

# Perception Test

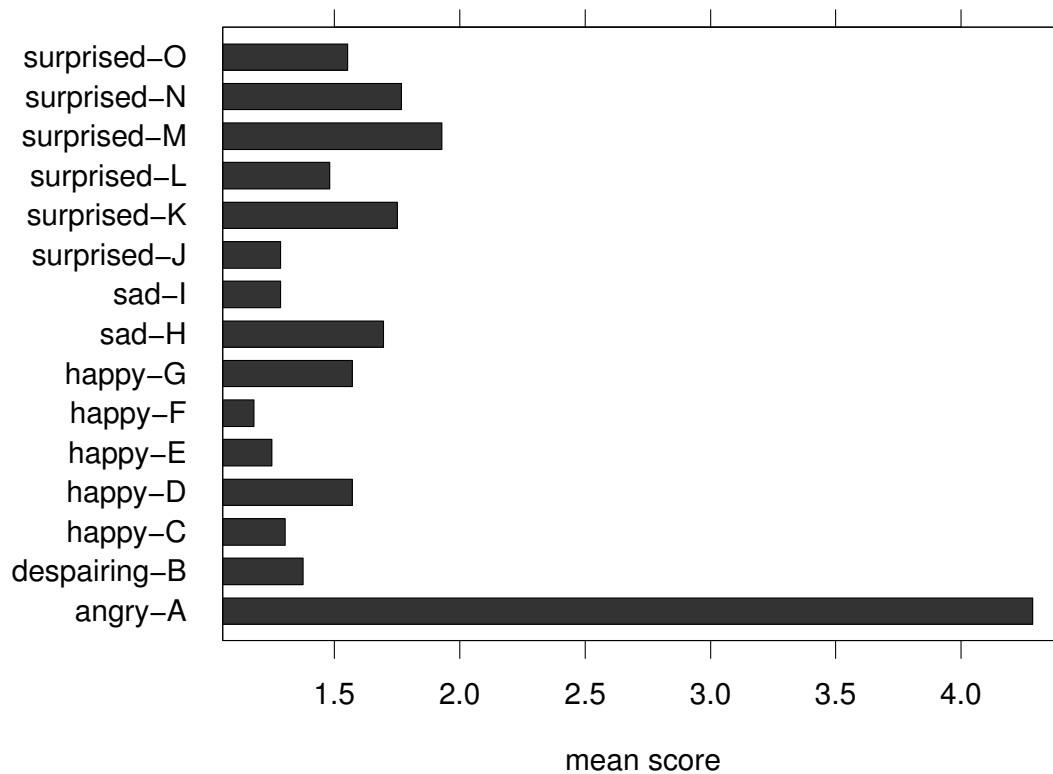
In all charts, the scores mean:

- 1: disagree completely
- 2: disagree somewhat
- 3: neither agree nor disagree
- 4: agree somewhat
- 5: agree completely

Note that the scale is NOT always the same!!

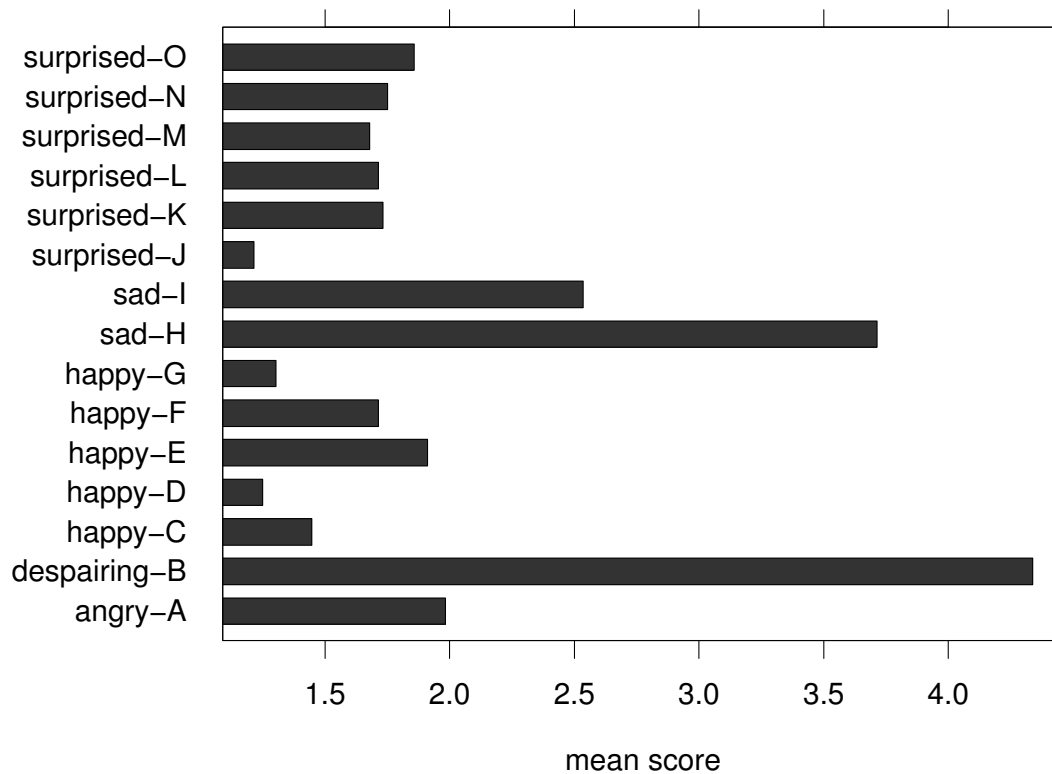
On the Y-axis, “emotion-Z” means: synthesizer “Z”, built to convey that “emotion”.

