Motivation & Emotion

Personality, motivation & emotion: Individual differences in happiness, arousal, and control

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Image source

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)

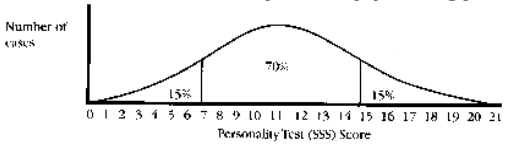
Individual differences in happiness, arousal, & control

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



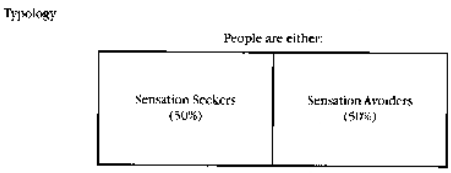


Figure 13.1 Personality Characteristics as Understood within a Normal Distribution versus a Typology

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” (as a trait) rather “introverts vs. extraverts” (as a typology).

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

The big 5 personality traits

- The “Big 5” superordinate traits are well supported by a wide variety of research.
- Measures
  - NEO (Costa & McCrae, 1980s)
  - IPIP – freely available
- Some disagreement about the naming of these traits.

The big 5 personality traits: Labels

1	2	3	4	5	6 (Authors)
Emotional control	Social adaptability	Inquiring intellect	Conformity	Will to achieve	Fiske (1949)
Emotionality	Surgency	Culture	Agreeableness	Conscientious -ness	Norman (1963)
Emotionality	Assertiveness	Intelligence	Likeability	Responsibility	Orgatta (1964)
Neuroticism	Extraversion	Intellect	Friendly compliance	Will to achieve	Digman (1990)
Neuroticism	*Extraversion*	*Openness to experience*	*Agreeableness*	*Conscientious -ness*	Costa & McCrae (1985)
AFFECT	POWER	INTELLECT	LOVE	WORK	Peabody & Goldberg (1989)

The big 5 personality traits

The Big 5 according to Costa and McCrae (1985):

- **N**euroticism
- **E**xtraversion
- **O**penness to Experience
- **A**greeableness
- **C**onscientiousness

Tip: Remember as NEOAC rather than OCEAN because it conveys order of variance explained.

The big 5 personality traits

Trait	Description
Neuroticism (vs. Emotional stability)	Calm vs anxious Secure vs insecure Self-satisfied vs self-pitying
Extraversion (vs. Introversion)	Sociable vs retiring Fun-loving vs sober Affectionate vs reserved
Openness (vs. Closedness)	Imaginative vs practical Preference for variety vs routine Independent vs conforming
Agreeableness (vs. Disagreeableness)	Soft-hearted vs ruthless Trusting vs suspicious Helpful vs uncooperative
Conscientiousness (vs. Carelessness)	Organised vs disorganised Careful vs careless Disciplined vs impulsive

Adapted from McCrae & Costa (1986, p. 1002)

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?

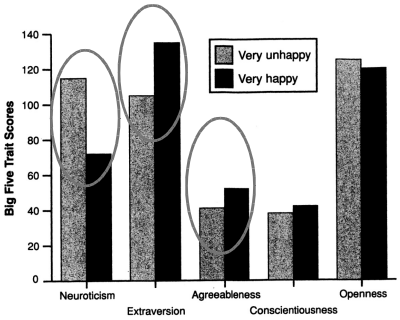
Based on Reeve (2009, pp. 368-369)

Happiness and unhappiness are related, but separate, dimensions

Big 5 personality factors & happiness

Happy student personality profile:

- ↓ Neuroticism
- ↑ Extraversion
- ↑ Aggreeableness
- ~ Conscientiousness
- ~ Openness



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

Extraversion

↓

Those with stronger extraversion have a greater capacity to experience *positive emotions* and a stronger and more sensitive Behavioral Activating Systems (BAS).

↓

Eagerness to approach potentially rewarding situations

↓

- Extraverts are more sociable than introverts
- Extraverts exhibit greater social dominance than introverts
- Extraverts are more venturesome than introverts

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

Neuroticism & happiness

Neuroticism

↓

Those with stronger neuroticism tend to experience more frequent and intense *negative emotions* and a stronger and more sensitive Behavioral Inhibition Systems (BIS).

