Personality characteristics:
Individual differences in happiness, arousal, and control

Three motivational principles
- Happiness
- Arousal
- Control

Reading:
Reeve (2009)
Ch 13
(pp. 367-390)

Personality characteristics
- Extraversion
- Neuroticism
- Sensation seeking
- Affect intensity
- Perceived control
- Desire for control

Outline – Individual Differences in Happiness, Arousal, and Control

- Happiness
  - Extraversion & happiness
  - Neuroticism & suffering
  - Extraverts & neurotics
- Arousal
  - Performance & emotion
  - Insufficient stimulation & underarousal
  - Excessive stimulation & overarousal
  - Credibility of the inverted-U hypothesis
  - Sensation seeking
  - Affect intensity
- Control
  - Perceived control
  - Desire for control

Based on Reeve (2009, p. 367)
Individual differences in happiness, arousal, & control

Why do different people have different motivational and emotional states even in the same situation?

Based on Reeve (2009, pp. 368-369)

Happiness & Personality

Personality as typology

Figure 13.1  Personality Characteristics as Distributed Within a Normal Distribution versus Typology

Based on Reeve (2009, Figure 13.1, p. 369)
Personality types vs. traits

- Relatively few people are at either end of a personality characteristic (most people are mid-way)
- Beware of typologies' oversimplification

For example:
Focus on extraversion (trait) rather than extraverts (typology).

Based on Reeve (2009, pp. 368-369)

The big 5 personality traits

- 5 superordinate traits are well supported by wide variety of research.
- Commonly measured by “NEO” (Costa & McCrae, 1980s) or IPIP
- Not everyone agrees on the naming of these traits.

The Big 5 according to the “NEO”:
- Neuroticism
- Extraversion
- Openness to Experience
- Agreeableness
- Conscientiousness
The big 5 personality traits

<table>
<thead>
<tr>
<th>Trait Dimension</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neuroticism (Emotional Stability)</td>
<td>Calm vs anxious&lt;br&gt;Secure vs insecure &lt;br&gt;Self-satisfied vs self-pitying</td>
</tr>
<tr>
<td>Extraversion</td>
<td>Sociable vs retiring&lt;br&gt;Fun-loving vs sober&lt;br&gt;Affectionate vs reserved</td>
</tr>
<tr>
<td>Openness</td>
<td>Imaginative vs practical&lt;br&gt;Preference for variety vs routine&lt;br&gt;Independent vs conforming</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>Soft-hearted vs ruthless&lt;br&gt;Trustful vs suspicious&lt;br&gt;Helpful vs uncooperative</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>Organised vs disorganised&lt;br&gt;Careful vs careless&lt;br&gt;Disciplined vs impulsive</td>
</tr>
</tbody>
</table>

Source: Adapted from McCrae & Costa (1995, p. 1002)

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The big 5 personality traits: Labels

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6 (Authors)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional control</td>
<td>Social adaptability</td>
<td>Inquiring intellect</td>
<td>Conformity</td>
<td>Will to achieve</td>
<td>Fiske (1948)</td>
</tr>
<tr>
<td>Emotionality</td>
<td>Surgency</td>
<td>Culture</td>
<td>Agreeableness</td>
<td>Conscientiousness</td>
<td>Norman (1963)</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>Extraversion</td>
<td>Intellect</td>
<td>Friendly compliance</td>
<td>Will to achieve</td>
<td>Digman (1999)</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>Extraversion</td>
<td>Openness to experience</td>
<td>Agreeableness</td>
<td>Conscientiousness</td>
<td>Costa &amp; McCrae (1985)</td>
</tr>
<tr>
<td>AFFECT</td>
<td>POWER</td>
<td>INTELLECT</td>
<td>LOVE</td>
<td>WORK</td>
<td>Peabody &amp; Goldberg (1989)</td>
</tr>
</tbody>
</table>

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Personality traits → motivation, emotion, and behaviour

Personality traits:
- cause people to react differently to different situations, e.g., positively or negatively
- cause people to approach and avoid different situations
- determine choice and alteration of situations, e.g., approach, avoid, or modify situation

Based on Deckers (2010, pp. 210-212)
Are you happy?
Do you experience +ve emotion frequently?
How intense and deep is the happiness that you experience?
Do you feel vital and alive?