The speaker sounds angry.



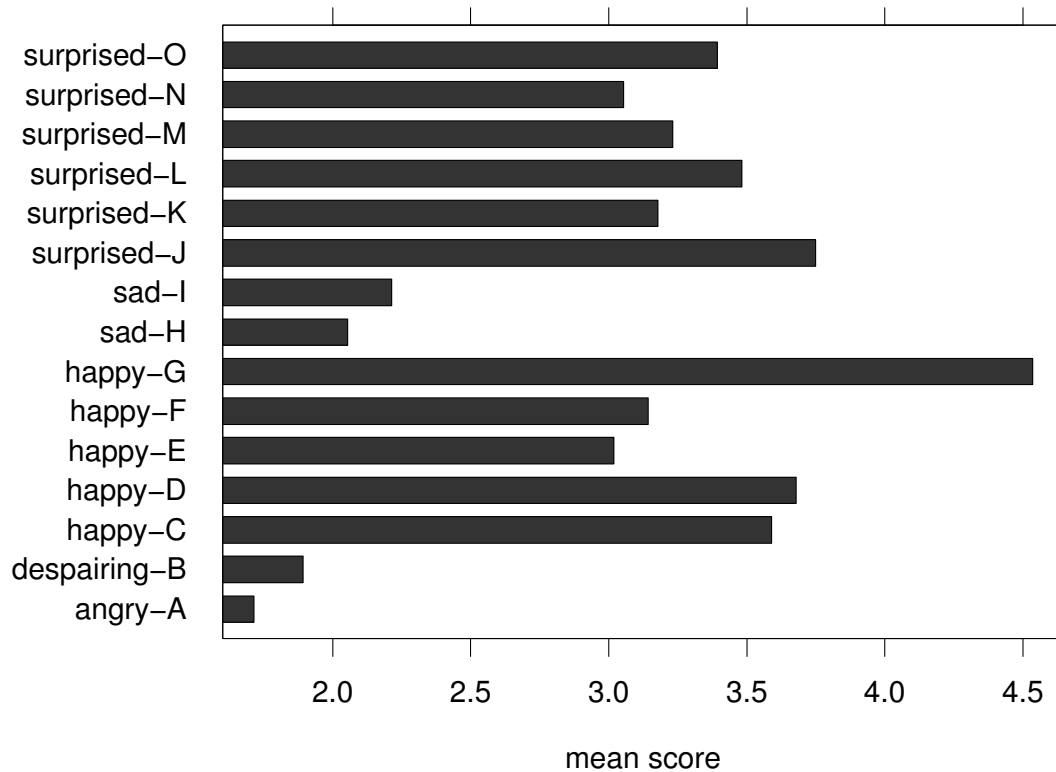
| <u>id</u> | <u>mean</u> | <u>stdev</u> |
|-----------|-------------|--------------|
| O         | 1.554       | 1.025        |
| N         | 1.768       | 1.062        |
| M         | 1.929       | 1.346        |
| L         | 1.482       | 0.953        |
| K         | 1.750       | 1.210        |
| J         | 1.286       | 0.706        |
| I         | 1.286       | 0.659        |
| H         | 1.696       | 1.094        |
| G         | 1.571       | 1.110        |
| F         | 1.179       | 0.390        |
| E         | 1.250       | 0.745        |
| D         | 1.571       | 1.076        |
| C         | 1.304       | 0.658        |
| B         | 1.375       | 0.620        |
| A         | 4.286       | 1.004        |

The speaker sounds despairing.



