Creation and Validation of an Open-Access Dictionary for Text-Based Personality Assessment

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Connections between language and personality

Rising amounts of text-data
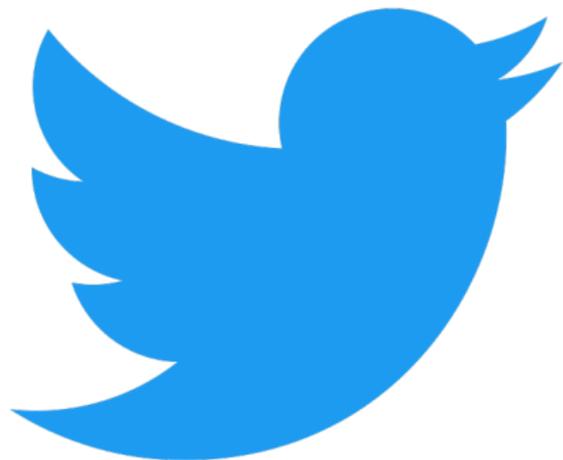
Opportunities of text-analysis

- Allows assessment:
    - fast
    - in large scales (Obschonka et al. 2020)
    - for persons or groups difficult to access
      (Obschonka, Fisch, and Boyd 2017)
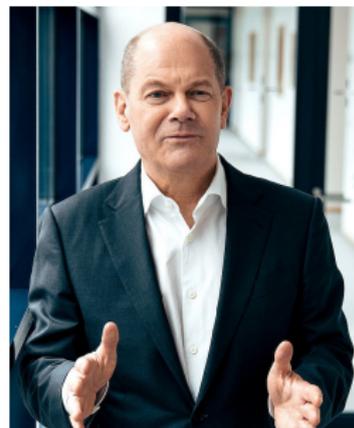
Our goal

- Develop and distribute Open-Source Open-Access Tool for Big Five Personality assessment from text

TV-show transcripts

- Freely available
- Large text corpus

- TV-show characters have personalities (Webster and Campbell 2021)

[Scene: *Central Perk*. Joey, Phoebe, Monica, and Chandler are there; Chandler is showing everyone his new computer.]

Chandler: All right, check out this bad boy. 12 megabytes of ram. 500 megabyte hard drive. Built-in spreadsheet capabilities and a modem that transmits at over 28,000 b.p.s.
Phoebe: Wow. What are you gonna use it for?
Chandler: [doggedly] Games and stuff.

Example of a Transcript of Friends, Season 2, Episode 8, The One With The List

What we've done so far

- Looking at three shows:
  - the BIG BANG THEORY · how i met your mother · F·R·I·E·N·D·S
- Scraping transcripts
- Assessing main character personality
  - Open Science Grant
 - Prolific
  - 300 rater per show
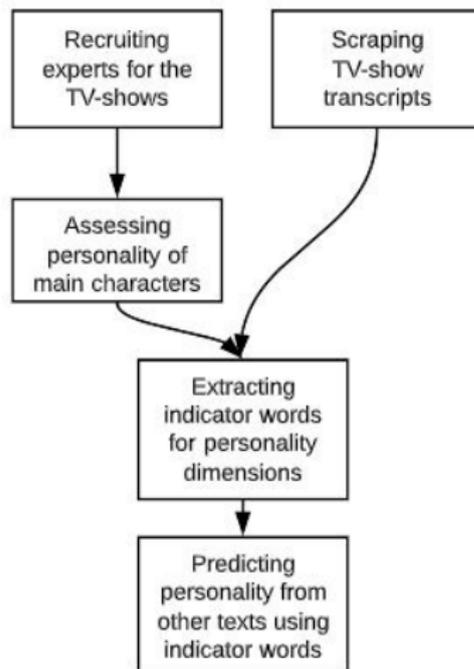
Preliminary results

- Psychometrically sound personality ratings
  - Factor analysis shows 5 factors reflecting Big Five
  - Excellent interrater agreement (ICCs range [.8, .99])
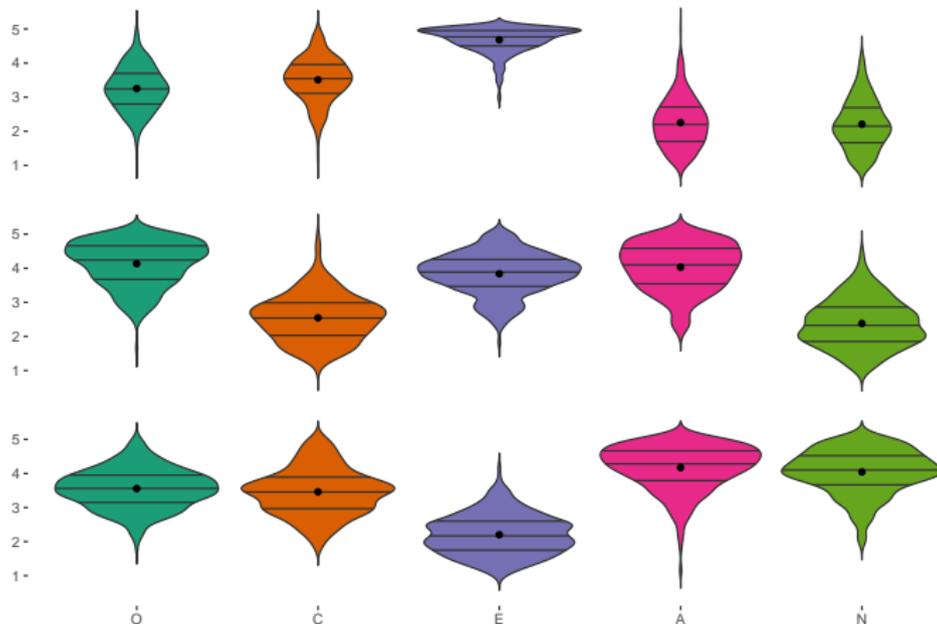
Violin plots of the expert ratings of the personality of the TV–show characters.
Horizontal lines are Quartiles and Median, dots are Mean.
O = Open–Mindedness, C = Conscientiousness, E = Extraversion, A = Agreeableness, N = Negative Emotionality

Conclusion

- Personality of TV-show characters is measurable
- (Some) meaningful correlations between words and personality
- Next steps
    - Larger data base
    - More sophisticated methods

References

Obschonka, Martin, Christian Fisch, and Ryan Boyd. 2017. "Using digital footprints in entrepreneurship research: A Twitter-based personality analysis of superstar entrepreneurs and managers." *Journal of Business Venturing Insights* 8 (February): 13–23. https://doi.org/10.1016/j.jbvi.2017.05.005.

Obschonka, Martin, Neil Lee, Andrés Rodríguez-Pose, Johannes C. Eichstaedt, and Tobias Ebert. 2020. "Big data methods, social media, and the psychology of entrepreneurial regions: capturing cross-county personality traits and their impact on entrepreneurship in the USA." *Small Business Economics* 55 (October): 567–88. https://doi.org/10.1007/s11187-019-00204-2.

Webster, Gregory D., and Jessica T. Campbell. 2021. "Personality perception in Game of Thrones: Character Consensus and Personality Projection." https://psyarxiv.com/8xnd5/.