Action Units 25, 26, 27 - Lips Part, Jaw Drop, Mouth Stretch

These three Action Units (not depicted in Figure 4-1) are considered together because they concern mouth opening, which involves separation both of the lips and of the teeth¹. AU 25 specifies how far the lips are parted. AU 26 specifies how far the jaw drops when the muscles that act to close the jaw relax. Thus AU 26, like AU 43, reflects a change in appearance from a neutral position that is produced by muscular relaxation rather than contraction: the more relaxation, the more the appearance changes. AU 27 measures the forced opening and stretching of the mouth by muscles that act in opposition to muscles that close the jaw. Whereas AU 26 describes the limited opening of the oral cavity (i.e., teeth parting) that can be produced by relaxing the muscle that closes the jaw, AU 27 reflects other muscles that contract and pull the mandible down to open the mouth wide. Although the muscle that relaxes to form the appearances of AU 26 might relax even more as the jaw is pulled open by muscles underlying AU 27, you never score AU 26 with AU 27. It is also possible that a small opening of the jaw to about the same extent as might be produced by relaxation of the muscles that close the jaw, is due primarily to the contraction of the muscles that lower the jaw, not relaxation. This distinction can be a subtle one that you make by observing the quality and timing of the jaw movement, as explained below. Although AUs 25, 26, and 27 imply something about how open the mouth is (i.e., separation of the lips and of the teeth), they primarily describe different behaviors rather than the degree of mouth opening.

AUs 25, 26, and 27 have optional intensity scoring that helps to refine the description of degree of mouth opening. Scoring the intensity of these AUs provides a relatively complete description of the degree of mouth opening. The intensity criteria for scoring AU 25 are not absolute, but rather are relative to the separation produced by the lowering of the jaw alone, as indicated by the score for AUs 26 and 27. Many different actions can affect the separation of the lips and the intensity score for AU 25. The intensity scores for AUs 26 and 27 are more closely tied to specific muscular actions than the more descriptive intensity scores for AU 25. Appropriate use of the optional intensity scoring for AUs 25, 26, and 27 can provide a descriptive picture of mouth opening in studies that need such information.

A. Appearance Changes due to AUs 25, 26, 27

AU 25

- 1. The lips part, which may expose the inner mucosal area of the lips more.
- 2. The teeth and gums may be exposed.
- **3.** The oral cavity may be exposed, depending on the action of AUs 26 and 27.

Henceforth, whenever AU 25 is added to an Action Unit or combination simply to denote that the lips are parted, the appearance changes associated with AU 25 will not be repeated. You should refer back to this section if you want to review the changes.

Inspect image 25; Section C for these AUs has several videos of AU 25 illustrating intensity scoring.

AU 26

- 1. The mandible is lowered by relaxation so that separation of the teeth can at least be inferred.
- **2.** If the lips part, space between the teeth may be seen; score 25+26.
- 3. Mouth appears as if jaw has dropped or fallen with no sign of the jaw being pulled open or stretching of the lips due to opening the jaw wide.
- **4.** The time course of the action is relatively slow as the muscle relaxes.
- **5.** It is possible for the mandible to be lowered and yet for the lips to remain closed. Often when this happens, you see the lowering action and the lips pressed by AU 24 (described in Chapter 7), or the lower lip pushed up by AU 17. It

^{1.} In the previous edition of the Manual, the issues of degree of mouth opening and the muscular basis for these AUs were intertwined. The following, more extensive description separates and clarifies these issues.

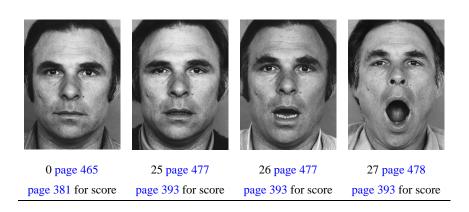
is also possible for the surface friction of the two lips or stiffness of the lips to maintain the shut-lip position when only the mandible is lowered. Also look carefully for the presence of 17 and/or 24. Score 26 alone to indicate a jaw drop without parted lips.

