Topic: Video Games

RQ: How do video games effect facial emotional recognition?

Relation: Video games involve facial emotion recognition.

By: Tanja Hoefler

Review of "Violent Video Game Play Impacts Facial Emotion Recognition"

Kirsh & Mounts (2007)

Introduction

Problem: Research has found a correlation between violent media and participants identifying faces as angry more often, but research has not been done on video games and participants identifying faces

Research Question: What impact does violent video game play have on the identification of positive and negative emotions?

Hypothesis: Participants that play violent video games will see more negative facial emotions than those that play non-violent video games.

Research Methods

Setting: Public liberal arts college in western New York State.

Participants: Two groups aged 17-23 (69% female, 86% Caucasian).

Manipulated variable: Violent video game (House of the dead 2) and a non-violent video game (Kayak Extreme). Both games were rigged to prevent player frustration (i.e. no deaths)

Measured Variable: Facial emotion recognition (happy, calm or angry).

University students tend to play video games more often.

0%   25%   50%   75%   100%

Findings

Research Question: What impact does violent video game play have on the identification of positive and negative emotions?

Supported

Hypothesis: Participants that play violent video games will see more negative facial emotions than those that play non-violent video games.

Supported

Conclusion

Problem: Research has found a correlation between violent media and participants identifying faces as angry more often, but research has not been done on video games and participants identifying faces

Previous research found that generally participants would be faster to identify happy faces versus angry faces.

That is unless **negative stimuli is presented** such as unpleasant odors, violent media, or in this case violent video game play.

Violent Video Game Players and Non-Players Differ on Facial Emotion Recognition

Diaz, Wong, Hodgins, Chiu & Goghari (2016).

Introduction

Problem: Video games are becoming more predominant and it is important to analyze the effects they have on facial emotional recognition.

Research Questions:

Is facial emotion recognition generally altered in chronic violent video game players versus non-gamers?

Do violent video-games have an effect on the the accuracy and speed of recognizing different facial emotions?

Introduction continued

Hypotheses:

- Ability to judge facial emotions will be affected by chronic violent video games.

- There will be a difference in pattern of performance on facial emotional recognition in chronic violent video gamers versus non-gamers.

Research Methods

Setting: University of Calgary

Participants: Even amount of men and women with a mean age of 20.

Grouping variable: Chronic gamers and non-gamers.

Measured variable: Facial emotion recognition. Questionnaire given to measure the consumption of violent media, hours spent playing violent games, what games were played and an aggression/mood measure.

Findings

Research Questions:

Is facial emotion recognition generally altered in chronic violent video game players
versus non-gamers?
-**Not significant**

Do violent video-games have an effect on the accuracy and speed of recognizing
different facial emotions?
-**Supported**

Findings continued

Hypotheses:

Ability to judge facial emotions will be affected by chronic violent video games.
   -**Partially Supported (only for fearful/disgusted faces)**

That there will be a difference in pattern of performance on facial emotional recognition in chronic violent video gamers versus non-gamers.
   -**Supported (found difference in reaction time)**

Conclusion

Problem: Video games are becoming more predominant and it is important to analyze the effects they have on facial emotional recognition.

Results did not replicate previous studies which found violent video game players to identify angry faces more than nonviolent gamers. They also **did not see a decrease in ability to identify happy faces as other studies had found.**

The authors believe that more research needs to be conducted in order to best understand the correlation between violent video games and facial emotional recognition.

Laughter exaggerates happy and sad faces depending on visual context

Sherman, Sweeny, Grabowecky & Suzuki (2012).

Introduction

Problem: Perception of facial emotions can be altered due to external stimuli such as laughter.

Research Question: Does the effect of facial emotional recognition caused by laughter differ depending upon seeing an individual face versus a crowd of faces?

Hypothesis: Laughter will produce an opposite effect depending upon if it is an individual versus a crowd of faces.

Research Methods

Setting: Northwestern University undergraduate students (dimly lit room – individually)

