

# A Second Glance

The Mastery-Oriented I/O Psychologist,  
Revisited

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# Research on Personality

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- We know personality tests are valid predictors job performance (Barrick & Mount, 1991; Hertz & Donovan, 2000)
- We also know personality tests have reduce adverse impact potential, especially compared to cognitive tests (Ployhart & Holtz, 2008)
- Most widely used personality model is the Five Factor Model, but there are more constructs with utility for predicting job performance
  - Need for achievement (McClelland, Atkinson, Clark, & Lowell, 1976),
  - Core self-evaluations (Judge & Bono, 2001)
  - Goal orientation (Phillips & Gully, 1997)

# Knowing Ourselves

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- I-O Psychologists as well as SIOP members, are generally not the subjects of these studies.
  - We run the studies, but not on other I-Os
- Do I-O Psychologists have elevated or reduced levels of certain personality traits?
  - These variables can be used as individual difference variables when hiring I-Os or admitting I-O graduate students
  - These can be targeted as areas of professional development
  - Job crafting to capitalize on I-O strengths

# Contributions of this Presentation

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- Examining personality trait scores by career types
  - Replicating previous research (Cottrell, Lobene, Martin, Boyce, and LePla, 2016)
  - Comparing I-Os to employees from 16 other jobs (within 6 industries)
  
- Examine RIASEC scores by career types
  - What stands out for I-Os?
  - How the compositions of vocational interests similar or different from other jobs/industries?

# ADEPT-15 Model

- Based on the Five Factor Model, but includes broader traits not measured by the Five Factor Model

Five Factor Model (FFM)	Aon Hewitt Style	Aon Hewitt Aspect
Openness to Experience	Adaptation Style	<ul style="list-style-type: none"> <li>Conceptual</li> <li>Flexibility</li> <li>Mastery</li> </ul>
Conscientiousness	Task Style	<ul style="list-style-type: none"> <li>Structure</li> <li>Drive</li> </ul>
Extraversion	Interaction Style	<ul style="list-style-type: none"> <li>Assertiveness</li> <li>Liveliness</li> </ul>
Agreeableness	Teamwork Style	<ul style="list-style-type: none"> <li>Sensitivity</li> <li>Cooperation</li> <li>Humility</li> </ul>
Neuroticism	Emotional Style	<ul style="list-style-type: none"> <li>Composure</li> <li>Positivity</li> <li>Awareness</li> </ul>
Unmapped to FFM	Achievement Style	<ul style="list-style-type: none"> <li>Ambition</li> <li>Power</li> </ul>

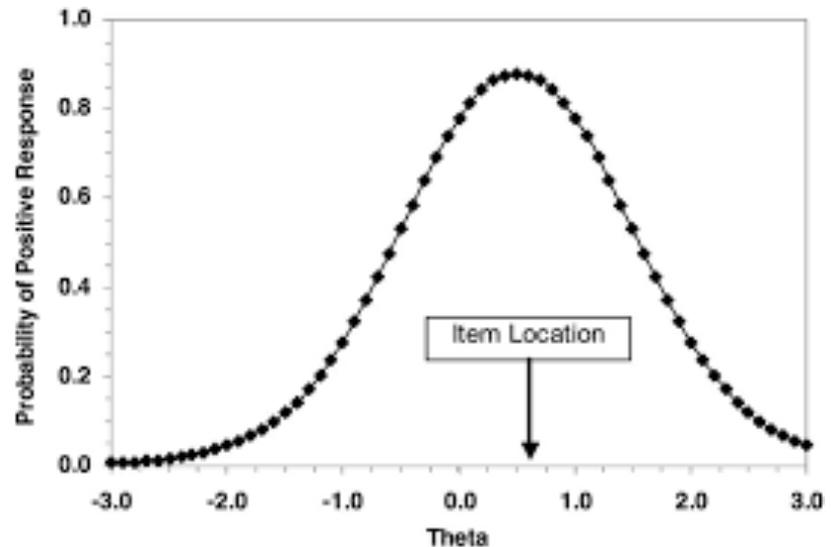
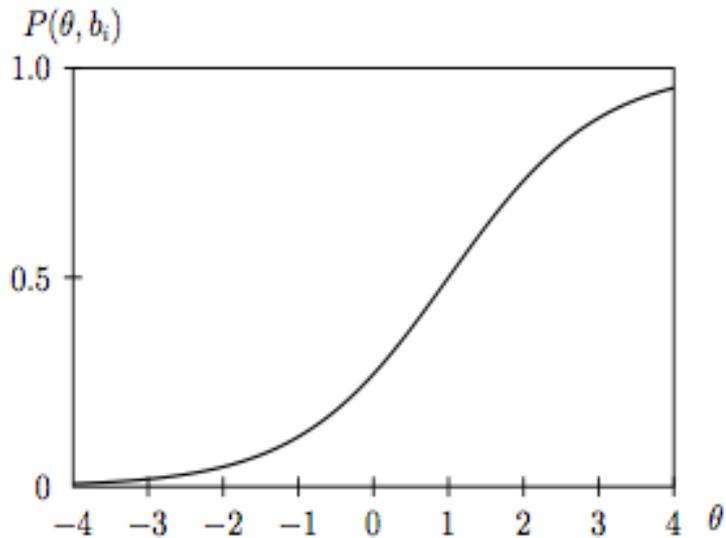
# ADEPT-15 Benefits

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- ADEPT-15 is computer adaptive
  - Items presented are based on answers to previous questions
- ADEPT-15 uses multi-unidimensional pairwise preference (MUPP) item formats
  - Reduces faking and test times (Stark, Chernyshenko, Drasgow, & White, 2012)
- ADEPT-15 utilizes Ideal Point Modeling
  - Better fitting Item Response Theory (IRT) model for personality items (Stark, Chernyshenko, Drasgow, & White, 2012)
- Altogether, these characteristics make up an assessment with high criterion validity, faster testing, and hard-to-fake items.

