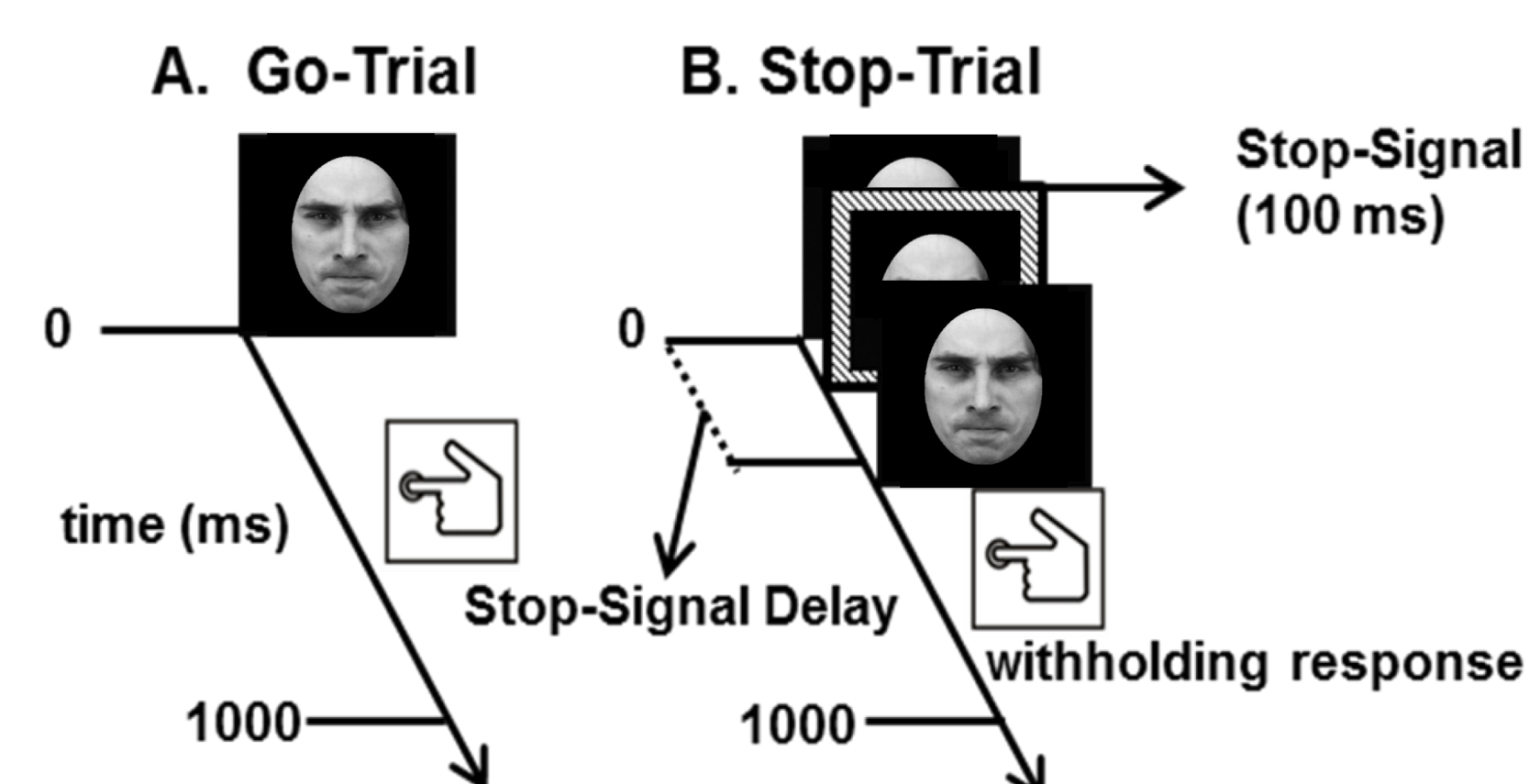


## Introduction

- Short-term media violence exposure modulates early neural correlates of emotional face processing during *implicit* emotional face processing of afraid and happy faces (Stockdale et al., 2015)
- Likewise, chronic exposure to media violence modulates early neural correlates of emotional face processing during *implicit* emotional face processing of afraid and happy faces, when participants were low in empathy (Stockdale et al., 2017)
- Previous behavioral research has shown that short-term exposure to media violence modulates *explicit* processing of angry faces, with participants more quickly and accurately identifying angry versus happy faces (Kirsh & Mounts, 2005; 2007) and researchers have repeatedly argued that exposure to media violence creates a “hostile attribution bias” (Hasan et al., 2012) and desensitization (Anderson et al., 2010)
- We performed a mixed design study to examine the effects of media violence exposure on the neural correlates of implicit and explicit processing of happy and angry faces.