Participants: Groups contained both genders and ranged from 10-18 participants.
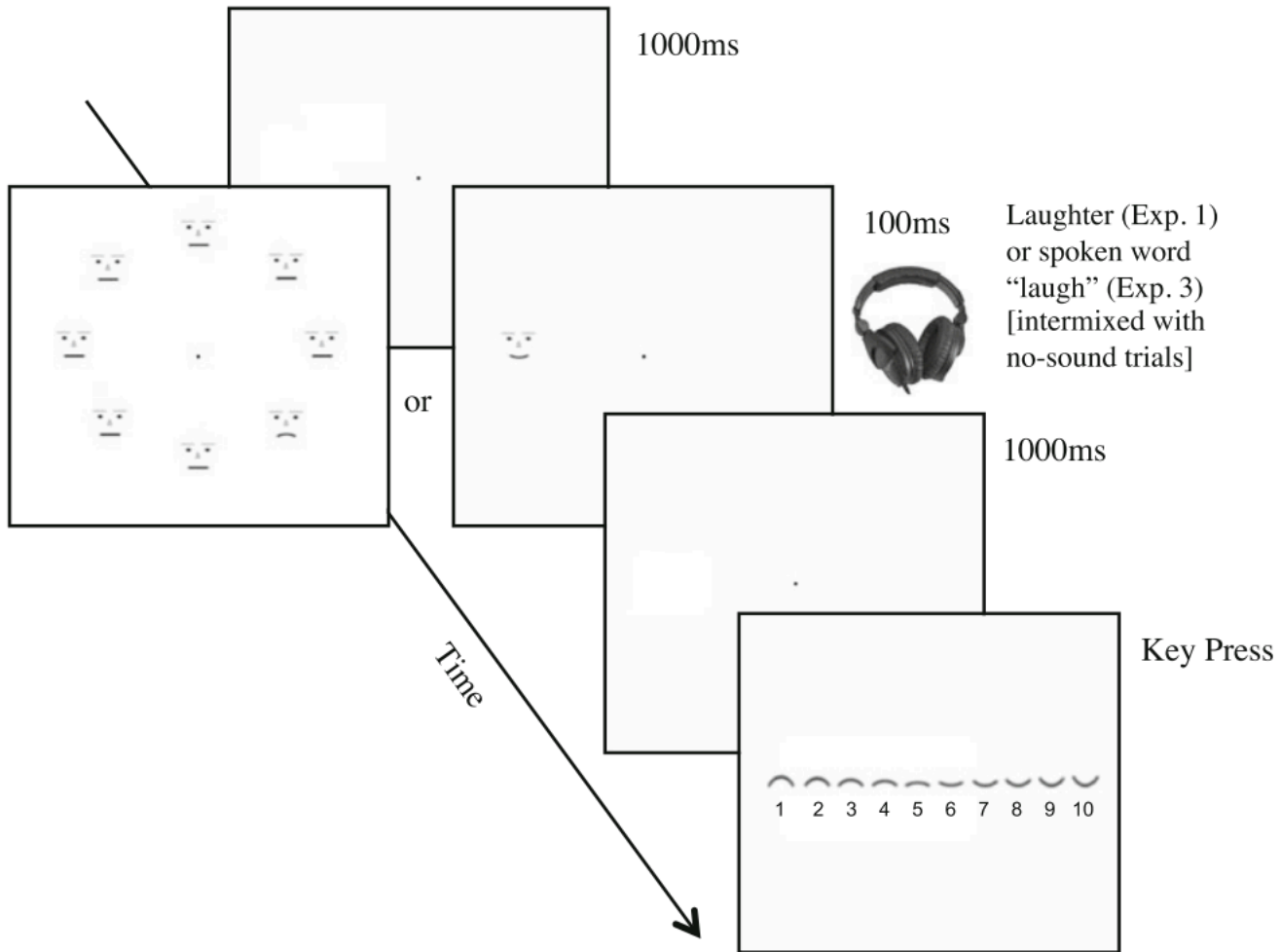
Manipulated Variables:

Experiment 1: Presented with faces and half the participants also would hear a clip of a child laughing.

Experiment 2: Presented neutral faces having a very slight upward mouth tint in order to investigate if sad face sticks out more (no laugh track).

Experiment 3: Same as experiment one except the word "laugh" was said instead of a child laugh track played.

Measured Variable: Facial emotion recognition (happy, neutral or angry).

1000ms

100ms

Laughter (Exp. 1) or spoken word "laugh" (Exp. 3) [intermixed with no-sound trials]

or

1000ms

Key Press

1 2 3 4 5 6 7 8 9 10

Time

Findings

Research Question: Does the effect of facial emotional recognition caused by laughter differ depending upon seeing an individual face versus a crowd of faces?

Supported

Hypothesis: Laughter will produce an opposite effect depending upon if it is an individual versus a crowd of faces.

Supported

Conclusion

Problem: Perception of facial emotions can be altered due to external stimuli such as laughter.

The authors found that laughter had a congruency effect when seeing a single face but a contrast effect when looking at a crowd of faces.

The authors believe more research needs to be conducted as to what may be causing this since it **does not seem to be caused by arousal** since the crying child did not have the same impact as the laughing child.

Final thoughts

RQ: How do video games effect facial emotional recognition?

Article 1: Found that negative stimuli can cause one to perceive facial emotions as more negative thus changing the way they recognize facial emotions.

Article 2: Results did not match previous results when it came to violent video games causing an increase in recognizing angry faces.

Article 3: Discusses how laughter can change facial emotional recognition which ties in with article 1 on stating that stimuli can cause our facial emotional recognition to change.

References

Diaz, R.L., Wong, U., Hodgins. D.C., Chiu, C.G., & Goghari, V.M. (2016). Violent game players and non-players on facial emotion recognition. *Aggressive Behavior,* 42(1), 16-28.

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