

KREIMAN LAB. <http://klab.tch.harvard.edu>

README

This document refers to the following publication:

Predicting episodic memory formation for movie events

Hanlin Tang, Jed Singer, Matias Ison, Gnel Pivazyan, Melissa Romaine, Rosa Frias, Elizabeth Meller, Adrianna Boulin, James Carroll, Victoria Perron, Sarah Dowcett, Marlise Arellano, Gabriel Kreiman

Scientific Reports 2016

[Main text](#)

[Supplementary Material](#)

[Additional Web Figures](#)

Link to manuscript, supplementary material, data and code

http://klab.tch.harvard.edu/resources/Tangetal_episodicmemory_2016.html#sthash.zj1iktky.dpbs

File names

movie_annotations_24_S06E01_30fps_ft1.mat [492K]

movie_annotations_24_S06E02_30fps_ft1.mat [268K]

Movie annotation data structure

load movie_annotations_24_S06E01_30fps_ft1.mat

All the most relevant behavioral data are stored in the variable `output_all`s, described below

whos

Variable	Size	Bytes	Type	Description
action_indices_in	1001x1	8008	double	
action_matrix	1001x40	320320	double	
action_mode	1001x1	8008	double	1 = action present
action_n_researchers	1001x1	8008	double	
camerachange_indices_in	1001x1	8008	double	

camerachange_matrix	1001x40	320320	double	
camerachange_mode	1001x1	8008	double	1 = camera movement
camerachange_n_researchers	1001x1	8008	double	
censored_indices_in	1001x1	8008	double	
censored_matrix	1001x40	320320	double	
censored_mode	1001x1	8008	double	1 = censored shot
cesnored_n_researchers	1001x1	8008	double	
char_checkbox_indices_in	1001x1	8008	double	
char_checkbox_matrix	1001x40x33	10570560	double	
char_checkbox_mode	1001x33	264264	double	characters present
char_checkbox_n_researchers	1001x1	8008	double	
char_emotions_indices_in	1001x1	8008	double	
char_emotions_matrix	1001x40x33	10570560	double	
char_emotions_mode	1001x33	264264	double	1 = emotion present
char_emotions_n_researchers	1001x1	8008	double	
char_movement_indices_in	1001x1	8008	double	
char_movement_matrix	1001x40x33	10570560	double	
char_movement_mode	1001x33	264264	double	1 = character moving
char_movement_n_researchers	1001x1	8008	double	
char_poses_indices_in	1001x1	8008	double	
char_poses_matrix	1001x40x33	10570560	double	
char_poses_mode	1001x33	264264	double	face pose (1-4)
char_poses_n_researchers	1001x1	8008	double	
char_talking_indices_in	1001x1	8008	double	
char_talking_matrix	1001x40x33	10570560	double	
char_talking_mode	1001x33	264264	double	1 = character talking
char_talking_n_researchers	1001x1	8008	double	
clipsounds_indices_in	1001x1	8008	double	
clipsounds_matrix	1001x40x13	4164160	double	
clipsounds_mode	1001x13	104104	double	1 = sounds present
clipsounds_n_researchers	1001x1	8008	double	

