

Internal Models: a primer on motor planning Quiz

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For items 1-10, select the letter (a-d) of the correct completion.

- 1) Internal models likely consist of what two parts:
a) inverse and forward b) inverse and mosaic
c) forward and mosaic d) inverse and schematic
- 2) Sherrington's work led him to conclude that all movement was rooted in:
a) schemas b) efference copy
c) motor plans d) reflexes
- 3) Scarchilli and Vercher found evidence for forward models in their study of:
a) hand position estimation b) hand-eye tracking
c) brain activation with fMRI d) spinalized cats
- 4) According to Fisher, the inverse model exists in the:
a) ipsilateral, superior cerebellum b) ipsilateral, inferior cerebellum
c) cerebral cortex d) basal ganglia
- 5) The information about the motor command received by the forward model is called:
a) efference copy b) schema
c) motor command d) reference copy
- 6) The MODular Selection And Identification Controller (MOSAIC) model is:
a) a forward internal model b) an inverse internal model
c) a combination of a and b d) none of the above
- 7) The forward model is also known as:
a) a predictor b) a controller
c) an efference copy d) a corollary discharge
- 8) We do not feel a self-generated tickle as much as when someone else tickles us because:
a) Others tickle us more b) we can predict the effect of our own tickle
c) we can't predict the effect of someone else's tickle d) both b and c.

- 9) The following is not a benefit of internal models:
- a) noise filtering
 - b) important in motor learning
 - c) canceling unnecessary sensory effects of movement
 - d) predicting the motor consequences of noxious sensory stimuli (e.g. pinprick)
- 10) Which of the following is true:
- a) people with cerebellar damage have no difficulty adapting to new environments
 - b) sensory cortex isn't important in learning new skills or relearning old skills
 - c) sensory cortex is important in reproducing learned movements
 - d) The forward internal model is believed to be located in the ipsilateral anterior, superior, cerebellum.

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