

To: jeevacation@gmail.com[jeevacation@gmail.com]; Jeffrey Epstein[jeevacation@gmail.com]
From: Nowak, Martin
Sent: Fri 3/18/2011 2:05:49 PM
Subject: Fwd: Brief Communications Arising articles relating to your 2010 Nature paper

... the inclusive fitness battle

Begin forwarded message:

From: "Twinn, Rachel" [REDACTED]
Date: March 18, 2011 6:35:55 AM EDT
To: "Nowak, Martin" [REDACTED]
Subject: Brief Communications Arising articles relating to your 2010 Nature paper

Dear Martin,

I am writing to inform you that a set of Brief Communications Arising (BCA) articles relating to your 2010 *Nature* paper are to be published on March 23 with the embargo lifting at 1800 London time / 1300 US Eastern Time on that day. Below is a copy of the press release which we have sent out to journalists about the BCAs, for your information.

Let me know if you have any questions.

Best wishes,

Rachel Twinn
Press Officer, *Nature*

Featured press release entry:

[Evolutionary biology: Questioning eusocial arguments \(pp E1-E10\)](#)

The field of evolutionary biology has been up in arms since the publication in *Nature* last August of a paper claiming that natural selection alone can be used to explain the evolution of eusocial behaviour without the need for kin selection theory. This week, five Brief Communications Arising (BCA) articles question that argument and the original authors respond.

Eusocial behaviour involves the forming of hierarchies where some individuals in a species do not reproduce, but assist in raising the offspring of others. The field has long believed that kin selection, an elegant extension of natural selection that takes into account relatedness, can explain this behaviour. Last year, Martin Nowak and colleagues put forward a mathematical analysis that suggested natural selection was all that was needed and kin selection is not necessary. Kin selection, formalised as inclusive fitness, only applies in limited cases, and where it is found, their calculations suggest natural selection is a more useful explanation.

A group of 137 researchers in the field outline three areas that they take issue with: firstly they feel the distinction between kin selection and standard natural selection is incorrect, secondly they disagree with the original authors' 'stringent assumptions' about kin selection, and finally they wholeheartedly dispute the main claim that kin selection does not provide any additional biological insight.

Jacobus Boomsma and colleagues believe that the original paper overlooked the observation that eusociality has only arisen where relatedness is as high between siblings as it is between parents and offspring. Joan Strassmann *et al.* argue that inclusive fitness has been very useful for understanding the evolution of eusociality; Régis Ferrière and Richard Michod assert that the only paradigm is natural selection driven by interactions, and Edward Allen Herre and William Wcislo also defend kin selection and challenge the *Nature* paper.

The original authors respond, concluding that 'we have shown that we cannot rely on inclusive fitness theory to describe how interactions among related individuals affect evolution.' They still believe the theory is neither useful nor necessary to explain the evolution of eusociality and urge the field of social evolution to move beyond the limitations it imposes.

CONTACT

Stuart West (University of Oxford, UK) **Author BCA**

E-mail: [REDACTED]

Jacobus Boomsma (University of Copenhagen, Denmark) **Author BCA**

[REDACTED]

Joan Strassmann (Rice University, Houston, TX, USA) **Author BCA**

[REDACTED]

Régis Ferrière (CNRS, Ecole Normale Supérieure, Paris, France) **Author BCA**

Tel: [REDACTED]

Edward Allen Herre (Smithsonian Tropical Research Institute, Balboa, Panama) **Author BCA**

Tel: [REDACTED]

Martin Nowak (Harvard University, Cambridge, MA, USA) **Author of original paper and of BCA**

Tel: [REDACTED]

Any feedback or suggestions about this service can be sent by email to [REDACTED]

Nature, the world's leading scientific journal, www.nature.com/nature

DISCLAIMER: This e-mail is confidential and should not be used by anyone who is

not the original intended recipient. If you have received this e-mail in error please inform the sender and delete it from your mailbox or any other storage mechanism. Neither Macmillan Publishers Limited nor any of its agents accept liability for any statements made which are clearly the sender's own and not expressly made on behalf of Macmillan Publishers Limited or one of its agents. Please note that neither Macmillan Publishers Limited nor any of its agents accept any responsibility for viruses that may be contained in this e-mail or its attachments and it is your responsibility to scan the e-mail and attachments (if any). No contracts may be concluded on behalf of Macmillan Publishers Limited or its agents by means of e-mail communication. Macmillan

Publishers Limited Registered in England and Wales with registered number
785998
Registered Office Brunel Road, Houndmills, Basingstoke RG21 6XS