Inspect the 26 image, compare it with 25. Section C has several videos of AU 26 at different intensities.

AU 27

- **1.** The mandible is pulled down.
- **2.** Can open the mouth quite far as the mandible is pulled down, changing the shape of the mouth opening from an oval with the long axis in the horizontal plane to one in the vertical direction.
- 3. Mouth does not appear as if it has fallen open but as if it is actively pulled down forcibly or stretched open widely
- **4.** The lips may be stretched vertically by the extent of the opening of the mouth.
- 5. Flattens and stretches cheeks.
- **6.** Changes shape of skin on the chin boss and the appearance under the chin.
- **7.** It is possible to detect an AU 27 without the lips being parted when the mandible appears pulled down. Score closed lip jaw lowering as 27 alone, otherwise and typically, the AU 27 is scored with a 25 to indicate the lips parting.

Examine the images 25, 26, and 27; compare the image of 27 with 26 to see the extent of jaw lowering described by each. You can see several video examples of these actions in Section C showing how to score intensity of these AUs.



B. How to do AUs 25, 26 and 27

Relax your face, keep your teeth together without clenching them. If you relax your lips and other muscles in the mouth area, your lips may part. This action is AU 25 alone. Some mouths are such that mere relaxation does not part the lips. If you find your lips do not part when you relax them, relax your jaw so that the teeth part slightly and let a breath help break the stickiness of the lips so that the lips part. Try to do this so slowly and slightly that you cannot visually detect in your mirror the dropping of your jaw or any blowing through the lips. If your lips part, this action is 25 alone. If you can detect the jaw drop, the score is 25+26; if you can detect the blowing, you might score 25+33 (blow). There are several actions that easily part the lips and increase their separation, such as pulling the upper lip up with AU 10 or the lower lip down with AU 16. In these cases, you do not score 25 alone, but add 25 to the muscular action, i.e., 10+25 or 16+25.

To perform AU 26, relax your mouth and let your jaw fall open; do not pull or force your jaw open, just relax the muscle that clamps your teeth together and let your jaw fall open so that your teeth are separated. You have made AU 26. If you are doing this correctly, there is no muscular tension in your lips, and no stretching of your lips. Once your jaw closing muscle is relaxed enough to permit the jaw to drop wide enough, your lips should part, scored 25+26. It is easier to detect a 26 if the lips part than if they remain closed. How soon the lips part with a drop of the jaw varies in different people, and as indicated above, some people need no jaw drop to part their lips. Examine whether your jaw needs to drop in order to part your lips, and if so, how far it must drop. Notice also how far you can drop your jaw merely by relaxing, not pulling it

open. You should find that this jaw drop is limited; beyond this limited extent, AU 27 is scored because a muscle must act to pull the jaw open further. Most people can drop their jaw with AU 26 so that the tongue or index finger can fit between the teeth, but not much more, when their head is in a normal upright position. Notice what happens at the corners of your lips as the mouth and lips move from being closed, to the relaxed drop of the jaw of AU 26, and beyond as you pull your mouth open. Relax your jaw to perform an AU 26, then nod your head up and down – the relaxed jaw drop is greater when the head is back than when it is forward.

