares, Matthias Meyer, Elizabeth Hall, Britta J. L. Jensen, Lee J. Arnold, Ross D. E. MacPhee & Beth Shapiro

The arrival of bison in North America marks one of the most successful large-mammal dispersals from Asia within the last million years, yet the timing and nature of this event remain poorly determined. Here, we used a combined paleontological and paleogenomic approach to provide a robust timeline for the entry and subsequent evolution of bison within North America. We characterized two fossil-rich localities in Canada’s Yukon and identified the oldest well-constrained bison fossil in North America, a 130,000-y-old steppe bison, *Bison cf. priscus*. We extracted and sequenced mitochondrial genomes from both this bison and from the remains of a recently discovered, $\approx 120,000$ -y-old giant long-horned bison, *Bison latifrons*, from Snowmass, Colorado. We analyzed these and 44 other bison mitogenomes with ages that span the Late Pleistocene, and identified two waves of bison dispersal into North America from Asia, the earliest of which occurred ≈ 195 –135 thousand y ago and preceded the morphological diversification of North American bison, and the second of which occurred during the Late Pleistocene, ≈ 45 –21 thousand y ago. This chronological arc establishes that bison first entered North America during the sea level lowstand accompanying marine isotope stage 6, rejecting earlier records of bison in North America. After their invasion, bison rapidly colonized North America during the last interglaciation, spreading from Alaska through continental North America; they have been continuously resident since then.

Keywords: Beringia | *Bison latifrons* | *Bison priscus* | paleogenomics | Rancholabrean | steppe bison

Significance: The appearance of bison in North America is both ecologically and paleontologically significant. We analyzed mitochondrial DNA from the oldest known North American bison fossils to reveal that bison were present in northern North America by 195–135 thousand y ago, having entered from Asia via the Bering Land Bridge. After their arrival, bison quickly colonized much of the rest of the continent, where they rapidly diversified phenotypically, producing, for example, the giant long-horned morphotype *Bison latifrons* during the last interglaciation.

Datierung

DEE 2016

Michael W. Dee & Benjamin J. S. Pope, *Anchoring historical sequences using a new source of astro-chronological tie-points*. [Proc. Royal Society A 472 \(2016\), 2016.0263.](#)

The discovery of past spikes in atmospheric radiocarbon activity, caused by major solar energetic particle events, has opened up new possibilities for high-precision chronometry. The two spikes, or Miyake Events, have now been widely identified in tree-rings that grew in the years 775 and 994 CE. Furthermore, all other plant material that grew in these years would also have incorporated the anomalously high concentrations of radiocarbon. Crucially, some plant-based artefacts, such as papyrus documents, timber beams and linen garments, can also be allocated to specific positions within long, currently unfixed, historical sequences. Thus, Miyake Events represent a new source of tie-points that could provide the means for anchoring early chronologies to the absolute timescale. Here, we explore this possibility, outlining the most expeditious approaches, the current challenges and obstacles, and how they might best be overcome.

Keywords: radiocarbon | chronology | Miyake Events | early civilization | atmospheric carbon

Judentum

KOSMAN 2014

Admiel Kosman, *Die Theologie der Juden in der Weimarer Republik und die Theologie der Rabbiner im heutigen Israel*. [imdialog.org](http://www.imdialog.org) 2014, Mar. 8, 1–13. <<http://www.imdialog.org/bp2014/03/08.html>> (2017-03-28).

Wie ich im Folgenden veranschauliche, kann hier von einer mehrfachen Ironie der Geschichte gesprochen werden. Zum einen stellte sich das, was in der Vergangenheit als eine jüdische Wiederbelebung im Lande Israel angekündigt wurde, als leeres Geschwätz heraus. Es gab keinen jüdischen Erneuerungsprozesses (nicht im theologischen Sinne, wie er etwa A. G. Gordon vorschlug). Eher verlief dieser Prozess in die andere Richtung. Es bildete sich ein Volk, das seine Kinder auf theologischen Grundsätzen erzog, die dunkler waren als jene, die in den jüdischen Gemeinden Europas im Mittelalter verbreitet waren. Zum anderen drückt sich die Ironie der Geschichte darin aus, dass ausgerechnet Deutschland – der Staat, der sich am Ende der Republik in nicht zu überbietender moralischer und geistiger Hässlichkeit zeigte und mit dem unauslöschlichen Kainsmal auf der Stirn zu einem Inbegriff des Bösen wurde – Leitgedanken in sein Erziehungssystem und in große Teile seiner heutigen Gesetzgebung aufgenommen hat, die von namhaften jüdischen Theologen in der Blütezeit der Weimarer Epoche entwickelt wurden.

Kultur

ALLEN 1971

Vernon L. Allen & John M. Levine, *Social Support and Conformity, The Role of Independent Assessment of Reality*. *Journal of Experimental Social Psychology* 7 (1971), 48–58.

