Nasjonalt ID-senter

Facial comparison - Finally e-learning!

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Norwegian ID Centre

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Assignment:

- Entry Exit System (EES)

- Border control personnell:
  - enrolling and establishing the identity of a first time traveller in the EES
  - Control the identity of the traveller on later border crossings

- Training will be made for all ID-controllers

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Why is it important?

Frontex:

Impostors: 40 % of misuse of residence permits and passports

The answer is not more knowledge of technical document examination – more knowledge of facial comparison is key!

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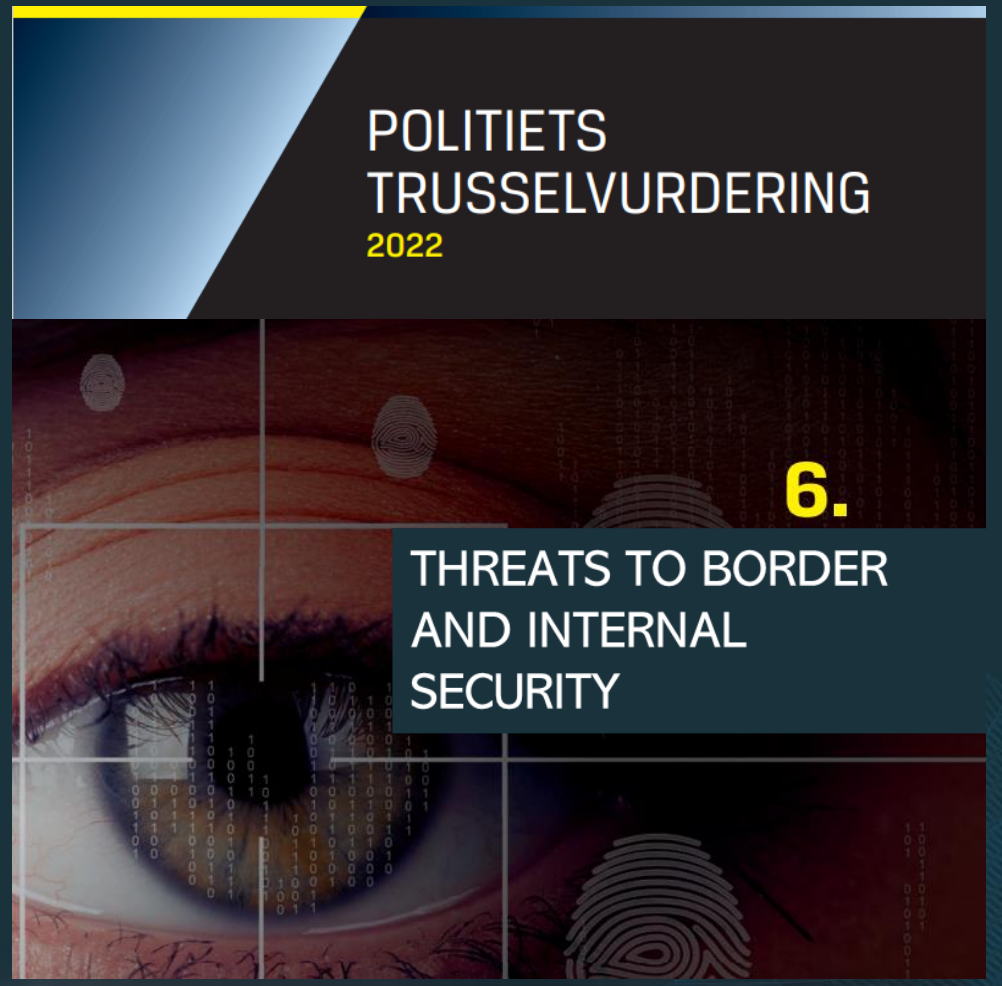
Norwegian Police Annual Threat Assessment

Misuse of identity documents by foreign nationals

It is assessed as highly likely that Norway will see an increase in imposters misusing genuine documents for illegal entry.

…

Two types of misuse of identity documents that represent particular threats to public security are impostors and morphing. Both types can be hard to detect, and so attractive modus operandi to criminals.



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Terminology

- AUTOMATED:
- "Automated recognition of individuals based on their biological and behavioural characteristics" (ISO/IEC 2382-37)
  - i.e. a process carried out by machines

- MANUAL:
- Familiar facial **re**cognition (humans)
  - Effortless, instant, even with low quality imagery
- Unfamiliar facial **re**cognition (humans)
  - a face the observer has briefly been exposed to
- **Unfamiliar face comparison/Facial comparison (humans)**
  - **Difficult, not memory based, needs training**

- (Moreton 2021:Expertise in applied face matching: training, forensic examiners, super matchers and algorithms)

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Introduction

Morphological analysis	Anatomy and Stability	Image quality	Bias	Enrollment biometric data
Introduction	Introduction	Introduction	Introduction	Introduction
Part 1	Part 1	Part 1	Part 1	Facial images
Part 2	Part 2	Part ?	Part ?	Fingerprints
Part 3	Part 3			

