



FULL PROGRAMME

EUROPEAN HUMAN BEHAVIOUR AND EVOLUTION ASSOCIATION
Annual Conference, 29th March to 1st April 2015
University of Helsinki

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EHBEA 2015, Programme at a Glance

Saturday, March 28th

- 9:00- **Pre-conference Satellite meeting: *Evolutionary Developmental Biology***
16:00 Fabianinkatu 33, 2nd floor, Runeberg
18:30 *Student get-together* with films, Gustavus Rex, 18:30, Leppäsuonkatu 11

Sunday, March 29th

- 15:00 Registration opens (Main building, Entrance, 1st floor)
Posters put up (Main building, 2nd floor)
16:30 **Opening ceremony** (Great Hall, Unioninkatu 34, 2nd floor))
17:00 **Plenary I**, Melissa Hines: *How does testosterone influence development of the human brain and human behaviour*. Chair: Anna Rotkirch
18:00 *Wine reception* (outside Great Hall)

Monday, March 30th

- 09:00 **Plenary II**, Oliver Schülke: *Monkey bromance – how and why males form close social bonds*
10:00 **Session 1: Primate intelligence**
Forss *Testing the cultural intelligence hypothesis in orangutans*
Sanchez *Strategic decision-making by chimpanzees in a Snowdrift-Game*
Chair for Plenary II and Session 1: Carel van Schaik
10:50 *Coffee & tea*
11:20 **Speed session 2: The human family and maturation**. Chair: Rebecca Sear
Moore *The reproductive strategies and partner choice of female breadwinners: an analysis of historical records*
DeBruine *Testing competing hypotheses for the link between parents and partner's eye colour*
Harju *Conditional Love: adult investment in children as a function of the number of children and the degree of relatedness to these children.*
Saxton *Familial influences on individual differences in partner preferences*
Lobmaier *Increased affiliation motivation during the luteal menstrual cycle phase: evidence from a fEMG study*
Hõrak *Pathogen control accelerates pubertal but not early growth: evidence from the anthropometric study of Estonian schoolgirls born 1938-1953*
12:20 *Lunch*

- 13:10 **Plenary III** Beverly Strassmann: *Religious control of sexuality increases paternity certainty*
- 14:10 **Session 3: Religiosity and moral ideas**
 Baumard *Increased affluence explains the emergence of ascetic wisdoms and moralizing religions*
 Shultz *Costly religious behaviours are predicted by communal benefits*
 Chair for Plenary III and Session 3: Louise Barrett
- 15:00 *Coffee & tea*
Parallel sessions 4A (Small Hall) and 4B (Lecture room 13, 3rd floor)
- 15:30 **Session 4A: Fairytales and myths** Chair: Max van Duijn
 King *Regiments of monstrous women: myth and horror characters as a window into life history theory*
 Tehrani *Long stories: comparative phylogenetic analyses uncover the ancient origins of Indo-European folktales*
- 15:30 **Session 4B: Conformity and homogamy**
 Chair: Tamsin Saxton
 Fieder *The evolutionary potential of human homogamy*
 Miu *Emergent conformity in cumulative culture*
- 16:20 *break*
- 17:15 **Poster session I** Unchaired by Ursula
- 18:30 *Wine reception hosted by the Rector of the University of Helsinki*

Tuesday, March 31st

- 09:00 **Plenary IV**, Chris Kuzawa: *Measuring the costs of human brain development: new insights into the evolution of a slow and prolonged childhood*
- 10:00 **Session 5: Biosocial development**
 Orquin *A meta-analysis of blood glucose effects on human decision making*
 Barthes *Does kin selection promote male homosexual preference in non-Western societies? Insights from Indonesia*
 Chair for Plenary IV and Session 5: Daniel Nettle
- 10:50 *Coffee & tea*
- 11:10 **Poster session II**
- 12:10 *Lunch*
- 13:00 **Plenary V**, Wil Roebroeks: *The peopling of Pleistocene Europe – with or without fire?*
 Chair: Gillian Brown

Parallel speed sessions 6A (Small Hall) and 6B (Lecture room 13, 3rd floor)

14:00 **Speed session 6A: Life history theory and strategies** Chair: Oskar Burger

Berg *Birth intervals between siblings and the risk of parental divorce*

Proske *Incidence, not duration, is the essential evolved feature of the human post-reproductive lifespan*

Thomas *Saami reindeer herders prefer cooperation with social group members over genetic kin*

