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Summer 8-11-2021

### Effects Of Wearing A Mask On Face Perception: A Literature Review Of 2 Experimental Research Studies

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#### Recommended Citation

Fidanci, Arda, "Effects Of Wearing A Mask On Face Perception: A Literature Review Of 2 Experimental Research Studies" (2021). International Programs. 152. https://surface.syr.edu/eli/152

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## Effects of Wearing a Mask on Face Perception: A Literature Review of 2 Experimental Research Studies

# **ABSTRACT**

The face is the most important and informative source for non-verbal communication in social life. COVID-19 has deeply affected our non-verbal communication due to wearing a mask

covering a major part of the face. In accordance with this, 2 research studies show that wearing a mask negatively affects face recognition, including face identification and emotion reading. It can be concluded that wearing a mask makes harder our daily social conversations due to concealing the rest of the face.

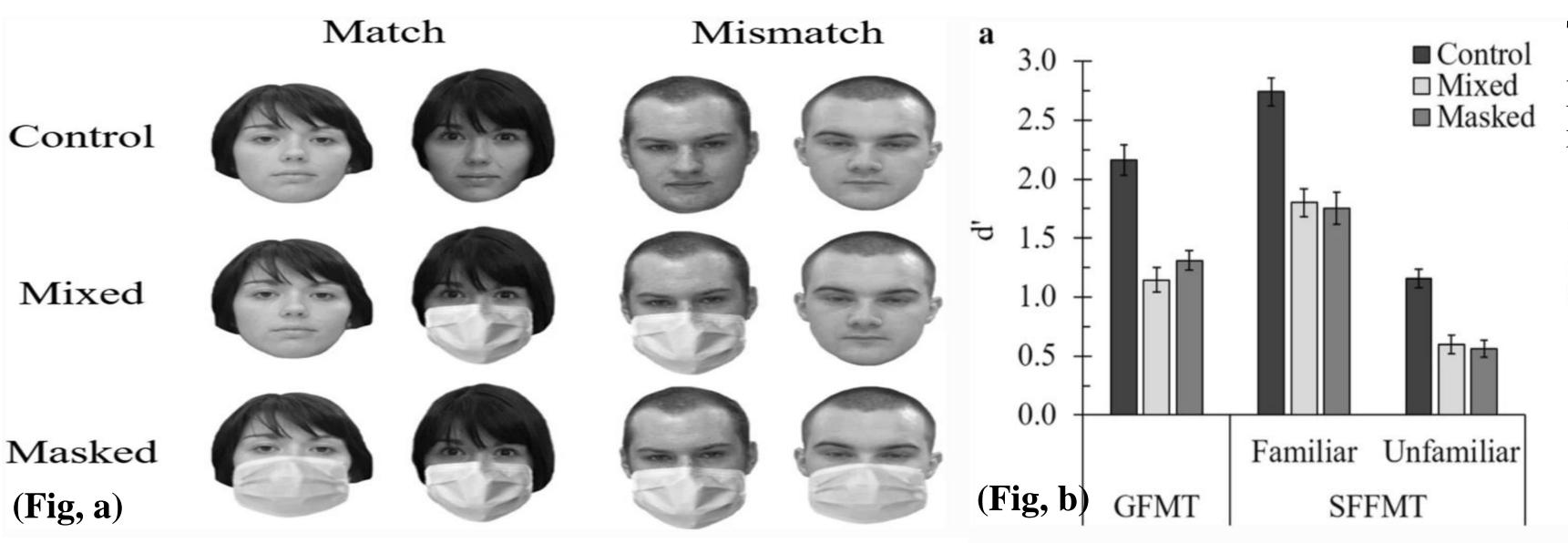
## **INTRODUCTION**

Faces can be considered as one of the most important clues of other's behavior or intentions in social interaction (6). Recognition of the face provides knowledge acquisition about biological and social features such as gender, species, age, familiarity, and emotional state (3).

However, the COVID-19 pandemic has radically changed the daily life of people around the world. In the context of COVID-19, epidemiological studies showed that wearing a mask in public has reduced daily infected cases in society (4,5). While wearing a mask is an effective way to prevent the virus, it conceals a major part of the face, which has a key role in Carbon (2020) our daily social life.

Therefore, there are two hypothesis that wearing a mask negatively affects both identifying faces and understanding emotional expressions.

# Effects of Wearing a Mask on Identifying Faces



## Carragher & Hancock (2020)

There are three different conditions: control (both of non-masked), mixed (one masked, one non-masked), masked (both of masked) (Fig. a).

The participants were **randomly** assigned to one of the conditions.