To perform AU 27, pull your jaw down, far down, opening your mouth wide open as if a physician were going to examine your tonsils. You have made a large AU 27, scored 25+27 because of the lip parting. Note that while you have not tensed your lip muscles, they are stretched somewhat by the extent of opening of your mouth. The shape of your mouth opening is also stretched in the vertical direction. Notice what happens to the position of the red parts of the lips relative to the teeth when the jaw is dropped, keeping the lips relaxed, i.e., no other actions moving the lips. You should see that the center part of the upper lip does not change its position relative to the upper teeth, but the lateral parts near the corners are pulled down relative to the upper teeth as the mouth is stretched open. The center and corners of the lower lip, on the other hand, move higher relative to the lower teeth as you stretch your jaw down, which tends to pull the teeth down more than the lower lip. You need to be familiar with the effect of jaw dropping and stretching alone on the position of the lips relative to the teeth in order to score the intensity of AU 25 with 27. Can you cover your mouth opening with your lips when the stretching open of the jaw is maximum? Try to perform the minimum AU 27 starting with your teeth together, then rapidly pull or snap your jaw down to open your mouth about as much as you were able to relax it open when performing AU 26. If you need some motivation to help you do this movement, imagine you were trying to yell "Hey!" to someone as a warning. Look in the mirror to see how the time course of this rapid, jerky jaw movement differs from that of the much slower relaxed opening of AU 26, which results in much the same appearance at its end point. This quality of movement is what you must use to distinguish an AU 26 from an AU 27 when the jaw drop is no more than the maximum that can be produced by merely relaxing the jaw closing muscle. A jaw drop beyond the maximum that can be produced by relaxing (space between the teeth about that which permits the tongue or index finger to fit) must be scored an AU 27, regardless of the rapidity of the movement.

When you have performed and examined the appearances of 25, 26, and 27, try combinations of 25 with 26 and 27, i.e., drop or stretch your jaw open with relaxed lips and notice how far the lips part. Then pull the lips apart even farther with other AUs, such as 10 and 16. Determine what combination of AUs produces the greatest absolute lip separation. Starting with the teeth together, try separating the lips as much as possible using AUs such as 10 and 16, then keep the lips separated and drop and stretch your jaw, noticing the range of lip separation possible. Stretch you mouth wide open to various degrees and then bring your lips closer together than the separation caused merely by the jaw lowering. Separation of both the lips and the teeth contribute to mouth opening. These are the distinctions that intensity scoring for AU 25 is intended to capture.

C. Intensity Scoring for AUs 25, 26, and 27

Intensity scoring for AUs 25, 26, and 27 is intended to enhance the description of mouth opening that is incidentally reflected by the AUs themselves. This intensity scoring is optional because many people will determine that the behavioral distinctions needed for their research are captured by the AU scores alone, without intensity. If your research requires a more complete description of mouth opening, scoring the intensity of all three AUs, 25, 26, and 27, is recommended because the representation of mouth opening depends on knowing the degree of both lip separation and jaw lowering. For many studies, the simple decision whether the lips are parted by 25 or not may be sufficient, in which case, you need not learn the intensity scoring for 25, only what constitutes lip separation. Other studies may need scores for jaw separation, but not lip separation, while other studies need no intensity scoring of these AUs.

The intensity scores for AU 25 are descriptive in that they indicate how far the lips are parted, regardless of the muscular actions, if any, that produce the parting. Several AUs can part the lips while other AUs can unite or bring them closer together, and these actions and their combinations move the lips into many shapes, positions, and separations, which we are not attempting to describe comprehensively. The assignment of intensity to AU 25 is defined to reflect the lip separation relative to the jaw opening (space between the teeth) rather than an absolute distance between the lips. This measurement of lip parting relative to jaw lowering necessitated a change in the use of our five-point intensity scale that may at first seem odd, but it serves the purpose of describing mouth opening. These factors make the intensity scoring for AU 25

