International Collaboration on Computerized DT Scoring

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**1. Metadata for “Rus-DT-AUT S1”**

The data have been published in *Intelligence* (Miroshnik & Shcherbakova, 2019). The sample included 114 students (75.4% females; *M*age = 20.47, *SD*age = 1.68) from several universities of Saint Petersburg, Russia. Each participant was tested individually or in groups of 2–5. Participants completed unusual uses tasks for a newspaper and a wooden ruler under “be creative” instruction. Here, we provide the full verbatim:

You will be given an ordinary household item that has a specific purpose, with which you are familiar with. Your task is to come up with as many unusual and non-standard uses as possible. Be original. Do not try to evaluate the quality of your ideas. Just offer as non-standard and original ideas as you can. Write down your ideas briefly but clearly. Start each new idea on a new line. You will have 3 minutes to complete the task.

To assess creativity of every response, we applied the subjective scoring method (Silvia et al., 2008). Three psychologists (Ph.D. professor and two graduate students), including both authors of the paper, acted as judges. All judges had a basic level of training in the domain of creativity assessment and were familiar with the rules of scoring for divergent thinking tasks. Prior to the assessment procedure, all judges took part in a short training session aimed at clarifying and common understanding of all the criteria (uncommonness, remoteness, and cleverness), which were listed in the instruction for judges. The instruction for judges was adapted from Silvia et al. (2008). Three judges worked independently and rated every response in both tasks on a 5-point scale (1 = *not at all creative*, 5 = *very creative*).

**2. Metadata for “Rus-DT-AUT S2”**

The data comes from unpublished dataset provided by autonomous non-commercial organization “Gifted Youth” (https://spb-iq.ru/). The organization functions in St. Petersburg, Russia, and specializes in identifying intellectually gifted adolescents (IQ > 126) and nurturing their intellectual and creative potential. Each year, hundreds of 8th grade students participate in a large screening during which they have to complete a brief IQ measure. Those who pass a predefined IQ cutoff are invited to take part in the second tour. The second tour implies a more comprehensive diagnostics of intelligence and creative potential. The data described below comes from the second tour of diagnostics in April–May, 2018. The sample was comprised of 45 school students (56% females) aged 14–15 years who completed a full battery of psychological measures. Participants were tested in groups of 9–22. The measures included Universal Intelligence Test (UIT SPC-M; Baturin & Kurgansky, 2003), Torrance Test of Creative Thinking (TTCT; Tunik, 2013), Big Five Inventory (BFI; Shchebetenko et al., 2014), and Raven’s Advanced Progressive Matrices (RAPM; short version of 18 items; Raven et al., 1998). All measures are listed in the order of their administration. Here, we focus only on one TTCT subtest (i.e., Unusual Uses) and the BFI because they are the most relevant for the study. Participants completed the Unusual Uses task for cardboard boxes with a 10-minute limit under the modified manual’s instruction putting emphasis on “be creative.” Here, we provide the full verbatim (the modification is *in italics*):

Most people throw their empty cardboard boxes away, but they have thousands of interesting and unusual uses. In the spaces below and on the next page, list as many of these interesting and unusual uses as you can think of. Do not limit yourself to any one size of box. You may use as many boxes as you like. Do not limit yourself to the uses you have seen or heard about; think about as many new uses as you can. *Your main task is to suggest uses as creative as possible*.

To assess creativity of every response, we applied the subjective scoring method (Silvia et al., 2008). Three psychologists (two graduate students and I) acted as judges. All judges had a basic level of training in the domain of creativity assessment and were familiar with the rules of scoring for divergent thinking tasks. The instruction for judges was adapted from Silvia et al. (2008). Besides, judges were encouraged to rate no more than 200–250 ideas per day to minimize cognitive load (Forthmann et al., 2017). Three judges worked independently and rated every response on a 5-point scale (1 = *not at all creative*, 5 = *very creative*).

BFI consisted of 44 items encompassing Big Five personality traits: extraversion (8 items, ωt = .80; “generates a lot of enthusiasm”), agreeableness (9 items, ωt = .85; “is helpful and unselfish with others”), conscientiousness (9 items, ωt = .85; “is a reliable worker”), openness (10 items, ωt = .77; “has an active imagination”), and neuroticism (8 items, ωt = .84; “worries a lot”). Reliability coefficients are reported for omega total based on polychoric correlations (Gadermann et al., 2012).

**3. References**

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**4. Coding scheme**

Table A1

*Coding Scheme for «Rus-DT-AUT.xlsx»*

|  |  |  |
| --- | --- | --- |
| **List** | **Variable** | **Description** |
| Dataset S1 | id | unique response identifier |
|  | item | DT prompt (газета = “*newspaper*”; деревянная линейка = “*wooden ruler*”) |
|  | response | participant’s response |
|  | coder1 | rating of the 1st coder |
|  | coder2 | rating of the 2nd coder |
|  | coder3 | rating of the 3rd coder |
| Dataset S2 | id | unique response identifier |
|  | item | DT prompt (картонная коробка = “*box*”) |
|  | response | participant’s response |
|  | coder1 | rating of the 1st coder |
|  | coder2 | rating of the 2nd coder |
|  | coder3 | rating of the 3rd coder |
|  | RAPM-Gf | fluid intelligence (out of 18 items) |
|  | BFI-Extraversion | extraversion (Big Five) |
|  | BFI-Agreeableness | agreeableness (Big Five) |
|  | BFI-Consciousness | consciousness (Big Five) |
|  | BFI-Openness | openness (Big Five) |
|  | BFI-Neuroticism | neuroticism (Big Five) |

*Note*. BFI = Big Five Inventory; DT = divergent thinking; RAPM = Raven’s Advanced Progressive Matrices