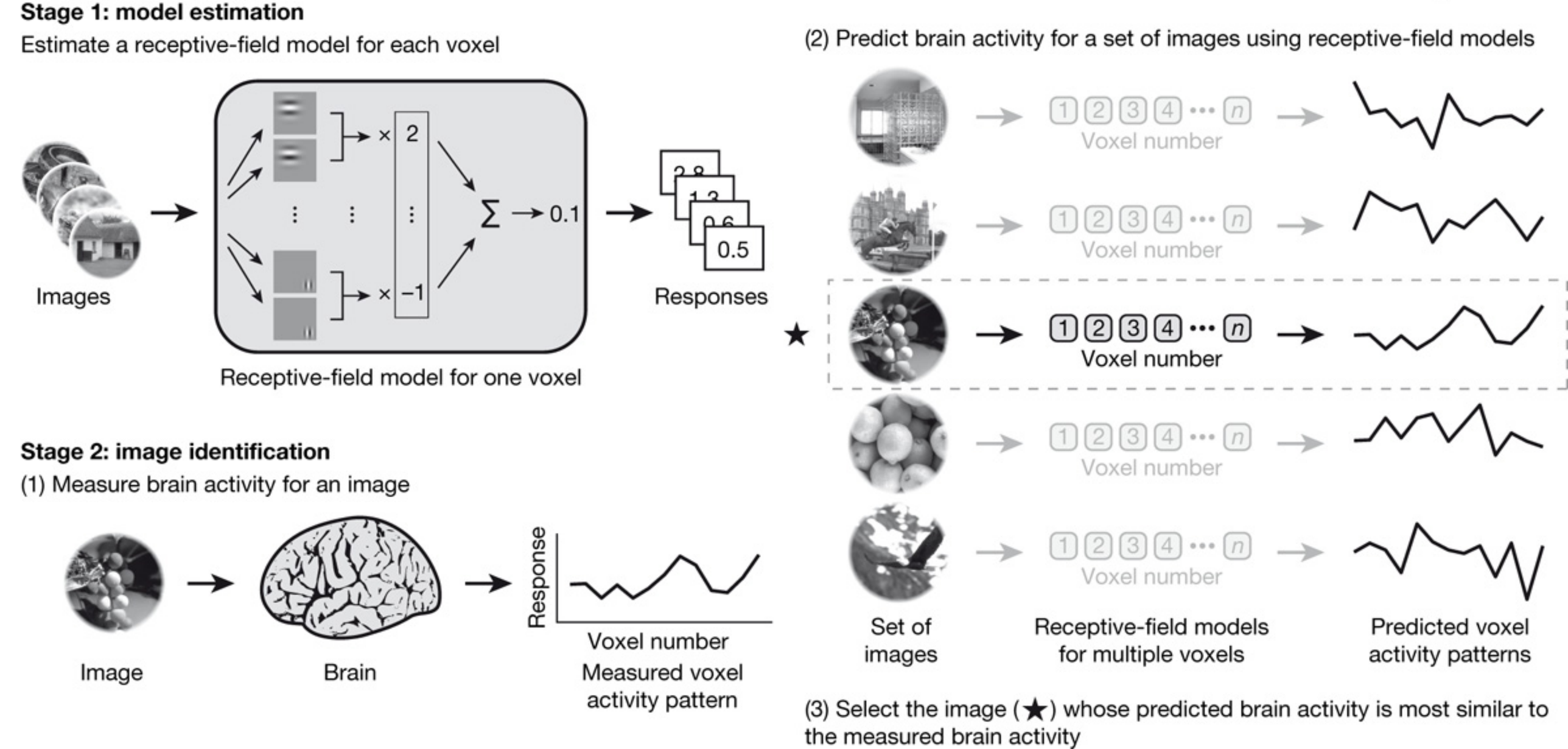
Stage 1: model estimation
Estimate a receptive-field model for each voxel
Images
× 2
× −1
Σ → 0.1
Receptive-field model for one voxel
Responses
0.5
Stage 2: image identification
(1) Measure brain activity for an image
Image
Brain
Response
Voxel number
Measured voxel activity pattern
(2) Predict brain activity for a set of images using receptive-field models
1 2 3 4 ••• n
Voxel number
Set of images
Receptive-field models for multiple voxels
Predicted voxel activity patterns
(3) Select the image (★) whose predicted brain activity is most similar to the measured brain activity