Uggla *Life history decisions predict preventable mortality in Northern Ireland*

Willführ *Reproductive behavior of landless agricultural workers, small farmers, and the economic elite in the historical Krummhörn region*

14:00 **Speed session 6B: Prosociality and cognition** Chair: Masanori Takezawa

Dessart *Loud signals of prosociality and wealth: a case of dishonest superstimuli*

Ferdinand *A cognitive basis for cultural drift*

Magid *Cultural transmission and evolution of psychological traits in Bengali migrants to the UK*

Firat *The moral crisis of racial cognition in the human brain*

Launay *The icebreaker effect: Singing together creates faster social bonds*

15:00 *Coffee and tea*

Parallel sessions 7A (Small Hall) and 7B (Lecture room 13, 3rd floor)

15:30 **Session 7A: The evolution of art and language** Chair: Minna Lyons

15:30 Honkola *Isolation mechanisms and linguistic divergence: microevolutionary perspective*

Nelson *A method for predicting the sex of hand stencilers, with incidental insights into creative behavior*

Sarti *Discriminations and stereotypes in Italy (1922-2013). A cultural evolutionary approach*

Session 7B: Family dynamics Chair: Caroline Uggla

15:30 Larmuseau *Insights in the range of historical extra-pair paternity rate in Western Europe.*

Lawson *Is polygyny a harmful cultural practice? Marriage, ethnicity and child health in Northern Tanzania*

Sear *Parental absence and age at first birth in Sweden: does the timing of absence matter?*

16:50 *Student evening out (gather at the entrance, 1st floor)*

18:30 *Wine reception hosted by the Mayor of Helsinki, City Hall*

Wednesday, April 1st

09:00 **Plenary VI**, Gert Stulp (New Investigator Award): *Evolutionary Adaptations and Unexplored Assumptions: questioning the mismatched stone-age mind*

10:00 **Session 8: Evolution and cognition**

Barrett *Extending evolutionary psychology: why 4E cognition is more than just the icing on a paleo cupcake*

Järvelä *Detecting signatures of positive selection associated with musical aptitude in the human genome*

Chair for Plenary VI and Session 8: Susanne Shultz

10:50 *Coffee & tea*

11:20 **Speed session 9: Cooperation and risk-taking** Chair: Nicolas Baumard

Foa *Human nature and the state*

Jarecki *Process tracing across evolutionary domains: A novel view on risky choice*

Rauwolf *The evolution of the impact bias: optimizing affective forecasts for choice in noisy environments*

Rusch *What makes people go to war? Defensive intentions motivate retaliatory and preemptive intergroup aggression*

Szabó *Mindreading and Machiavellianism: manipulative tactics in focus*

12:20 *Lunch*

Parallel sessions 10 A (Small Hall) and 10B (Lecture room 13, 3rd floor)

13:10 **Session 10A: Mate attraction** Chair: Lisa De Bruine

Wlodarski *The possible functions of romantic kissing*

Havlicek *The spandrels of Santa Barbara and the peri-ovulation paradigm*

Das *The attraction of the city: Female rural-urban migration in the Netherlands*

13:10 **Session 10B: The origin and development of social structure** Chair: Michael Stirrat

Burkart *Tracing the evolutionary origin of human hyper-cooperation*

David- *"Here and Now" - social cognition*

Barrett

Debove *"Just deserts": partner choice explains the evolution of meritocratic preferences in humans.*

14:25 *Coffee and tea*

Poster abstracts

Posters are listed in alphabetical order. Remember to vote for Best EHBEA 2015 Poster!

1. The evolution of cultural systems

Culture, as we encounter it every day, is more than just individual traits being transmitted independently of one another. We learn a language, including its vocabulary, grammar, and syntax, as an integrated system. Religions constitute whole sets of ideas about metaphysics, history, and morality. In other words, culture presents itself in systems. While this viewpoint has existed for some time in cultural anthropology, it has largely been ignored in evolutionary approaches to culture. If culture evolves, and systems of cultural traits are the norm, then how does the evolutionary process produce and maintain these systems?

In this paper we develop an agent-based simulation model to explore this question. Our hypothesis is that cultural systems are the result of basic relationships between cultural elements and filtering mechanisms (e.g. transmission or copying biases) that determine how and which cultural information gets copied. We constructed a trait universe, akin to a cultural design space, in which we could vary the proportion of binary relationships of compatibility or incompatibility. Results from the model show that highly compatible cultural systems can result from even highly incompatible design spaces due to the action of individual filtering. We also find that filtering based on trait compatibility produces more compatible systems- and more compatible individuals - than does filtering based on cultural models. Finally, we find that filtering is strongest when the variance in the number of compatible relationships in the trait universe is highest, a result analogous to Fisher's fundamental theorem of natural selection.

