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NWO Evolution & Behaviour Workshop: “Bi-Parental Care: The Same Game by Different Rules?”

The NWO-sponsored Evolution & Behaviour Workshop: “Bi-Parental Care: The Same Game by Different Rules?” organized by Dr. Judith Semon Dubas (Developmental Psychology, Utrecht University) and Dr. Kate Lessells (Behavioural Ecology, Centre for Terrestrial Ecology, Netherlands Institute of Ecology), was held on October 22-25, 2004 at the Hotel De Wageningse Berg, Wageningen, The Netherlands.

The purpose of this workshop was to bring together a number of top researchers from the fields of evolutionary biology and developmental psychology (along with other relevant disciplines) to discuss the subject of bi-parental care, how this topic is investigated across disciplines and species, and to identify a number of critical research questions that need to be addressed. The ultimate goal of this workshop was to develop an interdisciplinary double research project that could address these critical issues. To this end the workshop was a success. A variety of disciplines were represented, various research results concerning different species were discussed and critical research problems were identified. Afterwards (in time for the December deadline) a pre-proposal for an interdisciplinary research project (with the same title as the workshop) was submitted to NWO by Dr. Judith Dubas and Dr. Kate Lessells.

Participants

In total 17 individuals attended the workshop, representing over six disciplines and five different countries including Germany (G), the Netherlands (NL), Switzerland (S), the United Kingdom (UK), and the United States (US).

These included:

- five developmental psychologists: Dr. Judith Dubas, Dr. Marcel van Aken, Dr. Kathy van Tuijl, Dr. Jay Belsky (UK), and Ms. Marianne Heijkoop (Ph.D. Student, NL)
- one clinical psychologist: Dr. Patricia Kerig (US)
- one educational sociologist: Dr. Beate Minsel (G)
- one anthropologist: Dr. Frank Marlowe (US),
- one mathematician: Dr. John McNamara (UK), and
- seven animal biologists whose research focused primarily on
 - birds: Dr. Kate Lessells (NL), Dr. Ian Hartley (UK), Dr. Camille Hinde (UK), Dr. Simon Verhulst (NL), Dr. Alex Roulin (S), Mr. Martijn van de Pol (Ph.D. student, NL)
 - insects: Dr. Per Smiseth (NL) or
 - primates: Dr. Liesbeth Sterck (NL)

Day-by-day workshop review

The workshop began on Friday evening, October 22, 2004 with a welcome dinner. Following the dinner an introductory meeting was held where attendees introduced themselves answering the question, where am I coming from? These introductions not only included each attendee's current field of research and place of employment, but also included what they studied in terms of parental provisioning behavior and species.

Saturday was a full program packed with presentations that discussed conceptual and methodological issues. The sessions were organized in such a way that an animal researcher usually a biologist presented first followed with a complementary presentation about humans presented by a psychologist. This led to considerable discussion at the end of each presentation

where each “side” was trying to understand and reconcile the issues raised by the other. This generated many unresolved but important issues that needed to be taken into account for the interdisciplinary project.

Saturday’s morning session began with presentations concerning how parental investment is studied from a biological and anthropological/psychological perspective. Dr. Per Smiseth (University of Manchester, UK) presented the basic approach that is used in studying parental investment in birds and Dr. Frank Marlowe, (Harvard University, USA) discussed Parental care among humans, the Hadza Hunter-gatherers. Following lunch the afternoon began with a session on concepts, models and methods. Prof. John McNamara, a mathematician, (University of Bristol, UK) discussed basic methods in mathematical modeling used for parental investment. Dr. Patricia Kerig (Miami University, USA) then presented how Bi-parental care is studied in humans focusing on what is meant by the terms coparenting, cooperation and conflict and how these are studied in families. After a short break the next session was a group discussion that focused on whether a different conceptual framework for humans would be needed and what such a framework would entail. The final session of the day focused on measurement issues related to parental investment and consequences. Dr. Camilla Hinde (University of Cambridge, UK) discussed various methods concerning the investigation of avian provisioning including a demonstration of video recordings in nest boxes. She also explained various fitness indicators in birds. Dr. Beate Minsel (University of Munich), ended the day’s program by presenting data on how parents divide child-related tasks and how this changes after a child enters school.

Sunday’s session began with two presentations concerning differential parental investment. Dr. Ian Hartley (University of Lancaster, UK) presented more information and data about differences across male and female avian parents in their allocation of care. Prof. Jay Belsky focused his presentation on how human children may be differentially susceptible to parental investment, making the study of humans and the consequences of investment all the more complicated. The third session entailed individual presentations by Dr. Kate Lessells and Dr. Judith Dubas concerning what outstanding questions need to be addressed to advance the study of bi-parental care. Dr. Lessells illustrated her ideas about the next steps in mathematical modeling and how this could be used to generate additional behavioural studies in birds and humans. Dr. Dubas illustrated how the study of human parenting from an evolutionary perspective has primarily focused on between-family differences as opposed to within-family differences. The bi-parental care proposal will need to take into account both of these issues but not only individually for each parent but also how each parent works as a pair. The final session of the workshop was a group discussion of unresolved issues and suggestions for the joint project. The major issues revolved around how to take into account (or control for if you will) the complexity of the human situation. All in all the discussion raised more questions than it answered but it certainly fueled a great deal of interdisciplinary exchange.

respectfully submitted,
Judith Semon Dubas