國立彰化師範大學九十六學年度碩士班招生考試試題

系所：輕度障礙教育研究所　　科目：發展心理學

★★請在答案紙上作答★★　　

一、**解釋名詞**（每題 7 分，共 56 分）

1. Preoperational Stage
2. Oral Stage
3. Type A Personality
4. Conditioned Stimulus
5. Basic Emotion
6. Egocentrism
7. Object Permanence
8. Private (Inner) Language

二、**申論題**（兩題，共 44 分）

1. 請簡述 Piaget 認知發展理論中所謂『保留概念』（conservation）的內涵爲何？並舉例說明兒童期所經歷三個階段的『保留概念』特性？

   （本題 16 分）

2. 爲什麼猴子會看著做，會『依樣畫葫蘆』？

爲什麼嬰兒會看著微笑的母親咧嘴而笑？

爲什麼我們會隨著電影中的恐怖情節而有驚恐反應？

『照樣學樣』的天賦異稟，可能來自於神經網絡中的鏡射神經元（**mirror neurons**），而且更重要的是，可能與人類的 **empathy, language, and social behavior** 等發展相關。

以下是一篇有關鏡射神經元的短文，請摘述其內容，並就發展心理學的相關思考申論之。

（本題 **28** 分）

“Mirror neurons will do for psychology what DNA did for biology.”---

Vilayanur Ramachandran, University of California at San Diego

The Roots of Empathy

Neurons with mirror properties are not special in any obvious sense. Under a microscope, they look like other neurons. What makes them special is the web of connections that link neurons in the motor and sensory systems to the limbic centers that process visceral and emotional reactions. And while some of these connections may well be in place at birth, they are, neuroscientists think, vastly expanded through experience. A baby smiles. Her mother smiles back. Click. The brain sets up a circuit linking the motor system that turns up the corners of the baby’s mouth to the visual image of the smiling mother to the emotional state we call happiness.

But while human mirror systems are similar, they are not identical. Individuals vary widely, for example, in their capacity to resonate with the emotional state of others---something that can be measured by psychological tests. In a sequel to their rancid-butter experiment, Keysers’ team found that subjects with higher empathy scores on such tests also exhibited stronger mirror reactions to facial expressions of both disgust and pleasure.

An even more provocative result comes from a study undertaken in 2005 by UCLA developmental psychologist Mirella Dapretto and her colleagues. They found that autistic children, compared with other children, showed depressed activity in their premotor cortex while imitating or observing facial expressions---and the more severe the autism, the more depressed the activity was. The results did not surprise Dapretto. A central problem in autism, after all, is an impaired ability to understand the feelings of others, and it seems plausible, if far from proven, that a deficiency in the mirror-neuron system could be involved.

Whether insights into the mind’s hall of mirrors will actually lead to a better understanding of autism is another question, of course, and it’s only one of many that remain unanswered. But as a number of researchers see it, this is a strength rather than a weakness. For the mirror-neuron system has provided neuroscientists with a powerful new probe into the biological roots of the human psyche and prompted them to take a fresh look at old questions. Indeed, says Parma’s Gallese, that’s what makes the research so exciting---it’s still in an early phase, and the fun has just begun.