Authors: Elliot Aguilar, Department of Biology, City University of New York, elliott.g.aguilar@gmail.com; Magnus Enquist, Centre for the Study of Cultural Evolution, Stockholm University; Alberto Acerbi, Anthropology, University of Bristol.

2. Evolutionary explanation of homophobia in heterosexual males

At first sight homophobia and particularly that of heterosexual males directed towards gay men, seems to make no evolutionary sense. Surely, anything which removes competition for mates can only be a good thing in terms of fitness opportunities. Moreover, if just the fact of two people of the same biological sex having a relationship provokes negative attitudes in males, why is it that pornographic literature directed towards straight males often features two females together? The idea that homophobia towards gay men exists more strongly in males than females has been noted as far back as William James (1890) and is supported by more recent research (e.g. Poteat & Anderson, 2012). While many socio-cultural explanations have been suggested to account for homophobia (Fone, 2001), there has been little speculation in the evolutionary literature, and what there is could be considered outdated, dating as it does from the early 1980s and 90s (Gallup & Suarez, 1983; Gallup, 1995). Essentially, Gallup's argument for the evolutionary origins of homophobia stem from the belief that homosexuality is environmentally determined, and that therefore parents would not want their children to interact with

differ for the sexes.

Authors: Sonja Windhager, Department of Anthropology, University of Vienna, sonja.windhager@univie.ac.at; Katrin Schaefer, Department of Anthropology, University of Vienna, University of Lethbridge

88. Social structure and cooperation in human populations

Cooperation is a central feature of human social life ensuring their survival and reproduction. As an adaptation to their environment, humans have various social structures, which are the result of co-residence patterns after marriage. Evolutionary models have predicted that dispersal patterns can influence local relatedness, and hence the nature of altruism and competition observed in populations. Age and sex-biased dispersal patterns can influence the predictions of who is co-operative to whom within populations.

Objects: To test the hypothesis that social structure influences altruistic behaviour in a diversity of populations in southwestern China, where the local kinship norms are either for females to disperse at marriage or in some societies (a minority) stay in their natal household throughout life.

Methods: Using economic games to measure cooperation, and multilevel regression to analyse the predictors of cooperation.

Results and conclusions: We find that social organisation does influence levels of donations in both public goods and dictator games; both males and females are less cooperative in matrilineal societies where dispersal by both sexes is low. Age is also a relevant predictor, with older females being more co-operative in societies where females disperse at marriage, as predicted. This study shows that local dispersal norms influence co-operative behaviour in real world human populations.

Authors: Jiajia Wu, Anthropology, University College London, jia-jia.wu@ucl.ac.uk; Qiaoqiao He, Key Laboratory of Animal Ecology and Conservation Biology, Institute of Zoology, CAS; Ting Ji, Key Laboratory of Animal Ecology and Conservation Biology, Institute of Zoology, CAS; Yi Tao, Key Laboratory of Animal Ecology and Conservation Biology, Institute of Zoology, CAS; Ruth Mace, Anthropology, University College London

89. An evolutionary and individualistic perspective on visual search performance

In our experiment, we investigated with a newly developed own method, how emotional stimuli influence visual search performance depending on what level of valence and arousal the stimulus has. We measured cognitive attentional performance while emotional distractors also appeared in the field of view and state anxiety previously in order to demonstrate that individual differences provide a new angle on the problem.

Method: We examined the effect of arousal (high, medium) and the type of threat (evolutionary/non-evolutionary) in the mirror of anxiety. Each item of the stimulus set was a

combination of a picture from the International Affective Picture System and a visual search matrix with numbers from 1 to 35. Participants were also asked to fill out the State-Trait Anxiety Inventory.

Results: We have found a significant interaction of stimulus and arousal. That is, the two types of snakes had a different effect on visual search performance: participants showed the lowest performance in the case of medium arousal snake, while the high arousal snake did not decrease the visual search. Regarding the guns, there was no significant effect. However participants with different anxiety levels differed: low level arousal patients showed better performance at highly arousing pictures and high level arousal participants showed impaired performance in this case.

Conclusion: Neither the level of valence and arousal, nor the content of the picture is enough, one has to integrate these and take individual differences into account. This means we need to open up and broaden our perspectives to other fields of psychology to get an accurate view on evolutionary mechanisms.

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