Autistic-like traits in the Dutch population

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Objectives

I. To examine the validity of the Dutch translation of the Autism-spectrum Quotient (AQ).
II. To study assortative mating (non-random choice of partner) for autistic-like traits.
III. To estimate genetic and environmental influences on individual differences in autistic-like traits.

Subjects

I. General population sample (n = 302)
   - Student sample (n = 961)
   - 3 matched patient groups:
     - Autism spectrum conditions (ASC, n = 12)
     - Social anxiety disorder (SAD, n = 12)
     - Obsessive compulsive disorder (OCD, n = 12)
II. Spouses from general population sample (n = 129 pairs)
III. 18-year-old twin pairs (n = 194 pairs) and their siblings (n = 94)

Measure

Raw total AQ scores (min.= 50: no autistic traits; max. = 200: full endorsement on autistic traits)

Statistics/genetic modelling

I. Mixed model ANOVA to examine sex- and group differences
II. Pearson’s correlation
III. Comparison of resemblance in identical (MZ) twins with resemblance in non-identical (DZ) twins and siblings

Results

I. Men score higher than women (p=.019)
   - Science students score higher than non-science students (p<.001)
   - ASC score higher than SAD/OCD patients (p<.001)
   - Test-retest reliability: r = .78; internal consistency: α = .79
II. No assortative mating for AQ: correlation = -.02
III. MZ twin correlations are higher than DZ correlations

Genetic influences (A) could explain 56% of the variation in both boys and girls. The remaining proportion, 44%, was accounted for by non-shared environmental influences (E).

Conclusions

The Dutch translation of the AQ is a valid instrument to measure autistic-like traits; these traits show substantial heritability.