Are you unhappy?
Do you suffer emotionally?
How intensely do you experience negative emotions?
Is your typical day an emotional roller-coaster?

Happiness and unhappiness are related, but separate, dimensions

Happy student profile:
- ↓ Neuroticism
- ↑ Extraversion
- ↑ Agreeableness
- ~ Conscientiousness
- ~ Openness

Big 5 personality factors & happiness

Source: "Very Happy People" by E. Diener & M.-E. P. Seligman, 2002, Psychological Science, 13, Table 3, p. 84.
Personality & happiness

Extraversion    Neuroticism

Happiness    Unhappiness

Happiness set point    Unhappiness set point

Based on Reeve (2009, p. 370)

Extraversion & happiness

Extraverts

Greater capacity than introverts to experience positive emotions; stronger and more sensitive Behavioral Activating Systems (BAS)

Greater Sociability (than introverts)

Greater Social Dominance (than introverts)

Greater Venturesomeness (than introverts)

Eagerness to approach potentially rewarding situations

Based on Reeve (2009, Figure 13.2 Components of extraversion, p. 371)

Neuroticism & happiness

Neurotics

Greater capacity than emotionally stable individuals to experience negative emotions; stronger and more sensitive Behavioral Inhibition Systems (BIS)

Greater Avoidance behaviour and Emotional Distress (than emotionally stable individuals)

Eagerness to avoid potentially punishing situations

Based on Reeve (2009, pp. 372-373)
Happiness economics

- Quantitative study of happiness, positive and negative affect, well-being, quality of life, life satisfaction and related concepts, typically combining economics with other fields such as psychology and sociology.
- The field has grown substantially since the late 20th century, for example by the development of methods, surveys and indices to measure happiness and related concepts.
- e.g., World Database of Happiness - http://worlddatabaseofhappiness.eur.nl/

Based on http://en.wikipedia.org/wiki/Happiness_economics

Subjective well-being in 97 countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>6.24</td>
</tr>
<tr>
<td>France</td>
<td>7.13</td>
</tr>
<tr>
<td>Ireland</td>
<td>6.16</td>
</tr>
<tr>
<td>Italy</td>
<td>6.16</td>
</tr>
<tr>
<td>Japan</td>
<td>5.99</td>
</tr>
<tr>
<td>Spain</td>
<td>5.97</td>
</tr>
<tr>
<td>Sweden</td>
<td>5.83</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>5.72</td>
</tr>
<tr>
<td>United States</td>
<td>5.58</td>
</tr>
<tr>
<td>World</td>
<td>5.30</td>
</tr>
</tbody>
</table>

Easterlin paradox (1974)

- Within a given country people with higher incomes are more likely to report being happy.
- However, in international comparisons, the average reported level of happiness does not vary much with national income per person, at least for countries with income sufficient to meet basic needs.

Based on http://en.wikipedia.org/wiki/Happiness_economics
Happy Planet Index

- Environmental efficiency of supporting well-being (Ratio of happiness to resource consumption (sustainability))
- Countries shaded by their position in the HPI (2006)
- Highest-ranked countries are bright green
- Lowest are brown

Based on http://en.wikipedia.org/wiki/Happy_Planet_Index

Natural happiness and synthetic happiness

- Natural happiness: Occurs when you get what you want.
- Synthetic happiness: Occurs when you accept that you didn't get what you want.
  - Synthetic happiness is as real as natural happiness
  - e.g., in dating, you look to get what you want, in marriage, you find a way to like what you've got.

Based on http://en.wikipedia.org/wiki/Happiness_economics

Why are we happy?

