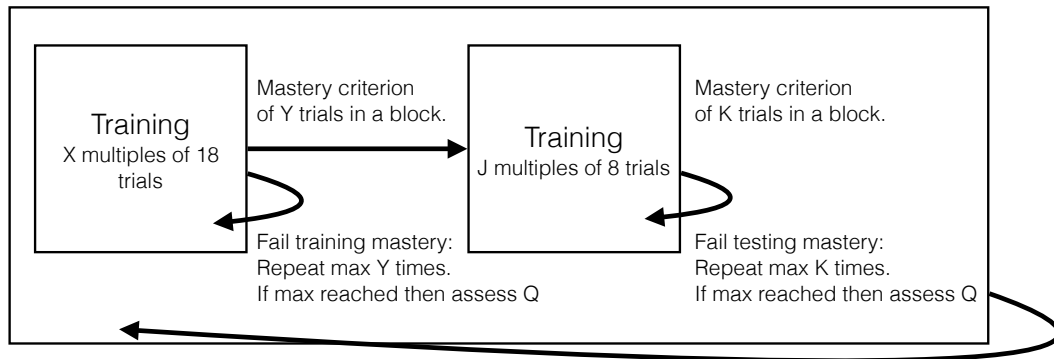# 3x3 MTS parameters

Variables in "stimuli, instructions and parameters.xlsx" file:

X == training_block_length_multiplier
Y == training_criterion
Z == max_training

J == testing_block_length_multiplier
K == testing_criterion
L == max_testing

Q == max_training_and_testing

1. Training

- One-to-many MTS
- Trains two three-member classes: A1-B1-C1 and A2-B2-C2
    - I'm aware of the criticism of using two member classes, i.e, that the correct stimulus can be selected by the process of elimination. However, given that the IAT is based around comparing two pairs of classes I think it's appropriate to use two classes in the MTS.
    - Exemplars taken from Leader & Barnes-Holmes (2001): CUG, ZID, VEK, YIM, PAF, ROG, MAU, JOM, and DAX.
- Blocks of X multiples of 8 stimuli.
    - Each multiple contains all 8 trials required to present A1 with B1 and C1, and A2 with B2 and C2, and with each of the correct stimuli being shown in both the left and right positions.
- Mastery criterion is Y trials in a block.
- Max of Z opportunities to repeat the block.

2. Testing for equivalence relations

- One-to-three MTS
- Assesses two two-member classes: C1-B1 and C2-B2.
- Blocks of J multiples of 4 stimuli.
    - Each multiple contains all 4 trials required to present C1 and B1, and C2 with B2, and with each of the correct stimuli being shown in both the left and right positions.
- Mastery criterion is K trials in a block.
- Max of L opportunities to repeat the block.

3. Recycling between training and testing

- If a participant fail the training or testing block the max number of times, immediately after that block is finished the participant is recycled back to the start of the training blocks. They can complete a run of training+testing blocks a maxiumum of Q number of times. That is, if Q = 1 then they will not be recycled back to training after reaching max training/testing repeats.

4. Parameters common to both training and testing

- 0.5 second inter trial interval
- 0.5 second stimulus onset asyncrony (sample stimulus first, 2 target stimuli after 0.5 seconds).
- 1 second feedback: "Correct" in green for right answers, "Wrong" in red for wrong answers [training only – no feedback in equivalence testing]
- Instructions:

Start of task:

"In this task you will learn about nonsense words.

Each trial will present one word at the top of the screen, and two words at the bottom.

You must press the left and right arrow keys to choose between the left or right words presented at the bottom of the screen.

Press the spacebar to continue."

Before each training block:

"Learn to respond to the words based on the feedback presented.

Use the left and right arrow keys.

Press the spacebar to continue."

Before each testing block:

"Good!

Now respond based on what you have previously learned.

Use the left and right arrow keys.

Press the spacebar to continue."