THE BEHAVIOR ASSESSMENT BATTERY FOR CHILDREN AND ADOLESCENTS: A SELF-REPORT GPS TO TREATMENT

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MAIN OBJECTIVE

The Dutch version of the BAB was normed in 2003. In the meantime, the tests have been updated, revised, and shortened. The aim of the present study was to obtain norms for the revised BAB for Dutch speaking Children and Adolescents and to scrutinize its psychometric properties.

INTRODUCTION

- The Behavior Assessment Battery (BAB) for children and adults has been in **existence for many decades** (Brutten, 1973; Brutten & Vanryckeghem, 2003, 2007; Vanryckeghem & Brutten, 2018, 2022).

- Over the years, its sub-tests have been revised and updated, reflecting changes in everyday life, and have been researched in **30+ countries**.

- The BAB consists of four self-report tests that investigate the **Affective, Behavioral and Cognitive dimensions** that typically manifest itself within the individual who stutters:
  - The Speech-Situation Checklist-Emotional Reaction (SSC-ER)
  - The Speech-Situation Checklist-Speech Disruption (SSC-SD)
  - Communication Attitude Test (CAT)
  - Behavior Checklist (BCL)

- The BAB is not only a differential diagnostic assessment instrument, but the client's answer to the sub-tests' items, their inside view, serves to **guide the treatment targets**.

METHODOLOGY

160 Dutch speaking children and adolescents (6;00-16;00)
- 32 CWS (24M, 8F; *M* = 11.55; *SD* = 3.59)
- 128 CWNS (63M, 65F; *M* = 11.60; *SD* = 3.04)
- Urban/rural areas Flanders (n = 159) and Netherlands (n = 1)

Inclusion criteria
- Dutch as L1
- No history of speech & language, neurological, psychological and/or hearing problems

BAB-Revised (Vanryckeghem & Brutten, 2022)
- Self-report gauging prevalence of situational anxiety, speech disruptions, negative thinking, and coping behaviors among CWS.

SSC-ER: identifies the speaker's anxiety, fear, worry, and concern about speaking in particular situations (36 items).

How do you feel when you...
are asked to respond to a question in class?

| Not afraid | A little afraid | More than a little afraid | Much afraid | Very much afraid |

SSC-SD: indicates the extent of speech disruption in the same speech situations as described in SSC-ER (36 items).

How is your speech when you...
give a presentation in class or talk in front of a group?

| No trouble | A little trouble | More than a little trouble | Much trouble | Very much trouble |

CAT: investigates CWS' speech-associated beliefs, or how they think about their way of speaking (26 items).

I like the way I talk.

| True | False |

BCL: provides an inventory of behaviors secondary to stuttering used to avoid or escape a stutter (30 items).

To help get your sounds or words come out without trouble, do you ...
Look away from the person you are talking to?

| Yes | No |

Online study
- Qualtrics-survey, sub-tests in randomized order
- Administration children ↔ adolescents

RESULTS

Table 1: Measures of Central Tendency and Variation for CWNS and CWS on the Speech Situation Checklist (SSC-ER and SSC-SD).

	CWNS		CWS	
	SSC-ER	SSC-SD	SSC-ER	SSC-SD
Mean	54.99	47.26	66.06	80.00
Stand. dev.	12.69	11.92	23.50	23.47
Median	52	44	60.50	72.50
Mode	47	36	45	71
Min.	36	36	37	46
Max.	94	88	126	139

Table 2: Measures of Central Tendency and Variation for CWNS and CWS on the Communication Attitude Test.

	CWNS	CWS
Mean	3.47	12.44
Stand. dev.	2.41	4.83
Median	3	12.50
Mode	2	13
Min.	0	3
Max.	10	23

Table 3: Measures of Central Tendency and Variation for CWNS and CWS on the Behavior Checklist.

	CWNS	CWS
Mean	4.03	11.93
Stand. dev.	4.65	6.46
Median	2	13
Mode	0	16
Min.	0	1
Max.	17	23

- All four BAB tests (Table 1, 2, 3) are capable of **differentiating the group of CWS from the group of CWNS** to a statistically significant extent (SSC-ER: t=3.619, p<.001; SSC-SD: t=10.957, p<.001; CAT: t=14.939, p<.001; BCL: t=7.639, p<.001).
- **Effect sizes were very large** for SSC-SD (d= 2.18; CI= 1.7181/2.6375), CAT (d= 2.95, CI= 2.4496/3.4573), and BCL (d= 1.57; CI= 1.1297/2.0084). Effect size for SSC-ER was close to large (d=0.72, CI= 0.3204/1.1123).
- For SSC-SD, CWS scored 3 SD above CWNS. For CAT, the difference was close to 4 SD.
- **Discriminant analysis is high** for all tests.
  - SSC-ER: CWS: 53% correctly classified; CWNS: 98% correctly classified; Total: 89% correctly classified. Cross-validation: 79% correctly classified.
  - SSC-SD: CWS: 84% correctly classified; CWNS: 100% correctly classified; Total: 97% correctly classified. Cross-validation: 88% correctly classified.
  - CAT: CWS: 94% correctly classified; CWNS: 98% correctly classified; Total: 98% correctly classified. Cross-validation: 94% correctly classified.
  - BCL: CWS: 82% correctly classified; CWNS: 99% correctly classified; Total: 96% correctly classified. Cross-validation: 86% correctly classified.
- CWS report a **significant amount of anxiety** and **speech disruption** in particular situations, **negative speech-associated thinking**, and the use of a significant number of **coping behaviors**.
- **Gender did not influence** the BAB results (neither groups).
- **Internal reliability** revealed a Cronbach alpha for CWNS and CWS of respectively .91 and .96 for SSC-ER, .94 and .94 for SSC-SD, of .64 and .80 for CAT, and .88 and .87 for BCL.

CONCLUSION

1. Data **in line** with previous investigations (e.g., BAB 2003).
2. Each BAB sub-test capable of **differentiating** CWS from CWNS.
3. BAB-items as a **GPS to treatment** (relates to specific challenging speech situations, negative communication attitude and the use of concomitant behaviors).

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