

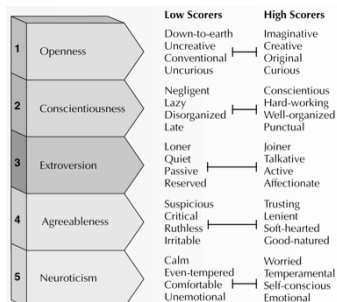
CHAPTER 8

Trait Theory: The Five-Factor Model & Applications and Evaluation of Trait Approaches

The “Big 5”

- Modern personality research argues for 5 basic personality traits (OCEAN)
 - Openness: whether a person is open to new experiences
 - Conscientiousness: whether a person is disciplined and responsible
 - Extroversion: whether a person is sociable, outgoing and affectionate
 - Agreeableness: whether a person is cooperative, trusting, and helpful
 - Neuroticism: whether a person is unstable and prone to insecurity

Overview of the Big “5”



Extroversion

- **Extroverted people**

- Energetic,
- Enthusiastic,
- Dominant,
- Sociable
- Talkative

- **Introverted people**

- Shy
- Retiring
- Submissive
- Quiet

Agreeableness

High

Agreeableness

- Friendly
- Cooperative
- Trusting
- Warm

Low Agreeableness

- Cold
- Quarrelsome
- Unkind

Conscientious

- Lack of impulsivity
- Cautious
- Dependable
- Organized
- Responsible

- Impulsive
- Careless
- Disorderly
- Undependable

Neuroticism

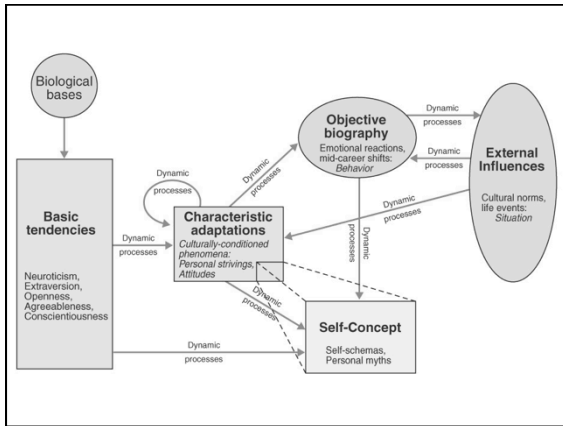
- Emotional Instability
- Nervous
- High-strung
- Tense
- Worrying
- Emotionally stable
- Calm
- Contented

Openness

- Culture
- Imaginative
- Witty
- Original
- Artistic
- Low on culture
- Shallow
- Plain
- Simple

PROPOSED THEORETICAL MODEL FOR THE BIG FIVE

- McCrae and Costa's **five-factor theory / model**
- The five traits are more than mere descriptions of ways that people differ
 - Each trait is a universal psychological structure that everyone has in varying amounts that causally influence people's psychological development
 - Factors have a biological basis
 - Differences linked to the Big Five are determined by genetic influences on neural structures and brain chemistry
 - The five traits are not influenced by the environment; strongest "nature" position possible



PROPOSED THEORETICAL MODEL FOR THE BIG FIVE

- McCrae and Costa's **five-factor theory / model**
- Problematic issues:
 1. How to link personality structures to personality processes
 - McCrae and Costa: details to be filled in by other theoretical approaches to personality
 - Not clear how these details could be filled in because the biological and psychological mechanisms associated with trait structures are unspecified

PROPOSED THEORETICAL MODEL FOR THE BIG FIVE

- McCrae and Costa's **five-factor theory / model**
- Problematic issues:
 2. Claim that traits are not affected by social factors
 - Problem: research findings contradict this theoretical idea
 - Twenge (2002) examined mean-level scores on anxiety and neuroticism scales published in the 50s through 90s and found that sociocultural changes were associated with higher levels of anxiety
 - Found that extraversion also increased

PROPOSED THEORETICAL MODEL FOR THE BIG FIVE

- McCrae and Costa's **five-factor theory / model**
 - Problematic issues:
3. Five-factor theory claims that everyone has all five factors; factors are analogous to bodily organs which might vary in size
- This finding does not demonstrate that *each and every person* possesses each of the factors

MAYBE WE MISSED ONE?: THE SIX-FACTOR MODEL

Table 8.3 Adjectives defining the high and low poles of a 6th factor of individual differences identified across a range of languages

Language	"Low" Pole of Factor	"High" Pole of Factor
Dutch	sincere, loyal/faithful	cunning, smug
French	true/genuine, sincere	thoughtless, mean
German	honest, sincere	boastful, arrogant
Hungarian	veracious, just	pretending, haughty
Italian	honest, sincere	disloyal, megalomaniac
Korean	truthful, frank	flattering, pretentious
Polish	helpful, unselfish	egoistic, envious

SOURCE: Ashton et al., 2004.

Personality Across Cultures

- A cross-cultural investigation of 50 cultures revealed same five factors in all cultures.
- However, the NEO-PI-R was created using English terms.
 - Thus, it may not capture culture-specific personality traits.
- Indeed, investigations in a number of cultures including Spain, Greece, the Philippines, and China have yielded additional factors.

Biological Foundations of Personality Traits

- ▲The brains of extreme introverts are overaroused, and the brains of extreme extroverts are underaroused (Eysenck, 1967)
- ▲On a great number of characteristics, MZ twins are more similar than are DZ twins

TABLE 12-4 Similarity in Identical and Fraternal Twins in Personality Assessed Using the Big Five Traits

BIG FIVE TRAIT	SELF-REPORT CORRELATION		PEER-RATING CORRELATION	
	Identical	Fraternal	Identical	Fraternal
Extraversion	.56	.28	.40	.17
Neuroticism	.53	.13	.43	-.03
Agreeableness	.42	.19	.32	.18
Conscientiousness	.54	.18	.43	.18
Openness to experience*	.54	.35	.48	.31

*Referred to as "Culture" by these researchers. 1997.

