Metamemory is a multi-faceted concept which deals with the individual’s knowledge and control of memory functioning. Previous studies that have examined the ability of Alzheimer’s disease (AD) patients to monitor efficiently their memory processes provided contradictory results. These discrepancies between studies could be the result of two factors: the kind of memory task used (episodic, semantic) and the kind of memory process on which memory monitoring is assessed (encoding, maintenance, retrieval). In the present study, different aspects of memory monitoring in 21 AD patients and 21 healthy elderly participants were explored with two tasks: a semantic memory task assessing the feeling-of-knowing (FOK) accuracy for general knowledge and an episodic memory task assessing judgment-of-learning (JOL) and FOK accuracy for information associated to a specific spatiotemporal encoding context. By comparison to healthy participants, AD patients exhibit impaired performance on episodic FOK accuracy but not on semantic FOK accuracy. Moreover, no difference was observed between the two groups on the JOL post-encoding accuracy. These results confirm that not all aspects of memory monitoring are impaired in AD. Indeed, although there exists an impairment of episodic FOK performance, semantic FOK and JOL post-encoding appear preserved. The dissociation between the two FOK performance could be due to recruitment of more automatic processes for metacognitive judgment on general knowledge (semantic FOK) than for metacognitive judgment based on specific recent experience (episodic FOK). Similarly, a global prediction during maintenance (JOL) could be based on more automatic processes than an item-by-item judgment during retrieval.