- Why are we happy? (Dan Gilbert, 2004, 21:20, TED talk)
  http://www.ted.com/talks/dan_gilbert_asks_why_are_we_happy.html
Arousal

- A person’s arousal level is mostly a function of how stimulating the environment is.
- People engage in behaviour to ↑ or ↓ their level of arousal:
  - When underaroused, people seek out opportunities to ↑ their arousal levels, because
    - ↑s in environmental stimulation are pleasurable and enhance performance whereas
    - ↓s are aversive and undermine performance.
  - When overaroused, people seek out opportunities to ↓ their arousal levels, because
    - ↑s in environmental stimulation are aversive and undermine performance whereas
    - ↓s are pleasurable and enhance performance.

Based on Reeve (2009, p. 374)
Performance & arousal

Original Yerkes-Dodson (1908) diagram. The Hebbian curve left out the top line showing that increased arousal did not adversely impact performance during simple tasks.

Based on http://commons.wikimedia.org/wiki/File:OriginalYerkesDodson.JPG

Insufficient stimulation & underarousal

Sensory deprivation:
An individual's sensory and emotional experience in a rigidly unchanging environment

Human beings harbour motives
for counteracting insufficient stimulation and underarousal.

Based on Reeve (2009, pp. 375-377)

Insufficient stimulation & underarousal

Heron's sensory deprivation study
The brain and nervous system prefer a continual and moderate level of arousal generated by environmental stimulation.

Based on Reeve (2009, Figure 13.4, p. 376)
Excessive stimulation & overarousal

Human beings harbour motives for counteracting excessive stimulation and overarousal.

Based on Reeve (2009, p. 377)

Sensory isolation tanks

- Sensory isolation tanks provide minimal external stimulation
- Relaxing
- Restorative
- Facilitate higher consciousness

"Over the last 25 years I have exhausted numerous addictions and relationships in pursuit of the very sensation - or state of being actually - that the floatation tank gave me in one hour. No drug-induced euphoria, no sexual or romantic high, no nicotine or food fix, nor any spiritual venture ever brought me as close to my desired destination as the floatation tank did. This illusively defined 'destination' became much clearer to me after floating in the tank. It's a truly remarkable and freeing experience."

- Annie C - http://www.samadhitank.com/

Credibility of the inverted-U hypothesis

- Neiss's criticism
  - Descriptive rather than explanatory
  - Does not apply to everyday affairs in which arousal level changes relatively little.
- Revelee, Amaral, & Turriff's experiment (1976)
  - The inverted-U hypothesis applies nicely to everyday sources of stimulation – e.g., caffeine and time pressure.

Based on Reeve (2009, pp. 377-379)
Sensation seeking

Personality characteristic related to arousal and reactivity.

Related to the extent to which a person’s central nervous system (brain and spinal cord) requires change and variability.

Based on Reeve (2009, p. 379)

Sensation seeking

Defined as “the seeking of varied, novel, complex, and intense sensations and experiences, and the willingness to take physical, social, legal, and financial risks for the sake of such experiences”

(Zuckerman, 1994)

Based on Reeve (2009, p. 379)

Sensation seeking & sensory deprivation

- Zuckerman was a graduate student in sensory deprivation studies.
- Zuckerman interested in subjects who:
  - hated deprivation
  - couldn’t tolerate low levels of stimulation
  - wanted new experiences
Sensation seeking
- Sensation seeking determines how a person reacts to a situation or event.
- Sensation seeking determines the situations and activities a person chooses.