Source: Angleitner, Riemann, & Strelau,

Stability of Personality Traits

- Stability of personality is often assessed by means of retest correlations.
- Over a short time (weeks), low retest correlations may reflect measurement error.
- However, most personality measures show high retest correlations over short periods of time.
- The magnitude of retest correlations over longer periods (years) shows how stable personality traits are.

Meta-analytic study (Roberts and DelVecchio, 2000)

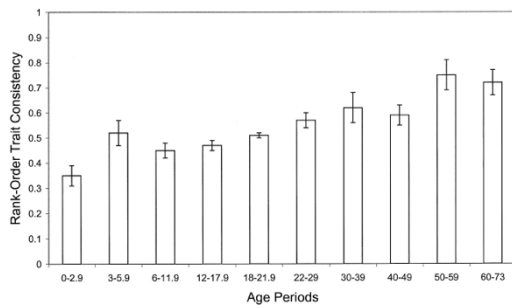
•Meta-Analysis: A meta-analysis combines results of several original studies.

•Original Studies:

Method. Assessed personality traits repeatedly over longer time intervals (at least one year apart)

•Data in the meta-analysis: 3,217 correlation coefficients from 152 longitudinal studies of personality.

Results: Roberts and DelVecchio (2000)



Are all traits equally stable?

- The authors also examined whether different personality traits have different stability.
- For example, neuroticism may be stable but extraversion is not.
- The authors found fairly similar stability of different personality dimensions (extraversion, conscientiousness, etc.).

Study of personality during adolescence (McCrae et al., 2001)

- Study 1 examined the retest-correlations of the Big Five for 230 gifted students (132 boys, 98 girls).
- A measure of the Big Five was administered at age 10-13.
- The same measure was administered 4 years later.

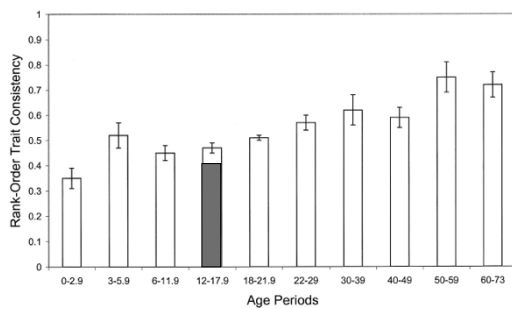
Results (McCrae et al., 2002)

Retest-Correlations (Rank-Order-Stability)

Scale	Boys	Girls
N	.36	.30
E	.39	.45
O	.45	.39
A	.31	.34
C	.49	.63

The average retest-correlation is $r = .41$.

Comparison of the Results to Meta-Analysis



Conclusions of studies

- Traits become increasingly stable with age.
- Traits do not reach a plateau at age 30.
- Consistency peaks after age 50 at a level not high enough to infer a complete lack of change in personality traits.
- The stability of traits is fairly similar across different traits.

Conclusions of studies (cont.)

- Although stability is quite high after adolescence, it is not perfect.
- Personality psychologists have been quite unsuccessful in finding factors that produce systematic changes in personality.
- For example, marriage has no influence on personality.
- However, a recent study demonstrated that life events can influence personality.

Study on influence of life events (Vaidya, et. al, 2002)

- Participants. 392 University of Iowa students.
- Method. The students completed a personality measure at the beginning of college.
- 2 ½ years later they completed questionnaires about their personality and life experiences during the past 2 ½ years
- Life-experiences were classified as positive (dated someone, started new job) or negative (romantic break up, got fired from job).

Results (Vaidya, et. al, 2002)

Personality at Time 2	N	E
Positive Events	-.05	.12*
Negative Events	.13*	.02

These coefficients do not represent correlations, but they can be interpreted in a similar way. The results suggest that positive events increase extraversion and negative events increase neuroticism.

Stability of Personality Traits

▲ Little stability of behavior across situations

▲ This makes it difficult to predict behavior from personality traits

▲ Stability over time

- There is good evidence for both stability of some traits and change in some traits over time

Predicting Behavior from Personality Traits

▲ Personality traits interact with other traits as well as with characteristics of situations

▲ Situational consistency is influenced by the importance of a trait for the person

▲ High self-monitors act differently in different situations, while low self-monitors do not.

APPLICATIONS OF THE BIG FIVE MODEL

- In the workplace
 - Research suggest that the five-factor model is useful in predicting job performance
 - Conscientiousness is related to performance across a variety of jobs and tasks
 - Yet some writers caution that personality traits beyond those in the big Five are important to predictions of workplace performance
 - Others find weak results

APPLICATIONS OF THE BIG FIVE MODEL

- Health
 - More conscientious persons may live longer
 - Adults who were conscientious as children lived longer and were about 30% less likely to die in any given year, even when ruling out environmental variables
 - What explains the relationship?
 - Conscientious individuals took fewer risks and were less likely to smoke and drink heavily

Evaluating Trait Theory

- Trait theory, especially the Big 5 model, is able to describe personality
 - Cross-cultural human studies find good agreement for the Big 5 model in many cultures
 - Even primate personality can be accurately described by the big 5 model system
- Problems with trait theory include:
 - Lack of explanation as to WHY traits develop
 - Treats personality process as a secondary issue to be filled in by other theories.
