

The origins of numerical abilities

20-21 February 2017

Scientific discussion meeting organised by Professor Brian Butterworth FBA, Professor Charles Gallistel and Professor Giorgio Vallortigara

DAY 1			
SESSION 1: The adaptive value of numerical abilities Chair: Brian Butterworth		Chair: Sarah Benson-Amram	
09.00	Welcome by the Royal Society and Brian Butterworth		
09.05	Charles Gallistel How does the brain code quantity?	13.30	Christian Agrillo Numerical abilities in fish
09.50	Sarah Benson-Amram Numerical assessment in the wild: insights from social carnivores and other mammals	14.15	Gary Rose Neurophysiological correlates of the numerical abilities of anurans: interval counting and selectivity
10.35	Coffee	15.00	Lars Chittka Counting insects
11.00	Rosa Rugani At the roots of numerical cognition: insights from the day-old domestic chick (<i>Gallus gallus</i>)		
11.45	Elizabeth Brannon The primacy of numerical information	16.00	Giorgio Vallortigara Comparative cognition of space and number: the case of the mental number line
12.30	LUNCH	17.00	Poster session
		18.15	CLOSE

DAY 2

SESSION 2: The numerical abilities of primates Chair: Giorgio Vallortigara		SESSION 3: Numerical abilities, symbolism, education and mathematics Chair: Elizabeth Brannon	
09.00	Tetsuro Matsuzawa Numerical abilities of chimpanzees	13.10	Francesco d'Errico From number sense to systems of numerical notation
09.45	Stanislas Dehaene Brain-imaging studies of the relationship between language and mathematics	13.55	Mark Pagel FRS The deep history of counting words
10.30	Coffee	14.40	Marcus Giaquinto Cognitive access to numbers: the philosophical significance of empirical findings about basic number abilities
10.45	Andreas Nieder Number representations in the convergently evolved brains of primates and corvid birds	15.25	Tea
		15.45	Brian Butterworth The implications of an innate numerosity-processing mechanism for education
11.30	Rochel Gelman Principle before Skill or Skill before Principle? Both	16.20	Marcus du Sautoy FRS Cédric Villani Chair: Charles Gallistel
12.15	LUNCH	17.00	CLOSE

Draft programme – correct as of 11 January 2017