# Dominance Modeling versus Ideal Point Modeling

- Dominance model: probability of endorsing item increases monotonically with item location
- Ideal-point model: probability of endorsing item increases as distance between item location and person location decreases



## Previous studies about I-Os/SIOP members

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- Brooks, Grauer, Thornbury, & Highhouse (2003) survey of SIOP members
  - Academics value autonomy and science more than practitioners
  - Practitioners value affiliation, structure, and financial compensation more than academics
- Zelin et al. (2015) interviews of I-O consultants
  - Consultants are asked what personal characteristics make a good I-O consultant
  - Some characteristics include: integrity, attention to detail, and adaptability.
- Vandaveer (2008) interviews of I-O consultants in different settings and positions similar to Zelin et al. (2015)
  - Emphasized the importance of commitment, open mindedness, need for achievement, and more

# I-Os and the RIASEC Model

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- Holland (1985) create a model of vocational interest types
  - Realistic, Investigative, Artistic, Social, Enterprising, and Conventional
- The Occupational Information Network (O\*NET) has ratings of the extent to which an occupation aligns with each RIASEC type (from 0 to 100).
- O\*NET also provides ratings of Work Styles that an I-O should have, which map onto Five Factor Model Traits, such as:
  - Innovation (Openness to Experience)
  - Dependability (Conscientiousness)
  - Cooperation (Agreeableness)
- How do ratings of RIASEC types for I-Os differ from ratings for other job types?

## Method

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- Personality data (using ADEPT-15) from 92 SIOP members from SIOP 2015 were collected
- This was compared to scores of 2243 individuals in 16 other occupations
  - Occupations came from manufacturing, transportation, hospitality, professional services, safety, and retail industries.
- One aspect related to each Five Factor Model trait was utilized to create a short version of ADEPT
  - Cooperativeness
  - Liveliness
  - Mastery
  - Positivity
  - Structure
- We also examined RIASEC scores from O\*NET across occupations.

## Results: Overall

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- ANOVA analysis was used to examine statistically significant differences in scores
  - Significant differences were found for Mastery
  - Significant differences were found for Positivity
  - Significant differences were found for Structure
  - No significant differences were found for Cooperativeness
  - No significant differences were found for Liveliness

## Results: How did SIOP members differ in personality?

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- SIOP members had a mean Mastery level of 5.61 (on a scale from 1 to 7)
  - This was the highest score across all professions included in this study
- Mastery was statistically significantly higher for I-Os than for the following occupations:
  - Food service managers (M = 4.02)
  - Food service employees (M = 4.06)
  - Retail director assistants (M = 4.48)
  - Human resource specialists (M = 4.61)
  - Security specialists (M = 4.62)
  - Pharmacy technicians (M = 4.68)
  - Office clerks (M = 4.95)

## Results: How did SIOP members differ in personality? (continued)

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- SIOP members had a mean Structure level of 4.76 (on a scale from 1 to 7)
  - This was the second lowest score across all professions included in this study
- Structure was statistically significantly lower for I-Os than for the following occupations:
  - Food service managers (M = 5.48)
  - Retail managers (M = 5.63)
  - Customer service representatives (M = 5.65)
  - Retail salespersons (M = 5.80)
- SIOP members also had significantly higher Positivity (M = 5.20) than food service managers (M = 4.22)

## Results: RIASEC scores

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- SIOP member RIASEC scores from O\*NET (out of 100):
  - Realistic: 0
  - Investigative: 89
  - Artistic: 50
  - Social: 50
  - Enterprising: 72
  - Conventional: 28
- SIOP members had the lowest Conventional and Realistic types of all occupations in this study
- Occupational Safety Specialists and Engineers had similar or higher levels of Investigative
  - But both had lower Enterprising levels and higher Conventional levels

## Discussion: Masterful I-Os

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- Mastery, or the extent to which individuals are learning-oriented and improvement-oriented, differentiate SIOP members from other occupations
  - Some evidence that I-Os have lower Structure and higher Positivity as well
- I-Os are high in Investigative
  - Holland described Investigative as being scholarly and trying to gain new competencies
    - Similar to Mastery trait
- I-Os are low in Conventional
  - Aligns with lower Structure, which generally means being more methodical
  - I-O careers can be crafted to capitalize on an individual's strengths

# Implications

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- Create more growth opportunities for I-Os
  - Both at conferences as well as local I-O groups
- Mastery could be used as an individual difference variable for hiring I-Os and selection I-O graduate students
  - Related to job performance (Janseen & Van Yperen, 2004), self-efficacy (Kozlowski et al., 2001), and training success (Brett and VandeWalle, 1999).
- This also serves as a call for more research using I-Os as the subjects
  - Continuing to investigate how I-Os are unique from other professions
  - Constructing professional development for I-Os based on these results

# Conclusion

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- I-Os tend to be highly learning and development-oriented.
  - Also tend to be less structured than those in other occupations
- I-Os are high in Investigative and Enterprising RIASEC types
  - Analytical, Precise, Ambitious, Optimistic
- More research is needed to understand personality trait differences across other fields
  - As well as subfields within I-Os (e.g., academics, consultants, etc.)