This study investigated the role of one factor in the reduction of conformity produced by a partner who agrees with the subject in the face of group pressure: the independent assessment of social and physical reality provided by the partner. Two social support conditions were created, differing only in the subject's perception of the partner's adequacy as a valid referent for making judgments. A unanimous group was also included to provide a conformity base line. Results indicated that the Valid Social Support condition produced a significantly greater decrease in conformity than did the Invalid Social Support condition, though both conditions reduced conformity relative to the unanimous group. Results support the hypothesis that independent assessment of reality provided by a partner is an important factor underlying the efficacy of social support in reducing conformity.

WENGROW 2015

David Wengrow & David Graeber, *Farewell to the 'Childhood Of Man', Ritual, seasonality, and the origins of inequality*. *Journal of the Royal Anthropological Institute* 21 (2015), 597–619.

Evidence of grand burials and monumental construction is a striking feature in the archaeological record of the Upper Palaeolithic period, between 40 and 10 kya (thousand years ago). Archaeologists often interpret such finds as indicators

of rank and hierarchy among Pleistocene hunter-gatherers. Interpretations of this kind are difficult to reconcile with the view, still common in sociobiology, that pre-agricultural societies were typically egalitarian in orientation. Here we develop an alternative model of ‘Palaeolithic politics’, which emphasizes the ability of hunter-gatherers to alternate – consciously and deliberately – between contrasting modes of political organization, including a variety of hierarchical and egalitarian possibilities. We propose that alternations of this sort were an emergent property of human societies in the highly seasonal environments of the last Ice Age. We further consider some implications of the model for received concepts of social evolution, with particular attention to the distinction between ‘simple’ and ‘complex’ hunter-gatherers.

Kultur Anthropologie

CHAGNON 2017

Napoleon A. Chagnon, Robert F. Lynch, Mary K. Shenk, Raymond Hames & Mark V. Flinn, *Cross-cousin marriage among the Yanomamö shows evidence of parent–offspring conflict and mate competition between brothers*. [PNAS 114 \(2017\), E2590–E2597](#).

Marriage in many traditional societies often concerns the institutionalized exchange of reproductive partners among groups of kin. Such exchanges most often involve cross-cousins—marriage with the child of a parent’s opposite-sex sibling—but it is unclear who benefits from these exchanges. Here we analyze the fitness consequences of marrying relatives among the Yanomamö from the Amazon. When individuals marry close kin, we find that (i) both husbands and wives have slightly lower fertility; (ii) offspring suffer from inbreeding depression; (iii) parents have more grandchildren; and (iv) siblings, especially brothers, benefit when their opposite-sex siblings marry relatives but not when their same-sex siblings do. Therefore, individuals seem to benefit when their children or opposite-sex siblings marry relatives but suffer costs when they, their parents, or same-sex siblings do. These asymmetric fitness outcomes suggest conflicts between parents and offspring and among siblings over optimal mating strategies. Parental control of marriages is reinforced by cultural norms prescribing cross-cousin marriage. We posit that local mate competition combined with parental control over marriages may escalate conflict between same-sex siblings who compete over mates, while simultaneously forging alliances between opposite-sex siblings. If these relationships are carried forward to subsequent generations, they may drive bilateral cross-cousin marriage rules. This study provides insights into the evolutionary importance of how kinship and reciprocity underlie conflicts over who controls mate choice and the origins of cross-cousin marriage prescriptions.

Keywords: cross-cousin marriage | inbreeding | local mate competition | parent–offspring conflict | Yanomamö

Significance: Cross-cousin marriage (i.e., marriage with the offspring of a parent’s opposite-sex sibling) is the most common preferred marriage arrangement across cultures. Despite intense investigation, the origin and adaptive function of this marriage prescription have not been resolved. An analysis of the fitness consequences of marriages in the Yanomamö—a tribal society in the Amazon—shows that parents and brothers achieve higher fitness outcomes when their respective children and sisters marry more closely related individuals. Meanwhile, the spouses and offspring produced by these unions have lower fitness. These findings suggest that cross-cousin marriage prescriptions and taboos against marrying parallel

cousins owe their origin to parent–offspring conflict through parental control of marriage and competition between same-sex siblings.

Kultur Mathematik

BECKER 1974

Gary S. Becker, *A Theory of Social Interactions*. [Journal of Political Economy](#) **82** (1974), 1063–1093.

