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# Investigating the 'dehumanizing gaze' towards facial difference using eye-tracking technology

Project VISHU

<https://www.researchgate.net/project/VISage-et-Humanite-comprendre-et-prevenir-les-difficultes-dintegration-sociale-des-personnes-atteintes-de-defiguration-faciale>



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### Context

**1/111** People concerned with facial difference (FD).  
*Changing Faces, 2017*

Stares and emotions are at the core of their stigma.  
*Rasset et al., 2022a*

The visual processing of faces with FD appears to significantly differ from that observed on all other human faces, which could thus indicate their dehumanization.  
*Boutsen et al., 2022*

Dehumanization refers to both a content of social perception but also to a particular form of perception (i.e., piecemeal processing).  
*Bernard et al., 2018*

Dehumanization remains to be investigated in the perception of people with FD.

### Purpose

To investigate whether the visual processing of people with FD is dehumanizing.

### Methods

N = 38 Study 1 → N = 89 Study 2 → N = 97 Study 3

Eye-tracking

+ Measure of affects

+ Measure of dehumanization

### Study 1

The 5 Areas of Interest used in all studies.  
*Based on Fincher, 2019*

**A specific visual processing of faces with FD**  
= more attention to FD coupled with less attention to the eyes.

Total fixation duration

Area	Original	With Disfigurement
Target cheek	~0.5	~1.5
Eyes	~2.5	~1.5
Nose	~1.0	~0.5
Lips	~0.5	~0.2
Other cheek	~0.2	~0.1

Note. All means are significantly different depending on the type of face at  $p < .001$  (except "other cheek":  $p < .01$ ). This pattern of results was replicated in all studies.

### Study 2

Affects measured in our scale

```

    graph TD
      Affective[Affective reactions] --- Surprise[Surprise]
      Affective --- Disgust[Disgust]
      Affective --- Neutrality[Neutrality]
      Affective --- Hostility[Hostility]
      Surprise --- Sympathy[Sympathy]
      Disgust --- Anxiety[Anxiety, embarrassment]
      Neutrality --- Hostility
  
```

Correlations between visual attention and affects

Surprise:  $r = .30$

Neutrality:  $r = -.35$

Interaction between visual attention and disgust

Overestimation of disgust vs Overattention to FD

$t(85) = 2.89, p = .01, \beta = 0.39$

The specific visual processing of FD is associated with disgust, which is a precursor to dehumanization.

### Study 3

Dehumanization scale based on the dual model

Attribution of human uniqueness (HU) traits	Attribution of human nature (HN) traits
i.e., rational, cultivated, broadminded	i.e., understanding, emotionally sensitive, morally sensitive

Interaction between visual attention and humanization

Overattention to FD vs Overattention to the eyes

$t(89) = 2.29, p = .02, \beta = -0.29$

The specific visual processing of FD is related to attributions of HU traits, but only among participants who have a propensity to dehumanize people with FD.

### Discussion

**Findings supporting our hypothesis of the dehumanizing gaze :**

- ✓ There is a **specific visual processing** of faces with FD,
- ✓ which is **associated with emotions** that serve as precursors to dehumanization,
- ✓ As well as **dehumanization** itself, but only under certain conditions.

**Limitations**

- × Some of these findings are **exploratory** and **correlational** in nature.

**Future directions**

- ✦ An impact of dehumanization propensity (*Lantos, 2023*) ?
- ✦ The need for new measures of dehumanization.
- ✦ The relationship between the dehumanizing gaze and the objectifying gaze (*see Hollett et al., 2022*).

### Contact

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