

**What is *dual* in dual process theories of reasoning?
A critical assessment of Goel's data**

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Goel and al. have provided neural bases for dual processes of reasoning by putting in evidence different neural contrasts when congruent and incongruent belief based syllogisms are assessed as to their validity by subjects. We would like to make explicit the reading grid underlying the assumption that the observed neural contrasts provide evidence for a dual process theory of reasoning or, at least, take advantage of these data to make clearer what kind of cognitive duality is involved by such data.