This essay uses simple tools of economic theory to analyze interactions between the behavior of some persons and different characteristics of other persons. Although these interactions are emphasized in the contemporary sociological and anthropological literature, and were considered the cornerstone of behavior by several prominent nineteenth-century economists, they have been largely ignored in the modern economic literature. The central concept of the analysis is “social income,” the sum of a person’s own income (his earnings, etc.) and the monetary value to him of the relevant characteristics of others, which I call his social environment. By using the concept of social income, I can analyze the effect on these expenditures of changes in different sources of income and in different prices, including the “price” of the social environment. Interactions among members of the same family receive the greatest attention. The “head” of a family is defined not by sex or age, but as that member, if there is one, who transfers general purchasing power to all other members because he cares about their welfare. A family with a head is a highly interdependent organization that has the following properties: A redistribution of income among members does not affect the consumption or welfare of any member because it simply induces offsetting changes in transfers from the head. Not only the head but other members too act “as if” they “loved” all members, even when they are really selfish, in the sense that they maximize not their own income alone but family income. Transfers from parents to children in the form, say, of schooling, gifts, and bequests tend to be negatively related to what the income of children would be relative to their parents in the absence of these transfers. Therefore, the relative income of children inclusive of transfers could be unrelated or even negatively related to these transfers. Consequently, one cannot infer anything about the stability across generations of economic or social positions simply from knowing the relation between parental position and the amount transferred.

Methoden

HERZOG 1987

Irmela Herzog & Irwin Scollar, *Ein „Werkzeugkasten“ für Seriation und Clusteranalyse*. [Archäologisches Korrespondenzblatt](#) **17** (1987), 273–279.

Mittelpaläolithikum

DAURA 2017

Joan Daura et al., *New Middle Pleistocene hominin cranium from Gruta da Aroeira (Portugal)*. [PNAS](#) **114** (2017), 3397–3402.

Joan Daura, Montserrat Sanz, Juan Luis Arsuaga, Dirk L. Hoffmann, Rolf M. Quam, María Cruz Ortega, Elena Santos, Sandra Gómez, Angel Rubio, Lucía

Villaescusa, Pedro Souto, João Mauricio, Filipa Rodrigues, Artur Ferreira, Paulo Godinho, Erik Trinkaus & João Zilhão

The Middle Pleistocene is a crucial time period for studying human evolution in Europe, because it marks the appearance of both fossil hominins ancestral to the later Neandertals and the Acheulean technology. Nevertheless, European sites containing well-dated human remains associated with an Acheulean toolkit remain scarce. The earliest European hominin crania associated with Acheulean handaxes are at the sites of Arago, Atapuerca Sima de los Huesos (SH), and Swanscombe, dating to 400–500 ka (Marine Isotope Stage 11–12). The Atapuerca (SH) fossils and the Swanscombe cranium belong to the Neandertal clade, whereas the Arago hominins have been attributed to an incipient stage of Neandertal evolution, to *Homo heidelbergensis*, or to a subspecies of *Homo erectus*. A recently discovered cranium (Aroeira 3) from the Gruta da Aroeira (Almonda karst system, Portugal) dating to 390–436 ka provides important evidence on the earliest European Acheulean-bearing hominins. This cranium is represented by most of the right half of a calvarium (with the exception of the missing occipital bone) and a fragmentary right maxilla preserving part of the nasal floor and two fragmentary molars. The combination of traits in the Aroeira 3 cranium augments the previously documented diversity in the European Middle Pleistocene fossil record.

Keywords: human evolution | Neandertal roots | evolutionary patterns | Acheulean | Europe

Significance: We describe a recently discovered cranium from the Aroeira cave in Portugal dated to around 400 ka. This specimen is the westernmost Middle Pleistocene cranium of Europe and is one of the earliest fossils from this region associated with Acheulean tools. Unlike most other Middle Pleistocene finds, which are of uncertain chronology, the Aroeira 3 cranium is firmly dated to around 400 ka and was in direct association with abundant faunal remains and stone tools. In addition, the presence of burnt bones suggests a controlled use of fire. The Aroeira cranium represents a substantial contribution to the debate on the origin of the Neandertals and the pattern of human evolution in the Middle Pleistocene of Europe.

Religion

SØRENSEN 2013

Jesper Sørensen, *Magic Reconsidered, Towards a Scientifically Valid Concept of Magic*. In: BERND-CHRISTIAN OTTO & MICHAEL STAUSBERG (Hrsg.), *Defining Magic, A Reader*. (Sheffield 2013), 229–242.

Jesper Sørensen is a Danish scholar of religion. His book *A Cognitive Theory of Magic* (2007a) tries to explain “magic” by drawing on the framework of cognitive sciences (in particular, cognitive linguistics and cognitive psychology). He analyses “magic” as a specific mode of ritual action and the parameters set by cognitive sciences are used to trace the mechanisms and processes at the origin of the permanent creation of magical agency. In his contribution to this volume, Sørensen defends the use of “magic” as a scholarly category once its “underlying traits” are identified and it is “fractioned into a number of empirically tractable problems”, Sørensen argues that “magic” draws on ordinary conceptual mechanisms that appear to work in a special way given that they are embedded in ritualized behaviour that triggers specific cognitive processes. He holds that “magic” takes meaning out of actions and words in ritual (“de-symbolization”) and outlines three tensions between “magic” and “religion” in terms of different attitudes to ritual

interpretation, the status of ritual experts, and local context versus institutional codification.