
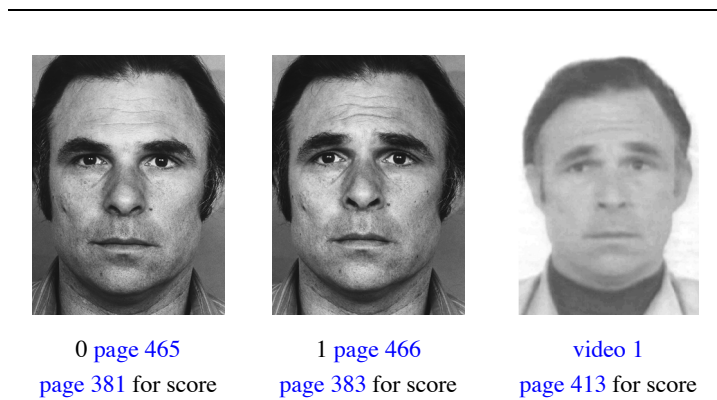

Action Unit 1 – Inner Brow Raiser

One large muscle in the scalp and forehead raises the eyebrows. It runs vertically from the top of the head to the eyebrows and covers virtually the entire forehead. The medial (or central) portion of this muscle (AU 1) can act separately from the lateral portion of this muscle (AU 2). Figure 2-1 shows that the movement of AU 1 is to pull the medial part of the brow and center of the forehead upwards.

A. Appearance Changes due to AU 1

1. Pulls the inner portion of the eyebrows upwards.
2. For many people, produces an oblique or  shape to the eyebrows.
3. Causes the skin in the center of the forehead to wrinkle horizontally. These wrinkles usually do not run across the entire forehead, but are limited to the center. The wrinkles may be curved, raised more in the center than at the ends, rather than horizontal. These wrinkles may not appear in infants or children. If there are permanently etched lines or wrinkles in the central area of the forehead, they deepen.
4. Don't be confused because the outer corner of the brows may move medially a little bit. This movement is from the pulling on the inner part of the brow. If the outer corner moves with AU 1, it moves towards the center line rather than with the upward movement due to AU 2.

Compare image 1 with the neutral image 0, and inspect the video of AU 1. The video begins with a *trace* of AU 1 already evident.



B. How to do AU 1

Raising the inner corners of the eyebrows is a difficult movement for most people to make voluntarily without adding AU 2. If you cannot do it, try the following:

- Raise your entire brow upwards (see images of AU combination 1+2 on [page 471](#)). Then try to raise just the inner corner, using AU 1.
- Add AU 4 to AU 1, pulling the brows together as you pull up the inner corners; if you succeed in this, you will look like the image 1+4 on [page 470](#). Then try to do AU 1 alone without AU 4.
- Place your fingers on the inner corners of your eyebrows and push your eyebrows up so they will look like image 1. Then, see if you can hold the appearance when you take your fingers away.

Once you can do AU 1, touch the outer corners of your brows to verify that AU 2 is not also acting. Make sure you do not include AU 4 with AU 1. It may take many hours of practice to learn how to do AU 1. If you cannot do it after five or ten minutes, proceed to the next section, and come back and try again later.

C. Intensity Scoring for AU 1

AU 1A

The appearance changes for AU 1 are sufficiently present to indicate AU 1, but are insufficient to score 1B (e.g., a *trace* of brow raising at the inner corners).

AU 1B

1. Inner corners of brows raised *slightly* manifest by hair moving or evidence of muscle bulge developing, showing that the inner corner area has been pulled up. In some people the eyebrows will not move but the skin above them will move upwards.

If you did not see the brow move, it must additionally have evidence that either criterion 1 is *marked*; or,

2. *Slight* wrinkles in center of forehead; if such wrinkles are permanent, they must increase *slightly*.

In a child you might never see criterion 2. In such instances, if you did not see the brow move, then you must rely upon criterion 1, but it must be *marked* not *slight*.

AU 1C

Both the inner brow raising and wrinkling in the center of the forehead of the criteria for 1B are present together and at least one is *marked*, e.g., one step greater than *slight*, but the evidence is less than the criteria for 1D.

AU 1D

Both the inner brow raising and wrinkling in the center of the forehead of the criteria for 1B are present and both are at least *severe*, but the evidence is less than the criteria for 1E.

AU 1E

All the signs of AU 1 are present and the inner brow raising and wrinkling in the center of the forehead are in the *maximum* range.

Reference: AU 1

AU 9 can recruit a strand of AU 4 that pulls down the eyebrows, counteracting small actions of AU 1 and making it difficult to see, but AU 1 can overcome this effect and must be scored.

Action Units or Combinations That Change the Intensity Scoring for AU 1

Problematic Combination of AUs	Target Action of Adjusted Criteria	Use These Criteria or See the Section Indicated
1+2	To score 1B with 2	see 1+2secC on page 54
1+2+4	To score 1B with 2+4	see 1+2+4secC on page 57