slightly more complex than other AUs, and the text for its description more lengthy. In brief, as you read the criteria for the intensities of AU 25, keep in mind that the use of the A-B-C-D-E intensity scale is different when the jaw is closed versus lowered. When the jaw is closed, 25A represents a minimal lip separation, 25E, a maximum separation, etc., similar to scoring the intensity of other AUs. When the jaw is lowered, however, our use of the intensity scale changes. Simply score 25C if the lips are separated and this separation is no more than a *trace* different from that which might be caused by the lowered jaw alone. If the separation of the lips is less than what the lowered jaw would cause itself, use the code 'B' to indicate at least *slightly* less, and the code 'A' to indicate at least *severely* less separation. On the other hand, if the separation of the lips is more than what the lowered jaw would cause itself, use the code 'D' to indicate at least *slightly* more, and the code 'E' to indicate at least *severely* more separation. You will read how to determine these scores in the criteria detailed below. We suggest that novice FACS coders not learn all the details of intensity scoring for AU 25 on their first reading of the *Manual* because understanding and applying the criteria is easier after one becomes familiar with all the AUs that act to separate or bring the lips together. Instead, the new FACS coder should begin by understanding what constitutes lip separation, and score 25 without intensity, then after completing the rest of the *Manual*, return to study the scoring criteria for AU 25, if its intensity is to be scored.

The intensity scores for AUs 26 and 27, like those for most other AUs, indicate an aspect of the underlying muscular action, relaxation of one in the former, contraction of others in the latter. AUs 26 and 27 do not form a continuum describing the degree of jaw lowering – they describe different ways the jaw may be lowered. The intensity scoring for AUs 26 and 27 describes the degree of jaw lowering produced by the two jaw-opening mechanisms.

Figure 4-3 shows examples of the intensity of AU 25 that illustrate the descriptions of intensity scoring in the text below. Figure 4-3A shows intensities of AU 25 when the jaw is closed. Figure 4-3B shows different intensities of AU 25 when the jaw is lowered to about the same degree by AU 26, and Figure 4-3C shows the same except that AU 27 acts with 25. Notice in these examples that differences in the intensity of AU 26 or 27 do not account for different intensities of AU 25, but the addition of other actions that unite or separate the lips change the intensity score of 25. These other actions in the examples are limited to certain AUs, but any lip uniting or separating actions can affect the intensity of AU 25.

AU 25A

When the jaw is shut, the appearance changes for AU 25 are sufficiently present to indicate AU 25, but are insufficient to score 25B (e.g., a clear opening between the lips that is less than 2 millimeters, but you can see no teeth).

When the jaw is lowered by AU 26 or 27, score 25A when actions that act to move the lips together have reduced the lip separation at least *severely* from the separation produced by the jaw opening itself.

In either case, if you are uncertain that the lips are parted, do not score 25A.

AU 25B

There are two alternative criteria for scoring 25B when the jaw is shut:

- **1.** Teeth show you can see teeth without doubt. The sight of but one part of one tooth is sufficient, but you must be certain that you see a tooth.
- 2. Space between lips must be at least 2 millimeters (the thickness of 2 quarters, an American coin) between the lips.

(Note that the 25 image satisfies both criteria.)

You may see teeth with a smaller opening than 2mm; that is sufficient to score 25B when the jaw is closed. Also, you may have openings of 2mm and not see teeth; that is sufficient to score 25B.

Usually, the B intensity is the highest intensity score that you will assign to AU 25 without additional actions that act to separate the lips. To score an intensity of C or higher for AU 25, there is usually some other AU to account for the

increased lip separation. Thus, if there is some other AU that is acting to pull the lips apart beyond merely relaxing the lips, you should consider scoring a higher intensity of 25 than B if the lip separation is beyond the criteria for 25B.

When the jaw is lowered, use the intensity score of B to indicate that lip uniting actions are reducing the lip separation at least *slightly* from what they would otherwise be, given the extent of jaw lowering.