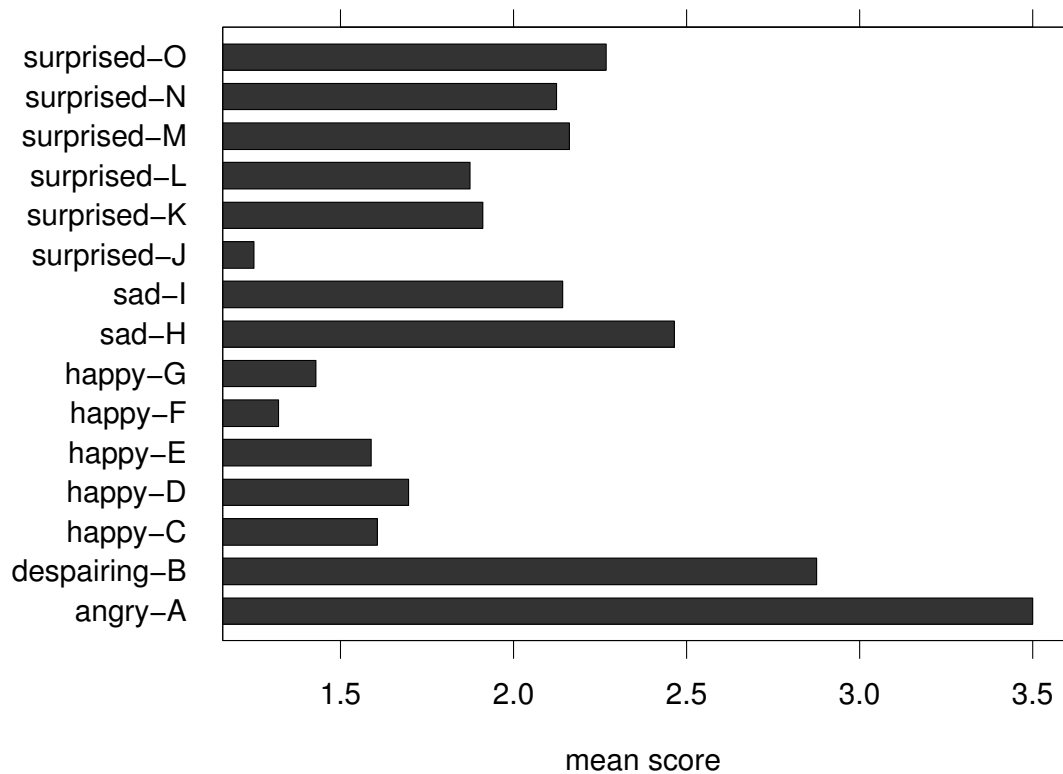
| <u>id</u> | <u>mean</u> | <u>stdev</u> |
|-----------|-------------|--------------|
| O         | 1.857       | 1.135        |
| N         | 1.750       | 0.995        |
| M         | 1.679       | 1.114        |
| L         | 1.714       | 1.074        |
| K         | 1.732       | 1.152        |
| J         | 1.214       | 0.530        |
| I         | 2.536       | 1.401        |
| H         | 3.714       | 1.187        |
| G         | 1.304       | 0.807        |
| F         | 1.714       | 1.182        |
| E         | 1.911       | 1.225        |
| D         | 1.250       | 0.548        |
| C         | 1.446       | 0.872        |
| B         | 4.339       | 1.254        |
| A         | 1.982       | 1.168        |

The speaker sounds friendly.



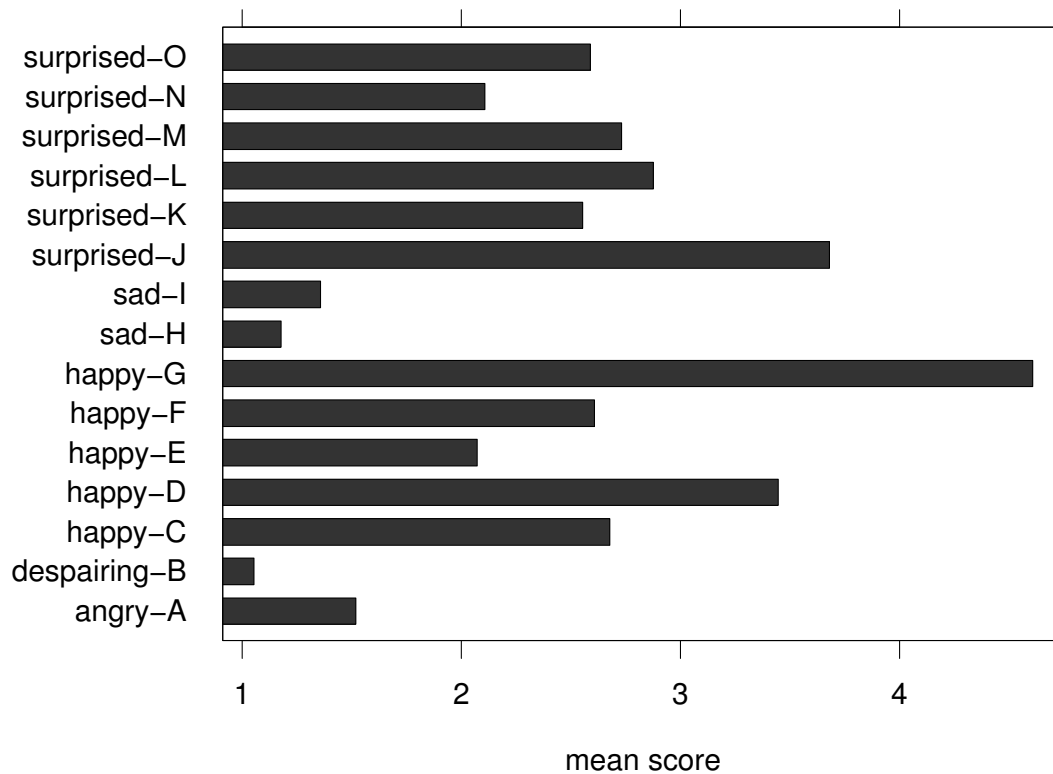
| <u>id</u> | <u>mean</u> | <u>stdev</u> |
|-----------|-------------|--------------|
| O         | 3.393       | 1.201        |
| N         | 3.054       | 1.227        |
| M         | 3.232       | 1.375        |
| L         | 3.482       | 1.250        |
| K         | 3.179       | 1.208        |
| J         | 3.750       | 1.116        |
| I         | 2.214       | 1.101        |
| H         | 2.054       | 1.102        |
| G         | 4.536       | 0.894        |
| F         | 3.143       | 1.268        |
| E         | 3.018       | 1.314        |
| D         | 3.679       | 1.377        |
| C         | 3.589       | 1.398        |
| B         | 1.893       | 0.846        |
| A         | 1.714       | 0.967        |

The speaker sounds frustrated.