The participants were asked to decide whether the pair presented the same person or two different people.

The results show that wearing a mask reduces face identification performance (Fig. b).

1 Carbon C-C (2020) Wearing Face Masks Strongly Confuses Counterparts in Reading Emotions. Front. Psychol. 11:566886. doi: 10.3389/fpsyg.2020.566886

2 Carragher, D.J., Hancock, P.J.B. Surgical face masks impair human face matching performance for familiar and unfamiliar faces. Cogn. Research 5, 59 (2020). https://doi.org/10.1186/s41235-020-00258-x3 Howard, Jeremy et al "An evidence review of face masks against COVID-19." Proceedings of the National Academy of Sciences 118.4 (2021):

3 Fox, E., Lester, V., Russo, R., Bowles, R. J., Pichler, A., & Dutton, K. (2000). Facial Expressions of Emotion: Are Angry Faces Detected More Efficiently?. Cognition & emotion, 14(1), 61-92. doi:10.1080/026999300378996

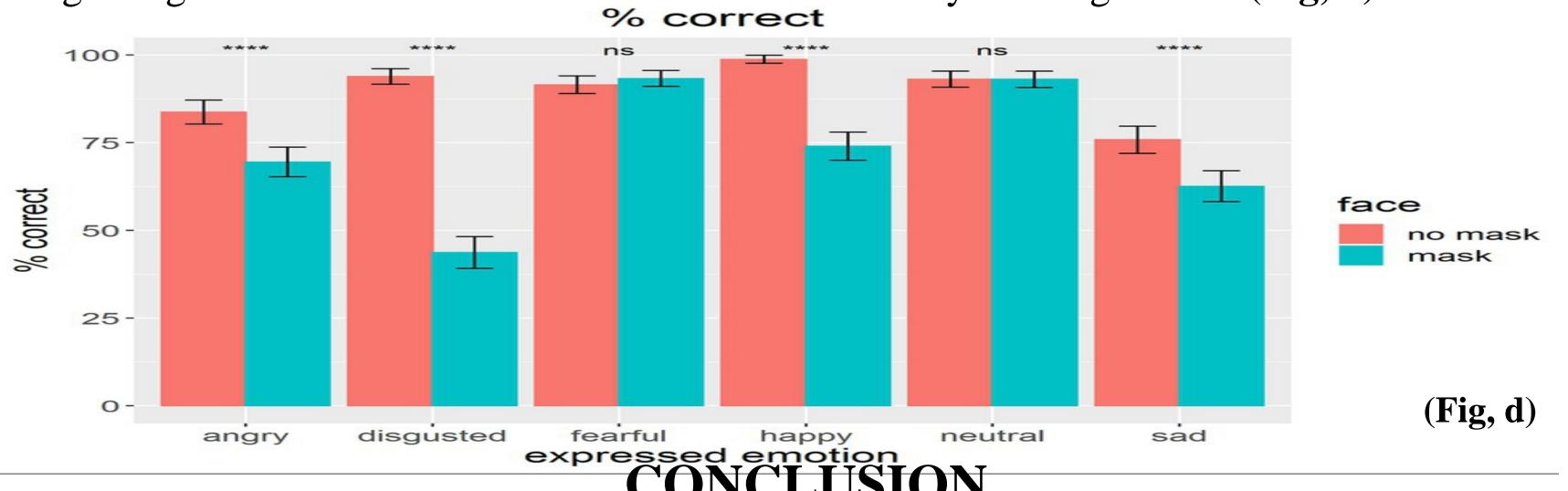
### Arda Fidanci

Effects of Wearing a Mask on Emotion Reading В

The researcher used six universal emotional expressions in the experiment. There are 2 types of stimuli; non-masked and masked (Fig, c).

The participants were asked to select the presented person's proper emotional state from the list of six emotional expressions.

The results show that wearing a mask makes worse emotion understanding performance in angry, disgusted, happy, and sad facial expressions. However, recognizing fearful and neutral faces was not affected by wearing a mask (Fig, d).



In the COVID-19 pandemic, there is no doubt that wearing a mask is a crucial part of our daily life. However, this situation may affect social life interaction. According to results, wearing a mask has a negative impact on face perception, including identifying faces and reading emotions. It can be concluded that wearing a mask makes harder our daily social conversations due to concealing the rest of the face.

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6 Schmidt, K. L., & Cohn, J. F. (2001). Human facial expressions as adaptations: Evolutionary questions in facial expression research. American Journal of Physical Anthropology, 116(S33), 3-24. doi:10.1002/ajpa.20001