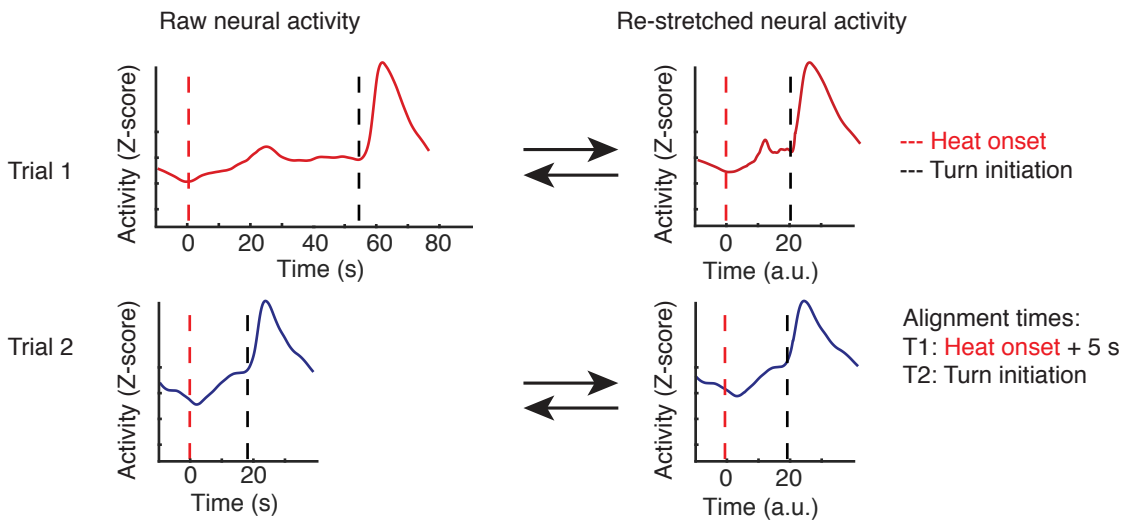
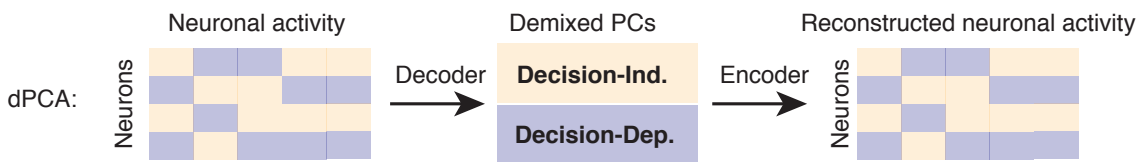


# A Time series warping procedure required for demixed principal component analysis (dPCA)

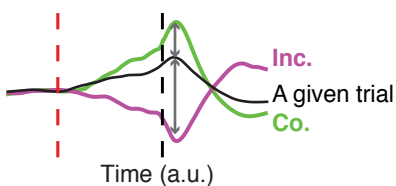


# B dPCA enables task-related decomposition and reconstruction of neuronal activity

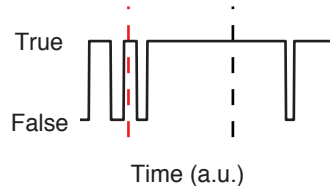


# C Predicting decision outcome from dPCs in real time

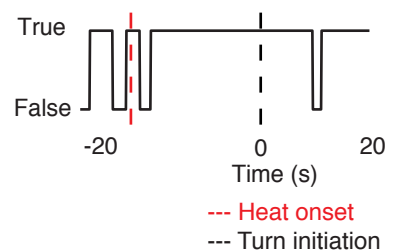
## (i). Linear classification with warped time



## (ii). Prediction outcome with warped time: True or False

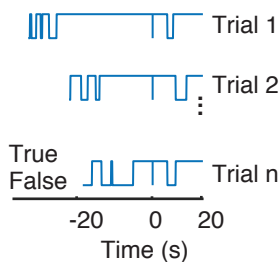


## (iii). Time warping to real timestamps

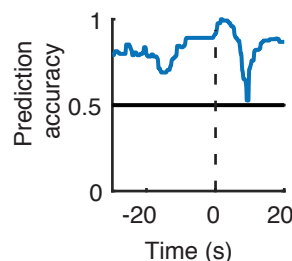


# D Determining accuracy and time for predicting turn directions

## (i). Single-trial prediction



## (ii). Prediction accuracy as a function of time



## (iii). Earliest prediction of turn direction