Digital training grounds

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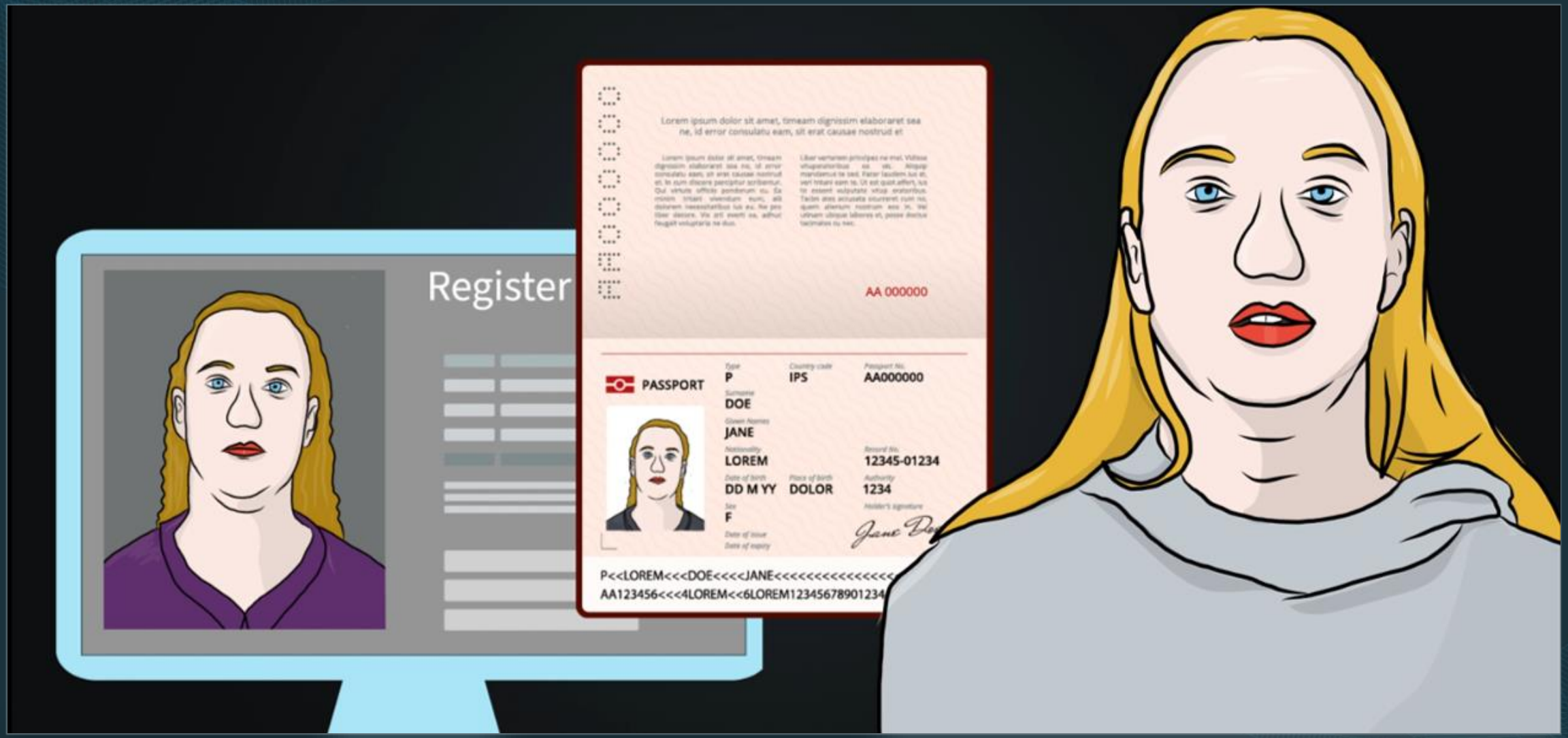
Introduction



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Morphological analysis

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Anatomy and stability in facial features

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Image quality

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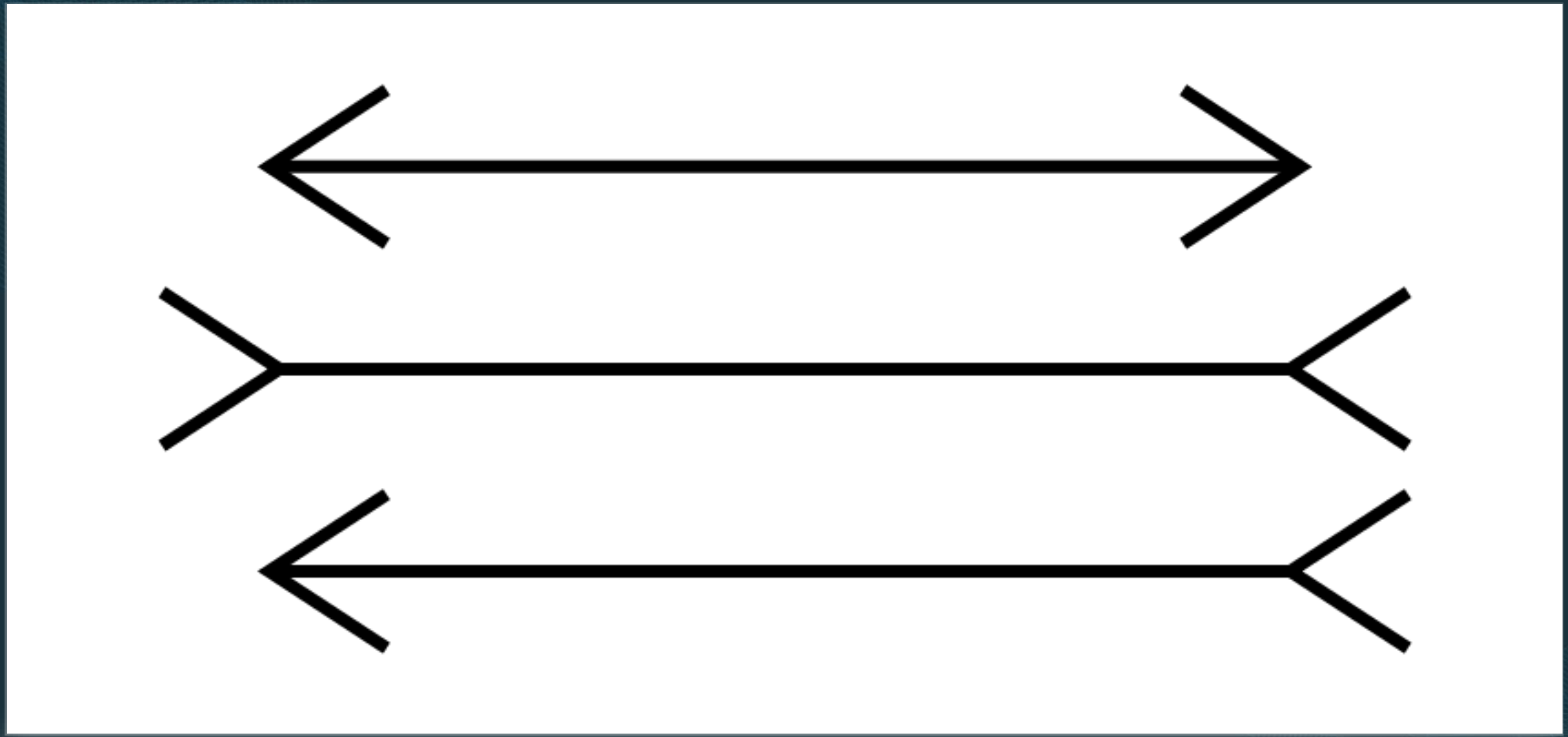
Bias