## Methods



Explicit Task  $n = 40$

- Identify Emotion (Happy or Angry)

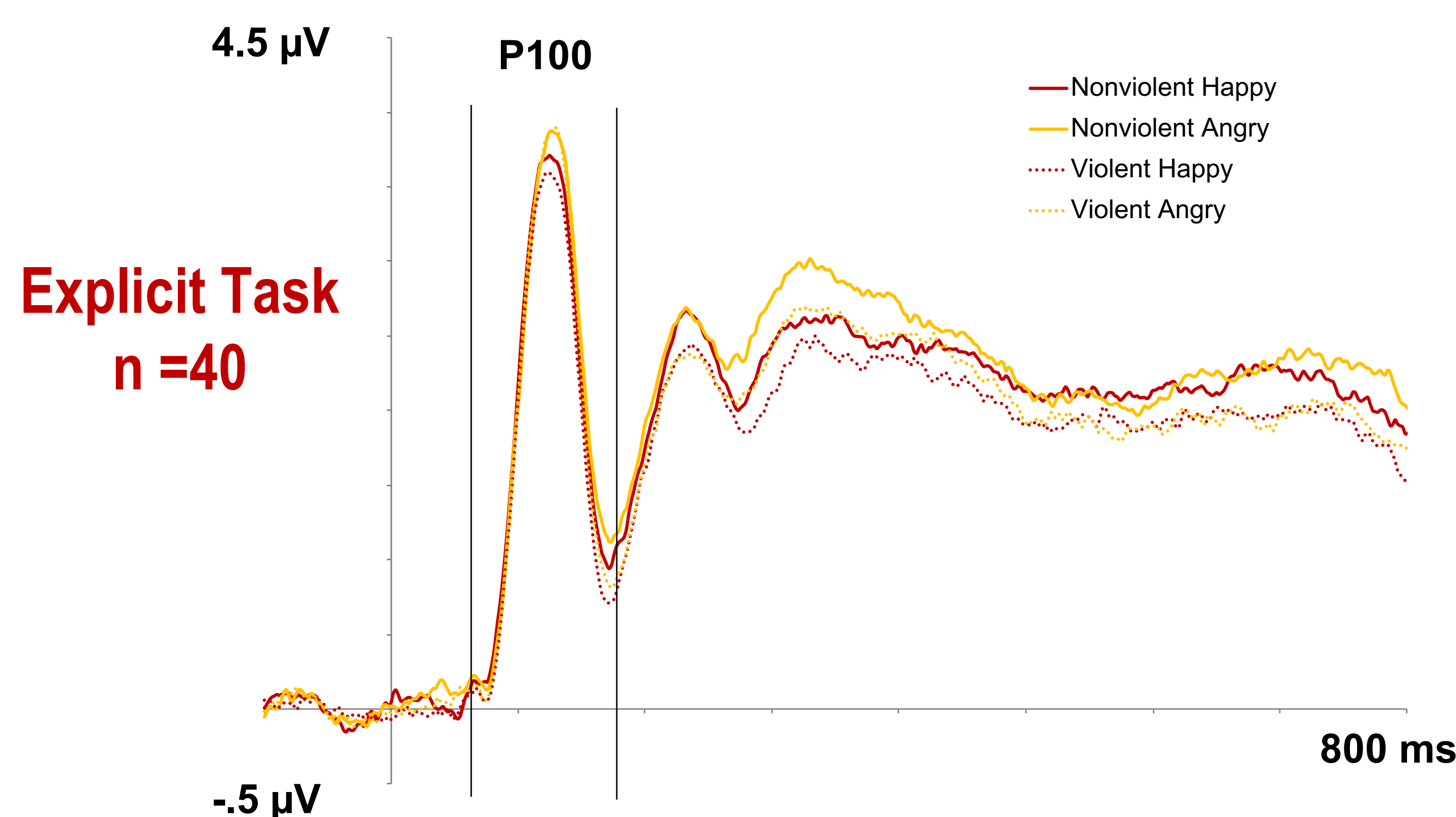
Implicit Task  $n = 47$

- Identify Gender (Male or Female)

