# Man's face and mimic language

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IV "Mimic co-movements"

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# IV »Mimic co-movements«

When the medical student speaks of "the mimic musculature" or when this is treated in the textbook literature, a quite special musculature innervated by a special nerve (the 7th cranial nerve, nervus facialis) is referred to. It belongs to the group "the muscles of the head" and is mainly situated in the face. Such a limited use of the term "mimic musculature", however, is strictly speaking faulty. Thus the Introduction and the there described diagram have already revealed that the concept "mimicry" includes, besides the play of facial features, a series of other expressive movements in the form of those gestures, posture, and carriage which often highly characteristically mark our appearance and behaviour. These expressive movements represent a manifestation of one or other prevailing emotional condition that is noticeable in our personal appearance. The reader is referred to what is mentioned in the Introduction about the individually varying intensity and liveliness of these movements.

All the various muscles in our body that are responsible for the mentioned activity are naturally mimic muscles in the real meaning of the term. The limited use mentioned above regarding the term mimic musculature, however, is so old that it is hardly possible to produce any change in the meaning of the term because of the risk of misunderstanding. Therefore the expressive movements that occur along with the play of facial features cannot be described as "mimic movements". On the other hand, they could tentatively be called "mimic co-movements". They will be referred to briefly here before discussing the facial mimic musculature — i.e. that innervated by nervus facialis — in the next chapter.

In the animal kingdom, such mimic co-movements probably often play a dominant role as mimic expressive means. We need only call to mind the dancing of cranes at pairing time, the curved back and bristling hair on the back of a frightened cat, and the capers of the newly-released colt. Much of the mimicry of the dog lies in the tail, whether this wags in joy and satisfaction or is withdrawn between the hind legs in sorrow and a sense of loss.

From what has been said here, it can be seen that the mimic co-movements in man refer to several different parts of the body. They engage not least the neck, the shoulders, the arms, and the hands. However, here mention

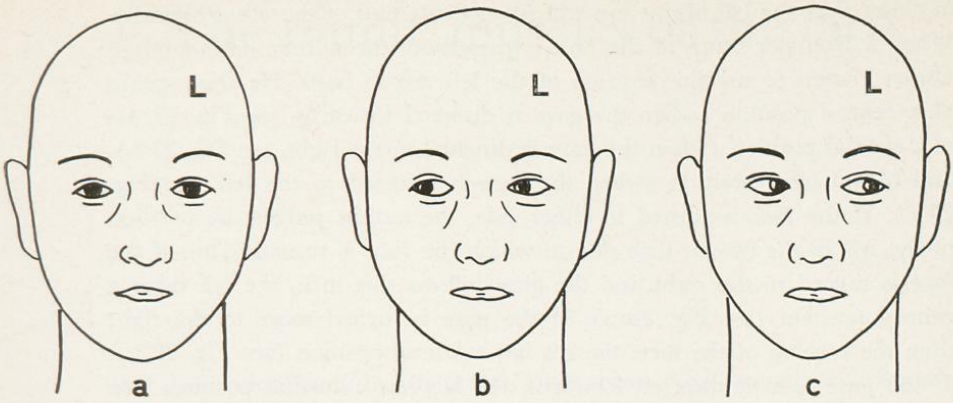


**Fig. 27.** Schematic presentation of the position of the iris (frontal view of face, see text).

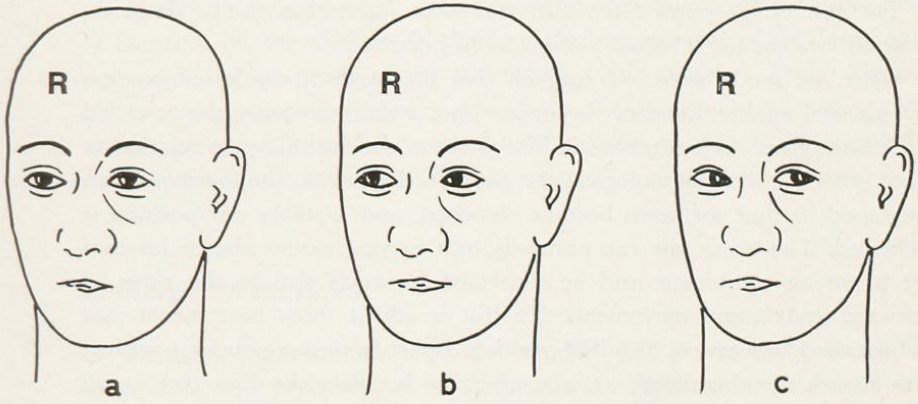


**Fig. 28.** Schematic presentation of the position of the iris with the face turned (see text).

will be made only of those co-movements that are of special importance for our discussions, because often they very effectively supplement the play of facial features caused by the mimic musculature. All these co-movements are thus produced by muscles innervated in a way other than by nervus facialis.

The dilatation of the palpebral fissure in contrast to the normal, caused by action of the eyelid levator, has been described earlier. But the position of the eyeball itself, such as this is disclosed by the situation of the iris in the palpebral fissure, is also interesting. If the gaze is directed forwards, the iris is situated approximately in the centre of the fissure in the frontal picture of the face. But if without turning the head the gaze is directed

to either side, the iris of one eye will sit medially and of the other laterally. When a frontal picture of the face is presented, the author has therefore always chosen to use the position of the left iris as basis. He thus speaks of a central position (when the gaze is directed forwards, see Fig. 27 a), of a medial position (when the gaze is directed to the right, see Fig. 27 b), and of a lateral position (when the gaze is directed to the left, see Fig. 27 c). If the face is turned to either side, the author judges the position of the iris in the eye on that side to which the face is turned. Thus if the face is turned to the right and the gaze follows this turn, the iris takes a central position (see Fig. 28 a). If the gaze is turned more to the right than the turning of the face, the iris has a lateral position (see Fig. 28 b). If the gaze is kept directed forwards, the iris has a medial position (see Fig. 28 c). Even in the simple figures shown now, a certain mimicry appears — as can be observed. The iris can also have an upward turned position or a downward turned position ("downcast look").

The size of the pupil often also makes an interesting study. However, it would become too involved to discuss this here.

When we are relaxed, we can tell that the teeth of the lower jaw are not pressed against those of the upper jaw: a short distance, the so-called "freeway space", separates them. The position the jaws have in relation to each other is called physiological rest position. From this, the lower jaw can be raised so that the teeth become clenched, and a stable rest position is achieved. The lower jaw can naturally to a varying extent also be lowered by a gaping movement and be displaced forwards and to the sides by forward and lateral movements. To this is added those movements that return the lower jaw to its initial position. Apart from more obvious gaping, the mouth opening itself, i.e. the aperture between the lips, can at all movements remain closed although it need not. On the other hand, the mouth opening, with the teeth clenched, can also have a considerable width.

If the head in the Frankfort plane is considered the initial position, the following head movements can be made: forwards bending, backwards bending, lateral bending, and lateral turning, and the return movements to the initial position. Both the forwards bending and the backwards bending can be combined with the lateral turning to the left or to the right. The lateral bending can also be combined with the lateral turning, either in the same direction as the lateral bending or in the opposite direction.