↓

Eagerness to avoid potentially punishing situations

↓

Greater avoidance behaviour and emotional distress (than emotionally stable individuals)

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

Happiness economics

- HE = Quantitative study of happiness, positive and negative affect, well-being, quality of life, life satisfaction etc., typically combining economics with other fields such as psychology and sociology.
- HE 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

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

Subjective well-being in 97 countries

Country	Mean	Country	Mean	Country	Mean
Denmark	4.24	Malaysia	2.61	Croatia	0.87
Puerto Rico	4.21	W. Germany	2.60	Morocco	0.87
Colombia	4.18	Vietnam	2.52	India	0.85
Iceland	4.15	France	2.50	Uganda	0.69
N Ireland	4.13	Philippines	2.47	Zambia	0.68
Ireland	4.12	Uruguay	2.43	Algeria	0.60
Switzerland	3.96	Indonesia	2.37	Burkina Faso	0.60
Netherlands	3.77	Chile	2.34	Egypt	0.52
Canada	3.76	Dominican Rep	2.29	Slovakia	0.41
Austria	3.68	Japan	2.24	Hungary	0.36
El Salvador	3.67	Spain	2.16	Montenegro	0.19
Malta	3.61	Israel	2.08	Tanzania	0.13
Luxemburg	3.61	Italy	2.06	Azerbaijan	0.13
Sweden	3.58	Portugal	2.01	**Macedonia**	**-0.06**
New Zealand	3.57	Taiwan	1.83	**Rwanda**	**-0.15**
U.S.A.	3.55	E. Germany	1.78	**Pakistan**	**-0.30**
Guatemala	3.53	Slovenia	1.77	**Ethiopia**	**-0.30**
Mexico	3.52	Ghana	1.73	**Estonia**	**-0.36**
Norway	3.50	Poland	1.66	**Serbian Bosnia**	**-0.45**
Belgium	3.40	Czech Rep	1.66	**Lithuania**	**-0.70**
Britain	3.39	China	1.64	**Latvia**	**-0.75**
Australia	3.26	Mali	1.62	**Romania**	**-0.88**
Venezuela	3.25	Kyrgyzstan	1.59	**Russia**	**-1.01**
Trinidad	3.25	Jordan	1.46	**Georgia**	**-1.01**
Finland	3.24	Greece	1.45	**Bulgaria**	**-1.09**
Saudi Arabia	3.17	S Africa	1.39	**Iraq**	**-1.36**
Thailand	3.02	Turkey	1.27	**Albania**	**-1.44**
Cyprus	2.96	Peru	1.24	**Ukraine**	**-1.69**
Nigeria	2.82	S Korea	1.23	**Belarus**	**-1.74**
Brazil	2.81	Hong Kong	1.16	**Moldova**	**-1.74**
Singapore	2.72	Iran	1.12	**Armenia**	**-1.80**
Argentina	2.69	Bangladesh	1.00	**Zimbabwe**	**-1.92**
Andorra	2.64	Bosnia	0.94	**Mean:**	**1.57**

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.

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

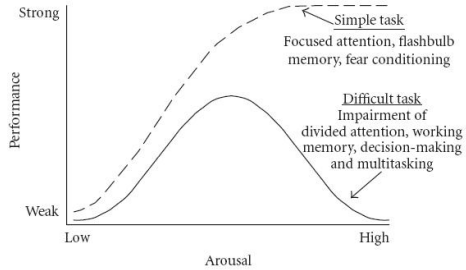
Why are we happy? Dan Gilbert

Video (21 mins 20 secs):

http://www.ted.com/talks/dan_gilbert_asks_why_are_we_happy.html

Arousal

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

Arousal

- Arousal levels mostly reflect 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)

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)

Performance & arousal

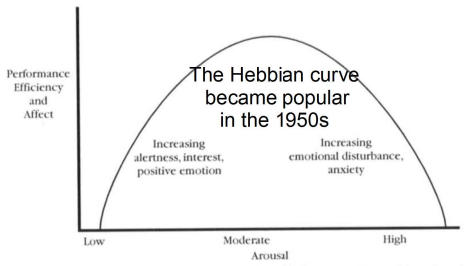


Figure 13.3 The Inverted-U Curve: Relationship between Arousal Level and Performance/Well-Being

Source: From "Drive and the C. N. S.—Conceptual Nervous System," by D. O. Hebb, 1955, *Psychological Review, 62*, pp. 245–254.