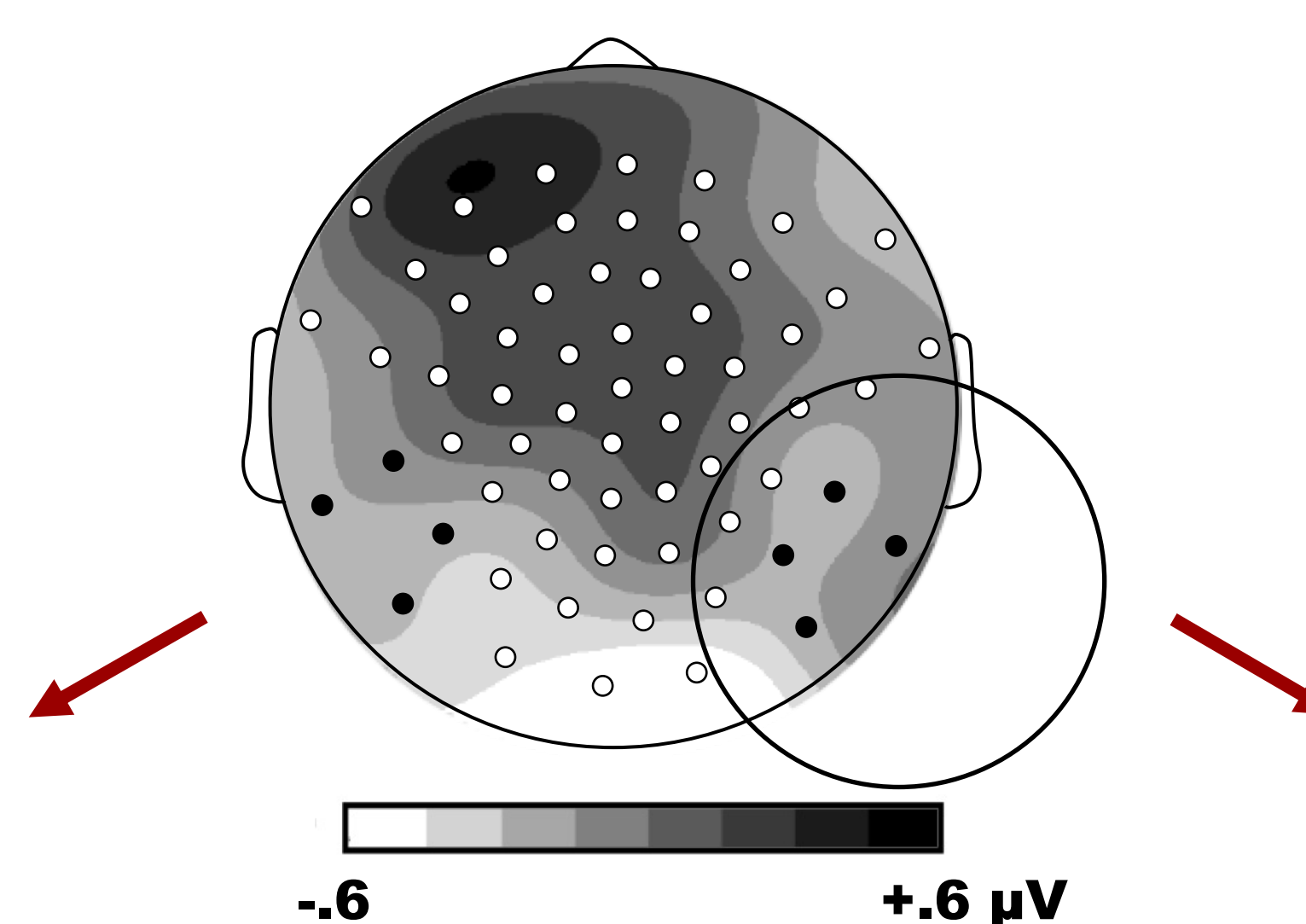
- Participants viewed violent or non-violent film clip, then performed a stop-signal task
- One week later they completed the same procedure, but the film condition was switched