cuts_fields	1002x27	216432	double	
decision_indices_in	1001x1	8008	double	
decision_matrix	1001x40	320320	double	
decision_mode	1001x1	8008	double	1 = decision present
decision_n_researchers	1001x1	8008	double	
emotion_checkbox_indices_in	1001x1	8008	double	
emotion_checkbox_matrix	1001x40x49	15695680	double	
emotion_checkbox_mode	1001x49	392392	double	1 = emotion present
emotion_checkbox_n_researchers	1001x1	8008	double	
emotional_indices_in	1001x1	8008	double	
emotional_matrix	1001x40	320320	double	
emotional_mode	1001x1	8008	double	1 = binary emotion yes/no
emotional_n_researchers	1001x1	8008	double	
finit_frame_all	1001x1	8008	double	final frame number for shot
hidden_indices_in	1001x1	8008	double	
hidden_matrix	1001x40	320320	double	
hidden_mode	1001x1	8008	double	1 = character hidden
hidden_n_researchers	1001x1	8008	double	
indoor_indices_in	1001x1	8008	double	
indoor_matrix	1001x40	320320	double	
indoor_mode	1001x1	8008	double	1 = indoor, 2 = outdoor, 3 = mix
indoor_n_researchers	1001x1	8008	double	
init_frame_all	1001x1	8008	double	initial frame number for shot
memorable_indices_in	1001x1	8008	double	
memorable_matrix	1001x40	320320	double	
memorable_mode	1001x1	8008	double	1 = subjectively memorable
memorable_n_researchers	1001x1	8008	double	
names_all	40x1	4780	cell	
nchars_indices_in	1001x1	8008	double	
nchars_matrix	1001x40	320320	double	

nchars_mode	1001x1	8008	double	number of characters present
nchars_n_researchers	1001x1	8008	double	
needed_indices_in	1001x1	8008	double	
needed_matrix	1001x40	320320	double	
needed_mode	1001x1	8008	double	1 = shot needed
needed_n_researchers	1001x1	8008	double	
nobjs_indices_in	1001x1	8008	double	
nobjs_matrix	1001x40	320320	double	
nobjs_mode	1001x1	8008	double	number of objects in shot
nobjs_n_researchers	1001x1	8008	double	
obj_checkbox_indices_in	1001x1	8008	double	
obj_checkbox_matrix	1001x40x31	9929920	double	
obj_checkbox_mode	1001x31	248248	double	1 = object present
obj_checkbox_n_researchers	1001x1	8008	double	
obji_checkbox_indices_in	1001x1	8008	double	
obji_checkbox_matrix	1001x40x31	9929920	double	
obji_checkbox_mode	1001x31	248248	double	1 = object important
obji_checkbox_n_researchers	1001x1	8008	double	
objm_checkbox_indices_in	1001x1	8008	double	
objm_checkbox_matrix	1001x40x31	9929920	double	
objm_checkbox_mode	1001x31	248248	double	1 = object moving
objm_checkbox_n_researchers	1001x1	8008	double	
params	1x1	26982	struct	
revisecut_indices_in	1001x1	8008	double	
revisecut_matrix	1001x40	320320	double	
revisecut_mode	1001x1	8008	double	1 = revise cut
revisecut_n_researchers	1001x1	8008	double	
scenchange_matrix	1001x40	320320	double	
scenchange_indices_in	1001x1	8008	double	
scenchange_mode	1001x1	8008	double	1 = scene change

scenechange_n_researchers	1001x1	8008	double	
semotion_checkbox_indices_in	1001x1	8008	double	
semotion_checkbox_matrix	1001x40x49	15695680	double	
semotion_checkbox_mode	1001x49	392392	double	1 = self emotion present
semotion_checkbox_n_researchers	1001x1	8008	double	
semotional_indices_in	1001x1	8008	double	
semotional_matrix	1001x40	320320	double	
semotional_mode	1001x1	8008	double	1 = self emotional
semotional_n_researchers	1001x1	8008	double	
splitscreen_indices_in	1001x1	8008	double	
splitscreen_matrix	1001x40	320320	double	
splitscreen_mode	1001x1	8008	double	1 = frame split
splitscreen_n_researchers	1001x1	8008	double	
super_charnames	33x1	4288	cell	character names
super_emnames	49x1	6266	cell	emotion names
super_objnames	31x1	3798	cell	object names
super_soundnames	13x1	1618	cell	sound names
surprising_indices_in	1001x1	8008	double	
surprising_matrix	1001x40	320320	double	
surprising_mode	1001x1	8008	double	1 = shot is surprising
surprising_n_researchers	1001x1	8008	double	

The most important variables are highlighted in blue. The last column provides a succinct description of each variable, for further details, please read the [Supplementary Material](#)