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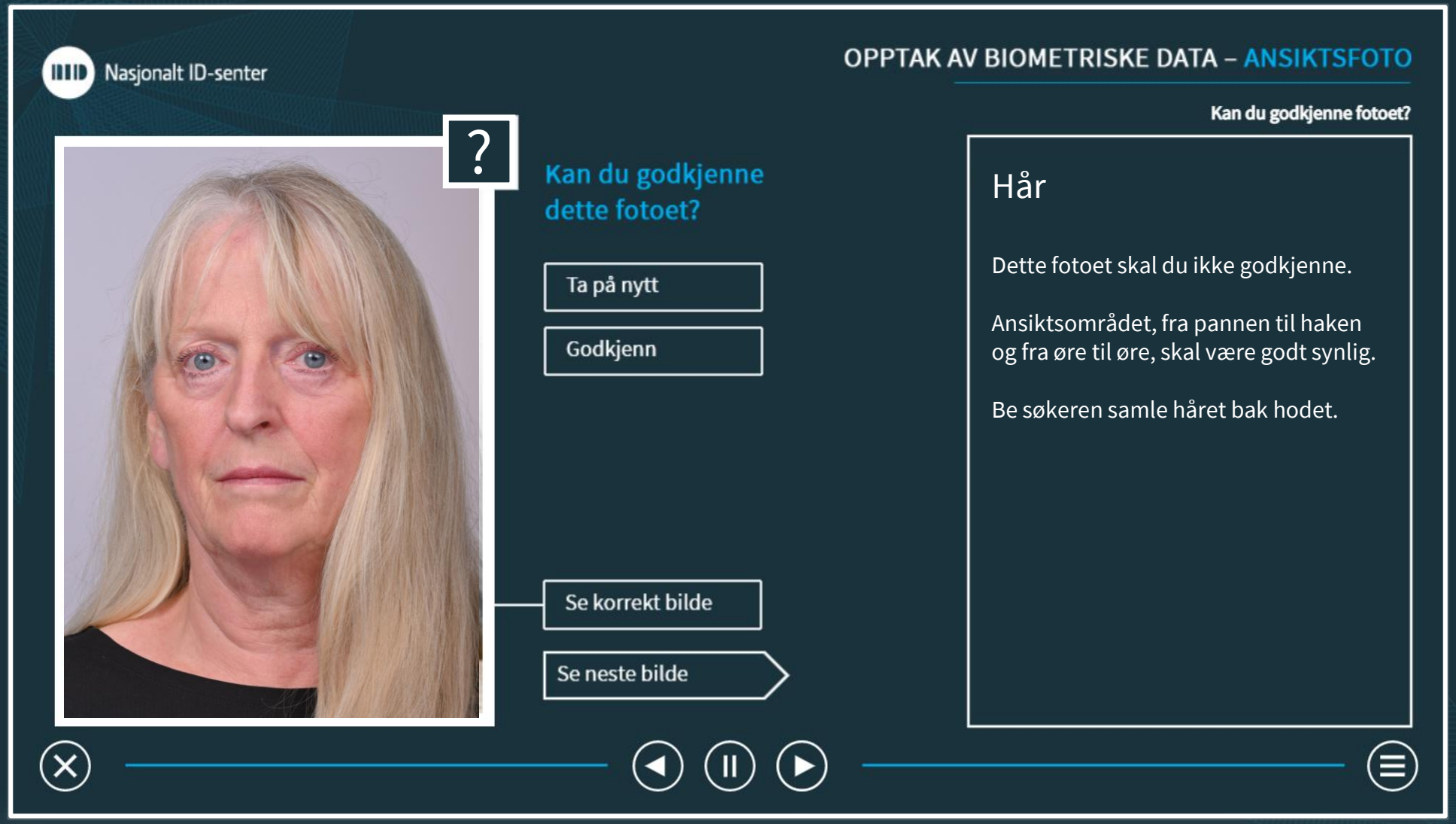
Enrollment of biometric data