AU 25C

The action of another muscle usually accounts for an intensity score of 25C or higher. As with all intensity scores for AU 25, criteria for assignment of C to AU 25 depends on whether the jaw is closed or lowered, i.e., teeth together or separated. If the teeth remain together (no AU 26 or 27 is scored), the intensity score reflects the degree of lip separation caused only by lip separating actions such as AUs 10, 12, 16, 18, and 22. If the jaw lowers, an intensity of C should be assigned to reflect lip separation caused entirely by the jaw drop, regardless of the absolute distance separating the lips. Continue to score 25C as the jaw opens wider, even as the lips become quite separated, as long as there is no other action that either separates or unites the lips. In this case, the degree of lip separation, which is solely determined by the mouth opening, is captured by the intensity score for AU 26 or 27. How do you determine whether the lip separation is due to the jaw drop alone? To determine whether the jaw drop alone is causing the lip separation, you must focus on the position of the red parts of the lips relative to the teeth and whether these relative positions change from what you would expect, given the degree of jaw drop. If you have followed the instructions in 25-26-27secB, you have seen that in the case of the upper lip, the determination is easy because the dropping jaw in itself does not change the relative position of the center of the upper lip to the upper teeth, so changes in this area due to other actions are relatively easy to see, allowing you to estimate magnitude. On the other hand, merely opening the jaw can change the relative position of the lower lip to the lower teeth, so you must account for this change in your determination. In either case, you must be able to score an action that accounts for the lips being closer or farther apart than results merely from the jaw dropping in order to score a lower or higher intensity than C when the lips part and the jaw drops. If the lips are pulled apart more than due merely to the dropping jaw by lip separating actions, then you may score intensities higher than C (i.e., D or E). Conversely, if they are moved closer together by lip constricting actions, such as AU 23, or actions that push the lips together, such as AU 17, then you may score intensities lower than C (i.e., B or A).

If the teeth remain together, i.e., no jaw drop can be detected, the increased lip separation from the criteria for 25B likely comes from another lip separating action or actions and must be a *marked* or *pronounced* departure from the B criteria. For example, you might score a 25C if there is a moderate action of AU 10 or AU 16 (or other lip parting action) or a small action of both 10 and 16 that parts the lips at least *markedly* more than the criteria for 25B, but less evidence than the criteria for 25D.

If the jaw is lowered by AU 26 or 27 to separate the lips, and the separation is not increased more than a *trace* by other lip separating actions or decreased more than a *trace* by lip constricting actions, score 25C. The intensity score of C for AU 25 represents the lip separation controlled virtually entirely by the jaw lowering, the lips otherwise remaining relaxed or minimally affected by other muscles pulling them open or constricting them, regardless of the absolute distance between the lips. Use the relative position of the upper lip to the upper teeth and the lower lip to the lower teeth as a guide to whether the lip separation is more or less than the jaw lowering alone produces. If other muscles act to constrict the lips, consider scoring B or A; if they act to separate the lips, consider scoring D or E.

AU 25D

When there is no jaw lowering and the lips part due to other lip separating actions, the lip separation must be *severely* greater than the criteria for 25B to assign a D intensity code to AU 25. Thus, when the teeth are together, lip parting actions other than jaw lowering, such as AU 10 and/or 16, must be pulling the lips apart at least *severely* beyond the B criteria, but less evidence than the criteria for 25E.

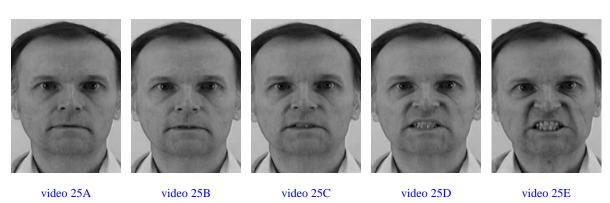
When the jaw is lowered, assign a D intensity score to AU 25 when these same lip lowering and raising actions are separating the lips at least *slightly* more than they would be from the jaw lowering alone, but not more than the criteria for the E intensity score. A *slight* departure from the opening caused by the jaw lowering might result from a lip lowering action, a lip raising action, or both.

AU 25E

Like the other intensities of AU 25, the E intensity is not intended to reflect the absolute maximum possible separation of the lips, but rather the maximum possible separation given the degree of jaw lowering, if any. When the teeth remain together, score an E intensity when lip parting actions, such as AUs 10 and 16, separate the lips at least *extremely* or near *maximum* by both lowering the lower lip and raising the upper lip, so that the lips are separated about as much as possible.

