



REMEMBERING EMOTIONAL EVENTS: AN EYE-TRACKING STUDY

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INTRODUCTION

Remembering the details of a particular event is defined as “*event memory*”. The type of remembered details (central vs peripheral) of an event can differ according to emotional content of an event and participants’ perspective. Additionally, emotional content of an event and participants’ perspective can also effect the eye-track measurements.

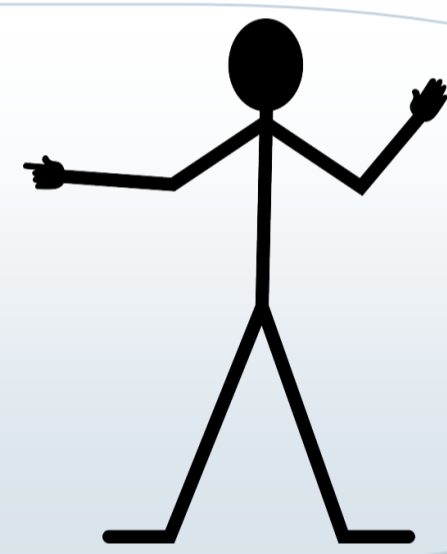
AIM OF THE STUDY

The main objective of this study is to investigate the effects of the emotional content of an event and participants’ perspective on the memory and eye-tracking measurements for central and peripheral details.

METHOD

Participants

- ◆ 130 volunteer undergraduate male students
- ◆ Aged between 18 and 33 (M=21.07, SD=1.82)



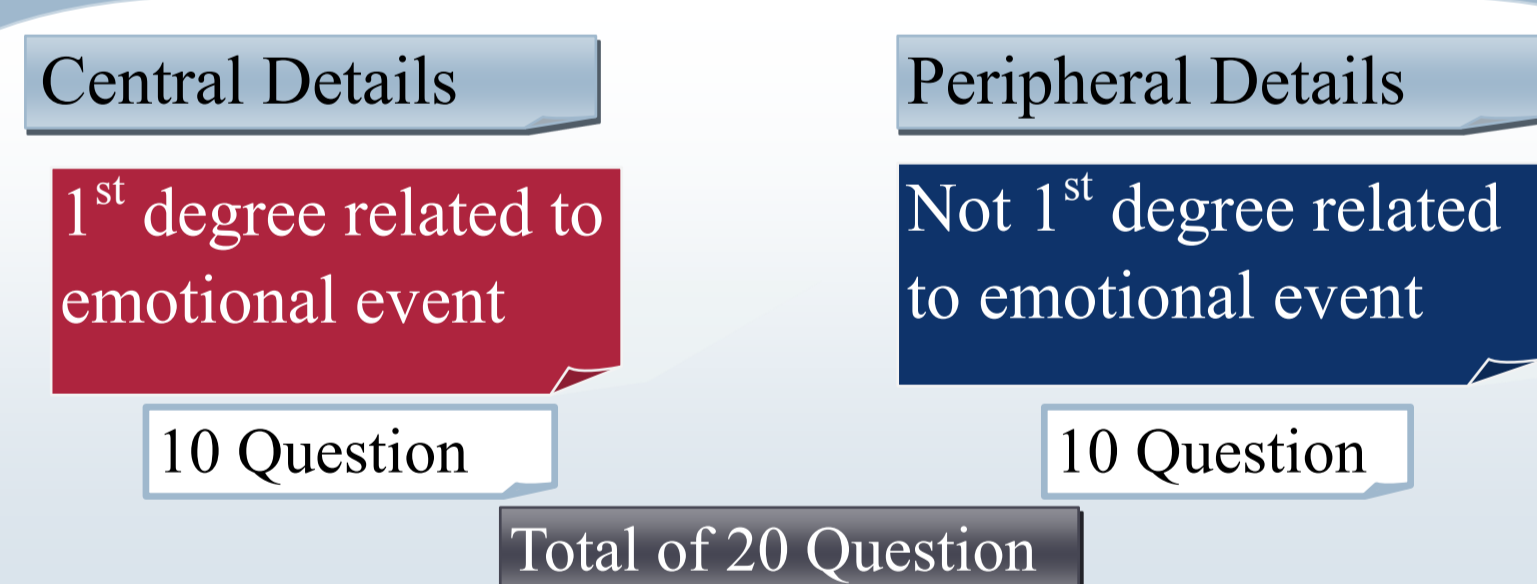
Materials

Thematic
Photograph
Series:



Target photos → Negative → Death
Positive → Birth
Neutral → Everyday home state

Free Recall Form:



Eye-tracking Device

Tobii T120:

To collect data of participants’ eye movements, Tobii eye tracking device model T120 was used



Ishihara Color Blindness Test:

Ishihara Color Blindness Test was used to identify whether participants have color blindness.

Procedure

- ◆ The experiment was applied individually and took approximately 20 mins.
- ◆ Thematic photo series presented with Tobii T120 Model Eye-tracking Device and at the same time participants’ eye movements recorded
- ◆ Only one of the thematic photograph series showed either in own perspective condition or observer perspective condition

Own perspective

Empathizing/associating yourself with the main character while keep tracking what was happening by looking at photos

- ◆ Manipulation check

- 1) Did the target image create emotion?
- 2) Did participants empathize with main character?

