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ABSTRACT

Accommodation is a process of adjusting the eye's focus to maintain clear vision of objects at different distances. It is a fundamental function of the visual system. In this study, we investigated the relationship between accommodation and visual search. Participants performed a visual search task while their accommodation was monitored. Results showed that accommodation changes during visual search, and these changes are related to the visual search process. Specifically, accommodation increases when the target is located at a greater distance, and decreases when the target is located at a shorter distance. These findings suggest that accommodation is not only a passive process of adjusting focus, but also an active process that is influenced by the visual search process. This has implications for understanding the role of accommodation in visual search and for designing visual search tasks.

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1. Introduction

Accommodation is a process of adjusting the eye's focus to maintain clear vision of objects at different distances. It is a fundamental function of the visual system. In this study, we investigated the relationship between accommodation and visual search. Participants performed a visual search task while their accommodation was monitored. Results showed that accommodation changes during visual search, and these changes are related to the visual search process. Specifically, accommodation increases when the target is located at a greater distance, and decreases when the target is located at a shorter distance. These findings suggest that accommodation is not only a passive process of adjusting focus, but also an active process that is influenced by the visual search process. This has implications for understanding the role of accommodation in visual search and for designing visual search tasks.

(A. C. & G., 2001; B. & A., 2012; B., 2009; & A., 2008). G.

(C., & B., 2005; C., 2004). F. (C., & B., 2009)

(4) F. (1)

G. A. B. (2013), A.

(2013) A.

(C., 1), (A., B.)

A<sub>1</sub>-Distractor) (A<sub>2</sub>-)

B-?). (1) A-?, B-?). (1)

(2) C. (2009)

(3)

## 2. Method

### 2.1. Participants

(22, 18-27) B.

### 2.2. Materials

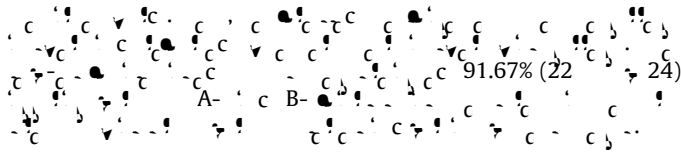
F. (2.5, 7, wisdom-earring) 23- E. (wisdom-earring and gardener-earring), 24-

A- B- 100- 7- (R., R., & , 1996), 1.24 (p > .05).

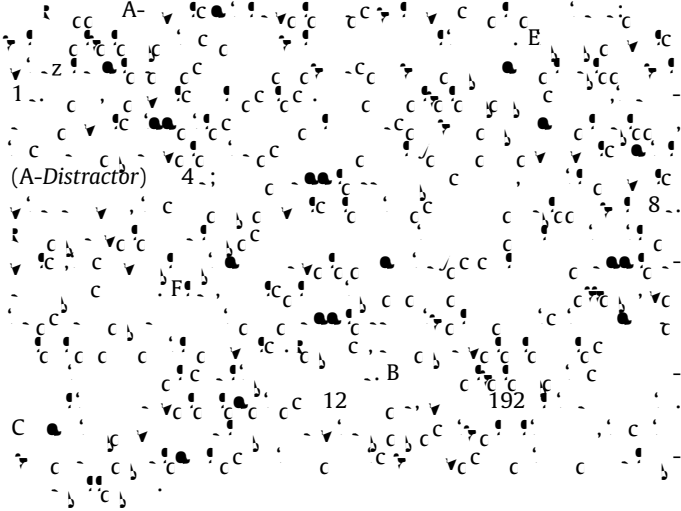
D. 24- A. E. wisdom-skating). A. 24-

### 2.3. Procedure

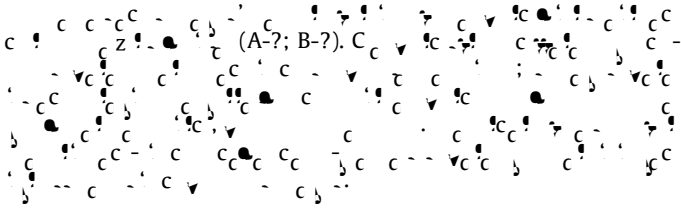
(C., 1). F. / 0 D. (-5327) (A6.4(-)-1.3(-)-31679.9



2.3.2. Interference/Inhibition training



2.3.3. Testing



3. Results

$(F(1, 30) = 17.70, p < .001, MES = 0.03, \eta^2 = 0.37)$   
 $(F(2, 60) = 10.52, p < .001, MES = 0.03, \eta^2 = 0.26)$   
 $(MD = -0.13, p < 0.001)$   
 $(MD = -0.95, p = .012)$   
 $(F(2, 60) = 3.20, p = .048, MES = 0.03, \eta^2 = 0.10)$   
 $t(30) = -3.43, p = .002$   
 $t(30) = -0.52, p = .608$   
 $t(30) = -4.90, p < .001$   
 $t(30) = -2.79, p = .009$   
 $t(30) = -1.88, p = .071$

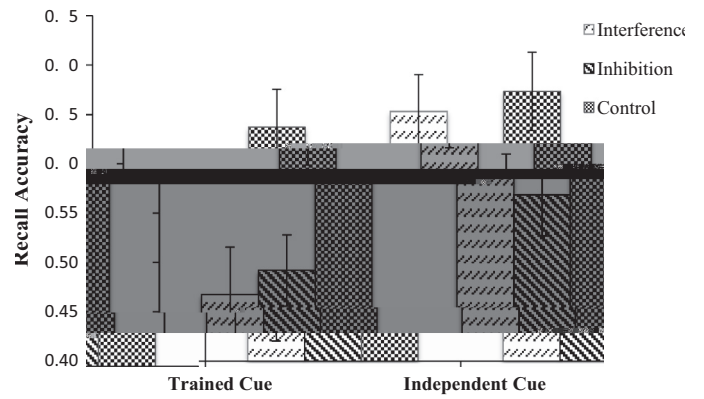
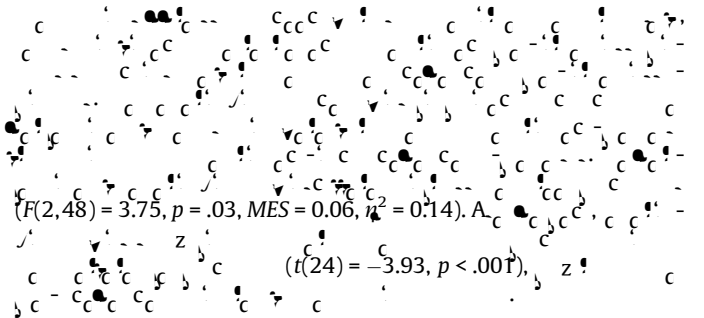


Fig. 2. ...



4. Discussion

... (A ... , 2005; A ... & Q ... , 2001; A ... , 2004)  
 ... (A ... & Q ... , 2001; A ... , 2004; B ... & A ... , 2012).  
 ... (C ... , 2009).  
 ... (2013)  
 ... (2013)  
 ... (F ... )  
 ... (2012)

A. C. C. (2012). *Journal of Experimental Psychology*, 141(1), 1–10. [doi:10.1037/a0027558](#).

### 5. Declaration

The authors have nothing to disclose.

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