Personality & Lost Work Time: Connections and Interventions

Dan Mroczek, Ph.D.
daniel.mroczek@northwestern.edu
David M. Condon, MBA, Ph.D.
Northwestern University

Mitesh Rao, MD, MPH
Stanford University and Stanford Healthcare
Overview

- Behavioral & psychological characteristics of individuals, especially personality traits (e.g. Big 5), strongly influence health and longevity.
- Traits also predict work cutbacks and lost income due to health reasons.
- *How do we leverage these data to improve employee wellness and health initiatives?*
- We’ll conclude with practical solutions we’ve developed.
Personality Traits Predict Health, Wellness, Longevity and Work Performance and Engagement

- Personality encapsulates individuality – what makes each person unique.
- People are not interchangeable.
- Personality traits impact: 1) how healthy we are, 2) how long we live, and 3) how well we perform on the job, including job turnover.
Conscientiousness Effect on Mortality
N = 31,358 (Graham, Mroczek et al., 2016)
Neuroticism Change and Longevity
N=1,643 (Mroczek & Spiro, 2007)

**Probability of Survival**

- **Neuroticism Rate**
  - a: Low-Average, Decreasing
  - b: High-Average, Decreasing
  - c: Low-Average, Increasing
  - d: High-Average, Increasing

**Years**

- 0
- 4
- 8
- 12
- 16
Personality and Work Cutbacks
(Turiano, Mroczek et al., 2012)

• Used a national sample, Midlife in the U.S. (MIDUS), data from 10 year longitudinal follow-up: $N = 3,451$.

• Work cutbacks (lost work time) assessed with items asking about work loss and limitations in past 30 days because of physical health reasons.

• Measures *impairment* due to physical health, but captures some absenteeism as well.
Traits Predict Work Cutbacks Due to Health Reasons Over 10 Years (Turiano, Mroczek et al., 2012; N =3,451)

<table>
<thead>
<tr>
<th>Predictor</th>
<th>b (se)</th>
<th>Standardized coefficient</th>
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<tbody>
<tr>
<td><strong>Demographics</strong></td>
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<tr>
<td>Age</td>
<td>.92 (.14)**</td>
<td>.11</td>
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<tr>
<td>Gender</td>
<td>.21 (.15)</td>
<td>.03</td>
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<tr>
<td>Education</td>
<td>-.28 (.08)**</td>
<td>-.07</td>
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<td><strong>Personality (1995)</strong></td>
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<tr>
<td>Agreeableness</td>
<td>.04 (.09)</td>
<td>.01</td>
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<td>Conscientiousness</td>
<td>-.21 (.08)**</td>
<td>-.05</td>
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<tr>
<td>Extraversion</td>
<td>-.29 (.09)**</td>
<td>-.07</td>
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<td>Neuroticism</td>
<td>.14 (.07)*</td>
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<td>Openness</td>
<td>.19 (.09)*</td>
<td>.04</td>
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<td><strong>Personality Change</strong></td>
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<tr>
<td>Conscientiousness Chg.</td>
<td>-.19 (.07)**</td>
<td>-.04</td>
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Attaching income data to work cutbacks (Graham, Mroczek, 2015; N=4,516)

• Lost monetary amounts ranged from $3,451 to $8,144 annually (per standard deviation of a trait), depending on the personality trait.
• Added work cutbacks due to mental health in this study.
• By attaching income data to the results of Turiano et al. we obtain a rough estimate of how much money is lost to self or employer, due to personality-related work cutbacks attributable to physical & mental health.
• Considerable, given that U.S. median household income is about $52,000, and that profit margins for many small businesses is less than this.
Applying this work: Discovery with Delivery

- We can use personality trait measurements to more precisely identify who is most at risk for certain health outcomes.
- Organizations can *target and tailor* health and wellness resources toward the most high-risk people.
- Personality assessments may potentially be part of a *prevention toolkits* that organizations can use to improve health and lower health care costs.
How are we applying this work?

- Personality assessment is an exciting and efficient solution because it can help organizations save money by reducing healthcare costs and work cutbacks.
- In line with the increasing emphasis on Personalized/Precision Medicine and Person/Patient Engagement.
- Personalized Medicine tailors treatments and preventions based on individual characteristics.
We’re developing health-care plan tailoring software, based on assessment of individual differences in traits and other behavioral characteristics.
Personality assessments are used to assign health risk profiles.
Targeting and tailoring reminders and health-promotion tips, based on an individual’s personality-based risk.
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Contact: daniel.mroczek@northwestern.edu