## Results

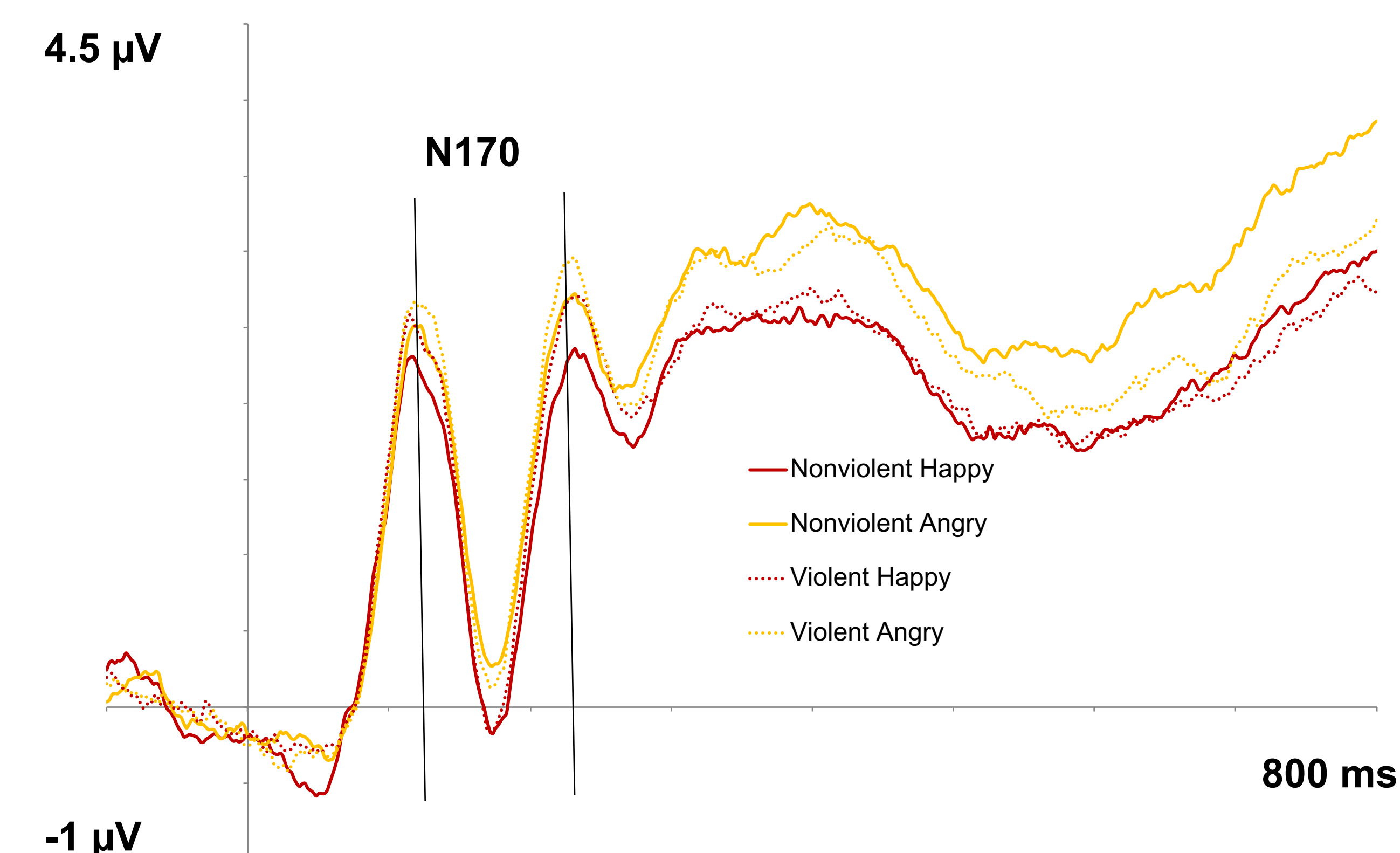
P100



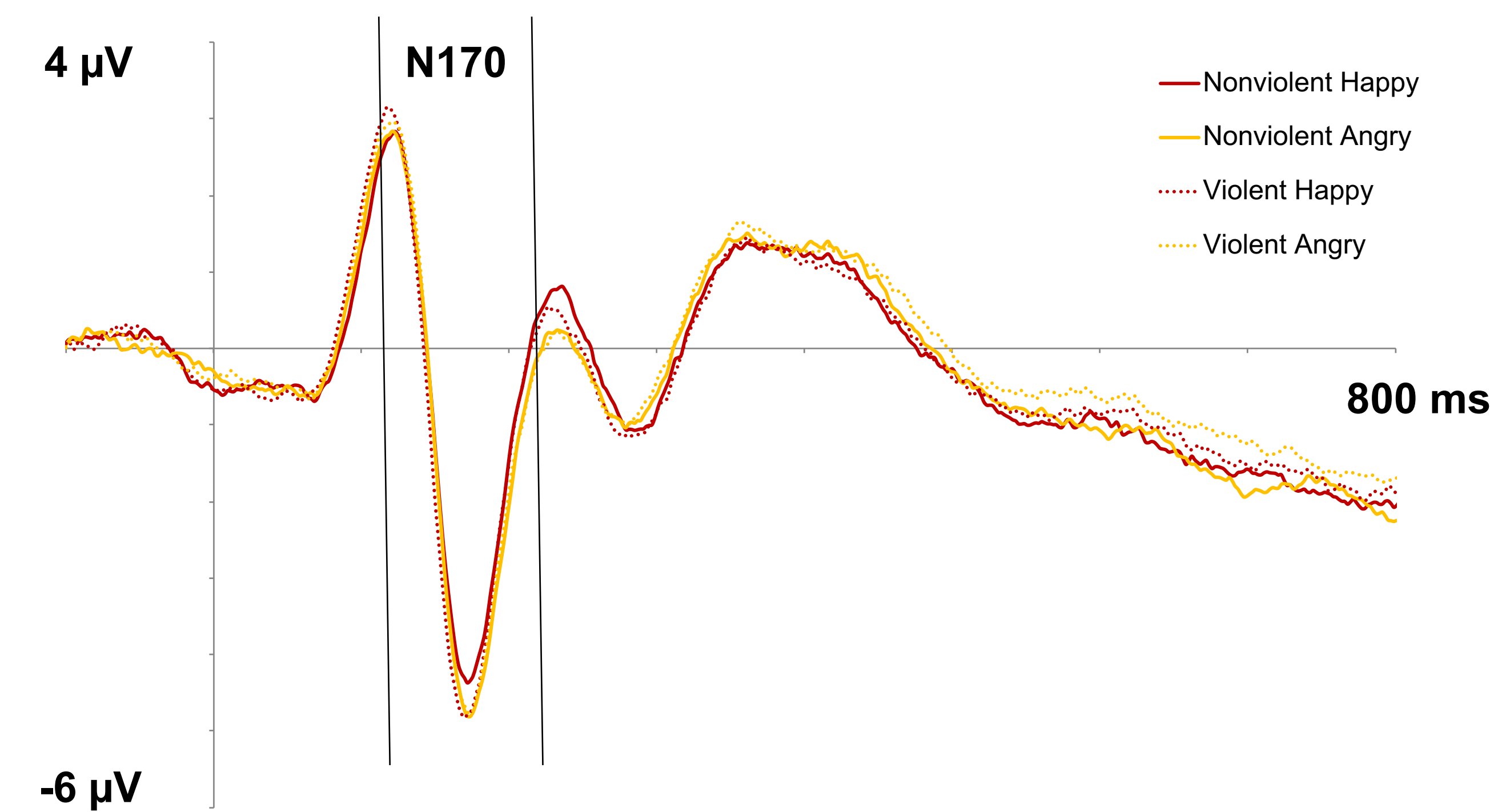
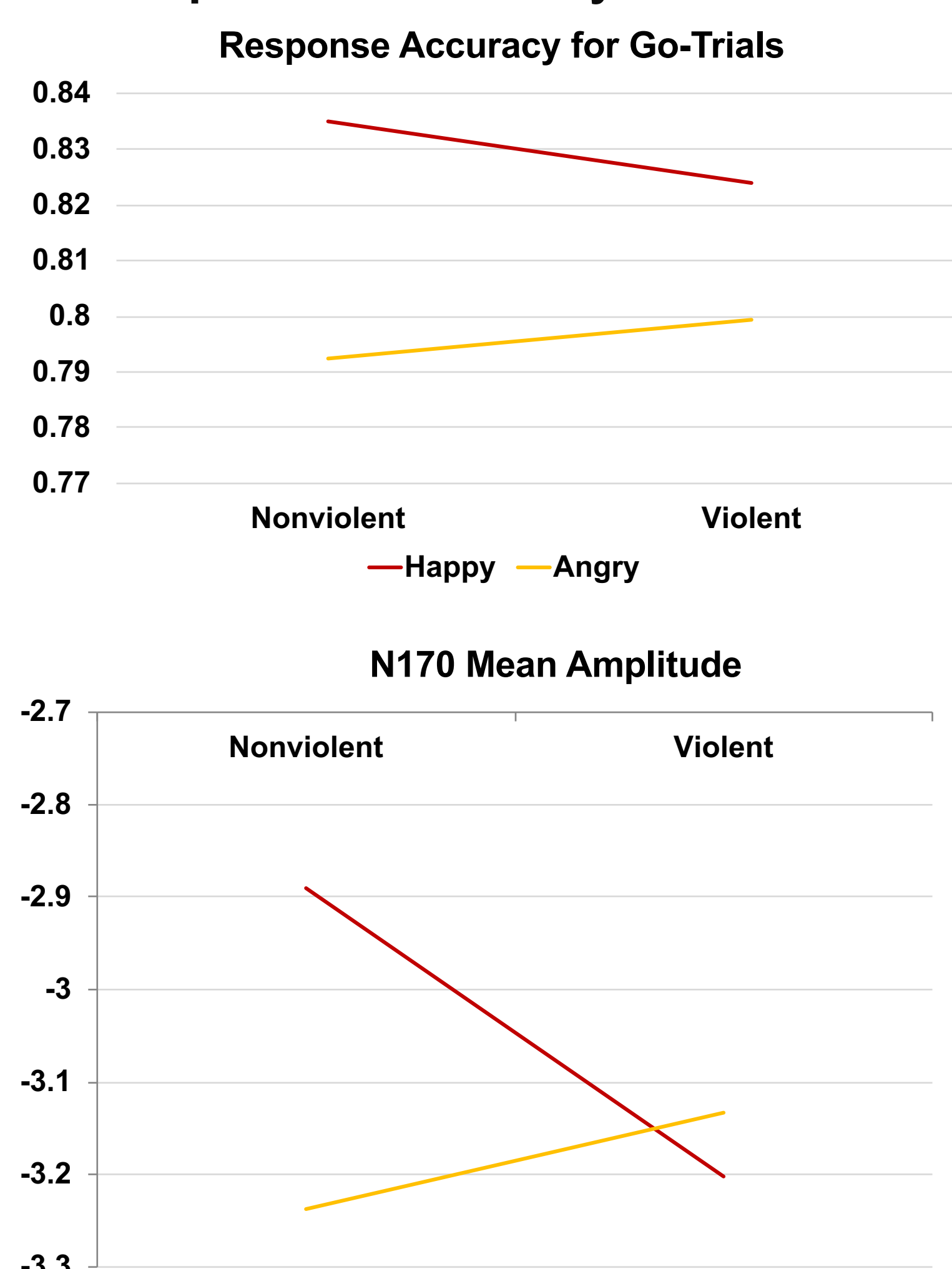
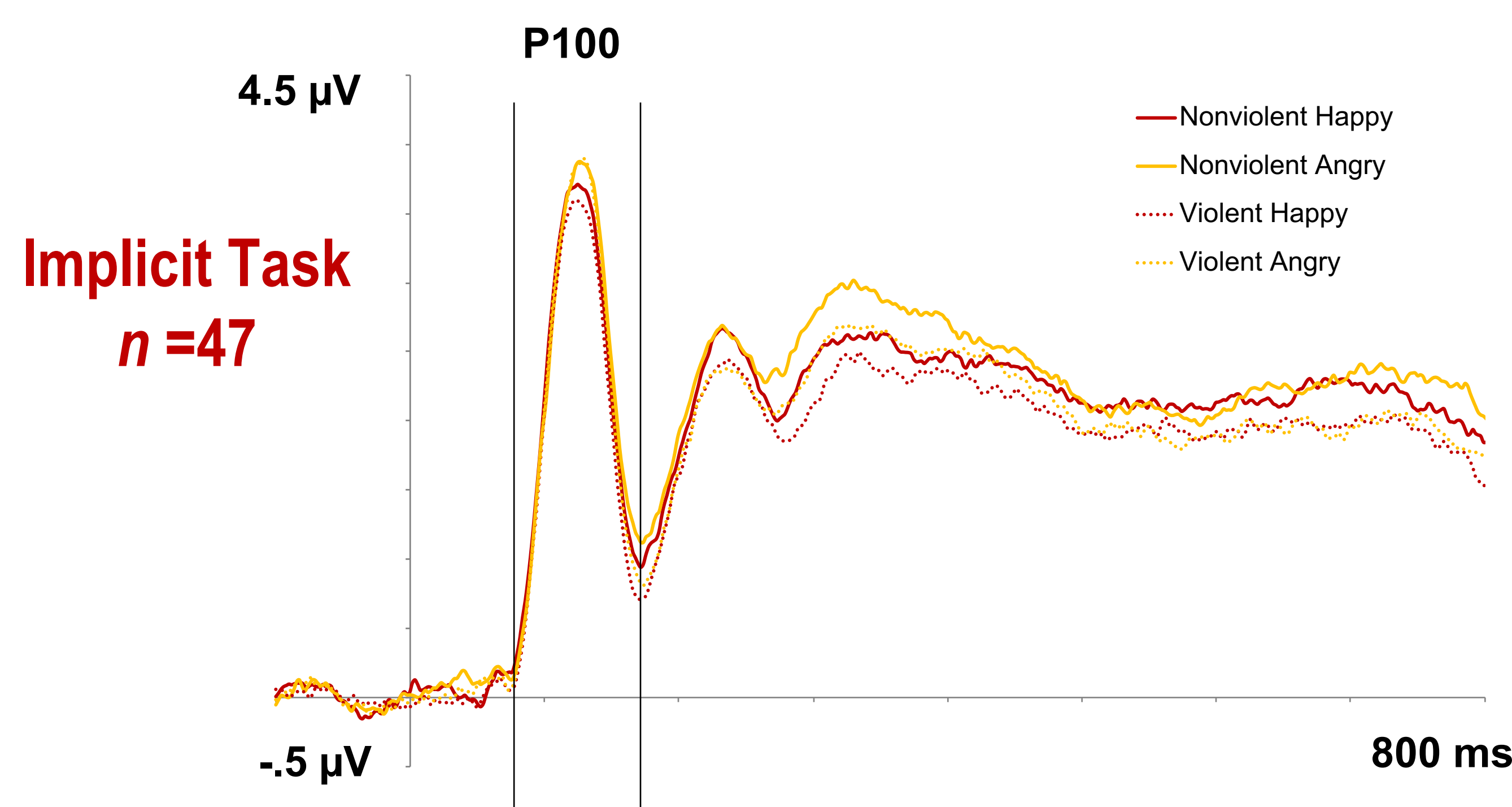
N170  
Violent - Non-Violent



N170



- During an *explicit* emotional processing task, exposure to media violence did not modulate behavioral or neural correlates of the processing of angry or happy faces.
- In the *explicit* version of the task there were no effects of media violence exposure on the P100 or the N170. However, there were valence effects with angry faces producing more positive amplitudes in the P100 and more negative N170 amplitudes and delayed latencies as compared to happy faces.



- During an *implicit* emotional In the *implicit* version of the task behaviorally, participants failed to distinguish between angry and happy faces in the go-trial accuracies after exposure to a violent film clips. Similarly, participants failed to distinguish between angry and happy faces in their N170 amplitudes after exposure to a violent film clips.

## Conclusion

- This is preliminary evidence that short-term exposure to media violence may modulate the neural correlates of the processing of angry and happy faces when emotion is irrelevant to task performance.
- This is further evidence of the desensitizing effect of short-term media violence exposure on emotional processing. When emotion is essential to task performance, participants can overcome the short-term effects of media violence exposure on behavior and this is reflected in their neural correlates. However, when emotion is irrelevant to task performance, participants show desensitization to the emotional information contained in human faces after short-term exposure to media violence.

