

Abstract

The coherence theory (Rensink, 2000b) from change blindness (CB) studies suggested that observers do not maintain encoded information from the pre-change scene. It contradicts with the visual memory theory (Hollingworth & Henderson, 2002), which provided evidence that observers were able to retrieve the encoded information. However, the two theories cannot be compared directly due to the un-standardized experimental paradigm. In this thesis, the stability of encoded pre-change information is investigated. Three types of change were included, deletion, token and type changes, and attentional allocation was manipulated by a cued and an un-cued condition. Evidence showed that in spite of the kinds of changes and attentional allocation condition, observers maintain the pre-change information and they are able to separate the memory of the pre-change object from the post-change one.

In addition, apart from the traditional localization task, i.e. the “where” task, two “what” task (O’Regan, 2001) which is consisted of an object naming task and a color labeling task of the pre-change object is included. Performance for localization task agrees with previous CB studies. Result reveals that the “what” tasks interacted with kinds of change. It supports that drawing inference for the “what” information based on a “where” task would not be an ideal approach (O’Regan, 2001).