

Appendix

2 x 3 MLAT Administration- Rule Card

The 2 x 3 MLAT rule card was available for the entirety of the test for participants to consult. The card included a summary of the tasks and test instructions as follows:

The tasks

- 1 To prepare a slice of toast with butter and jelly
 - A First slice of toast
 - B Second slice of toast
- 2 To wrap a gift as a present
 - A First present
 - B Second present
- 3 To pack a lunchbox with a sandwich, a drink, and a snack
 - A First lunchbox
 - B Second lunchbox

Summary instructions

You have three different tasks to do. There is a limited supply of materials for you to complete the tasks. Each task requires you complete two parts, A and B, following these rules:

- 1 You must not do parts A and B of the same task one after the other, or at the same time. For example, you must not do part A of the toast task followed by part B of the toast task.
 - 2 You must press the buzzer after completing each part of the tasks (e.g., the buzzer must be pressed six times).
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2 x 3 MLAT Task Steps

Toast Steps

- take bread from bag
- bread in toaster
- toaster on
- butter on
- jelly on

Present Steps

- gift in box
- close box
- measure paper
- cut paper
- fold paper over gift

tape paper
add bow

Lunchbox Steps

make sandwich
wrap sandwich
sandwich in lunchbox
wrap cookies
cookies in lunchbox
fill thermos
seal thermos
pack thermos in lunchbox
close lunchbox

Assessment of Knowledge- Task Familiarity and Frequency of 2x3 MLAT Tasks

How familiar (i.e., knowledgeable) are you with **making toast**?

- 0 not at all familiar
- 1 a little familiar
- 2 somewhat familiar
- 3 pretty familiar
- 4 very familiar

How many times have you **made toast**?

- 0 never
- 1 yearly
- 2 monthly
- 3 weekly
- 4 everyday

How familiar (i.e., knowledgeable) are you with **wrapping a gift**?

- 0 not at all familiar
- 1 a little familiar
- 2 somewhat familiar
- 3 pretty familiar
- 4 very familiar

How many times have you **wrapped a gift**?

- 0 never
- 1 yearly
- 2 monthly
- 3 weekly
- 4 everyday

How familiar (i.e., knowledgeable) are you with **packing a lunchbox**?

- 0 not at all familiar
- 1 a little familiar
- 2 somewhat familiar
- 3 pretty familiar
- 4 very familiar

How many times have you **packed a lunchbox**?

- 0 never
- 1 yearly
- 2 montly
- 3 weekly
- 4 everyday

BADS- Zoo Map Test as presented to participants (Wilson et al., 1996).

Zoo Map Test Version 1

Rules

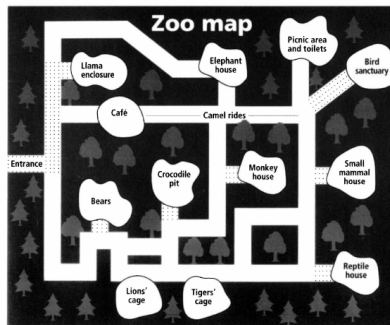
Imagine that you are going to visit a zoo.

Your task is to plan a route in order to visit the following (not necessarily in this order):

- Elephant house
- Lion's cage
- Llama enclosure
- the Café
- the Bears
- Bird sanctuary.

When planning your route the following rules must be obeyed:

- start at the **entrance** and finish with a picnic.
- you may use the **shaded paths as many times as you like** but the **unshaded ones only once**
- you may take **only one Camel ride**.



Zoo Map Test Version 2

Rules

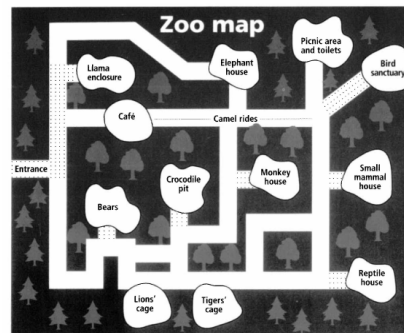
Imagine that you are going to visit a zoo.

Your task is to visit the following animals in the order indicated:

- 1 from the **Entrance** visit the **Llama enclosure**
- 2 from the **Llama enclosure** visit the **Elephant house**
- 3 after visiting the **Elephants** go to the **Café** for refreshments
- 4 from the **Café** go to see the **Bears**
- 5 visit the **Lions** after the **Bears**
- 6 from the **Lions** make your way to the **Bird sanctuary**
- 7 finally, finish your visit with a picnic.

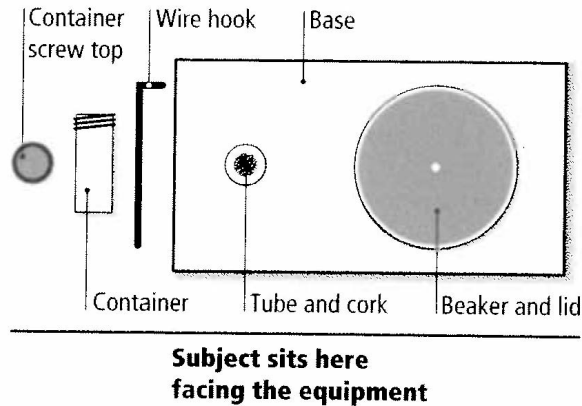
When planning your route the following rules must be obeyed:

- start at the **entrance** and finish with a **picnic**
- you may use the **shaded paths as many times as you like** but the **unshaded ones only once**
- you may take **only one Camel ride**.



