Psychometric Approach

Psychometric View
- Guilford's APA address
  - Identify creative individuals
  - Protect and foster creativity
- Reaction to Cold War fears
- Intelligence testing approach to creativity
  - All people are creative
    - Creative to different degrees
  - "Creativity" composed of various abilities
    - Develop tests to measure these abilities

Measures of Creative Accomplishment
- Achieved eminence
  - Creativity is required for success in field
- Ratings of creativity
  - Ask others to rate individual's creativity
  - Peer evaluations
- Assessing products
  - Consensual assessment technique
Tests of Creative Thinking Capacity

- Test individual's capacity to think creatively
- Assumptions
  - Generality of creative thinking skills
  - Difference between IQ and creativity
- Example
  - Divergent thinking test

Inventories

- Attitude and interest
  - Assumes interest in creative activities
- Personality
  - Creativity as a function of entire personality
- Biographical & Self Report
  - Ask about life experiences, family, creative accomplishments

Cognitive Components of Creative Processes

- Sensitivity to problems
  - See deficiency and think about how to resolve
    - Analyze situation
    - Determine what follows
- Components of creative thinking
  - Divergent thinking
  - Remote association
Divergent Thinking

- Divergent and convergent thinking during problem solving
  - Divergent
    - Generate many solutions
  - Convergent
    - Turn ideas into specific solutions
- Divergent = creative (?)

Remote Associations

- The ability to form connections between unrelated ideas
  - Go beyond task demands
- Remote Associates Task

TUG GRAVY SHOW: ___________
Creative Personalities

• Constellation of personality traits
• Step 1
  – Identify traits of creative individuals
    • "Big Five" personality inventory

High in Openness – Focus of creativity research
Low in Extraversion
Low in Friendliness
Low in Stability

Creative Personality in the Arts and Sciences

<table>
<thead>
<tr>
<th>Trait Category</th>
<th>Artists</th>
<th>Scientists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonsocial</td>
<td>Openness to experience, Fantasy oriented, Imagination, Impulsivity, Lack of conscientiousness, Anxiety, Affective illness, Emotional sensitivity, Drive, Ambition</td>
<td>Openness to experience, Flexibility of thought, Drive, Ambition</td>
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</tbody>
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Openness to Experience

• Typifies the creative individual
  – Intellectually curious
  – Appreciative of art & beauty
  – Aware of feelings
  – Individualistic & nonconforming
• Characteristic style of thinking
  – Symbols and abstractions

Openness to Experience

• Fantasy
• Aesthetics
• Feelings
• Actions
• Ideas
• Values

Creativity Tests

• Step 2 of psychometric approach
  – Identify creative individuals
• Creativity tests
  – Tap into personality traits associated with creative individuals
  • NEO PI-R (Openness section)
  • Gough Personality Scale
Correlational Issues

Need to Be Different (Joy, 2004)

- Personality characteristics
  - Tendency to approach new situations with novel behaviors
  - Affects behavior in all situations
- Results from conditioning
- Seen in a nonconforming attitude
- Correlates with other creativity measures

Evaluating Psychometric View

- Creativity is innate
  - Individuals should be creative throughout lives
  - Creative genius should be recognized for what it is
Evaluating Psychometric View

• Creativity tests should predict creative productivity
• RAT
  – Mixed results
    • Grad school – yes
    • Outside of school – lower correlations
• Test creativity as a general trait
  – People generally creative within a specific domain