Are Individual Differences in Individualism and Collectivism Associated with High-level Cognitive Abilities?

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Background

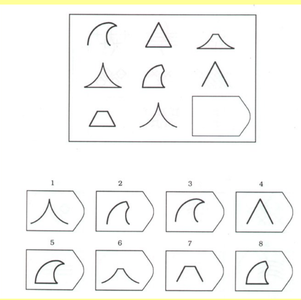
- Individuals within societies tend to express different levels of cultural orientation.
- Asian cultures, especially in Eastern regions, are associated with collectivist styles.
- The same region also shows differences from Western cultures in high-level cognitions. One example is that children develop executive functions more quickly in some East Asian countries.
- Past research has linked collectivism to better executive function in people in the US.
- In contrast, cultures that are more individualistic tend to have higher national IQ scores.
- We aimed to examine how individualism and collectivism relate to executive functions and fluid intelligence in a sample of 50 Thai university students.

Methods

- 50 Thai psychology students at Chulalongkorn University (Thai program).
- All completed:
  - A questionnaire on Horizontal and Vertical Individualism and Collectivism.
  - Raven's Matrices (a measure of fluid intelligence, Figure 1).
  - Jansari assessment of Executive Functions (JEF©, a computerized role-play test, Figure 2).

Figure 2: Scene from JEF

Figure 1: Sample task from Raven's Matrices



Results

- There was a significant
- negative correlation between
- Horizontal Individualism and Executive Function performance, r = -.262, p = .016

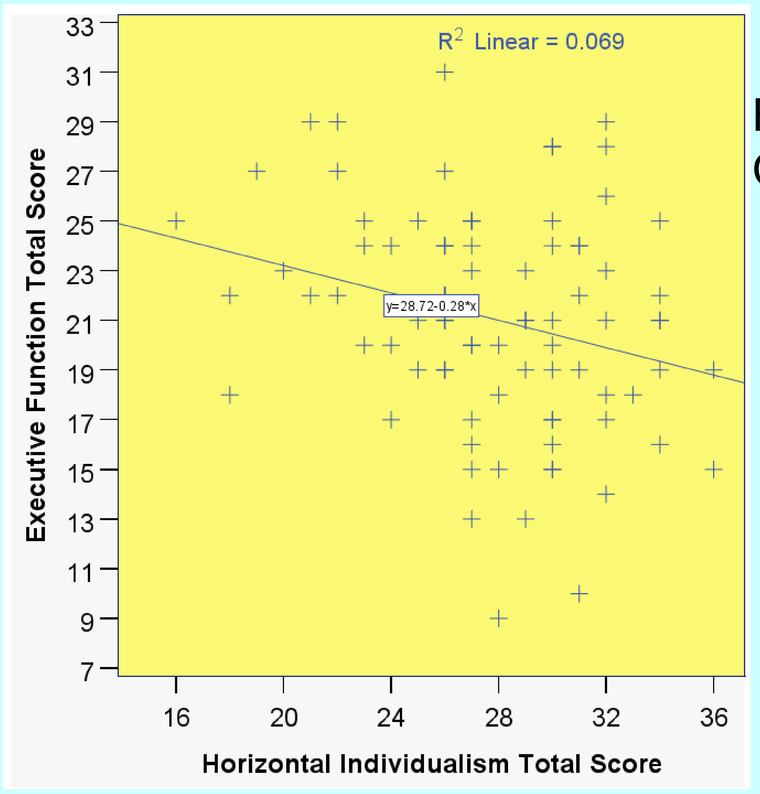


Figure 3: Correlation

- None of the other interpersonal interaction styles were associated with executive function.
- There was no association with fluid intelligence and interpersonal interaction styles.
- Regression analysis confirmed that Horizontal Individualism is related to Executive Function independently of Fluid Intelligence.

Discussion

- Our results partially align with the previous research from the USA.
- We extend the observation to younger participants from a collectivistic culture.
- In contrast, we did not find any association between cultural orientation and fluid intelligence.
- Our results provide insight into understanding the difference between executive function and intelligence, and advancing understanding of how they interact with cultural orientation.

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