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## TOWER OF LONDON

kategorie: Kognitivní testy  
předmět: Kognitivní systémy  
vypsal: Karla Št?pánová, 2011

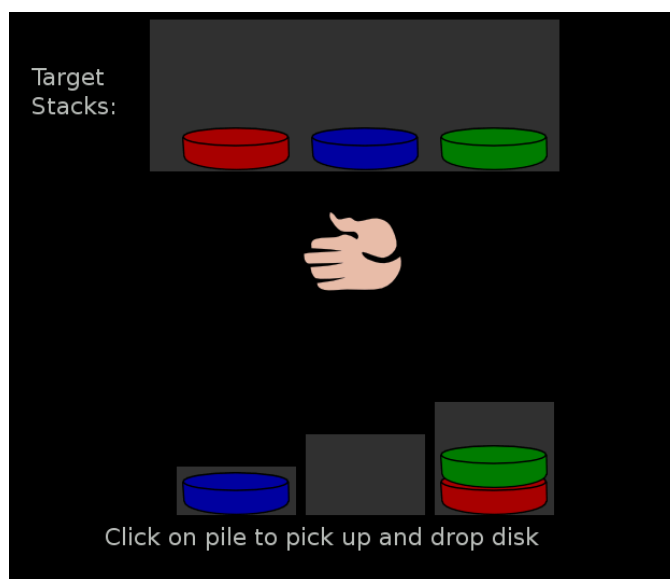
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*Komu zadáno:*

*Datum:*

## 1 Popis úlohy

The Tower of London test is a well-known test used in applied clinical neuropsychology for the assessment of executive functioning specifically to detect deficits in planning, which may occur due to a variety of medical and neuropsychiatric conditions. It is related to the classic problem-solving puzzle known as the Tower of Hanoi. The test consists of two boards with pegs and several beads with different colors. The examiner (usually a clinical psychologist or a neuropsychologist) uses the beads and the boards to present the examinee with problem-solving tasks. Several variants of the test exist. Shallice's original test used three beads and pegs with different heights, although later researchers have generalized this to more beads without a peg height restriction. Versions of the test are available from a number of sources, including a stand-alone test by William Culbertson and Eric Zillmer (published by Drexel University) and a child/adolescent version that is part of the original NEPSY neuropsychological battery of tests by Marit Korkman, Ursula Kirk, and Sally Kemp (although removed from the second edition). A computerised variant, known as the Stockings of Cambridge test, is available as part of the Cambridge Neuropsychological Test Automated Battery (CANTAB). One common use is for diagnosis of executive impairment. The performance of the examinee is compared to representative samples of individuals of the same age to derive hypotheses about the person's executive cognitive ability, especially as it may relate to brain damage. A certain degree of controversy surrounds the test's construct validity.[1]

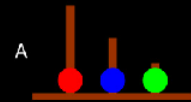


## 2 Detaily zadání

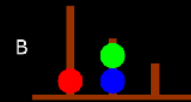
Úlohu Tower of London převést do češtiny a naimplementovat v Matlabu (jako součást Psycheeg toolboxu). Jednotlivé úlohy by měly vypadat následovně (viz. [2]):

1. Na obrazovce úvod k testu (viz. [2])
2. Úloha různé složitosti + na kolik přesunů bylo možné vyřešit (viz. obrázek níže)
3. Zpětný feedback jaká byla správná odpověď a co odpověďli

*Tester reads aloud:*  
 Your task will be to tell me how many moves would have to be made to make the arrangement of balls in picture 'A' look like the arrangements of balls in picture 'B'

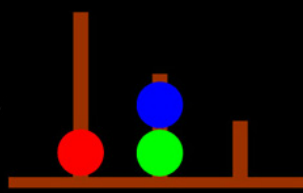


A

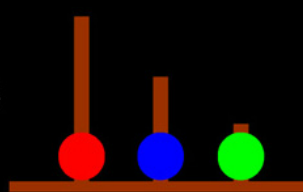


B

Imagine that the balls in picture 'B' are fixed in place, but the balls in picture 'A' are movable. You have to move them to make picture 'A' look like picture 'B'. It is considered one move when you take a ball from one peg and place it on another. You can only move one ball at a time. Sometime you will have to move a ball to a different peg in order to get to the ball below it. During this task it is important that you remember, you are imagining the FEWEST POSSIBLE MOVES that are required to make picture 'A' look like picture 'B'. You will have 20 seconds to make your decision.  
*Tester: press <Spacebar> to continue*



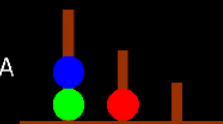
A



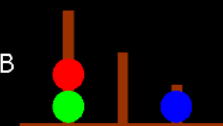
B

0 1 2 3 4 5 6 7 8 9

Your Response : 2  
 Correct Response : 2



A



B

Explain to me how you made picture 'A' look like picture 'B'.  
*Tester: If participant is unable to make picture 'A' look like picture 'B', please explain. Let's try another example.*  
*Tester: press <Spacebar> to continue*

## 2.1 Implementace do Psycheeg toolboxu

### References

- [1] [http://en.wikipedia.org/wiki/Tower\\_of\\_London\\_test](http://en.wikipedia.org/wiki/Tower_of_London_test)  
[http://cogtest.com/tests/bacs\\_nonint/tlflash1.htm](http://cogtest.com/tests/bacs_nonint/tlflash1.htm)

[2]