

考試科目	專業英文	所別	心理學系	考試時間	6月24日 上午第1節 星期二
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I. Answering the following questions in English:

- (1) Please introduce a theory in Psychology that's your favorite. (30 points)
- (2) What's role self-disclosure plays in relationship development? (20 points)

II. Translate English into Chinese (25 points for each part):

- (1) Recent interest in expertise grew out of artificial intelligence (AI) and the need to find workable computer programs that could simulate the performance of skilled humans. These programs, sometimes called "expert systems" are designed to mimic what a human expert knows; and much of the knowledge an expert knows is not formalized. Nevertheless, these "tricks of the trade" can tell us a great deal about the way information is structured in the minds of experts and novices. They also have some practical application, as in medical diagnosis by "thinking computers" that simulate the diagnostic procedures used by skilled physicians. We also examined the way grand master chess players perceive a chess display. These investigations of skilled chess players have provided AI scientists with just the type of information they need to build intelligent chess-playing programs—and the results have been spectacular, with computers now beating the best player in the world. The study of expertise, however, is not confined to serving the needs of AI. It is an interesting and worthy topic for cognitive psychologists to study, both for its theoretical and pragmatic value. After all, if we choose to develop talented students to become experts, we need some idea what the cognitive dimensions are that separate the expert from the novice. After reviewing a large number of studies of experts, Glaser and Chi (1988) have identified some of the characteristics of experts. They are:
- (a) Experts excel mainly in their own domain. Experts in mental calculations, for example, are not likely to be experts in medical diagnosis and vice versa.
 - (b) Experts perceive large meaningful patterns in their domain. Chess masters, X-ray diagnosticians, and architects are able to "see" more meaningful patterns within their specialty than nonspecialists.
 - (c) Experts are fast. Experts typists, chess players, mathematicians, and so on, work within their specialty with greater speed than others.
 - (d) Experts seem to effectively utilize STM and LTM. It seems that experts have superior memories, but perhaps they simply utilize their memories better.
 - (e) Experts see and represent a problem in their domain at a deeper level. When experts are asked to sort and analyze problems, they tend to deal with deep issues rather than superficial ones.
 - (f) Experts spend a great deal of time analyzing a problem qualitatively. They tend to look at a problem from several angles before plunging into its solution.
 - (g) Experts have self-monitoring skills. They seem to be aware of their errors and are able to make "in course" corrections.

- (2) Before any choice can be made, including a self-control choice, an individual must perceive that the choice exists; the individual's brain must somehow indicate the presence of a choice. This perception may

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include more or less accurate information about the actual, physical characteristics of the particular choice. The degree to which the perception is complete and accurate will be a function of the abilities of the individual's sensory systems, and these abilities change with age. Using the most extreme example, very young animals, including humans, due to the immaturity of their sensory systems, are unable to detect certain aspects of environment.

The two primary aspects of perceptual ability that have been studied with regard to their possible contribution to the development of self-control choices are the ability to estimate time and the ability to direct attention to and away from certain events. Data on the relationship between time estimation ability and self-control are not extensive. However, the ability to estimate time intervals does appear to improve with age, and is greater in normal, as opposed to emotionally disturbed, children. In addition, greater self-control does appear to be associated with greater time estimation ability. For example, one study using adolescent emotionally disturbed boys gave the boys a time estimation test in which they had to estimate the time that a stopwatch was running. Boys who would only work for a delayed, valuable outcome if there were some immediate benefits for doing so tended to estimate the stopwatch times as too short. However, boys would work for a delayed, valuable outcome without any immediate benefit for doing so tended to estimate these times more accurately. In another experiment, one which used children who were approximately 6 years of age, children who tended to show self-control also tended to show good time discrimination. The good time discrimination was evidenced by these children responding primarily when reinforcers were available on a fixed-interval schedule of reinforcement.

The ability to direct attention, particularly to certain aspects of the self-control situation, has also been examined. Some researchers feel that the ability to control attention is an essential aspect of self-control. In an extremely clever and time-consuming experiment, Monica I. Rodriguez and her colleague examined in detail the relationship between attention deployment and self-control. The subjects were 6- to 12-year-old boys who had been characterized as having a variety of emotional and adjustment problems and who were attending a special summer residential camp program. Each boy was told that he would receive one of two piles of food items: the larger pile if he did not ring a bell and waited until the experimenter returned, and the smaller pile if he rang the bell. The experimenters continuously monitored each boy's attention during the waiting period. They determined when each boy's gaze was directed at the food or bell versus away from those tempting items. Boys who tended to look at the food or the bell tended to wait for a shorter time before ringing the bell than did boys who tended to look away from the food or the bell. Further, older boys were more likely to look away from the food or the bell than were younger boys.

