**Funding.** AM, AP, LS, CC, RMW were supported by the Max Planck Society; AM was supported by the Wenner Gren Foundation (Grant Number 9095); AP was supported by the Leakey Foundation; LS was supported by the Minerva Foundation; JFG was supported by an NSF Graduate Research Fellowship (DGE-1142336), the Canadian Institutes of Health Research’s Strategic Training Initiative in Health Research’s Systems Biology Training Program, an NSERC Vanier Canada Graduate Scholarship (CGS), and a long-term Research Grant from the German Academic Exchange Service (DAAD-91525837-57048249). C. C. was supported by the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme (grant agreement no. 679787). RMW was supported by DFG Researcher Unit (FOR 2136) ‘Sociality and Health in Primates’ (WI 2637/3-1). Research at the Taï Chimpanzee Project has been funded by the Max Planck Society since 1997.

**Acknowledgements.** We thank the Ivorian Ministry of Environment and Forests and Ministry of Higher Education and Scientific Research and the Office Ivoirien des Parcs et Reserves of Côte d’Ivoire. We thank Simon Kannieu, Daniel Bouin, Gnimion Florent, Fabrice Blé, Florent Goulei and the team of the TCP for field work support and data collection. We thank Roger Mundry for statistical support, and Linda Vigilant for support with the parentage analyses. Christophe Boesch provided valuable comments on the manuscript.