



Thinking, Reasoning, and Development

30 June – 2 July 2010

Uni Mail – Geneva

19th Advanced Course

Thinking, Reasoning, and Development

30 June – 2 July 2010

Wednesday afternoon, June 30, 2010

14h 30

J. Evans, University of Plymouth

Dual processes theories of thinking and reasoning: Facts and fallacies

Abstract:

Dual-process theories have been widely applied to the psychology of reasoning, as well as a number of related fields (learning, decision making, social cognition). Broadly, the idea is that performance in thinking and reasoning reflects the combination of two kinds of thinking: fast, automatic and high capacity (type 1), and slow, controlled and low capacity type 2). Theories fall into two broad categories, according to whether they envisage type 1 and 2 processes proceeding in parallel, or else claiming that type 1 processes provide default intuitive responses that may or may not be moderated by slower, reflective type 2 processes. There is considerable empirical evidence to support the existence of dual processing in higher cognitive tasks. I will show, however, that a number of erroneous conceptions have emerged from these research programmes. First, the widespread assumption that type1 (heuristic) processes are responsible for cognitive biases and type 2 (analytic) processes for normatively correct reasoning is simply wrong. Nor is it correct to thinking of type 1 processes as contextualised while type 2 thinking is abstract and logical. The common designation of type2 thinking as conscious and controlled and type 1 thinking as unconscious and automatic is also highly problematic. I conclude with a sketch of a 'two minds' theory that can accommodate the existing literatures.