When the jaw is lowered, assign the E intensity when both the upper lip is raised and the lower lip is lowered so that the lips are separated at least *severely* more parted than what would result from the lowered jaw alone. Thus, for example, if AU 10 and AU 16 were both acting at *maximum* so that you think the lips are separated as much as possible given the jaw lowering, you assign an E intensity code to 25.

Figure 4-3A -Examples of the Intensity of AU 25 with the Jaw Closed



This series illustrates the scoring of 25 when the jaw is closed. AUs 16 and 10 act to separate the lips in these examples, but there are other lip separating AUs, and some combinations of them make scoring the intensity of 25 more difficult. Video 25A (scored 16A+25A) shows a definite crack between the lips of about 1mm, but no teeth, so it cannot be scored 25B. Traces of the skin of the lip and chin and wrinkling on the chin boss indicate a 16A pulling the lip down. Video 25B (scored 16B+25B) again shows a more intense 16 pulling down the lower lip to part the lips about 2mm and reveal the teeth, sufficient to score 25B on either basis. Video 25C (scored 10B+16C+25C) shows the lips parting, a hesitation, and then parting a little more. The parting is caused by AUs 10 and 16. The first level of parting is about the greatest separation that can be considered the B intensity, slightly more than the 2mm guideline. When the separation increases, as the 10 increases, it becomes markedly greater than this guideline, the least separation for 25C. Video 25D (scored 10D+16D+25D) shows a severe departure from the 2mm guideline, sufficient for the D intensity. Video 25E (scored 10E+16E+25E) shows 10 and 16 acting at near maximum intensity, separating the lips near maximum for a closed jaw, the E intensity. Note that in scoring 25, it is the vertical separation that is relevant, rather than the horizontal extent to which the lips part.

At this point, you may question the departure from our typical use of the A–E intensity scores for AU 25 to describe lip separation when the jaw drops. For example, suppose the jaw drops with a *marked* AU 26 but the lip separation barely meets the criteria for scoring 25B if the jaw were closed (e.g., about 2mm separation), with no other actions present. Do you score 25B or 25C? The answer is, of course, score 25C+26B (see below for intensity criteria for AU 26). The 25C indicates that the lip parting is due virtually entirely to the jaw drop, and a 26B produces only a small lip separation. If there were other actions that acted to unite or separate the lips, we can refine our picture by using B and A intensities to indicate less separation, and D and E intensities to indicate more separation than due to the jaw lowering. Thus, what intensity do you score if the jaw drops with AU 26 and the lips are affected with a *trace* of AU 10 and/or 16, but the lip separation is no more than what meets the criteria for 25B? The answer depends upon whether the action of 10 and/or 16 produces at least a *slight* departure from the lip separation due to the lowered jaw. If so, score 25D+26; if there is only a *trace* of greater separation, score 25C+26, regardless of the intensity score for AU 26. What do you score if the jaw is fully stretched open (AU 27) but other actions are bringing the lips together so that their separation is small? Score

25A+27E if the uniting of the lips is at least a *severe* departure from the separation that would be produced by the jaw drop alone, 25B+27E if the departure is *slight* to *pronounced*. What if the jaw is dropped by AU 26 or jerked apart by AU 27, but the lips are not parted? Score only 26 or 27 and its intensity.

In summary, when the jaw is closed, the only indication of the degree of lip separation comes from the intensity codes for AU 25. Assign intensity codes for AU 25 to reflect the degree of lip separation caused by lip parting actions, if any, such as AU 10, 12, and 16, with A indicating a minimal (but certain) separation, B providing an anchoring criteria of 2mm and/or teeth showing, C indicating the middle range of separation at least *markedly* more than B, E indicating *extremely* or *maximally* more separation than the B criteria, etc. When the jaw is lowered, on the other hand, use the intensity code of C for AU 25 to indicate that the lip separation is virtually entirely determined by the lowered jaw, and use B and A to indicate that the lips are at least *slightly* or at least *severely* brought closer together, respectively, and D and E to indicate that they are separated at least *slightly* or at least *severely* more than the separation, respectively, than would result from a lowered jaw alone, without other actions affecting the lip separation.