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Historical images

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Morphological analysis

Eyes

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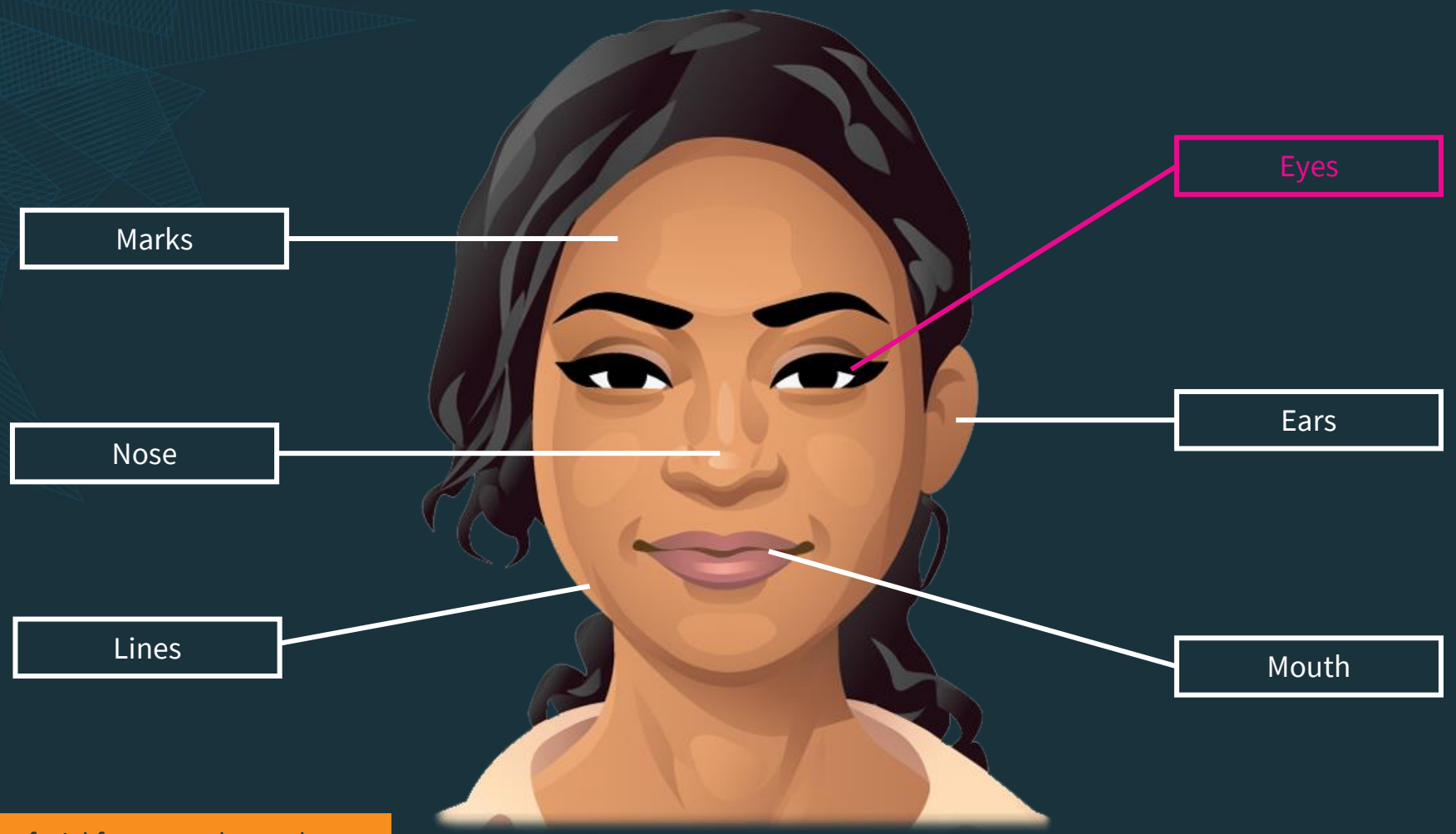
MORPHOLOGICAL ANALYSIS

Main menu



Click to select a facial feature to learn about.

Choose a facial feature to learn how to analyse it and compare it to another, using morphological analysis.

Analysing the eyes

In this course, you will learn how to analyse the details of the eye, using morphological analysis. Note that all the pictures in the exercises are taken with similar lighting conditions, and the person always has a relaxed and neutral facial expression.

