individual differences in school

• individual vs. group differences in psych
  • why care about individual differences?
    ▪ explaining current performance
    ▪ predicting outcomes in individual students
      • special populations (disabilities)
      • figuring out “what goes with what”
      • designing interventions for specific subgroup
difficulty of explaining IDs

- stability of traits limited by:
  - situation
  - person x situation
  - measurement error
  - random error

  - example: ELBW children (<1 kg) (Sajamieni et al 2001)
    - cognitive/language dev from 2 to 4 years
      - $r = .73$ (50% shared variance)
kinds of individual differences

- predictive sub-groups:

- 2-year cognitive: \( x\% \)
- gender: \( y\% \)
- ELBW: \( z\% \)

\( [x+y+z]\)?
difficulty of explaining IDs

- stability of traits limited by:
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- **example: ELBW children** (<1 kg) (Sajamieni et al 2001)
  - cognitive/language dev from 2 to 4 years
    - \( r = .73 \) (50% shared variance)
    - more complication:
      - scores at 2 predict IQ at 4 for GIRLS ONLY
      - in boys, IQ at 4 predicted by 2-yr temperament (orientation-engagement)
kinds of individual differences

• in preschool development
  ▶ cognitive/language skills (predictive? causal?)
  ▶ social skills (what kinds for school?)

• in prior achievement
  ▶ aptitude: hard to separate from achievement
  ▶ knowledge begets knowledge: “Matthew effect”

• in behavioral patterns
  ▶ ex: homework habits

• in attitudes, goals, values, and affect
one aspect: learning disabilities

• math disabilities
  [other kinds?]

• reading disabilities
  ◆ high rate in children with SLI* (Tallal: “LLI”)
    ▪ cause of dyslexia controversial; possible basis in phonological processing problem? (Tallal)
    ▪ what is the point?
    ▪ putative cause of LLI?
    ▪ remediation/therapy: does the neuroscience pan out?
      • not advocating FastForWord