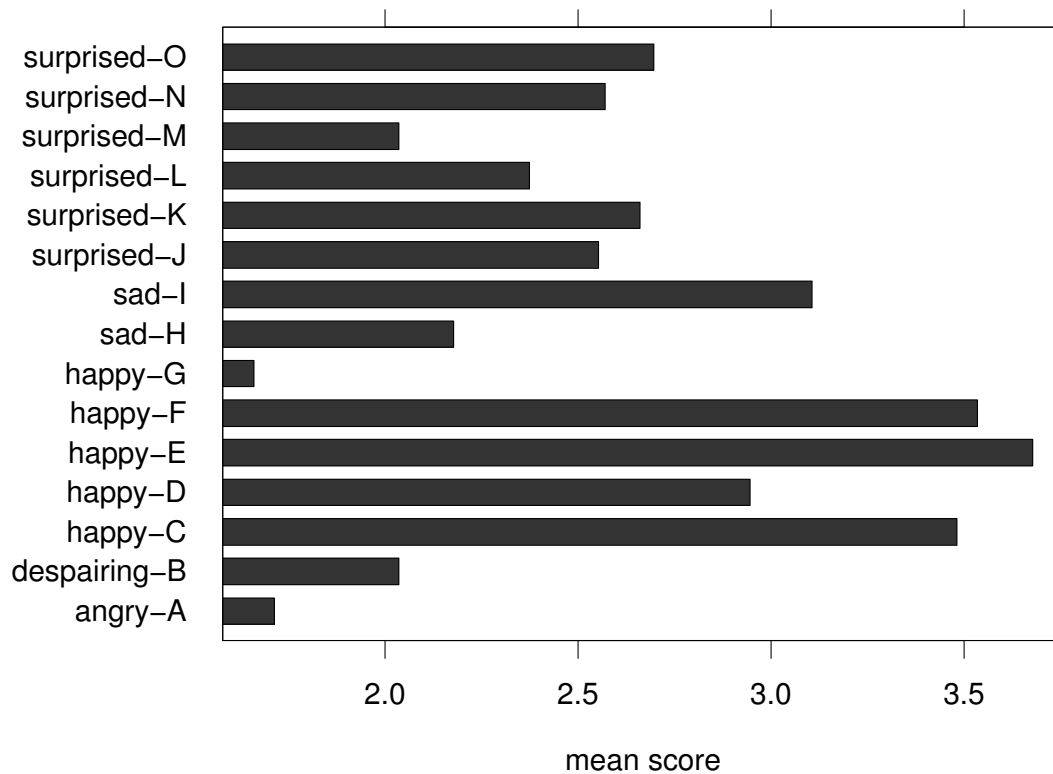
| <u>id</u> | <u>mean</u> | <u>stdev</u> |
|-----------|-------------|--------------|
| O         | 2.268       | 1.272        |
| N         | 2.125       | 1.251        |
| M         | 2.161       | 1.499        |
| L         | 1.875       | 1.207        |
| K         | 1.911       | 1.225        |
| J         | 1.250       | 0.580        |
| I         | 2.143       | 1.380        |
| H         | 2.464       | 1.464        |
| G         | 1.429       | 0.759        |
| F         | 1.321       | 0.548        |
| E         | 1.589       | 0.987        |
| D         | 1.696       | 1.159        |
| C         | 1.607       | 1.021        |
| B         | 2.875       | 1.402        |
| A         | 3.500       | 1.335        |

The speaker sounds happy.