Progress indicator

Previus

Pause

Next

Menu

This is where the closed captions appear

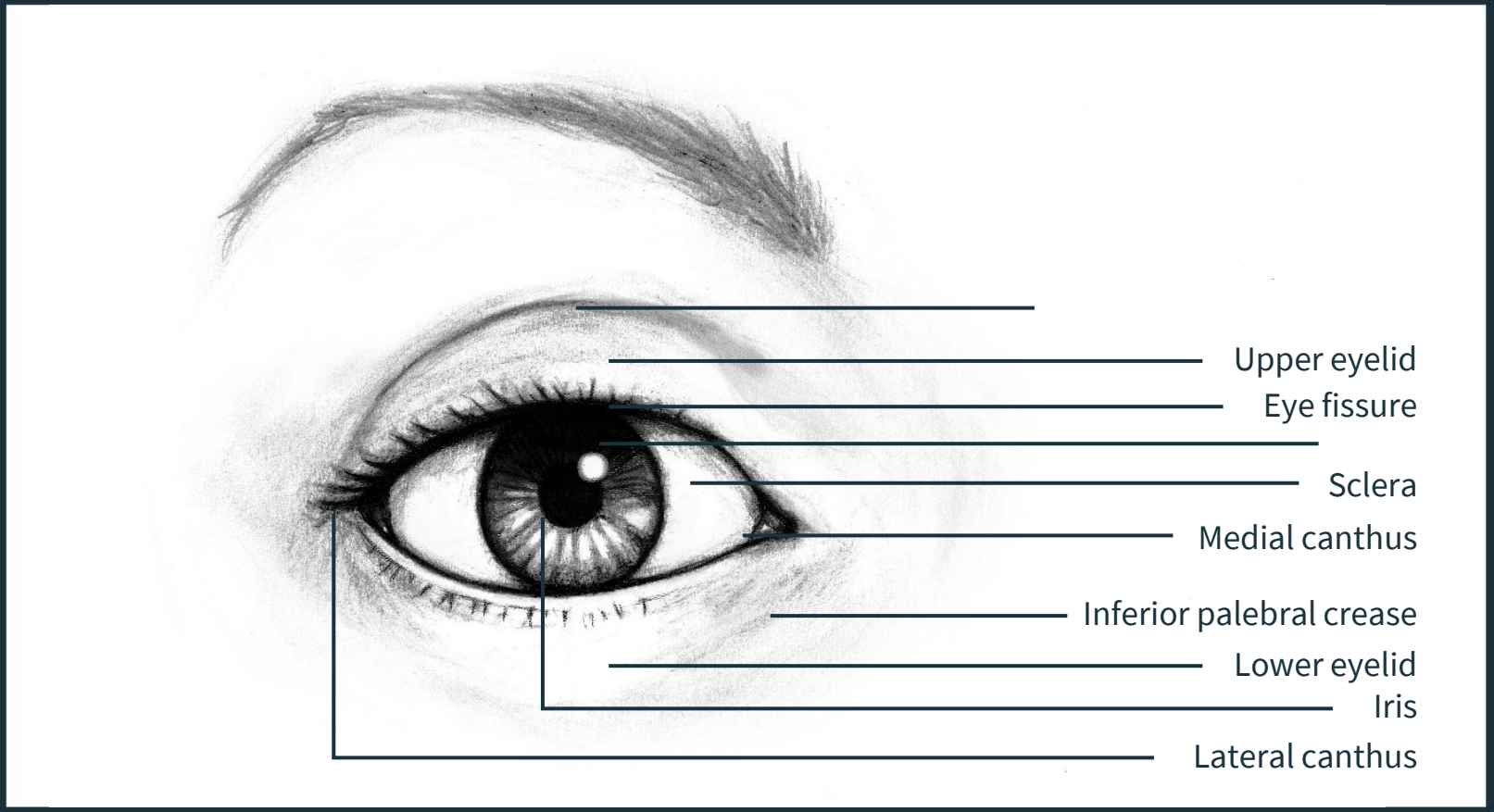
How to analyse the eye

When you analyse the eyes, you should study the details in and around the eyes, from just below the eyebrows to the beginning of the cheeks. Remember to analyse both the right and the left eye, one at a time. They are not identical.

Try to answer these questions:

- Is the detail present?
- To what degree is the detail visible
- To what degree is the detail protruding?
- What is the colour of the detail?
- How prominent is the detail?
- What is the shape of the detail?
- Do you see any irregularities?

Click to the Next-button to proceed.

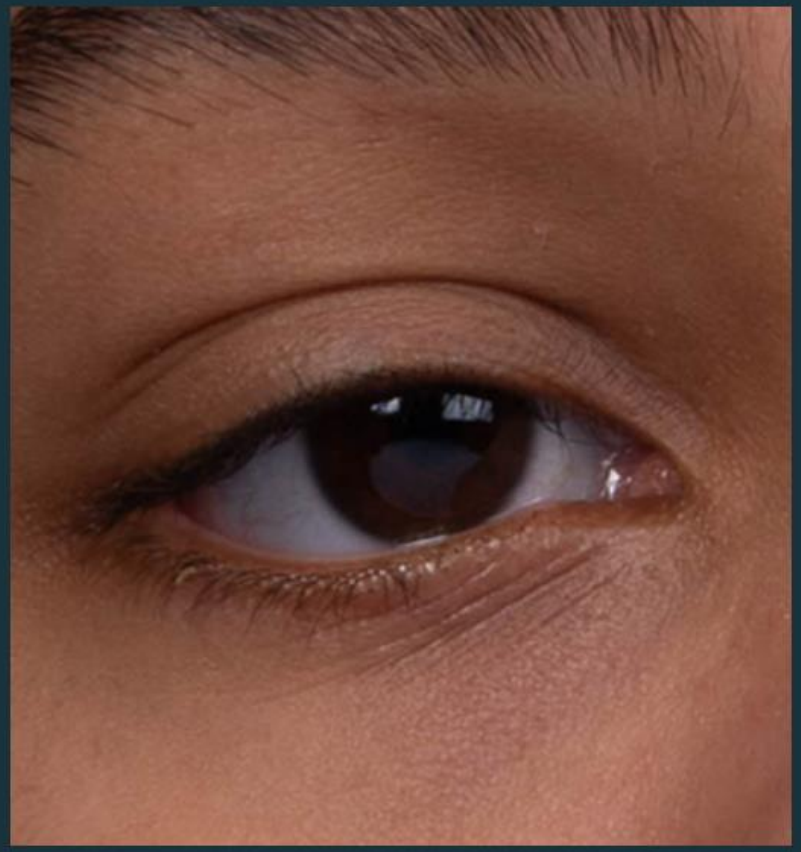


Analyse the right eye of the person in the questioned image.

