Relationships between WISC-IV scores, self-perceived ability and self-esteem

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INTRODUCTION

- Relationships between self-assessed intelligence and test performance are generally moderate ($r = \pm .30$).
- Meta-analyses have indicated that gender plays an important role, because males provided higher self-estimates of spatial or mathematical abilities than females.
- It has also been shown that self-esteem influences self-estimates of intelligence.

OBJECTIVE

The objective of this study was to investigate the relationships between intelligence, self-perceived abilities and self-esteem for girls and boys.

METHOD

Sample

- 173 non clinical French-speaking children.
  - Girls: N = 98 and Boys: N = 75
  - Aged from 7 to 12 years.
  - None of them has doubled or skipped class.

Procedure

- The 10 core subtests of the WISC-IV were administered to all children in order to calculate the FSIQ and the four index score.
- Self-perceived of school abilities were obtained used a French adaptation of the Perceived Ability in School Scale (SPA; Furnham & Chamorro-Premuzic, 2004).
  - 3 items of language, 3 items of mathematics, 3 items of sciences.
- Self-esteem was assessed using 8 items of the Multiscore Depression Inventory for Children (MDI-C; Berndt & Kaiser, 1999).
- Self-concept was obtained used a French adaptation of the Self-concept scale for children (SC; Lipsitt, 1958).

Analyses

- T-tests were conducted to compare the means between girls and boys on FSIQ, index scores (VCI, PRI, WMI, PSI), self-perceived (SPA), self-esteem (MDI-C) and self-concept (SC).
- Three hierarchical multiple regressions were performed.
  - Self-esteem (MDI-C, SC) as the independent variable (VI) and self-perceived abilities (SPA) as the dependent variables (VD).
  - FSIQ and the four index scores as the independent variables (VI) and the 3 factors self-perceived abilities (language, mathematics, sciences) as the dependent variables (VD).

RESULTS

1. Does difference across gender predict FSIQ and the 4 index scores?

- Only for Processing speed index score, girls outperform boys.

2. Does difference across gender predict self-perceived school ability and self-esteem?

- No sex difference is found for self-perceived school ability (SPA).
- No sex difference is found for self-esteem (MDI-C, SC).

3. Does self-esteem predict self-perceived abilities?

- Self-esteem doesn’t predict any self-perceived school ability (MDI-C: $\beta = .03$, $p = .82$; SC: $\beta = .35$, $p < .05$).

4. Does FSIQ and index scores (VCI, PRI, WMI, PSI) predict self-perceived abilities in language, mathematics or sciences?

- Perceptual Reasoning index predicts self-perceived language ($\beta = .22$; $p < .01$).
- FSIQ predicts self-perceived mathematics ($\beta = .17$; $p < .05$).

CONCLUSIONS

- In contrast with previous meta-analyses, our data don’t support the hypothesis that boys provide significantly higher self-estimates than girls.
- The present results don’t support that boys tend to have higher self-esteem than girls.
- Contrary to what we thought, self-esteem does not predict self-perceived school ability.