

The length of the 2nd to 4th digit ratio (2D:4D) and its relationship to primate mating strategies and the evolution of human sociality.

Emma Nelson

Department of Archaeology, University of Liverpool, UK

The length of 2nd to 4th digit ratio (2D:4D) differs between the sexes in humans, non-human primates and probably other mammals and reflects exposure to differing levels of foetal sex hormones. 2D:4D has been studied extensively in humans and correlates with some gender specific diseases and behaviours, particularly those relating to reproductive ability. 2D:4D also varies between ethnic groups; polygamous societies tending to have more masculinised 2D:4D's than monogamous groups. Within a population high foetal testosterone may enhance a male's ability to attract and compete for females resulting in lower digit ratios. Non-human primate digit data are rare. From the limited data that are available, it seems that non-human primates have lower digit ratios than humans, implying a greater prenatal testosterone effect, and/or an increased sensitivity to foetal androgens, compared to humans. This study aims to collect non-human primate digit data to see if there is a relationship between inter-specific mating strategies and 2D:4D. It also aims to put this into a wider evolutionary context by asking why humans experience a more oestrogenised foetal environment than other primates and how this may have affected human social evolution.