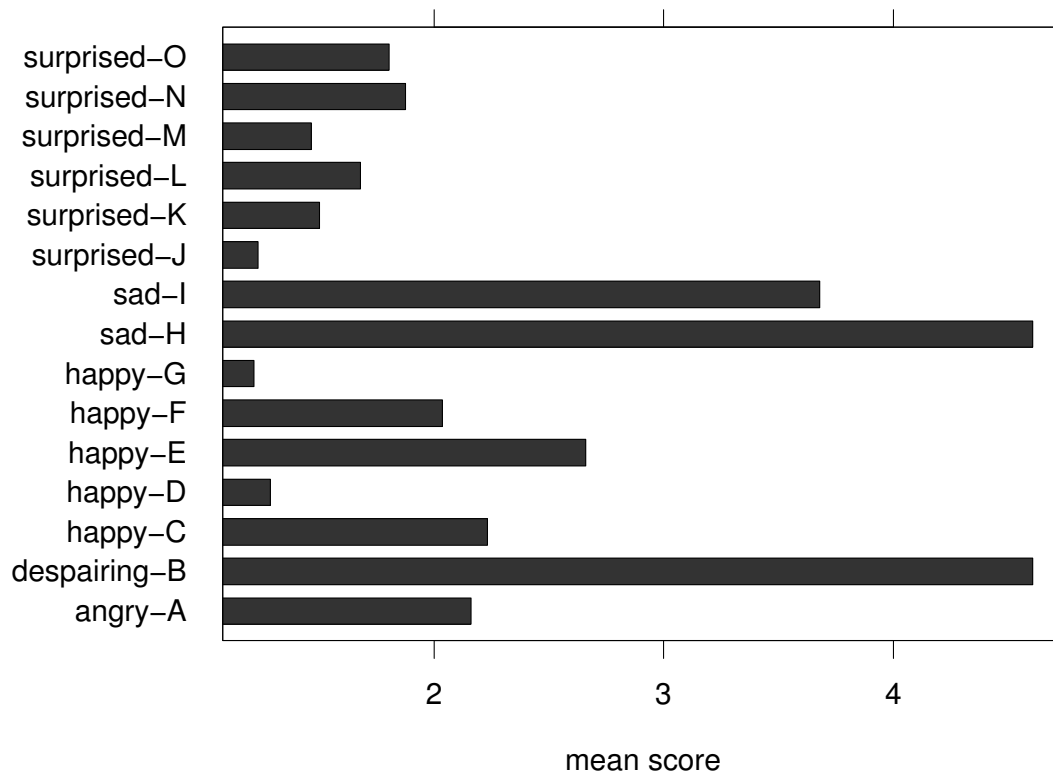
| <u>id</u> | <u>mean</u> | <u>stdev</u> |
|-----------|-------------|--------------|
| O         | 2.589       | 1.187        |
| N         | 2.107       | 1.139        |
| M         | 2.732       | 1.355        |
| L         | 2.875       | 1.308        |
| K         | 2.554       | 1.320        |
| J         | 3.679       | 1.208        |
| I         | 1.357       | 0.678        |
| H         | 1.179       | 0.386        |
| G         | 4.607       | 0.779        |
| F         | 2.607       | 1.370        |
| E         | 2.071       | 1.189        |
| D         | 3.446       | 1.439        |
| C         | 2.679       | 1.336        |
| B         | 1.054       | 0.227        |
| A         | 1.518       | 0.972        |

The speaker sounds neutral.



| <u>id</u> | <u>mean</u> | <u>stdev</u> |
|-----------|-------------|--------------|
| O         | 2.696       | 1.174        |
| N         | 2.571       | 1.189        |
| M         | 2.036       | 1.128        |
| L         | 2.375       | 1.259        |
| K         | 2.661       | 1.366        |
| J         | 2.554       | 1.278        |
| I         | 3.107       | 1.524        |
| H         | 2.179       | 1.162        |
| G         | 1.661       | 0.815        |
| F         | 3.536       | 1.290        |
| E         | 3.679       | 1.281        |
| D         | 2.946       | 1.367        |
| C         | 3.482       | 1.236        |
| B         | 2.036       | 1.095        |
| A         | 1.714       | 0.967        |

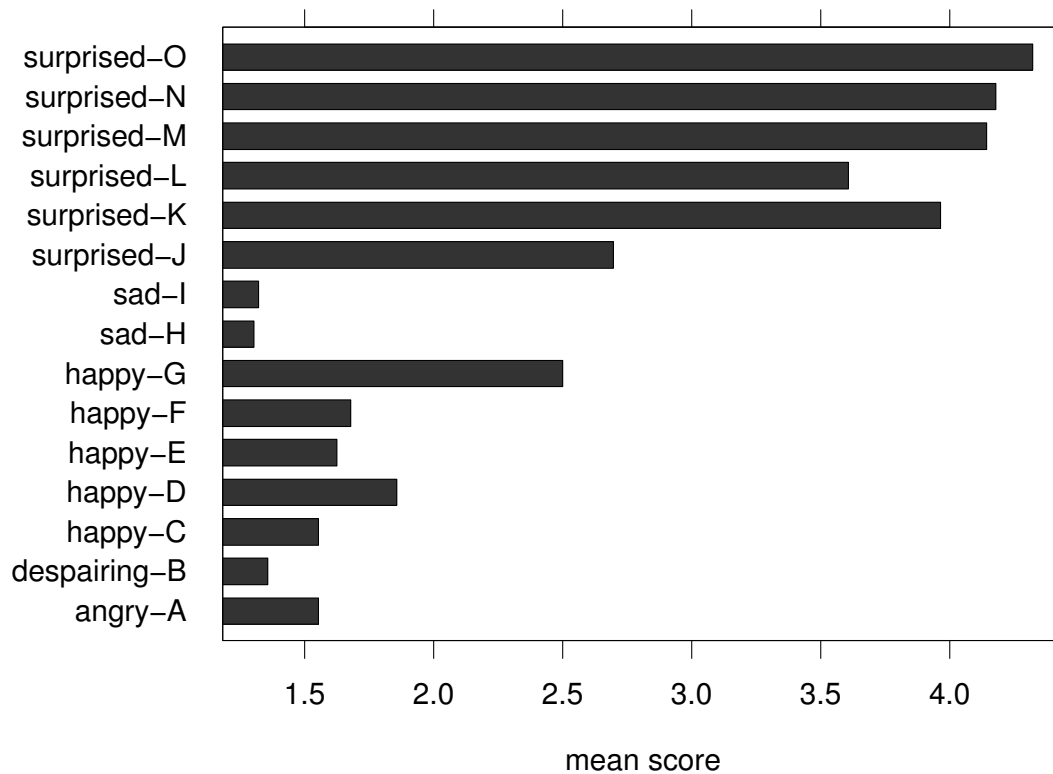
The speaker sounds sad.