Observe the following

- The shape of the eye opening (eye fissure)
- Where and how the line of the upper and lower eye fissure changes direction.
- What colour is the iris?
- What colour is the white of the eye (sclera)?
- How much of the iris is partly covered by the upper and lower eyelids?
- Do you see lines on the eyelids?
- Is the sclera visible below the iris?

Click to analyze the referenced image



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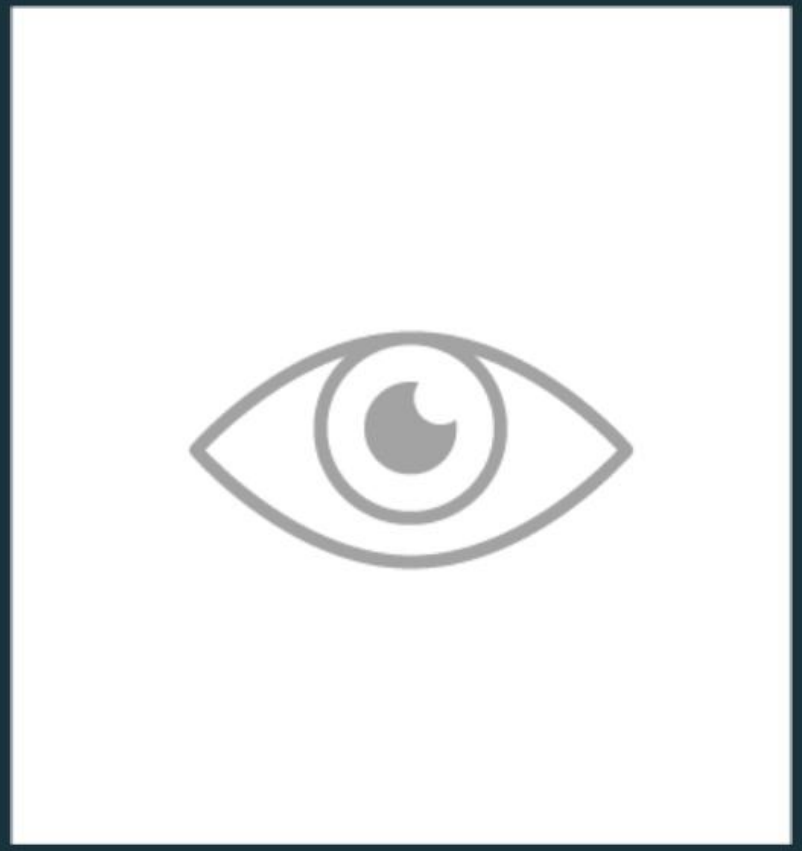
Click to compare the images

Compare the images

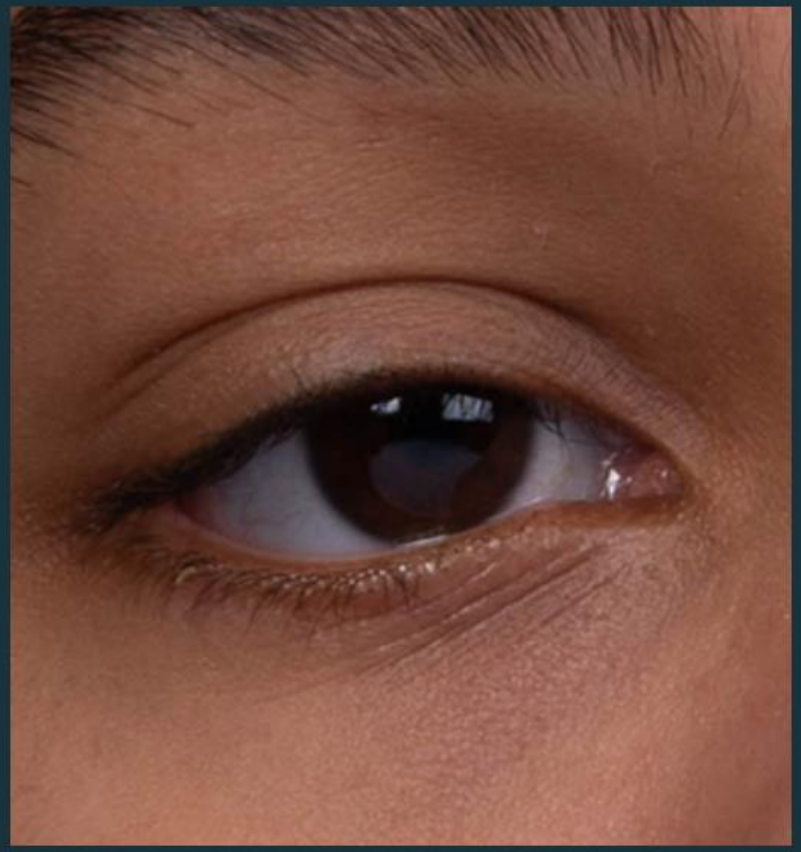


Compare the eyes

Think through the details you have analysed.

Which details appear similar?
Which appear different?

Evaluate – do the eyes appear to belong to the same person or not?