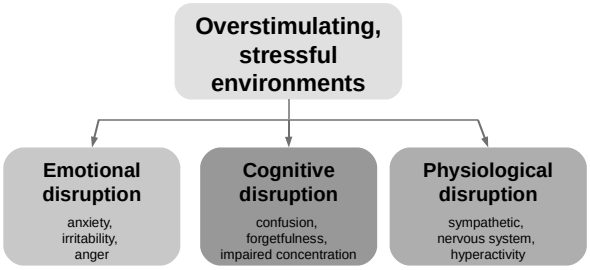
Based on Reeve (2009, pp. Figure 13.3)

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



Humans are motivated to counteract excessive stimulation and overarousal.

Based on Reeve (2009, p. 377)

Sensory isolation tanks

- Sensory isolation tanks minimise 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 float 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.
- Revelle, 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.
- Became 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 higher in sensation seeking?


Steve Irwin Princess Diana

Sensation seeking

- Those high in sensation seeking 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
  - 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
  - are susceptible to boredom

Sensation seekers – Biological basis

- SSs have ↓ levels of monoamine oxidase (MAO) (enzyme that metabolises monoamines, such as serotonin, norepinephrine, and dopamine)
- 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.

SS and addiction

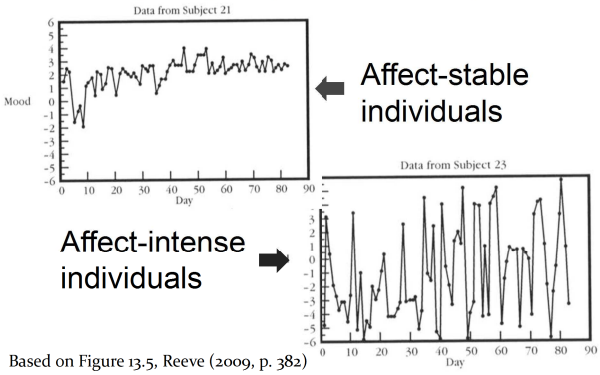
Sensation seeking is correlated with:

- Alcoholism
- Gambling

Perhaps SS is common in all addictions

Affect intensity

Daily Mood Reports Graphed Over 80 Consecutive Days



Based on Figure 13.5, Reeve (2009, p. 382)

Perceived control

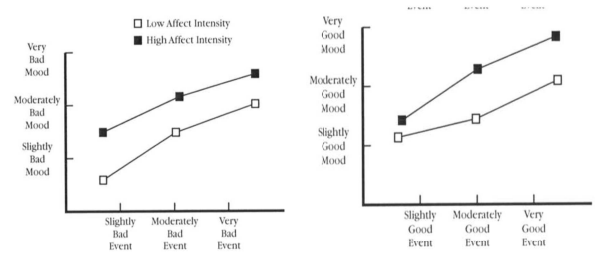
In order to perceive that one has control over a given situation…

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)

Affect intensity



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

Based on Figure 13.6, Reeve (2009, p. 383)

Perceived control

Perceived control beliefs

High perceived control
vs.
Low perceived control

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

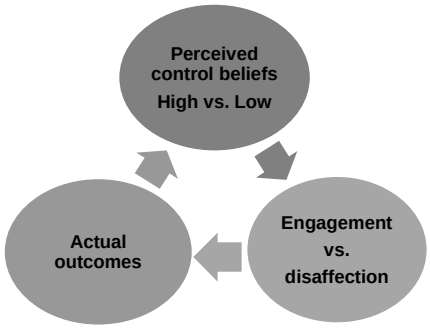
Based on Reeve (2009, pp. 384-385)

Control

Perceived control	Desire for control
The extent to which an individual believes that s/he possesses the capacity needed to produce positive outcomes.	The extent to which individuals are motivated to establish control over the events in their lives.

Based on Reeve (2009, p. 384)

Self-confirming cycles of high and low engagement



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

Desire for control

	Aspiration level	Response to challenge	Persistence	Attributions for success and failure
High DC vs. Low DC	Select harder tasks; set goals more realistically	React with greater effort	Work at difficult tasks longer	More likley to attribute success to self and failure to unstable source
High DC benefit	Higher goals are achieved	Difficult tasks are completed	Difficult tasks are completd	Motivation level remains high
High DC liability	May attempt goals too difficult	May develop performance-inhibiting reactions	May invest too much effort	May develop an illusion of control

Influence of desire for control during achievement-related performance (Burger, 1985)

Based on Figure 13.7, 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

- Deckers, L. (2010). *Motivation: Biological, psychological, and environmental* (3rd ed.). Boston, USA: Allyn & Bacon.
- Reeve, J. (2009). *Understanding motivation and emotion* (5th ed.). Hoboken, NJ: Wiley.

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