Figure 4-3B. Examples of the Intensity of AU 25 with the Jaw Lowered by AU 26









video 25A+26

video 25B+26

video 25C+26

video 25D+26

video 25E+26

This series shows examples for scoring the intensity of AU 25 when the jaw is dropped by AU 26. The amount of jaw drop is roughly the same in each example. The lip separation is determined by whether other AUs act, and if so, at what intensity. Starting with the middle item, video 25C+26 (scored 25C+26D), the jaw drops by relaxation extremely, or 26D (see below for scoring 26 intensities). No other action is apparent, and the separation of the lips is determined by the jaw drop alone. By definition, this parting is 25C. Video 25A+26 at the left (scored 17B+25A+26D) shows a similar jaw drop of 26D, but a slight 17 (chin pushed up slightly, chin wrinkling, lower lip pushed up slightly) keeps the lips from separating more than a crack, severely to extremely less than the separation discussed for item 25C+26, or the A intensity. Video 25B+26 (scored 17B+25B+26D) shows the lips parted markedly less than the parting in video 25C+26, or the B intensity. Video 25D+26 (scored 16C+25D+26D) again shows the 26D, but here the lips are parted markedly more than is produced by the jaw drop alone, or 25D. AU 16C parts the lips in this example (the lip is pulled down to reveal the lower gums, marked to pronounced movement down and laterally of skin in lip and chin, flattening of chin boss). Video 25E+26 (scored 10D+16D+25E+26D) shows the lips parted by a strong 10 and 16 extremely more than in the 25C+26 item, or 25E. You can see from this series that the A to E intensity scale represents an increasing degree of lip separation, if the degree of jaw drop is held constant.

Figure 4-3C. Examples of the Intensity of AU 25 with the Jaw Lowered by AU 27



video 25A+27 video 25B+27 video 25C+27 video 25D+27 video 25E+27

This series shows examples for scoring the intensity of AU 25 when the jaw is stretched open by AU 27 by about the amount in each item. As in Figure 4-3B, each increase of the A to E intensity scale for 25 corresponds to increasing lip separation when the jaw lowering is held constant, but because the jaw in this series is lowered more, each intensity level corresponds to a greater lip part compared to the 25+26 examples above. Starting with the middle item, video 25C+27 (scored 25C+27E), the jaw is stretched open to about maximum, or 27E (see below for scoring the intensity of 27). No other action than 27 acts to separate the lips, so the lip parting is at the C intensity. At the left, video 25A+27 (scored 17E+18D+25A+27E) shows the lips being held extremely to maximally closer together than in item 25C+27, or 25A. Video 25B+27 (scored 17D+25B+27E) shows the lips closer together by a marked to pronounced degree than would be produced by the jaw stretching alone, or 25B. Video 25D+27 (scored 16E+25D+27E) shows the lips maximally more separated than the jaw stretch alone produces, or 25D. Video 25E+27 (scored 10E+16E+25E+27E) shows the lips maximally more separated than the jaw stretch alone produces, or 25E.

Unilateral 25

A problem arises when a criterion for scoring 25 is visible in just part of the lips but not across the entire lips. The question then is whether to score 25 as bilateral or unilateral. If the criteria for scoring 25 are present on only one side of the philtrum and are totally absent on the other side, score unilateral 25. If there is even a *trace* on one side and criteria are present just in the center at the philtrum, score bilateral 25. Closed in the center but meeting the criterion for separation between the lips at one corner with at least a *trace* at the other corner, is scored bilateral 25.