| <u>id</u> | <u>mean</u> | <u>stdev</u> |
|-----------|-------------|--------------|
| O         | 1.804       | 1.069        |
| N         | 1.875       | 1.129        |
| M         | 1.464       | 0.873        |
| L         | 1.679       | 1.029        |
| K         | 1.500       | 0.809        |
| J         | 1.232       | 0.572        |
| I         | 3.679       | 1.467        |
| H         | 4.607       | 0.679        |
| G         | 1.214       | 0.563        |
| F         | 2.036       | 1.374        |
| E         | 2.661       | 1.493        |
| D         | 1.286       | 0.530        |
| C         | 2.232       | 1.375        |
| B         | 4.607       | 0.947        |
| A         | 2.161       | 1.290        |

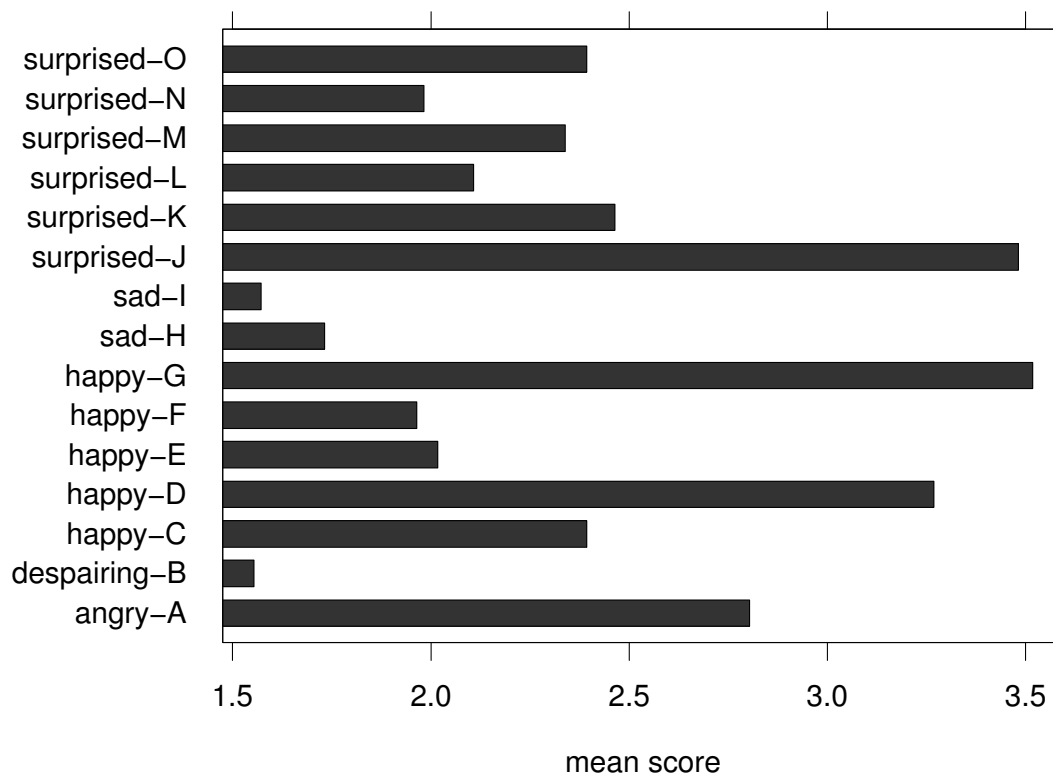


The speaker sounds surprised.