Observer perspective

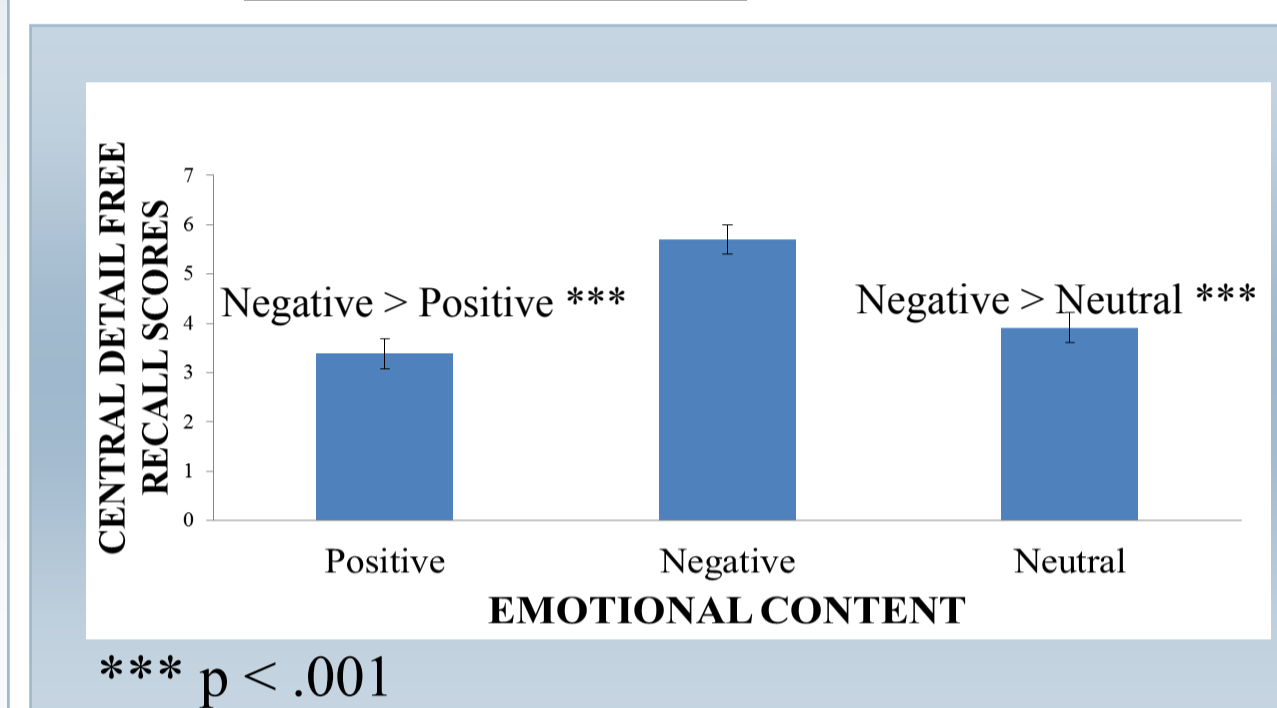
Keep tracking what was happening by passively looking at photos

