摘要

幽默是人類獨有且為高層次的認知能力，真正能引起幽默的愉悅感受是幽默刺激所使用的技巧，而非其指涉的內容。本研究旨在透過眼球追蹤技術比較不同笑話技巧（歧義與推論）的認知和情感歷程。本研究分為兩個實驗，為受試者內設計，68 位參與者。實驗一探討歧義笑話技巧，獨變項為二：刺激類型（語音歧義、語意歧義、語法歧義）及好笑與否（笑話、非笑話），依變項為客觀眼動指標，包括首次凝視時間、總凝視時間、平均凝視次數、回視次數及平均瞳孔大小；以及主觀的理解程度與好笑程度為依變項。實驗一結果顯示，參與者閱讀笑話與非笑話在營造句之首次凝視時間並無顯著差異，符合本研究假設。在笑話認知歷程，「語音歧義笑話」相較於「語法歧義笑話」，在總凝視時間最短及回視次數最少。實驗二比較推論笑話與歧義笑話的眼動軌跡，獨變項為二：刺激類型（語意歧義、橋界推論、推敲推論）及好笑與否（笑話、非笑話）。實驗二結果顯示，推論笑話（橋界與推敲）在總凝視時間、回視次數與平均瞳孔大小皆顯著大於「語意歧義笑話」。推論笑話的認知理解歷程比語意歧義笑話來得久且較深層處理，其認知涉入較多而產生較高的愉悅感受。Berlyne（1972）提出倒 U 型理論，認為難度適中的幽默刺激，所激發的愉悅情緒感受會最高，但本研究發現除了笑話的難度適中條件外，笑話技巧也是影響好笑程度之關鍵。未來可進一步使用 fMRI 技術比較推論笑話與歧義笑話的認知、情感與笑反應的腦神經機制，亦可透過不同笑話技巧進行幽默創造的訓練課程。

關鍵字：笑話技巧、笑話類型、語意歧義笑話、橋界推論笑話、推敲推論笑話、眼動型態

Abstract

Humor is a high level cognitive ability. In jokes, it is the humor skill and not the content which generates amusement. The present study aimed to compare the cognitive and affective processes associated with the distinct humor skills brought into play by ambiguous jokes and inferential jokes, using an eye-tracking study. Sixty-eight participants took part in two experiments with within-subjects designs. Experiment 1 investigated different categories of ambiguous jokes, using stimulus category (phonological, semantic, and syntactic) and 'funny-or-not' (jokes and non-jokes) as independent variables and both objective eye-movement indices (first past gaze duration, total viewing time, average fixation counts, regression counts, and average pupil size) and subjective indices (comprehensibility and funniness) as dependent variables. Results supported the hypothesis that first past gaze durations for setup lines would not differ significantly between jokes and non-jokes. Additionally, total viewing time and regression counts were less while reading phonologically ambiguous jokes than for syntactic ones. Experiment 2 compared the effects of semantically inferential and semantically ambiguous jokes. The experimental design was the same as in experiment 1 except that the stimulus category were bridging inferential jokes, elaborative inferential jokes and semantically ambiguous jokes. Results showed that total viewing time was longer, regression counts were more, and average pupil size was bigger for inferential jokes (bridging inferential jokes and elaborative inferential jokes) than for ambiguous jokes. It was concluded that the cognitive processing of inferential joke takes more time and is more complicated than that of semantically ambiguous jokes, and it consequently results in deeper involvement and amusement. Berlyne (1972) proposed an inverted-U shaped theory in which the greatest pleasure is associated with a moderate amount of arousal (not to high and not too low), whereas the present study revealed that the greatest pleasure accompanies this optimal level but that joke skills also play an important role. Future research might use fMRI techniques to further investigate the neural correlates of cognition, affective, and laughter processing between inferential and ambiguous jokes, as well as to design the training courses of joke skills.

Keywords: joke skills, joke categories, semantically ambiguous jokes, bridging inferential jokes, elaborative inferential jokes, eye movements