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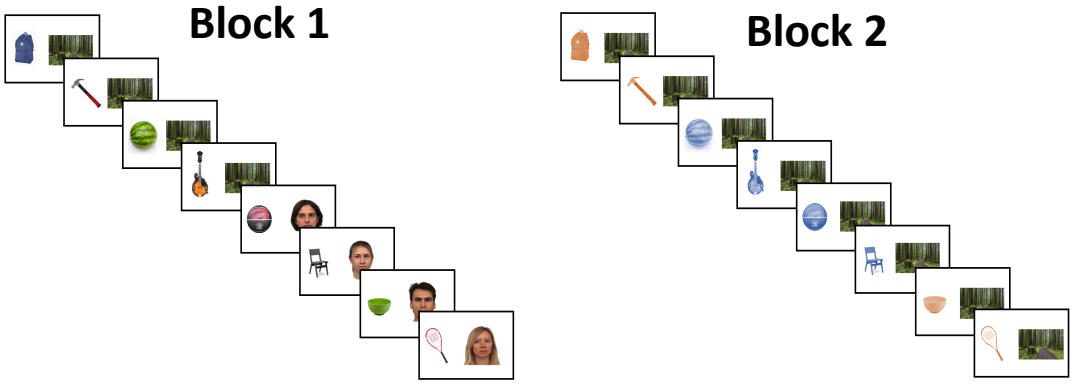
Retrieval Boundary Project

Brief description of paradigm

In this experiment participants will complete an imagination task and will be asked to rate the vividness of their imagination. On each trial, participants will be presented with a picture of an object on the left side of the screen and a picture of either a scene or a face on the right side of the screen. Participants will have 5 seconds to imagine the person and the object, or the scene and the object, together and will then have to rate the vividness of their imagination on a scale from 1 (not vivid) to 7 (very vivid). After responding participants will be shown a given feedback screen, displaying the choice they made (not vivid, kind of vivid, or very vivid). If participants fail to make a response in time, the screen will read "No response recorded." Participants will complete 4 blocks of trials, each block consisting of 32 trials.

Participants will complete two different types of blocks, scene/face blocks or color blocks. During a scene/face block, the same image of a scene will be repeated for 8 consecutive trials, followed by an image of a face which will be repeated for 8 trials, and then a scene for 8 trials, etc. These chunks of 8 trials will be considered "events," and the trial when the scene changes to face (or vice versa) will be considered an "event boundary." The other type of block will be color blocks, where the scene or face on the right side of the screen will be the same for all 32 trials, but every 8 trials the background color of the screen will change[1] (either red or blue). The order of the blocks will be counterbalanced across subjects (see *PickBlocks.csv), and the order of events within each block will be counterbalanced (e.g., scene-face or face-scene, same for color). For a schematic of the experiment, please see below:



Output

Subject data will be output to the "data" folder. Each csv will be labeled with the subject # that was entered at the beginning of the experiment. An example of the output is below:

[1]Note, in the actual experiment the color of the object itself will change, however I don't have these stimuli yet so for the purposes of this project the background color of the screen will change.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	subj	blockCounter	trialCounterB	block	trial	object	sceneFace	sfImage	color	rating	val	rt	trialStart	trialEnd
2	21	2	1SceneBlock	1	1	carrot.jpg	scenes	scene1.jpg	orig	3	notVivid	1.709	2.3835304	4.10291209
3	21	2	1SceneBlock	1	2	bowl.jpg	scenes	scene1.jpg	orig	4	Neutral	0.931	6.63901228	7.58813291
4	21	2	1SceneBlock	1	3	blender.jpg	scenes	scene1.jpg	orig	2	notVivid	1.033	10.1235212	11.1736238
5	21	2	1SceneBlock	1	4	tire.jpg	scenes	scene1.jpg	orig	NA	NA	NA	13.7083191	
6	21	2	1SceneBlock	1	5	basketball.jp	scenes	scene1.jpg	orig	NA	NA	NA	21.2453889	
7	21	2	1SceneBlock	1	6	hammer.jpg	scenes	scene1.jpg	orig	NA	NA	NA	28.782539	
8	21	2	1SceneBlock	1	7	cookie.jpg	scenes	scene1.jpg	orig	5	Vivid	0.954	36.319351	37.2861091
9	21	2	1SceneBlock	1	8	backpack.jpg	scenes	scene1.jpg	orig	6	Vivid	1.266	39.8209805	41.1045412
10	21	2	1SceneBlock	1	9	watermelon.	faces	face1.jpg	orig	2	notVivid	1.864	43.6403379	45.5234468
11	21	2	1SceneBlock	1	10	fishingpole.j	faces	face1.jpg	orig	3	notVivid	1.966	48.0580211	50.042029

Subj: subject number
blockCounterBalance: which "*PickBlocks.csv" was chosen for the counterbalance order
trialCounterBalance: which "*BlockTrialList.csv" were the trials being read from
block: block number (1-4)
trial: trial number (1-32)
object: name of the object image
sceneFace: whether a scene or face was paired with the object
sfImage: name of the image that was paired with the object
color: the color of the background screen (red, blue, or orig)
rating: the vividness response
val: the valence of the vividness response (also the feedback participants were shown)
rt: reaction time
trialStart: the time when the images appeared on the screen (relative to the start of the experiment)
trialEnd: when the images were removed from the screen

File structure

finalProj is the parent directory.
writeBlockandTrialCounterbalance.py is the python script used to write the two sets of csvs for trial and block counterbalancing.
ExperimentScript.py is the actual experiment which reads in the counterbalance/trial csvs and is run through psychopy3.
There are three stimulus folders:
Faces: contains face images
Scenes: contains scene images
Objects: contains 4 different versions of object images (original, greyscale, red and blue).
Data: where each participant's output is saved

For Charlotte

This experiment is a little different than I first proposed. After getting feedback at my lab meeting, I've changed some things and have decided to start with a small pilot experiment to validate the behavioral manipulation before making it more complex.

Also "q" is the quit key.