Evaluate

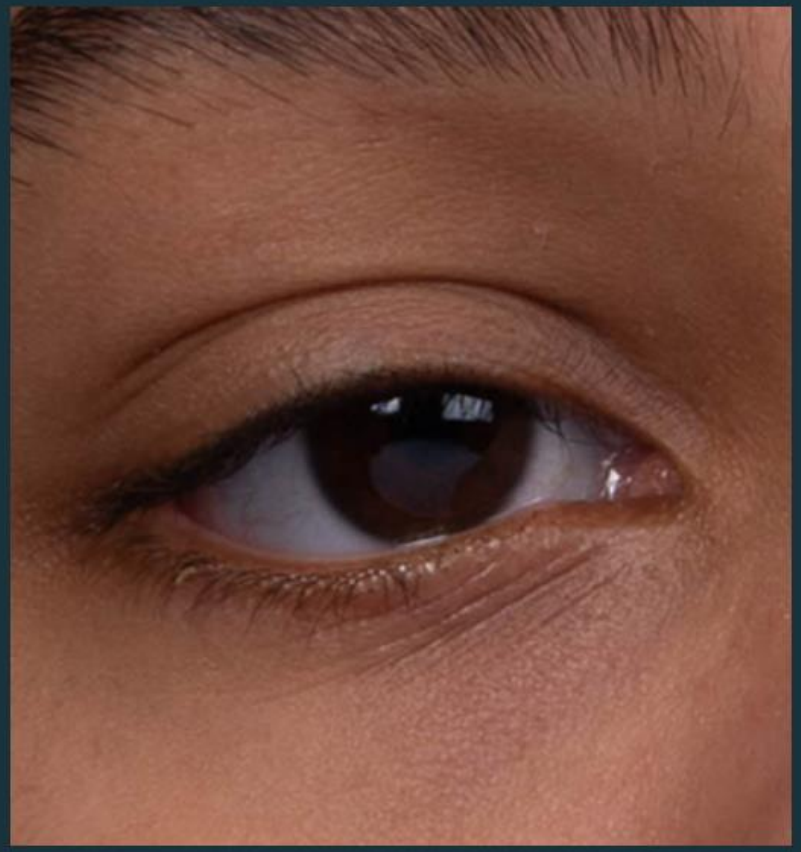
Same person

Not same person

This is NOT the same person

Diferences and similarities:

- The shape of the eye fissure (eye opening) is different.
- Look at the shape of the lower eyelid. The shape is different close to the iris.
- The inner (medial) canthus is different.



Click to learn more about these details

Iris

Upper eyelid

Lower eyelid

Canthus

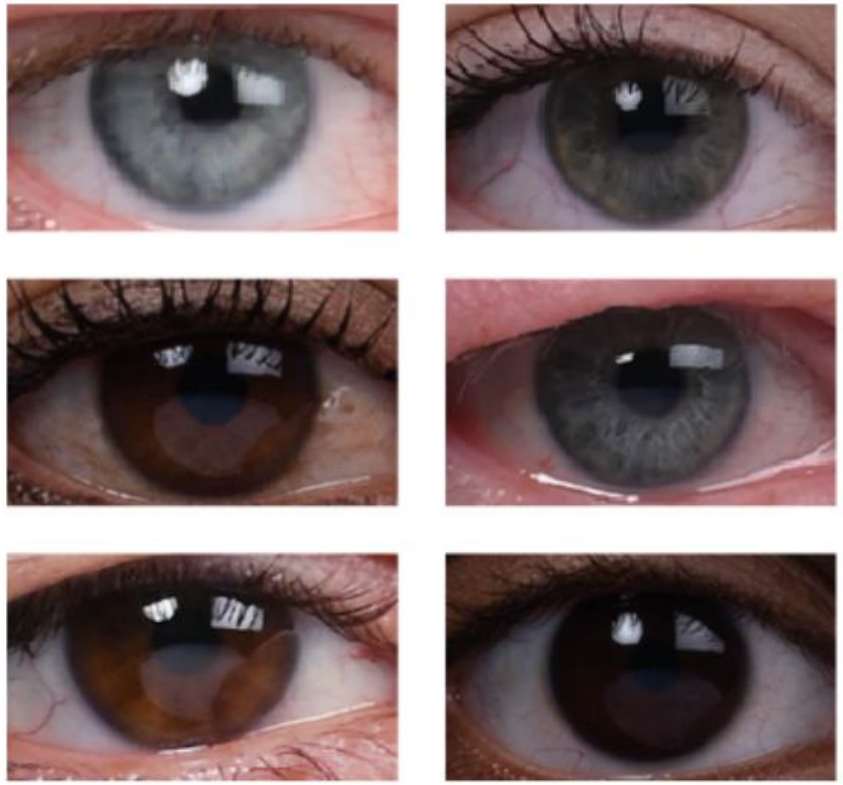
How to analyse the iris

The iris is the coloured part of the eye which adjusts the opening of the pupil.

What to look for in an analysis:

- Is the whole iris visible or is it partly covered by the upper or lower eyelid?
- What color is it?
- How big is the diameter of the iris compared to the relative size of the eye fissure (eye opening)?
- Where is the iris placed relative to the eye fissure (eye opening)?
- Do you see irregularities?

Useful terms
The pupil is the round opening in the centre of the iris.



