**Enhanced memory for cooperators in a face-in-the-crowd task**

The evolved architecture of the human brain is argued to contain algorithms to deal with human social exchanges, with a subset specialized in the detection of cheating. Indeed, several studies have reported an enhanced memory for faces of cheaters, although other studies failed to find any biases. To investigate in more detail possible memory biases for faces in social exchanges, pictures of faces (XM2VTS database) were grouped according to a brief history of cooperation, cheating or irrelevant behaviour towards a hypothetical person. Observers (*n*= 180) had to: (i) memorise 3 sets of 6 faces with their moral status, (ii) complete a distracter task in the memory retention period, followed by the (iii) detection of any familiar face in a crowd of unfamiliar faces. Observers showed higher accuracy and lower reaction times for faces associated with an acquired history of cooperation rather than cheating or irrelevant behaviour. Enhanced memory for cooperators was also found with single stimulus presentations. Accuracy for faces of cooperators presented to the left visual field was higher than for faces presented to the right visual field. Our results are consistent with Singer and colleagues (2008)\* and poit to a good ability to remember cooperators, even when time allowed for memorisation and/or retrieval was limited. Since cooperation and cheating are usually conflicting behaviours, an efficient detection of cooperators is vital to the strengthening of social exchanges.

\*Singer, T, Kiebel, SJ, Winston, JS, Dolan, RJ, & Frith, CD (2004). Neuron, 41, 653-662.