RESULTS

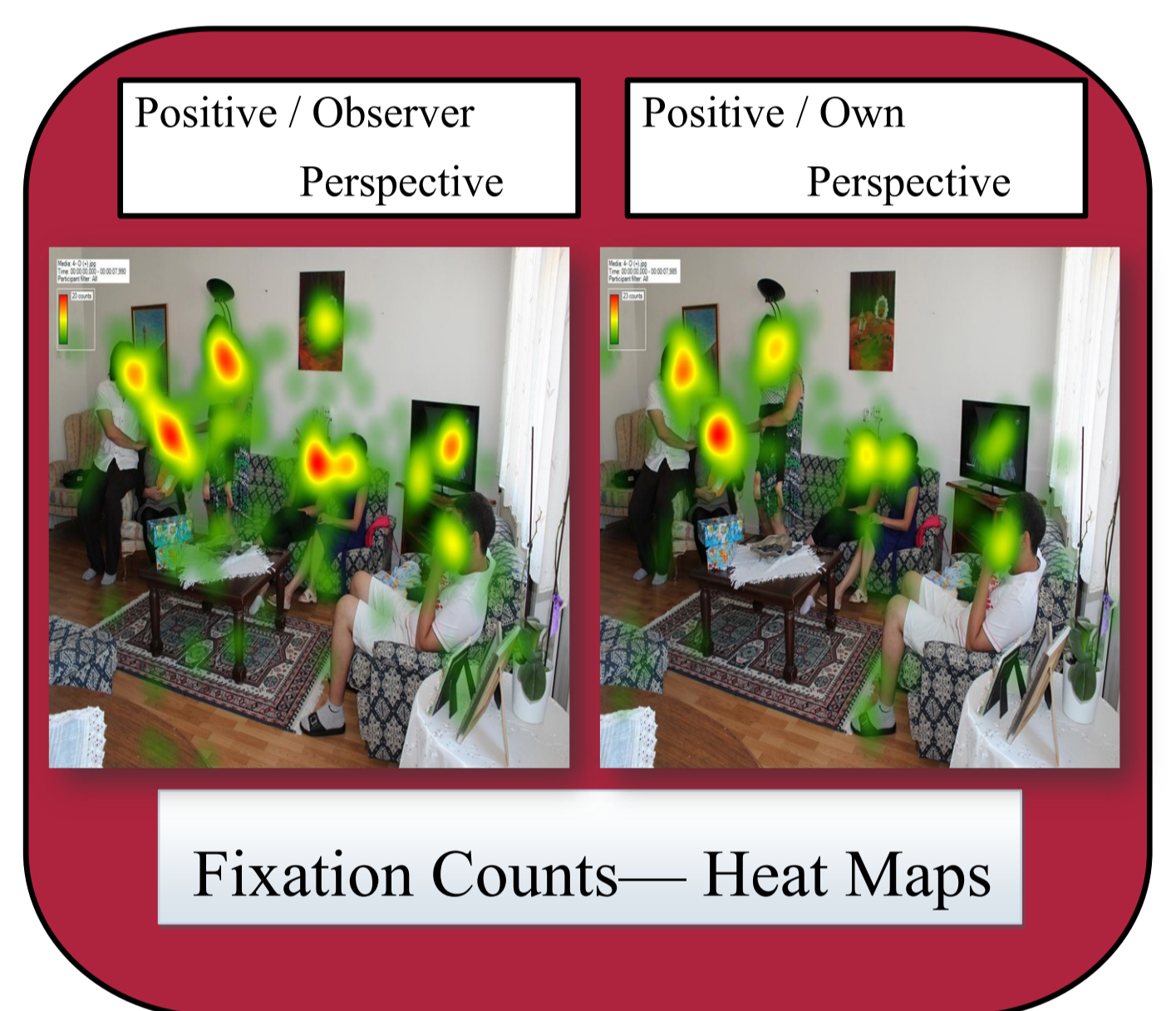
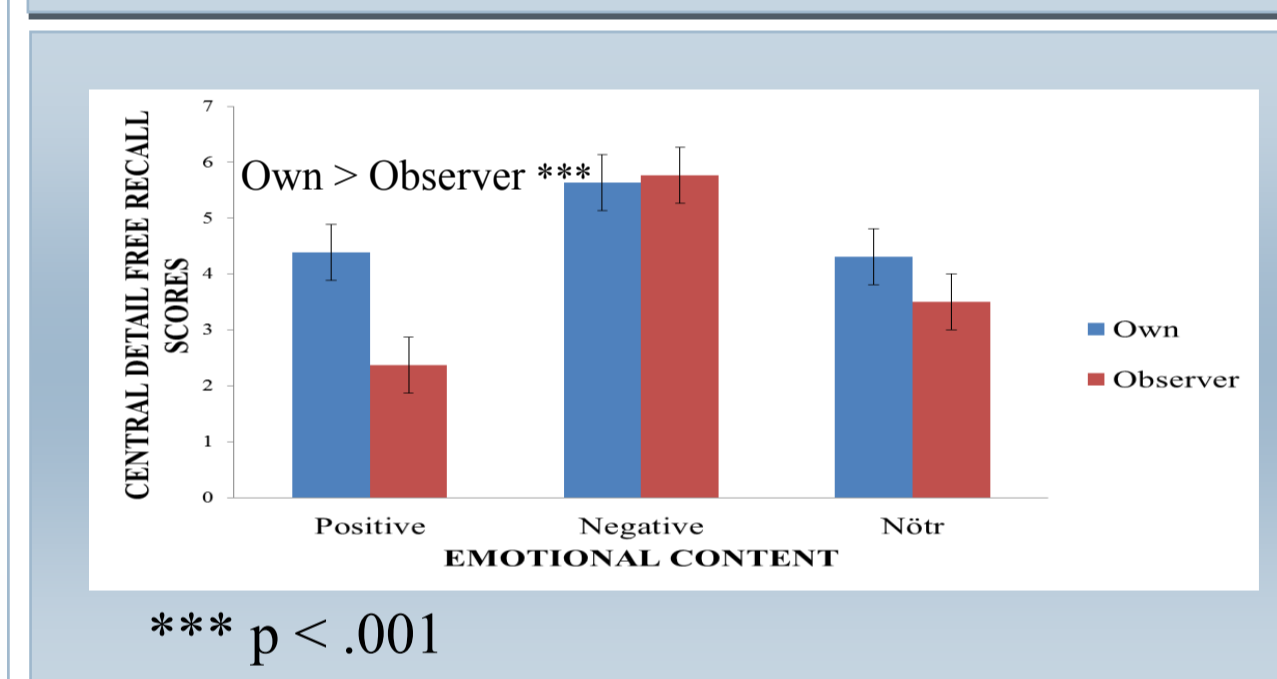
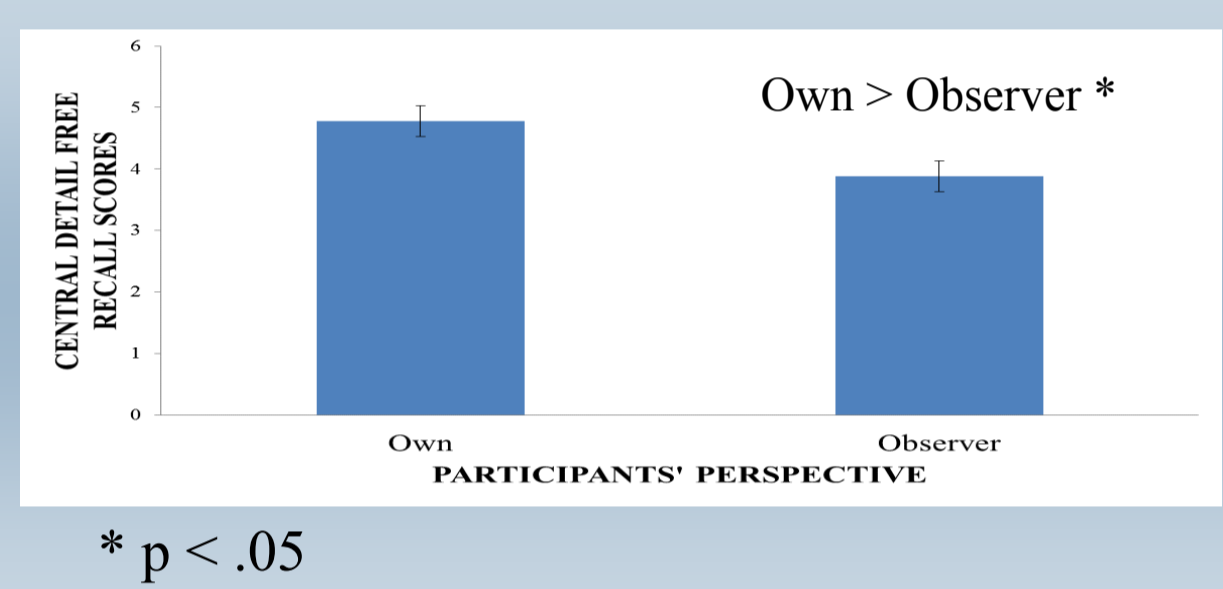
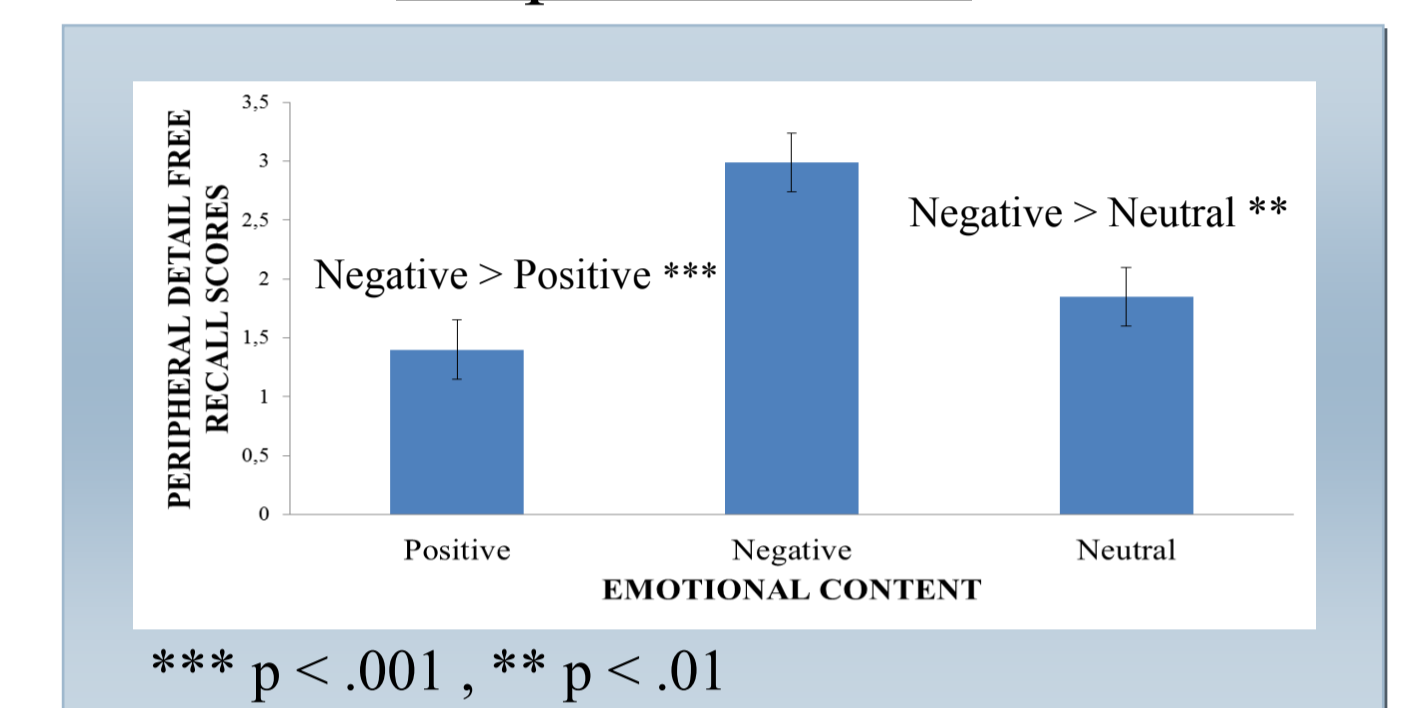
All analysis for memory and eye-tracking measurements were carried out with 3 (Emotional Content: Positive, Negative, Neutral) X 2 (Participants’ perspective: Own perspective, observer perspective) between-subjects factorial ANOVA.