Figure 4-4 shows examples of scoring the intensity of AU 26 that illustrate the descriptions in the text below. In these examples, the intensity of AU 25 is scored the same, 25C, because the separation of the lips is determined by the action of AU 26 alone. The greater the intensity of 26, the more the lips will separate for a given intensity of 25. An example of 26 without 25 is also provided.

AU 26A

The intensity scoring for AU 26 reflects the difference between the teeth being together versus the most the jaw can be lowered merely by relaxing the muscle that closes the jaw (not the degree to which the jaw can be stretched open, which is a greater absolute opening).

In 26A, the appearance changes for AU 26 are sufficiently present to indicate AU 26, but are insufficient to score 26B (e.g., you see the jaw drop *slightly* by relaxation).

AU 26B

1. *Marked* and unambiguous dropping of the mandible by relaxation. If you score 26B or greater without a 25 (i.e., the lips do not part), look carefully for signs of AU 17 and/or 24. If you do not see the movement:

2. You must see space between at least some of the upper and lower teeth, or a space between the teeth must be unambiguously inferred from the lips, a finger, or other object held between the teeth.

AU 26C

The lowering of the jaw by relaxation is about midway between teeth together and as far as the jaw can drop from relaxation of the muscle that closes the jaw, i.e., the lowering is in at least the *pronounced* range, but the evidence is less than the criteria for 26D. In 26C, if the lip parting permits, you can see space between all of the upper and lower teeth. For scores of 26C and above, you generally scoring 25 as well, unless there is some other action uniting the lips and causing them to remain closed.

AU 26D

The lowering of the jaw by relaxation is at least *severe*, about as much as the tongue can stick through, but the evidence is less than the criteria for 26E.

AU 26E

The lowering of the jaw by relaxation is in the maximum range, and is a gap of not much more than one finger.

Figure 4-4. Examples of the Intensity of AU 26



Figure 4-5 below shows examples of scoring the intensity of AU 27 that illustrate the descriptions in the following text. In these examples, the intensity of AU 25 is scored the same, 25C, because the separation of the lips is determined by the action of AU 27 alone. An example of 27 without 25 is also provided. In this example, you can see the jaw being stretched open by the muscles in the neck, as well as the rapidity of the movement.

AU 27A

Score 27A when you see the jaw actively pulled down, but the jaw is lowered no more than about what a 26E might do. You must see the jaw jerked or pulled rapidly downward in distinction to the slower opening of relaxation in 26. If in doubt between 26 and 27, score 26 when the jaw lowering is no more than a *trace* different from that which might be caused by AU 26E. 27A is not a proper score for a still picture because you cannot detect the required active pulling.

AU 27B

1. Jaw lowering is at least *slightly* more than might be produced merely by relaxing the jaw closing muscle, e.g., *slightly* more than needed to stick your index finger between the teeth, regardless of whether you see a rapid pulling

or not.

2. Lip stretching by the downward pull on the jaw is clearly evident at least in the corners of the lips which begin to loose their angular form and start to become rounder from the stretching. This lip stretching must be *marked* at least.

AU 27C

The jaw lowering is *markedly* more than might be produced by relaxation alone, and the stretching of the lips is *pronounced* at least, but the evidence is less than the criteria for 27D.

AU 27D

The jaw lowering is *severely* more than might be produced by relaxation alone, and the stretching of the lips is *severe* at least, but the evidence is less than the criteria for 27E.

AU 27E

The jaw lowering that separates the teeth and the stretching of the lips is in the *maximum* range.

Figure 4-5. Examples of the Intensity of AU 27



Reference: AUs 25, 26, 27

Action Unit That Changes the Intensity Scoring for AU 27

Problematic Combination of AUs	Target Action of Adjusted Criteria	Use These Criteria
12+25+27	Criterion for 27B in 12+25+27	AU 12 stretches the lips laterally and obscures the rounding of the lip corners by AU 27. In addition to the jaw lowered criterion, only a <i>slight</i> lip stretching by downward pull need be present to score 27B with 12.