

系所組別： 心理學系認知科學碩士班

考試科目： 認知科學

考試日期：0226，節次：2

1. Daniel Kahneman, the 2002 Nobel Laureates of Economics, published the new book “Thinking: Fast and Slow” in 2011, and is among the New York Times top ten books of the year. In this book, he summarized the collaboration with Amos Tversky, who shared the Nobel Prize but died in 1996, on various topics of decision making under uncertainty and heuristics in judgments. Could you elaborate these two aspects with examples for each? For instance, what theory did the two scholars put forth, its nature (in contrast with the classic economic model), and various heuristics that human rely on for quick decisions. (25%)
2. Current progress in neuroscience has revitalized the role of emotion on cognition, with how it precedes and interacts with our perception, cognition, memory, and reasoning, etc. Could you (a) provide an anatomical explanation for this? And (b) give at least two examples of such interaction? You don't have to always use published studies as examples, sometimes everyday experiences (or news event), as long as they make sense, count as well. (25%)
3. 名詞解釋（請各用幾句話說明。每題分數占 5%，共 25%）：
 - (a) Metacognition
 - (b) Theory of mind
 - (c) Change blindness
 - (d) Subsequent memory paradigm
 - (e) Long-term potentiation (LTP)
4. 請問 short-term (or working) memory 及 long-term memory
 - (a) 分別是什麼？各有什麼特性？（10%）
 - (b) 請從理論上的角度來討論它們之間可能有什麼關係？並說明有什麼研究證據（由行為實驗、fMRI、ERP、TMS、或腦傷病人等等不同方法）支持他們之間可能是互相獨立（如 double dissociation 的證據）、依存、先後、或其他形式的關係？若提不出證據，請假想一個實驗設計，說明可利用什麼作業或方法來探討它們之間的關聯，並以圖表來解釋、預測可能的結果。（15%）