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TITLE: The Flynn Effect across three WISC versions and four decades in a single sample of U.S. children

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ABSTRACT:
The secular rise in IQ scores over time, known as the *Flynn Effect*, is typically documented by observing increasing mean scores in a sample across repeated assessments using different test versions. Other evidence comes from studies of military conscripts, wherein cohorts from more recent generations scored systematically higher than previous cohorts on the same test version. Each of these approaches have distinct strengths and limitations. Results of previous studies suggest that the strength of the Flynn Effect fluctuates across cognitive domains, leading some to question whether rises in cognitive ability scores reflect genuine increases in general intelligence (*g*).

In this study, we examined the Flynn Effect across late childhood and early adolescence (ages 7-15 years) in data from the Louisville Twin Study. Three versions of the WISC were administered over 40 years of data collection (1957-1999), generating comprehensive, longitudinal subtest data. This unique data structure enabled us to test for both test version and cohort effects simultaneously in a single sample, which had not been done previously. Using three SEM models (latent growth curve; longitudinal multiple indicators, multiple causes (MIMIC); exploratory bi-factor MIMIC), we observed the Flynn Effect as decreases in mean performance upon test re-standardization, and as gains in mean performance across generational cohorts. Flynn Effect magnitude varied across subtests in a manner that was not strictly proportional to subtests' *g*-loadings. We argue that these gains reflect important changes in intelligence, regardless of whether or not they are driven by gains in *g*.

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