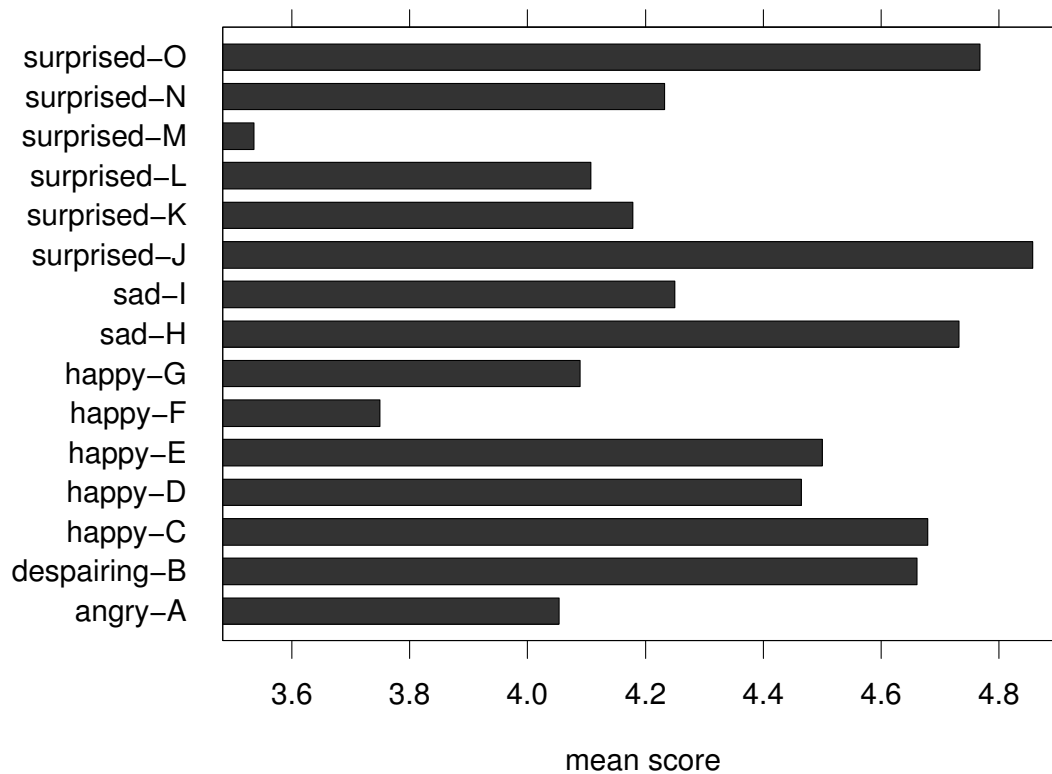
| <u>id</u> | <u>mean</u> | <u>stdev</u> |
|-----------|-------------|--------------|
| O         | 4.321       | 0.956        |
| N         | 4.179       | 1.146        |
| M         | 4.143       | 1.052        |
| L         | 3.607       | 1.317        |
| K         | 3.964       | 1.293        |
| J         | 2.696       | 1.476        |
| I         | 1.321       | 0.476        |
| H         | 1.304       | 0.502        |
| G         | 2.500       | 1.279        |
| F         | 1.679       | 1.090        |
| E         | 1.625       | 0.926        |
| D         | 1.857       | 1.182        |
| C         | 1.554       | 0.952        |
| B         | 1.357       | 0.672        |
| A         | 1.554       | 0.737        |

The speaker sounds charismatic.



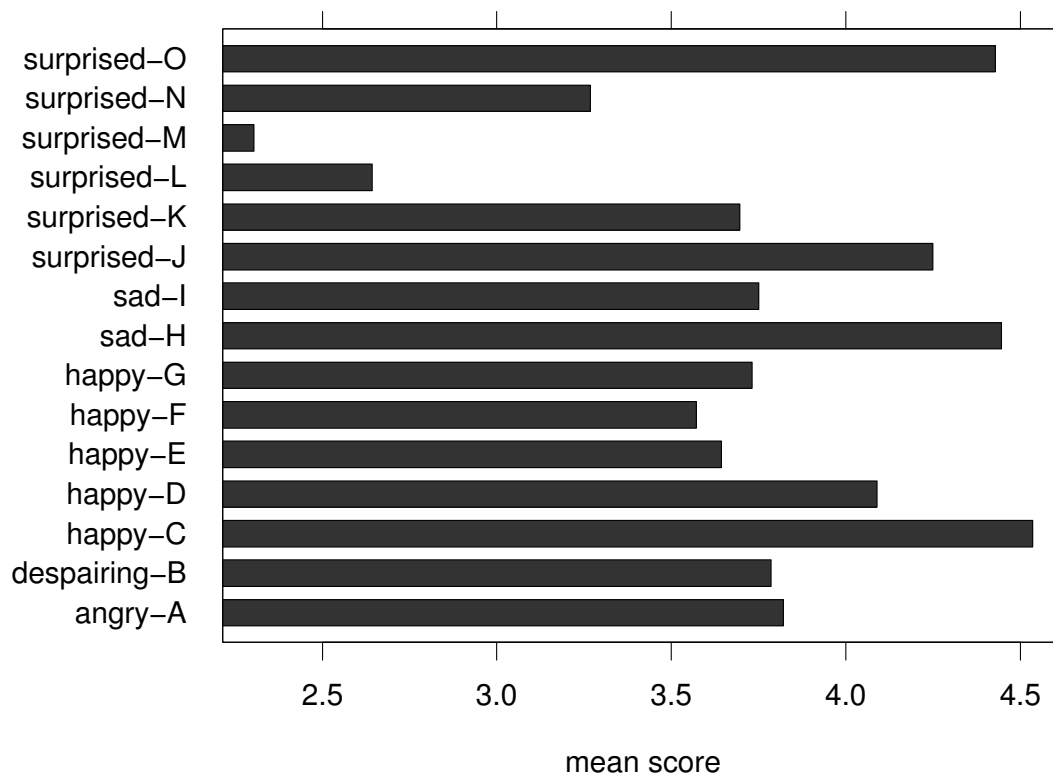
| <u>id</u> | <u>mean</u> | <u>stdev</u> |
|-----------|-------------|--------------|
| O         | 2.393       | 1.021        |
| N         | 1.982       | 0.963        |
| M         | 2.339       | 1.149        |
| L         | 2.107       | 1.056        |
| K         | 2.464       | 1.264        |
| J         | 3.482       | 1.265        |
| I         | 1.571       | 0.742        |
| H         | 1.732       | 0.963        |
| G         | 3.518       | 1.321        |
| F         | 1.964       | 0.999        |
| E         | 2.018       | 1.104        |
| D         | 3.268       | 1.395        |
| C         | 2.393       | 1.155        |
| B         | 1.554       | 0.893        |
| A         | 2.804       | 1.470        |

This utterance is intelligible.



