

The effects of the binocular disparity differences between targets and maskers on visual search

Ya-Yue Gao¹ · Bruce Schneider³ · Liang Li^{1,2}

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Abstract A series of experiments were conducted to examine the effects of binocular disparity differences between targets and maskers on visual search. In Experiments 1 and 2, participants searched for a target (a vertical bar) among four maskers (two vertical bars and two horizontal bars). The target was presented at different positions (left, right, top, bottom) relative to the maskers. In Experiment 1, the target was always presented at the same position (top) relative to the maskers. In Experiment 2, the target was presented at different positions (left, right, top, bottom) relative to the maskers. In Experiments 3 and 4, the target was presented at different positions (left, right, top, bottom) relative to the maskers, and the target was either a vertical bar or a horizontal bar. The results showed that the search times increased as the target moved from the top position to the left, right, and bottom positions. The search times were longer for the target than for the maskers. The search times were longer for the target than for the maskers. The search times were longer for the target than for the maskers.

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Keywords a & a . a a . I f a a
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Introduction

Stereopsis and binocular unmasking

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& g e d , 1995, 2001; a d a , 2010).

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Object formation and the perception of a depth plane

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Object identification in a cluttered two-dimensional field

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and a few cases “A” affect the quality of the language and the ability to communicate (Gao 1980). In fact, Chinese is a language with a long history and a large number of speakers. It is also a language that has been used in various fields, such as education, science, technology, and business. However, there are still some difficulties in learning Chinese, especially for non-native speakers. These difficulties include pronunciation, grammar, and vocabulary. In addition, the Chinese language is a tonal language, which means that the same word can have different meanings depending on the tone. This makes it difficult for non-native speakers to learn Chinese correctly. Therefore, it is important to study the Chinese language and its characteristics to facilitate communication and promote cultural exchange.

The purposes of the present study

One of the main purposes of this study is to analyze the characteristics of the Chinese language and to identify the difficulties faced by non-native speakers. Another purpose is to propose some suggestions for improving the teaching of Chinese as a foreign language. The third purpose is to promote the study of Chinese language and culture among non-native speakers. The fourth purpose is to contribute to the development of international communication and cultural exchange.

In conclusion, the Chinese language is a language with a long history and a large number of speakers. It is also a language that has been used in various fields, such as education, science, technology, and business. Therefore, it is important to study the Chinese language and its characteristics to facilitate communication and promote cultural exchange.

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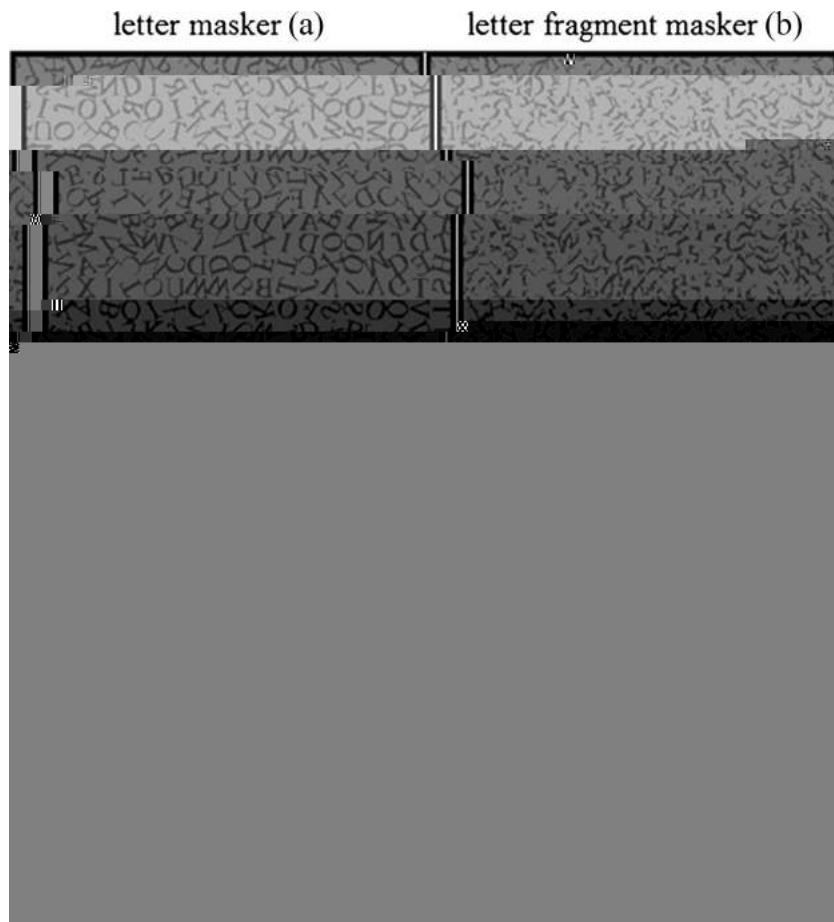


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Methods

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Discussion

Are target comparisons easier when the target plane appears in front of the masker plane?