The research on perceptual abilities and self-control demonstrates that time estimation ability and the ability to direct attention are both related to the ability to show self-control, and that all of these abilities increase with age. However, because much of this research is correlational, it does not always tell us what the causal relationship between age, directed attention, and self-control are, or whether or not some fourth variables responsible for the relationships among the other three.

備	考	試題隨卷繳交	國立政治大學圖書館
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考試科目	研究方法	所別	心理系	考試時間	6月24日 上午 9:00 至 12:00
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一. (a) 在母群 σ_x 未知下, 考驗平均數是否為定值時:

$$H_0: \mu_x = a \quad H_1: \mu_x \neq a$$

$$TS = \frac{\bar{X} - a}{\frac{S_x}{\sqrt{N}}}$$

(b) 在兩獨立樣本平均數是否異考驗時:

$$H_0: \mu_{x_1} = \mu_{x_2} \quad H_1: \mu_{x_1} \neq \mu_{x_2}$$

$$TS = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{S_p^2 \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}}$$

(20分) 請說明在選取臨界值時, 上述兩種考驗為何皆參考 t 分配。

二. 在 $3 \times 4 \times 5$ ($A \times B \times C$) 的 ANOVA 中, A 為受試者間變項, B, C 為受試者內變項, 各細胞有 10 個觀察 ($I=10$), 請用非加減模式 (non-additive model), 考驗下列效果, 請書寫該考驗中效果項與錯誤項的 SV , df 以及 SS , 並用一個比較來代表該效果的意思, 例如考驗 A 效果

$\frac{SV}{A}$	$\frac{df}{(J-1)=2}$	$\frac{SS}{\sum_j Y_{j..}^2 / IKL - Y_{...}^2 / IJKL}$	$\frac{\psi}{\bar{Y}_{1..} - \bar{Y}_{2..}}$
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$\frac{SV}{S/A}$	$\frac{df}{J(I-1)=27}$	$\frac{SS}{\sum_j \sum_i Y_{ij..}^2 / kL - \sum_j Y_{j..}^2 / IKL}$	
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請用上述例子的形式, 考驗下列各效果 (各 10 分)

(A) $A \times B$ (B) C at B_2 (C) $A \times C$ at B_2

三. (25分) 在進行實驗設計時, Cook & Campbell 建議考慮統計推論效度、內在效度、建構效度與外在效度, 請說明以回類效度的意義, 或以回類效度分別在探討何種問題 (不須條列各種效度的內容), 並以你熟悉的研究領域為例, 說明當各種效度不能同時滿足時, 你選擇的優先次序及理由。

四. (25分) 在質化研究與量化研究的討論上, 你認為以兩種研究方法為最佳者為何? 你如何建議以兩種方法的使用時機?

考試科目	基 ^本 心理歷程	所別	心理系	考試時間	6月24日 星期二	下午第 一節
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1. 說明比較閾限(threshold)及信號偵測理論(signal detection theory)對人們如何偵測訊息的看法。(10分)
2. 由孔恩的典範論的角度，一個常態科學之所以發生轉變，是因為舊的典範發生了許多異常現象是它無法解釋的，因此舊的典範漸漸沒落，新的典範崛起代之。認知心理學的崛起，亦有其背景，試述由行為主義學派進而產生認知革命之原由，以及其他學門對認知心理學發展的影響，並提出你認為未來認知心理學的研究趨向及看法。(20分)
3. 試討論記憶系統是單一的或多元的爭論，討論過程中請舉行為及生理的證據說明之。(20分)
4. 各種認知研究都會觸及知識的組織與應用，但相關研究對於知識表徵的本質為何仍有爭議。試就下列角度對此問題加以討論：
 - (1) 表徵是類比的(analogical)或是命題的(propositional)？
 - (2) 表徵是程序性的(procedural)或是陳述性的(declarative)？
 - (3) symbolic approach 及 connectionist approach 對表徵的看法。(30分)
5. 說明專家和生手的思考差異為何？試由二者在知識的組織、呈現、解題策略等方面做比較。(10分)
6. 試說明閱讀歷程中，基模(schema)所扮演的角色。(10分)

考試科目	社會人格心理學	所別	心理計	考試時間	星期	月	日	上午第	節
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一. 解釋下列各項概念的意義 (40%)

1. 歸因的共變原則

2. 內隱的人格理論 (Implicit Personality Theory)

3. 中樞途徑 vs. 邊緣途徑

4. 旁觀者效應

5. 自我效能 (self-efficacy)

二. 就某一社會心理學的議題, 闡釋其理論依據, 研究類別及应用的層面. (20%)

三. 何謂社會影響? 舉例四種社會心理學最常探討的社會影響歷程, 並說明其產生社會影響的心理機制. (20%)

四. 舉例兩種人格理論, 陳述其主要代表人物, 其理論內涵的異同點, 實徵研究的強弱比較, 及在心理治療上的應用. (20%)