

# The Mirror Effect within Perception: Not another Recognition Memory Study

Adriana F. Chávez De la Peña

National Autonomous University of Mexico (UNAM); Faculty of Psychology

## Abstract

Within recognition memory studies where Signal Detection Theory has been applied to describe subjects' performance, a pattern of responses known as the Mirror Effect has shown that when comparing subjects' performance between classes of stimuli that are differentially recognized, this difference appears both for the identification of known and new items. However, the extensiveness of this pattern to other fields has not been explored yet. By using what is known about the Ebbinghaus illusion to design two levels of discriminability, evidence of the Mirror Effect in a detection task, confidence ratings included, that involves perception only is shown.

## Introduction

Signal detection theory has been applied to Recognition Memory to describe subjects' ability to discriminate between stimuli that have previously been presented (old stimuli) from a new set of stimuli (Wixted, 2007). Within this field, it's been consistently found that when comparing subjects' performance across two classes of stimuli, where one is more accurately recognized (A) than the other (B), this discrepancy is shown both for the recognition of old items as old (Hits (A) > Hits (B)) as for new items as new (False alarms (B) > False alarms (A)). This pattern of responses has been identified by the name of the Mirror Effect (Glanzer, Adams, Kim, 1993) with evidence in favor of it reported across a wide range of procedures (Yes/No tasks, Confidence Rating, and Two-alternative forced choice) and variables influencing stimuli recognition. Surprisingly, evidence for the Mirror Effect has only been collected within Recognition Memory studies. And so, most of the theories and models proposed to explain it tend to do it in terms of the study phase included in any recognition memory task, where subjects are assumed to attend/process stimuli differently leading to the different rates of response observed in the recognition phase. The main goal of the present study was to explore the existence of the Mirror Effect within other areas where SDT has been applied. Thus, testing whether it could be understood

## Materials

The following materials were required to complete the research:

- Curabitur pellentesque dignissim
- Eu facilisis est tempus quis
- Duis porta consequat lorem
- Eu facilisis est tempus quis

The materials were prepared according to the steps outlined below:

- Curabitur pellentesque dignissim
- Eu facilisis est tempus quis
- Duis porta consequat lorem
- Curabitur pellentesque dignissim

## Important Result

Lorem ipsum dolor **sit amet**, consectetur adipiscing elit. Sed commodo molestie porta. Sed ultrices scelerisque sapien ac commodo. Donec ut volutpat elit.

## Mathematical Section

Nam quis odio enim, in molestie libero. Vivamus cursus mi at nulla elementum sollicitudin. Nam quis odio enim, in molestie libero. Vivamus cursus mi at nulla elementum sollicitudin.

$$E = mc^2 \quad (1)$$

Nam quis odio enim, in molestie libero. Vivamus cursus mi at nulla elementum sollicitudin. Nam quis odio enim, in molestie libero. Vivamus cursus mi at nulla elementum sollicitudin.

$$\cos^3 \theta = \frac{1}{4} \cos \theta + \frac{3}{4} \cos 3\theta \quad (2)$$

Nam quis odio enim, in molestie libero. Vivamus cursus mi at nulla elementum sollicitudin. Nam quis odio enim, in molestie libero. Vivamus cursus mi at nulla elementum sollicitudin.

$$\kappa = \frac{\xi}{E_{\max}} \quad (3)$$

## Methods

Lorem ipsum dolor **sit amet**, consectetur adipiscing elit. Sed laoreet accumsan mattis. Integer sapien tellus, auctor ac blandit eget, sollicitudin vitae lorem. Praesent dictum tempor pulvinar. Suspendisse potenti. Sed tincidunt varius ipsum, et porta nulla suscipit et. Etiam congue bibendum felis, ac dictum augue cursus a. **Donec** magna eros, iaculis sit amet placerat quis, laoreet id est. In ut orci purus, interdum ornare nibh. Pellentesque pulvinar, nibh ac malesuada accumsan, urna nunc convallis tortor, ac vehicula nulla tellus eget nulla. Nullam lectus tortor, *consequat tempor hendrerit* quis, vestibulum in diam. Maecenas sed diam augue.

## Results



Figura: Figure caption

Nunc tempus venenatis facilisis. Curabitur suscipit consequat eros non porttitor. Sed a massa dolor, id ornare enim:

Treatments	Response 1	Response 2
Treatment 1	0.0003262	0.562
Treatment 2	0.0015681	0.910
Treatment 3	0.0009271	0.296

Tabela: Table caption

## Conclusion

Nunc tempus venenatis facilisis. **Curabitur suscipit** consequat eros non porttitor. Sed a massa dolor, id ornare enim. Fusce quis massa dictum tortor **tincidunt mattis**. Donec quam est, lobortis quis pretium at, laoreet scelerisque lacus. Nam quis odio enim, in molestie libero. Vivamus cursus mi at *nulla elementum sollicitudin*.

## Additional Information

Maecenas ultricies feugiat velit non mattis. Fusce tempus arcu id ligula varius dictum.

- Curabitur pellentesque dignissim
- Eu facilisis est tempus quis
- Duis porta consequat lorem

## References

## Acknowledgements

Nam mollis tristique neque eu luctus. Suspendisse rutrum congue nisi sed convallis. Aenean id neque dolor. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas.

## Contact Information

- Web: <http://www.university.edu/smithlab>
- Email: [john@smith.com](mailto:john@smith.com)
- Phone: +1 (000) 111 1111