Who was the sensation seeker?
- Steve Irwin
- Princess Diana

Sensation seekers
- Need higher levels of stimulation to maintain positive mood.
- When stimulation falls → mood slumps.
- Push to keep stimulation levels as high as possible.
- Enjoy more intense sensations and experiences
- Are more likely to:
  - Search for novel experiences
  - Prefer unusual stimuli and situations
  - Choose things that are out of the ordinary
  - See sensations and experiences being worth physical, social, legal, or financial risks
  - Engage in risky sports and activities
  - Be more susceptible to boredom
Sensation seekers – Biological basis

- SSs have ↓ levels of monoamine oxidase (MAO)
- SSs tend to have relatively ↑ levels of dopamine → their biochemistry favours approach over inhibition
- SSs tend to have relatively ↓ levels of serotonin → their biochemistry fails to inhibit them from risks and new experiences

Based on Reeve (2009, pp. 379-381)

Sensation Seeking Scale

(SSS; Zuckerman)

- Thrill and adventure seeking
  (action gamblers)
- Seek experiences outside the conventional lifestyle
  (travel, friends, art)
- Disinhibition: release of inhibitions, escape the pressures of daily life.
  (escape gamblers)
- Low tolerance for boredom, repetition and sameness.

SSS predictor of addiction

Sensation seeking is correlated with:
- Alcoholism
- Gambling

Perhaps common in all addictions
Control

Affect intensity

Figure 13.5 Daily Mood Reports Graphed Over 80 Consecutive Days

Affect-stable individuals

Affect-intense individuals

Based on Reeve (2009, p. 392)

Affect intensity

Figure 13.6 Affective reactions to good and bad events by affect-intense and affect-stable individuals

Based on Reeve (2009, p. 383)
Control

**Perceived Control**

Differences in people’s pre-performance expectancies of possessing the needed capacity to produce positive outcomes.

**Desire for Control**

The extent to which individuals are motivated to establish control over the events in their lives.

Based on Reeve (2009, p. 384)

Perceived control

In order to perceive that one has control over a given situation...

1. The self must be capable of obtaining the available desired outcome

2. The situation in which one attempts to exercise control needs to be at least somewhat predictable and responsive.

Based on Reeve (2009, p. 384)

Perceived Control Beliefs

- High Perceived Control
- Low Perceived Control

- Goal setting
- Task choice
- Effort
- Concentration
- Persistence in the face of difficulty
- Positive emotional states
- Problem-solving strategies
- Performance

Based on Reeve (2009, pp. 384-385)
Self-confirming cycles of high and low engagement

Perceived Control Beliefs
High vs. Low

Actual Outcomes

Engagement vs. Disaffection

Based on Reeve (2009, pp. 385-386)

Desire for control

<table>
<thead>
<tr>
<th>High DC vs. Low DC</th>
<th>Aspiration level</th>
<th>Response to challenge</th>
<th>Persistence</th>
<th>Attributes for success and failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>High DC benefit</td>
<td>Select harder tasks; set goals more realistically</td>
<td>React with greater effort</td>
<td>Work at difficult tasks longer</td>
<td>More likely to attribute success to self and failure to unstable sources</td>
</tr>
<tr>
<td>High DC liability</td>
<td>Higher goals are achieved</td>
<td>Difficult tasks are completed</td>
<td>Difficult tasks are completed</td>
<td>Motivation level remains high</td>
</tr>
<tr>
<td>May attempt goals too difficult</td>
<td>May develop performance-inhibiting reactions</td>
<td>May invest too much effort</td>
<td>May develop an illusion of control</td>
<td></td>
</tr>
</tbody>
</table>

Figure 13.7 Influence of Desire for Control during Achievement-Related Performance (Burger, 1985)

Based on Reeve (2009, p. 387)

Summary

- Two personality characteristics related to happiness:
  - Extraversion → BAS → Happiness
  - Neuroticism → BIS → Unhappiness

- Two personality characteristics related to arousal:
  - Sensation seeking
  - Affect intensity

- Two personality characteristics relate to control:
  - Perceived control
  - Desire for control

Based on Reeve (2009, pp. 388-389)
Upcoming lectures
- Individual differences
- Unconscious motivation (Ch 14)
- Growth psychology (Ch 15)
- Summary & conclusion (Ch 16)

References

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