“Fear Hypervigilance and Altruism after Basolateral Amygdala Damage in a South African Founder Population with Urbach-Wiethe Disease”

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Note by Ron Stoop:
Jack van Honk is Professor in Social Neuroscience at the Dept. of Psychology in Utrecht University in the Netherlands as well as Honorary Professor in Clinical Neuroscience at the Dept. of Psychiatry at the University of Cape Town in South Africa. In South Africa he is studying a unique population of Bushmen in which a rare mutation of the extracellular matrix protein 1 (ECM1) gene has been able to widely spread as a result of the “founder effect” after introduction by early Dutch settlers. This mutation causes a number of dermatological and neurological changes together known as Urbach-Wiethe disease. Of particular interest, these patients suffer from a selective calcification of the basolateral part of the amygdala, leading to specific changes in fear and anxiety behavior. Jack van Honk is currently studying this population through a variety of techniques and behavioral research paradigms among which EEG, ECG, eyetracking, fMRI, repetitive transcranial magnetic stimulation (TMS), Stroop task, economic trust game and manipulation of the hormones testosterone, cortisol and oxytocin. His observations include some important differences from previous single case reports.