This is NOT the same person

Diferences and similarities:

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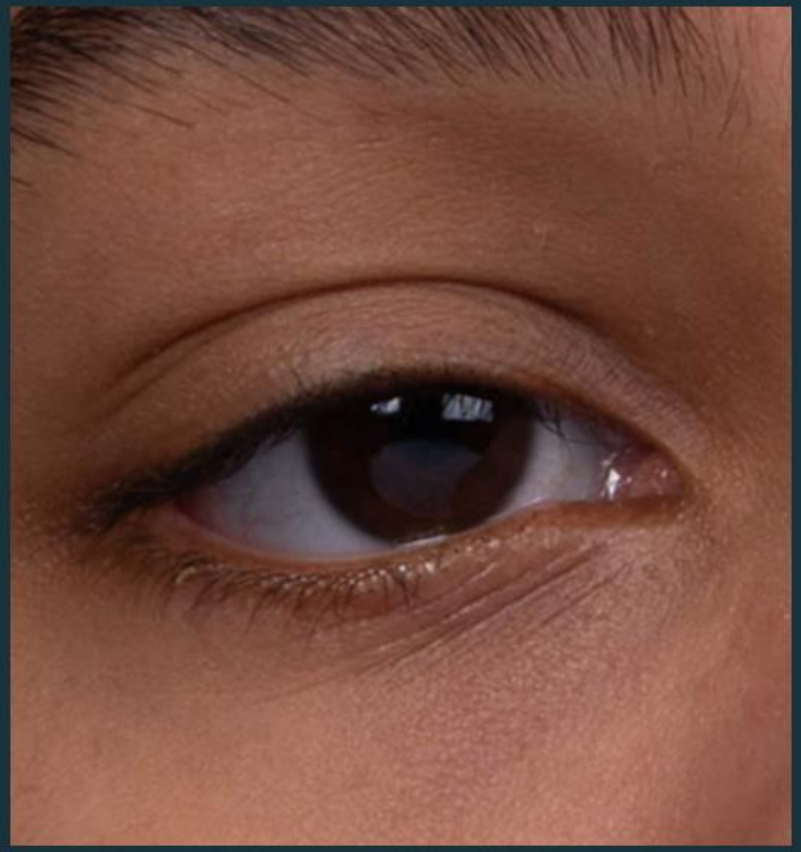


Click to learn more about these details

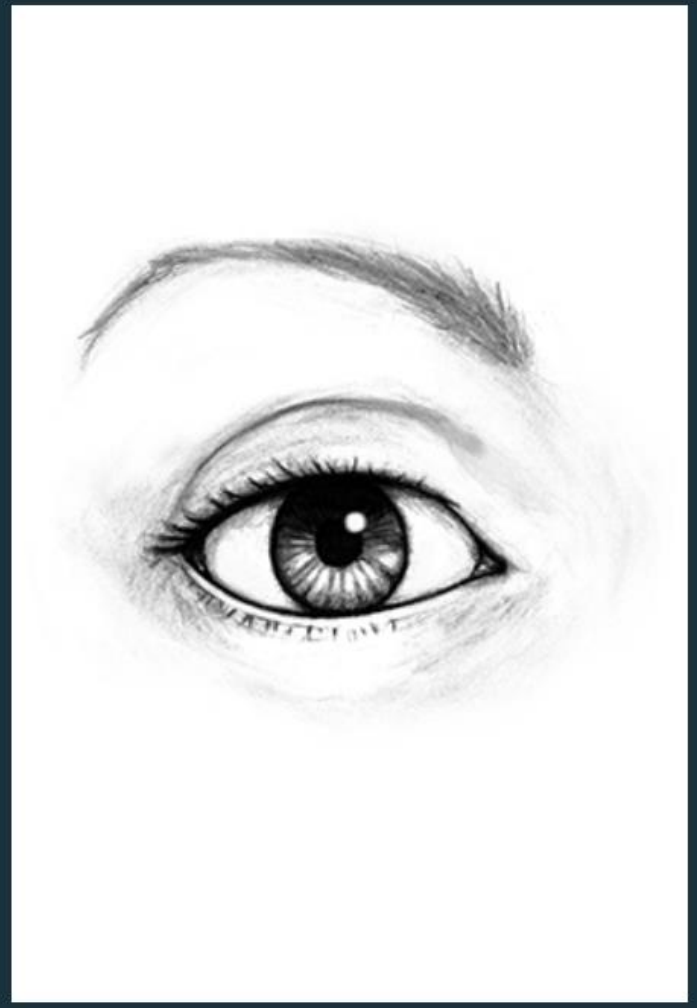
Iris ✓	Upper eyelid
Lower eyelid	Canthus

Explore the details of the eye

Here is a list of all the details of the eye that you can analyze in a morphological analysis.
Use them to repeat what you have learned.

You have already visited the green buttons.
Try to visit them all.

- Iris ✓
- Upper eyelid
- Eye fissur
- Lower eyelid
- Eyeball
- Sclera
- Canthus
- Assymetry



Use the Exit-button to close the course.

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www.nidsenter.no/FACE

Norwegian ID Centre

NO | Thomas Erling

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Face

On this site, we aim to gather information that is relevant to everyone who works with face recognition or face comparison. During Q3 2022 it will, among other things, be an entrance to digital training in facial comparison, research and international standards.

We are planning a page for all things FACE on our portal nidsenter.no. This is how we imagine it to look.

From this page, you could access the e-learning, information about projects, research, standards etc.

This page is made for those who work with face recognition and facial comparison, especially border and police.

It is important to notice that there is no content there yet – but please note this address and watch this space!

How to apply for access >

Training >

Testing >

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Thank you!

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