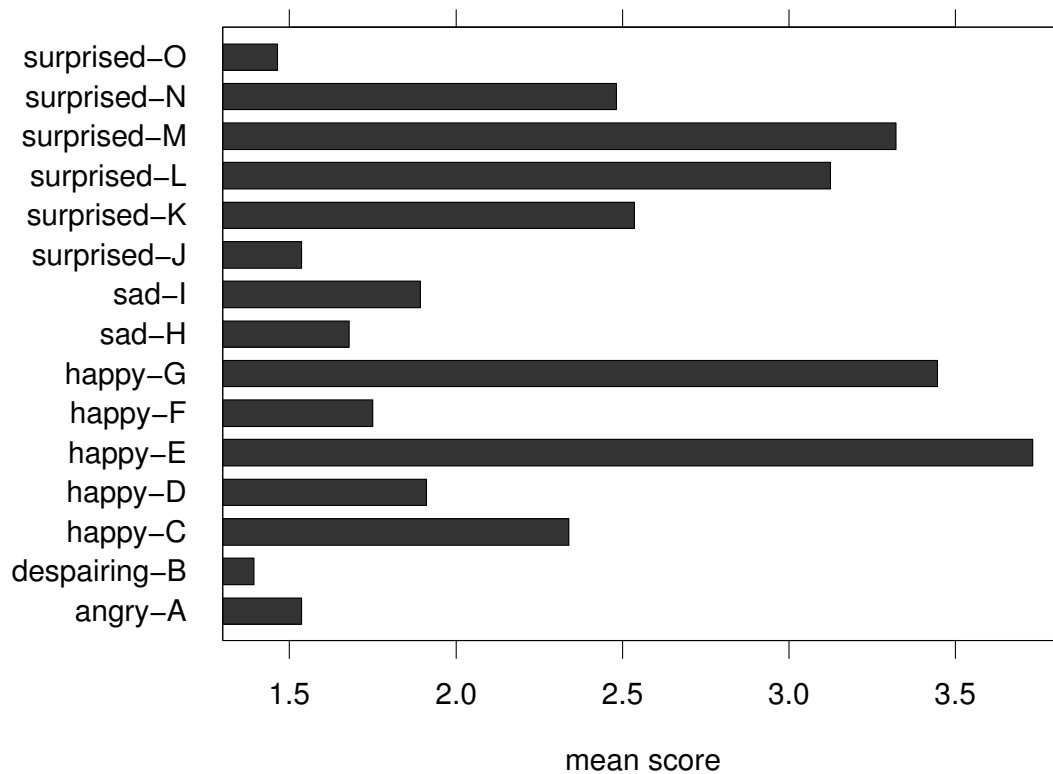
| <u>id</u> | <u>mean</u> | <u>stdev</u> |
|-----------|-------------|--------------|
| O         | 4.768       | 0.467        |
| N         | 4.232       | 1.027        |
| M         | 3.536       | 1.293        |
| L         | 4.107       | 0.928        |
| K         | 4.179       | 1.081        |
| J         | 4.857       | 0.401        |
| I         | 4.250       | 0.844        |
| H         | 4.732       | 0.486        |
| G         | 4.089       | 1.225        |
| F         | 3.750       | 1.266        |
| E         | 4.500       | 0.831        |
| D         | 4.464       | 0.762        |
| C         | 4.679       | 0.664        |
| B         | 4.661       | 0.611        |
| A         | 4.054       | 1.069        |

This utterance sounds natural.



| <u>id</u> | <u>mean</u> | <u>stdev</u> |
|-----------|-------------|--------------|
| O         | 4.429       | 0.759        |
| N         | 3.268       | 1.258        |
| M         | 2.304       | 1.361        |
| L         | 2.643       | 1.182        |
| K         | 3.696       | 1.159        |
| J         | 4.250       | 0.815        |
| I         | 3.750       | 1.266        |
| H         | 4.446       | 0.829        |
| G         | 3.732       | 1.198        |
| F         | 3.571       | 1.260        |
| E         | 3.643       | 1.119        |
| D         | 4.089       | 0.793        |
| C         | 4.536       | 0.602        |
| B         | 3.786       | 1.202        |
| A         | 3.821       | 1.237        |

There are strange noises in this utterance.



| <u>id</u> | <u>mean</u> | <u>stdev</u> |
|-----------|-------------|--------------|
| O         | 1.464       | 0.873        |
| N         | 2.482       | 1.375        |
| M         | 3.321       | 1.428        |
| L         | 3.125       | 1.280        |
| K         | 2.536       | 1.414        |
| J         | 1.536       | 0.687        |
| I         | 1.893       | 1.227        |
| H         | 1.679       | 1.081        |
| G         | 3.446       | 1.361        |
| F         | 1.750       | 1.143        |
| E         | 3.732       | 1.328        |
| D         | 1.911       | 1.100        |
| C         | 2.339       | 1.379        |
| B         | 1.393       | 0.802        |
| A         | 1.536       | 0.873        |