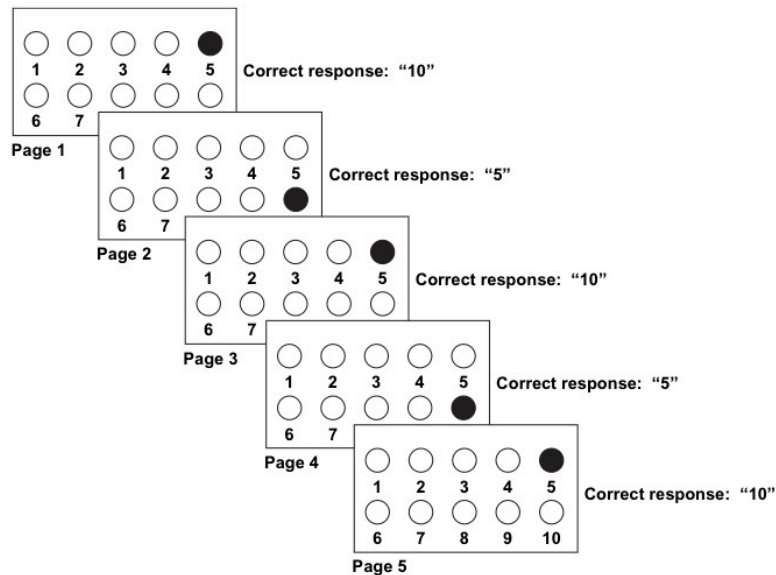
Participants were administered Version 2 (right) following Version 1.

BADS- Action Program Test; an illustration of the APT set-up (Wilson et al., 1996)



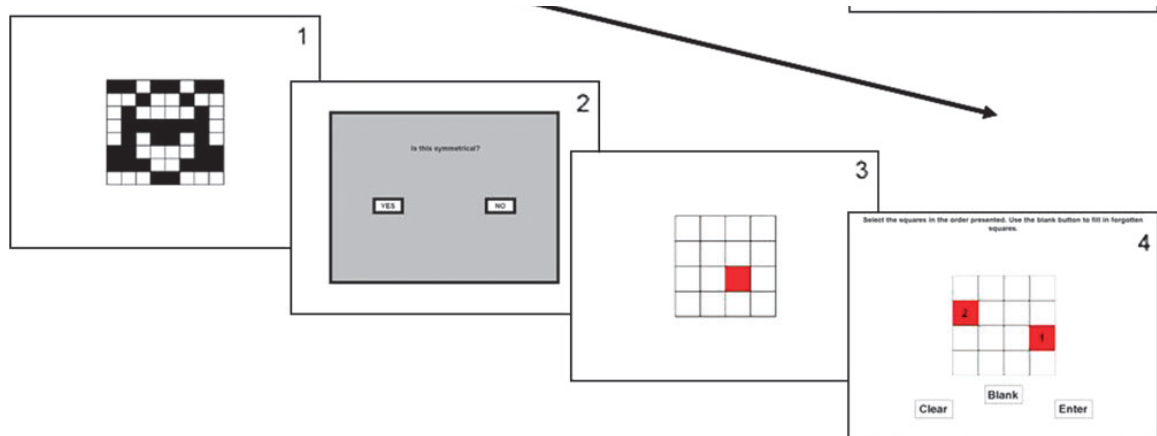
Participants were presented with the following materials: a container screw cap, a container, a wire hook, and an assembly with a tall tube and beaker. The tube contains a cork at the bottom, and the beaker is filled 2/3rds with water and has a lid with a hole in the center. Participants were instructed to remove the cork from the tall tube adhering to the rules described above (Wilson et al., 1996).

Brixton Test (van den Berg et al., 2009).



An illustration of an actual sequence from the test. The text at the right of each “page” denotes the circle that participants should choose as the placement of the circle on the next “page.” The implicit rule for this set is circle placement alternating between location 5 and 10.

Automated Symmetry Span (graphic adapted from Barch et al., 2009).



The numbers in the corner indicate presentation order and are not visible to participants. Participants must remember the sequence of the presentation of the red block in the grid for each trial. Panel 4 represents the memory test that is given at the end of each trial.

The schedule for each session of the project was one of the following:

Version 1: Demographic Questionnaire, 2x3 MLAT, Automated Symmetry Span, WMS-IV Logical Memory I, D-KEFS- Tower Test, BADS- Mazes, WMS-IV Logical Memory II, Haylings Test, BADS- Zoo Map Test, Brixton Test, AMI, BADS- APT, Task Familiarity/Frequency Ratings

Version 2: Demographic Questionnaire, 2x3 MLAT, WMS-IV Logical Memory I, Brixton Test, BADS- Mazes, BADS- APT, WMS- Logical Memory II, D-KEFS- Tower Test, Haylings Test, AMI, BADS- Zoo Map, Automated Symmetry Span, Task Familiarity/Frequency Ratings

Version 3: Demographic Questionnaire, 2x3 MLAT, Automated Symmetry Span, BADS- Mazes, WMS- Logical Memory I, BADS- APT, D-KEFS- Tower Test, WMS- IV Logical Memory II, Haylings Test, Brixton Test, AMI, BADS- Zoo Map, Task Familiarity/Frequency Ratings

Version 4: Demographic Questionnaire, 2x3 MLAT, Haylings Test, BADS- Zoo Map, Brixton Test, Automated Symmetry Span, WMS-IV Logical Memory I, D-KEFS- Tower Test, BADS- Mazes, WMS-IV Logical Memory II, BADS- APT, AMI, Task Familiarity/Frequency Ratings

Version 5: Demographic Questionnaire, 2x3 MLAT, WMS-IV Logical Memory I, Brixton Test, BADS- Zoo Map, BADS- Mazes, WMS-IV Logical Memory II, Automated Symmetry Span, AMI, D-KEFS- Tower Test, Haylings Test, BADS- APT, Task Familiarity/Frequency Ratings