The results show that target comparisons were easier when the target plane appeared in front of the masker plane. This effect was observed in both target comparison tasks. In the first task, target comparison was easier when the target plane appeared in front of the masker plane in all conditions except for the condition where the target plane was located at the same position as the masker plane. In the second task, target comparison was easier when the target plane appeared in front of the masker plane in all conditions except for the condition where the target plane was located at the same position as the masker plane. This suggests that the target comparison task is more difficult when the target plane is located behind the masker plane than when it is located in front of the masker plane. This effect was observed in both target comparison tasks.

Does the object nature of the masking plane affect the ease with which targets can be compared?

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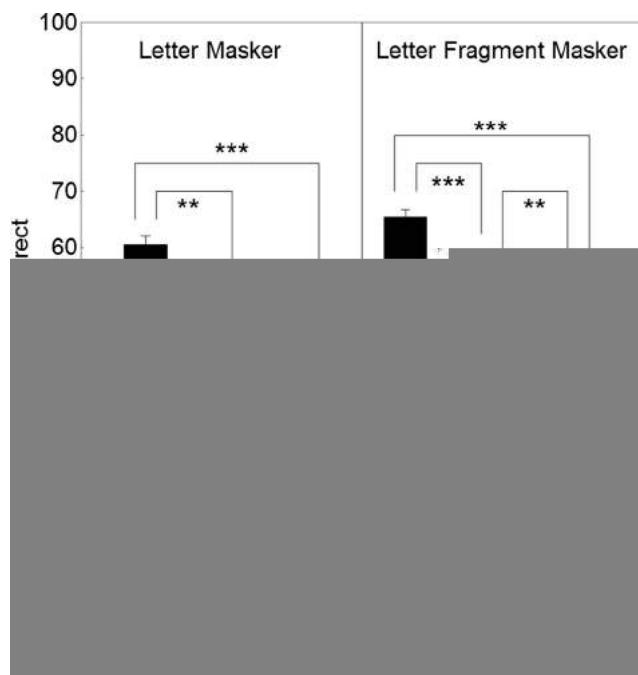


Fig. 6 A diagram showing the results of the reading task. The Y-axis represents accuracy (rect) from 60 to 100%. The X-axis shows four conditions: 1 (black bar), 2 (white bar), 3 (white bar with outline), and 4 (white bar). Error bars represent standard error. Significance levels are indicated: ** for condition 1 vs 2, *** for condition 1 vs 3, and *** for condition 1 vs 4.

The results show that the letter fragment masker significantly improves reading accuracy compared to the letter masker, particularly for the first two conditions. The third condition, which includes a white outline around the letters, also shows improved accuracy, but it is not significantly different from the second condition. The fourth condition, which includes a white outline and a black background, shows the lowest accuracy and is significantly different from all other conditions.

Limitations

The study has several limitations. First, the sample size was relatively small, which may limit the generalizability of the results. Second, the participants were all healthy adults, which may not reflect the needs of patients with reading difficulties. Third, the task used in the study was a simple reading task, which may not fully capture the complexity of reading difficulties. Fourth, the results were based on a single reading task, which may not fully capture the complexity of reading difficulties. Fifth, the results were based on a single reading task, which may not fully capture the complexity of reading difficulties.

The results of this study suggest that letter fragment maskers can be effective in improving reading accuracy for some individuals. However, further research is needed to determine the optimal masker design and its effectiveness for different populations and reading tasks.

Summary

1. The results show that the letter fragment masker significantly improves reading accuracy compared to the letter masker, particularly for the first two conditions. The third condition, which includes a white outline around the letters, also shows improved accuracy, but it is not significantly different from the second condition. The fourth condition, which includes a white outline and a black background, shows the lowest accuracy and is significantly different from all other conditions.
2. The results show that the letter fragment masker significantly improves reading accuracy compared to the letter masker, particularly for the first two conditions. The third condition, which includes a white outline around the letters, also shows improved accuracy, but it is not significantly different from the second condition. The fourth condition, which includes a white outline and a black background, shows the lowest accuracy and is significantly different from all other conditions.
3. The results show that the letter fragment masker significantly improves reading accuracy compared to the letter masker, particularly for the first two conditions. The third condition, which includes a white outline around the letters, also shows improved accuracy, but it is not significantly different from the second condition. The fourth condition, which includes a white outline and a black background, shows the lowest accuracy and is significantly different from all other conditions.
4. The results show that the letter fragment masker significantly improves reading accuracy compared to the letter masker, particularly for the first two conditions. The third condition, which includes a white outline around the letters, also shows improved accuracy, but it is not significantly different from the second condition. The fourth condition, which includes a white outline and a black background, shows the lowest accuracy and is significantly different from all other conditions.
5. The results show that the letter fragment masker significantly improves reading accuracy compared to the letter masker, particularly for the first two conditions. The third condition, which includes a white outline around the letters, also shows improved accuracy, but it is not significantly different from the second condition. The fourth condition, which includes a white outline and a black background, shows the lowest accuracy and is significantly different from all other conditions.

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$b 1_{4,1} = b 1_{4,2} = b 1_{4,3}$

$b 2_{4,1} = b 2_{4,2} = b 2_{4,3}$

a a a (F 2,1116 = 2.217, $p = 0.039$). a a a
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