

## Supplementary Materials: Test instructions

The following instructions supplement the description of the neuropsychological tests in Table 3.

### Language

#### DO 80

The instructions are to give the name of the picture presented, without strict time constraints, and to say only one word to be as precise as possible and try to be brief. Self-corrections are allowed only if they are spontaneous. There will be a strict evaluation: only expected answers will be accepted. The non-dominant answers listed in the manual (Deloche & Hannequin, 1997) are not accepted and are considered incorrect.

The score is equal to the number of correct answers (/80).

### Memory

#### FCSRT-Fr

**Immediate recall:** The examiner asks the subject to memorize all the 4 words shown on a board. To do this, the subject shows and reads aloud the item that corresponds to the given cue (e.g. which one is a fish, which one is clothing). When all four items on a card have been correctly identified, the examiner removes the board and provides the categorical cues. The subject is asked to recall the corresponding items.

If certain words are not recalled on the first attempt, the examiner repeats the encoding for the unrecalled items until a third and final selective encoding with immediate cued recall. The same procedure is used for the other three cards. Intrusions are noted.

The score is equal to the number of correct items (/16)

**Distracting task:** After presentation and successful immediate cued recall of the fourth card, the subject is given a distracting task for 20 seconds (e.g. countdown from 374).

**Free and cued recalls:** The subject is asked to recall as many of the words on the boards as possible, in any order, within two minutes. Free recall is followed by cued recall for items not recalled spontaneously or for errors. The subject has 10 seconds per item to recall each item. The examiner gives the correct answer at the end of the 10 seconds or in the case of an error.

Then, 2 more recalls are administered. Each cued recall is followed by a 20-second countdown task. During the third cued recall, the examiner does not give the subject a response, even if there is an error or no response.

The Free Recalls score is equal to the sum of the number of correct items produced during the 3 free recalls (/48), and the Total Recalls score is equal to the sum of the number of correct items produced during the 3 cued recalls plus the 3 free recalls (/48)

**Recognition:** Immediately after the countdown following the third trial, a yes/no recognition test is proposed, in which the subject must recognize the 16 target items mixed with 16 semantic distractors (for the core list) and 16 neutral distractors presented sequentially.

The score is equal to the number of correct recognitions (/16)

**20-Minute Delayed Recall Tasks:** Twenty minutes later, a Delayed Recall task is administered using the same procedure as for the Free and Cued Recall phases.

The Delayed Free Recall score is equal to the sum of the number of correct items (/16), and the Delayed Total Recall score is equal to the sum of the number of correct items produced during Cued Recall plus the Free Recall (/16).

## **DMS-48**

A series of 48 pictures is presented in sequence. For each one, the subject is asked to say whether it contains more or less than three colors.

The stopwatch should start when the first picture is presented. There must be a 3-minute delay before the first recognition phase, during which a distracting verbal task is administered.

The examiner then shows pairs of pictures, one of which has already been presented during the encoding phase. The subject must show the one already seen.

The stopwatch starts at the first picture. The examiner does not correct errors. The instructions are therefore to take time to answer and to look carefully at the two pictures before responding. The subject must give an answer, if necessary, by forced choice. The subject is not told that there will be a second phase one hour later.

The second phase takes place approximately 1 hour after the first presentation, following the same instructions.

Each correct immediate and delayed recognition is worth 1 point. The time for each phase is recorded.

## **Visuospatial abilities**

### **RCFT**

The subject is first asked to copy the figure as accurately as possible. Immediately after completing the copy, the subject is asked to draw the figure from memory as accurately as possible. The examiner does not tell the subject that he or she will then be asked to reproduce the figure from memory.

20 minutes after the immediate recall the examiner asks the subject to draw the figure from memory again.

The score is made up of 18 items marked from 0 to 2 points (/36). Time is recorded for each phase.

## **Attention and executive function**

### **Fluency tasks**

**Litteral Fluency:** The subject has two minutes to say as many words as possible that begin with the letter given by the examiner. An example is given with the letter M. The subject cannot make any proper nouns or derivative nouns from the items already said. The subject is then asked to say as many French names as possible that begin with the letter P.

**Semantic Fluency:** The subject has two minutes to say as many words in a semantic category as possible, without repeating them or without giving any derivatives. The category "plants" is given as an example.

The subject is then asked to say as many animal names as possible.

### **Stroop Test**

**Naming:** A board with 100 colored rectangles is placed in front of the subject, who has to name the colors line by line, as quickly as possible.

**Reading:** A board with 100 color names (red, green, or blue) written in black is placed in front of the subject. The respondent has to read the name of the 3 colors as quickly as possible, line by line.

**Interference:** A board with 100 color names written in 3 colors (red, green, or blue). The subject has to say which color they are written in, as quickly as possible, line by line.

Time and uncorrected errors are recorded for each subtest, as well as the difference in time and uncorrected errors between the Naming and Interference subtests.

### **Trail Making Test**

**TMT A:** The subject has to connect numbers from 1 to 25 in ascending order as quickly as possible while keeping the pencil on the paper.

**TMT B:** The subject is given a board with numbers (1 to 13) and letters of the alphabet (A to L). The subject has to connect them in ascending order as quickly as possible, alternately connecting a number and a letter, while keeping the pencil on the paper.

Time and errors are recorded for each subtest, as well as the difference between the times and the difference between the errors in the two subtests.

### **Digit Span**

**Forward:** The subject must repeat the numbers given aloud by the examiner in the same order.

**Backward:** The numbers read aloud by the examiner must be repeated in reverse order.

**Sequencing:** The subject is asked to repeat the numbers in ascending order, starting with the smallest. Each correctly recalled item is worth 1 point (/16 for each subtest). The span is equal to the size of the longest series correctly recalled for each subtest.

### **Speed of processing**

#### **Coding**

The subject is asked to make associations between symbols and numbers as quickly as possible, without making any errors, within a time limit.

The score is based on the number of boxes filled correctly (/135).

### **Gestural praxis**

#### **MLB**

**Symbolic Gestures:** The subject is asked to perform the following 5 symbolic gestures: give a military salute, ask for silence, "shh! ", show that it smells bad, show that someone is crazy, blow a kiss. Each correct gesture is worth 1 point (/5).

**Action Mimes:** The subject must imitate 5 actions: hammering a nail, tearing a sheet of paper in half, lighting a match, combing one's hair, drinking from a glass. Each gesture is scored from 0 to 2 points, depending on the accuracy of the execution (/10).

**Meaningless Gestures:** The subject is asked to reproduce the same series of 8 meaningless gestures as the examiner, using the same hand as the examiner (see description in Mahieux-Laurent et al., 2009). Each correctly performed gesture is worth 1 point (/8).