HISTORICAL NOTES

Pavlov on neuroimaging

The work of the Russian physiologist Ivan Petrovich Pavlov (1849–1936) continues to influence modern psychophysiology, neurology, and biological psychiatry. Not generally appreciated, however, is his visionary anticipation of the functional neuroimaging techniques the multicoloured products of which are on the verge of becoming standard decorations for the covers of present day neuroscience journals. In a lecture read before the Society of the Moscow Scientific Institute (March 1913), Pavlov mused about the possibility of localising human brain functions by visualisation of those neuronal structures which are activated during the performance of a particular task. The most relevant passage reads:

"If we could look through the skull into the brain of a consciously thinking person, and if the place of optimal excitability were luminous, then we should see playing over the cerebral surface, a bright spot with fantastic, waving borders constantly fluctuating in size and form, surrounded by a darkness more or less deep, covering the rest of the hemispheres."  

PETER BRUGGER
Neurology Clinic, University Hospital Zurich, CH-8091 Zurich, Switzerland

1 Pavlov IP. Lectures on conditioned reflexes. Twenty-five years of objective study of the higher nervous activity (behaviour) of animals. London: Martin Lawrence, 1928:222.