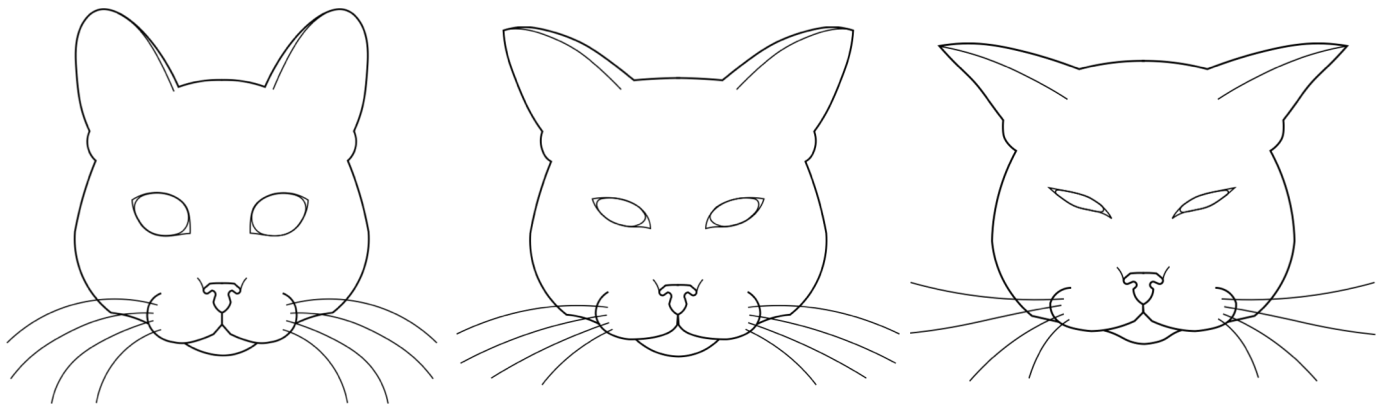


## Facial expressions of pain in cats: the development and validation of a Feline Grimace Scale

Marina C Evangelista, Ryota Watanabe, Vivian SY Leung, Beatriz Monteiro, Elizabeth O'Toole, Daniel SJ Pang, Paulo V Steagall

### TRAINING MANUAL

## FELINE GRIMACE SCALE



### Instructions for using the scale

Rate each action unit from 0 to 2:

0 = action unit is absent

1 = moderate appearance of the action unit, or uncertainty over its presence or absence

2 = obvious appearance of the action unit

If the action unit is not visible, please mark the option “not possible to score”

Ear position



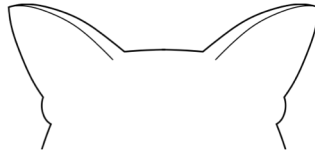
0 = absent



Ears facing forward



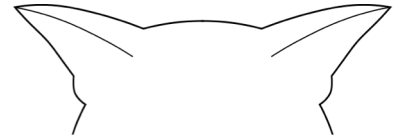
1 = moderately present



Ears slightly pulled apart



2 = markedly present

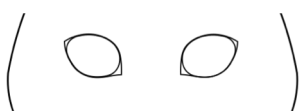


Ears rotated outwards

Orbital tightening



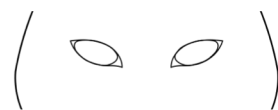
0 = absent



Eyes opened



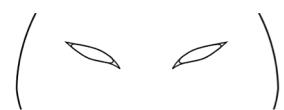
1 = moderately present



Partially closed eyes

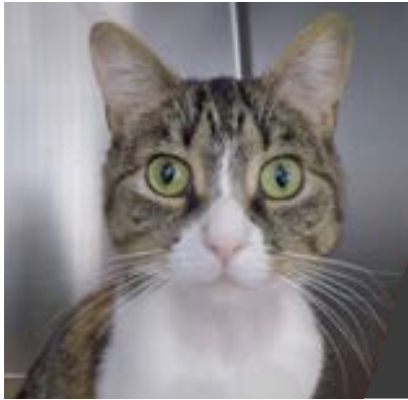


2 = markedly present



Squinted eyes

Muzzle tension



0 = absent



Relaxed (round shape)



1 = moderately present



Mild tension



2 = markedly present



Tense (elliptical shape)

Whiskers change



0 = absent



Loose (relaxed) and curved



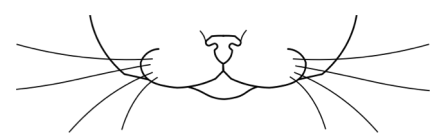
1 = moderately present



Slightly curved or straight  
(closer together)

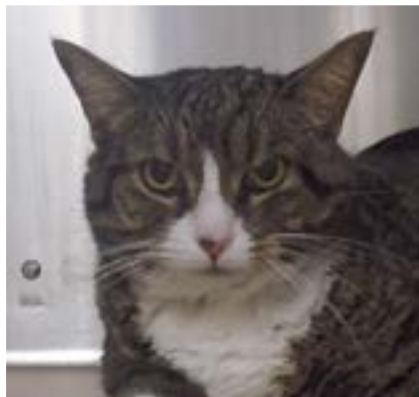
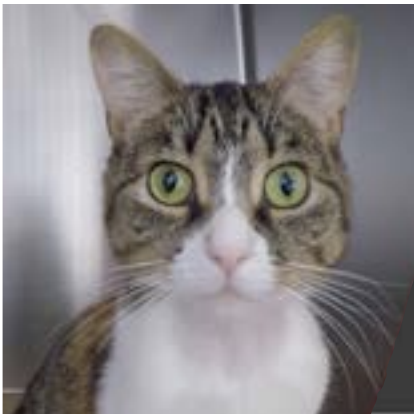


2 = markedly present



Straight and moving forward  
(rostrally, away from the face)

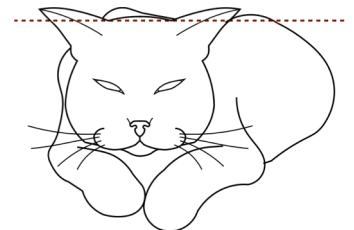
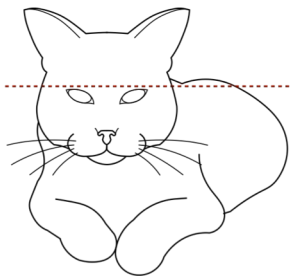
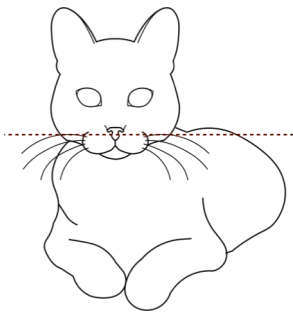
Head position



0 = absent

1 = moderately present

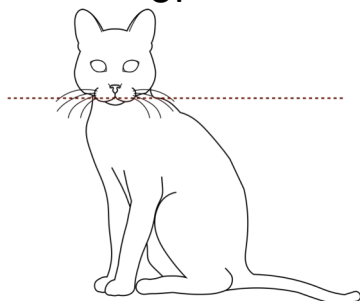
2 = markedly present



or

Head aligned with the shoulder line

or



Head above the shoulder line

Head below the shoulder line or tilted down (chin toward the chest)