Memory Results:

Central Details



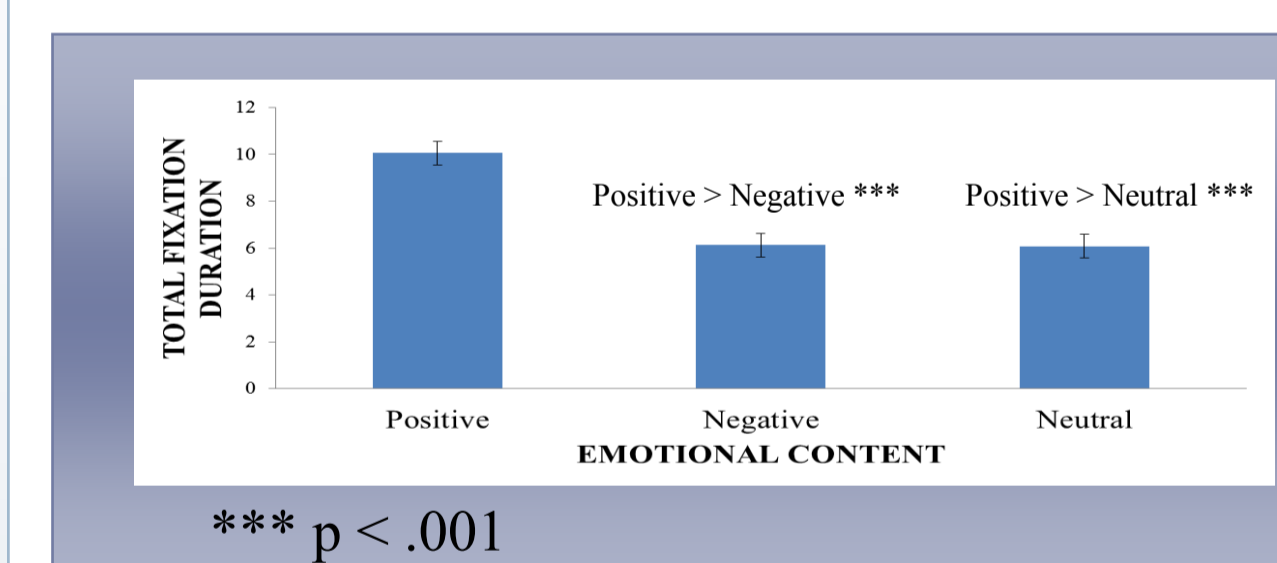
Peripheral Details



Eye-Tracking Results:

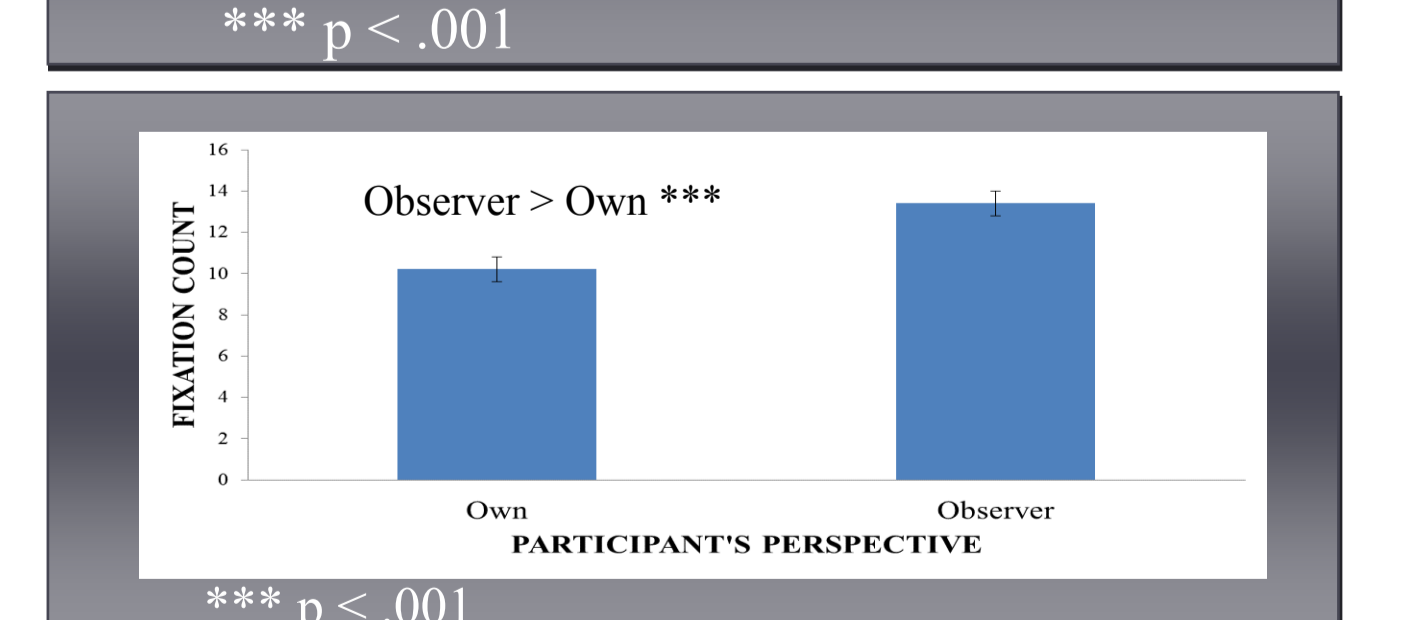
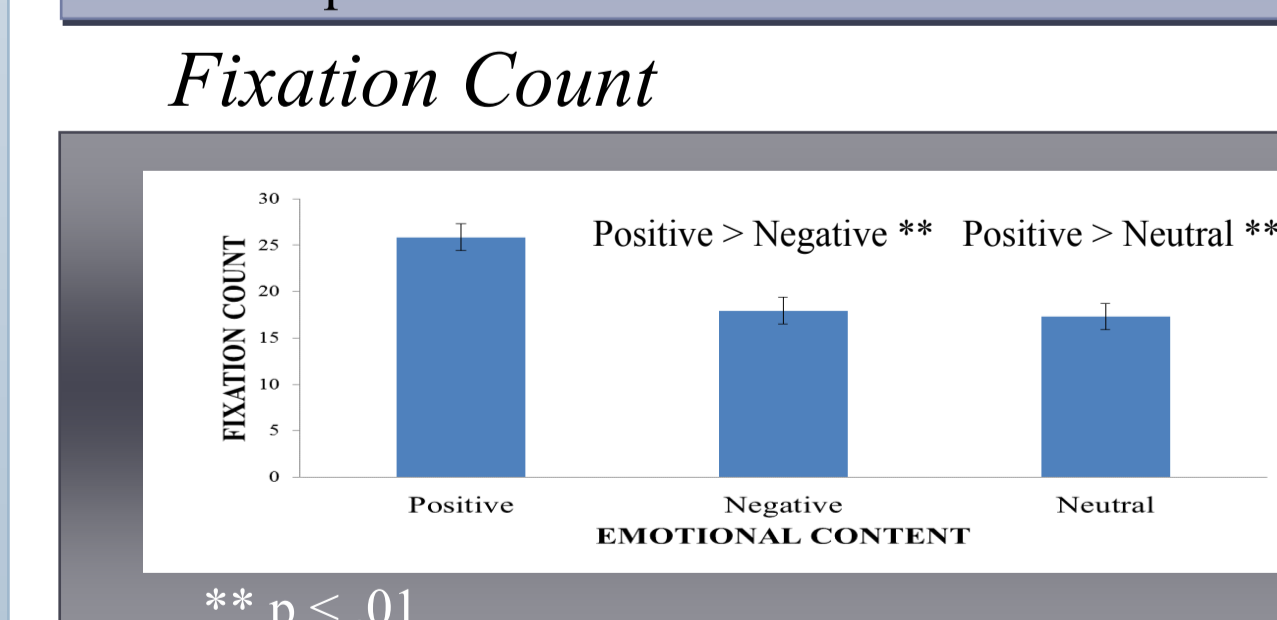
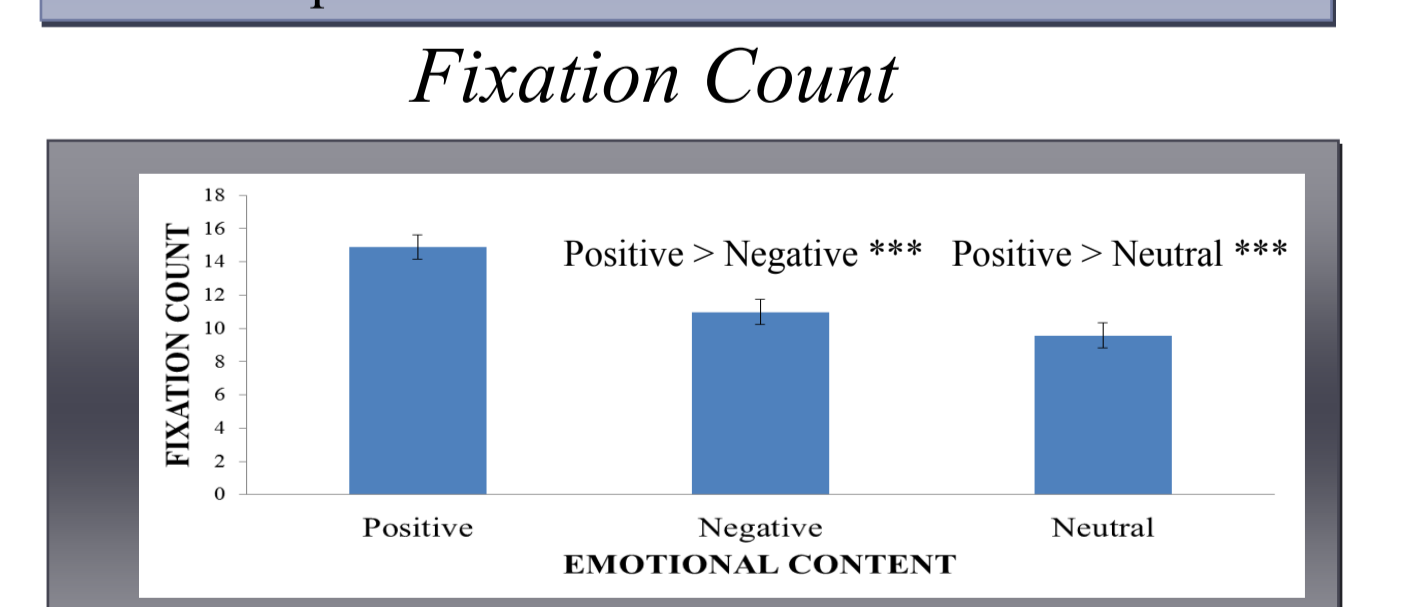
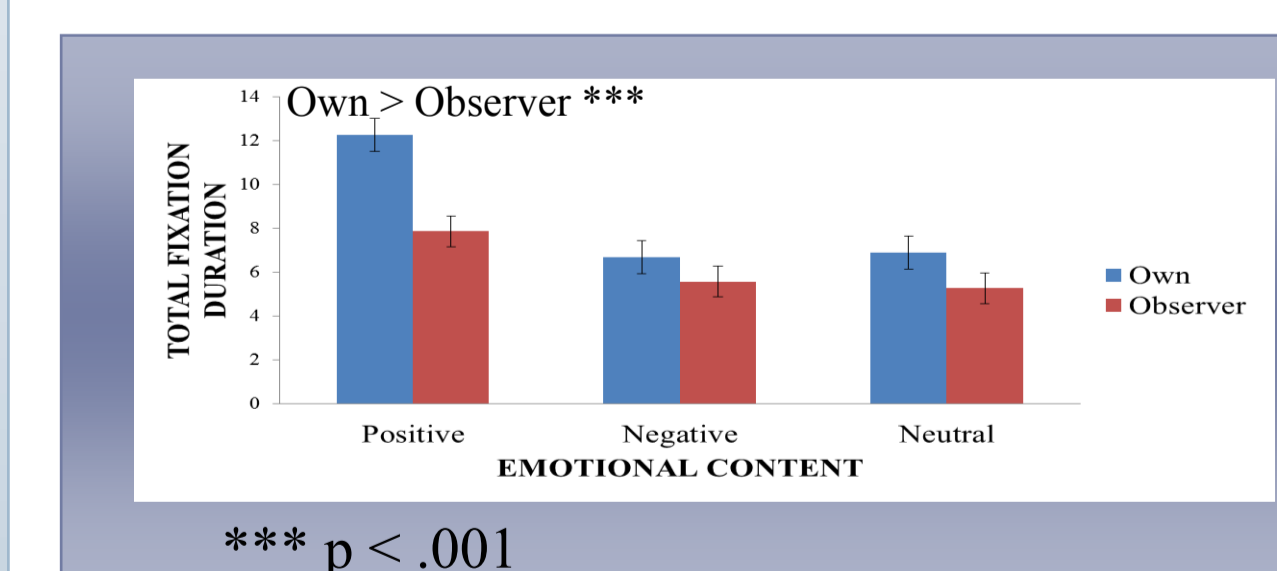
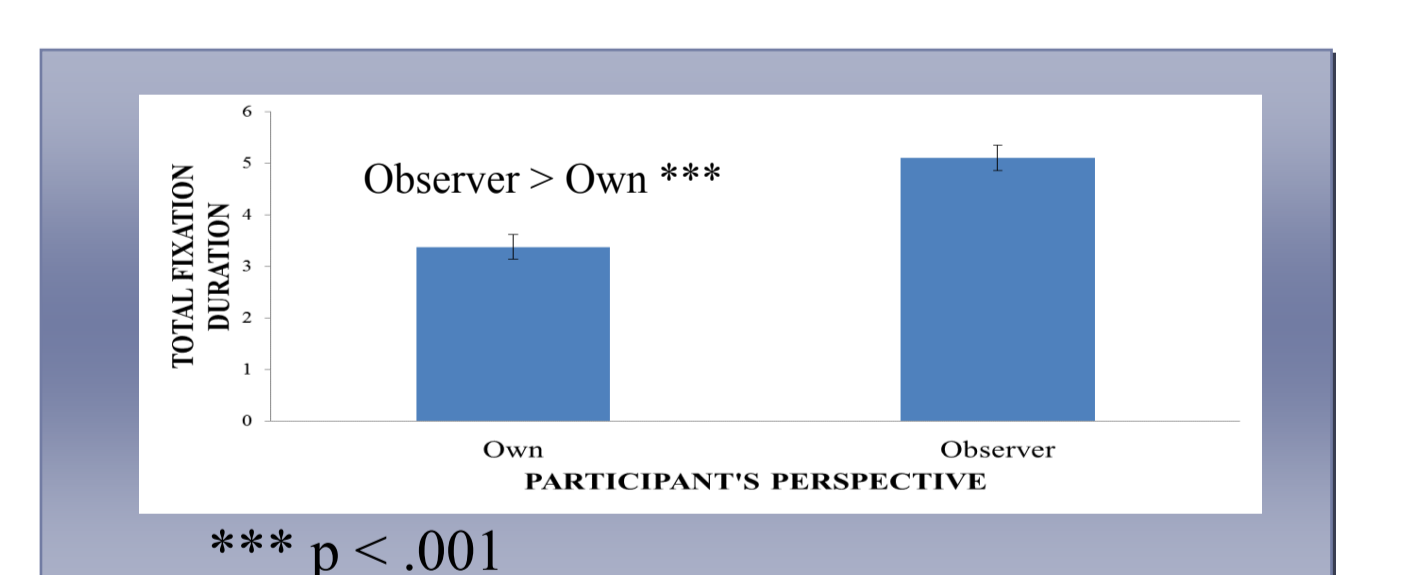
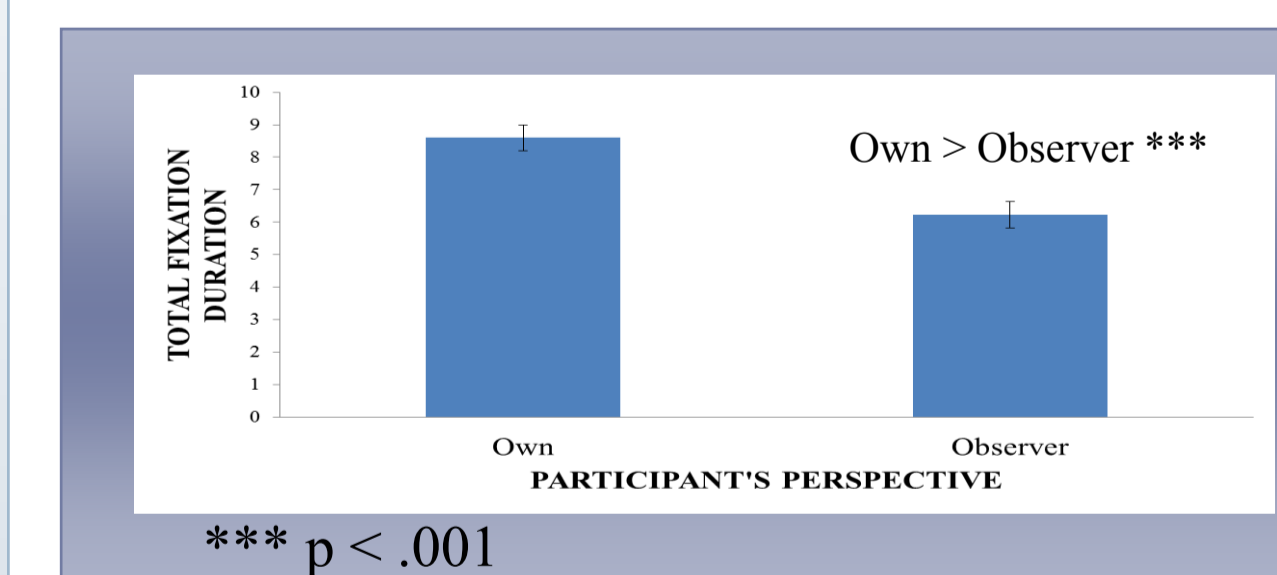
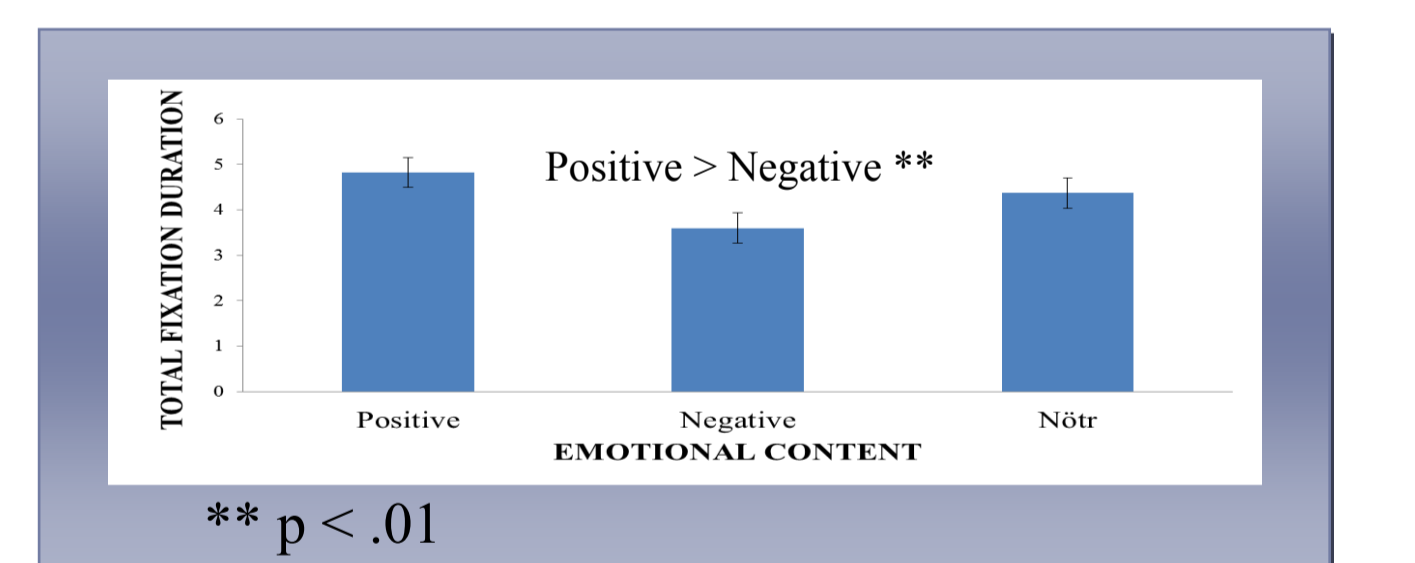
Central Details

Total Fixation Duration



Peripheral Details

Total Fixation Duration



CONCLUSION

- (1) Attention is not sufficient by itself to remember an event with details, emotional dimension of the event has a decisive role (especially negative events have a superiority to remember, even the differences in distribution of overt attention),
- (2) The memory enhancement effect is independent of the attention,
- (3) In memory measurement's negative events, in eye-tracking (attention) measurement's positive events have the priority
- (4) Because the emotional events encoded vivid and detailed are remembered better.

