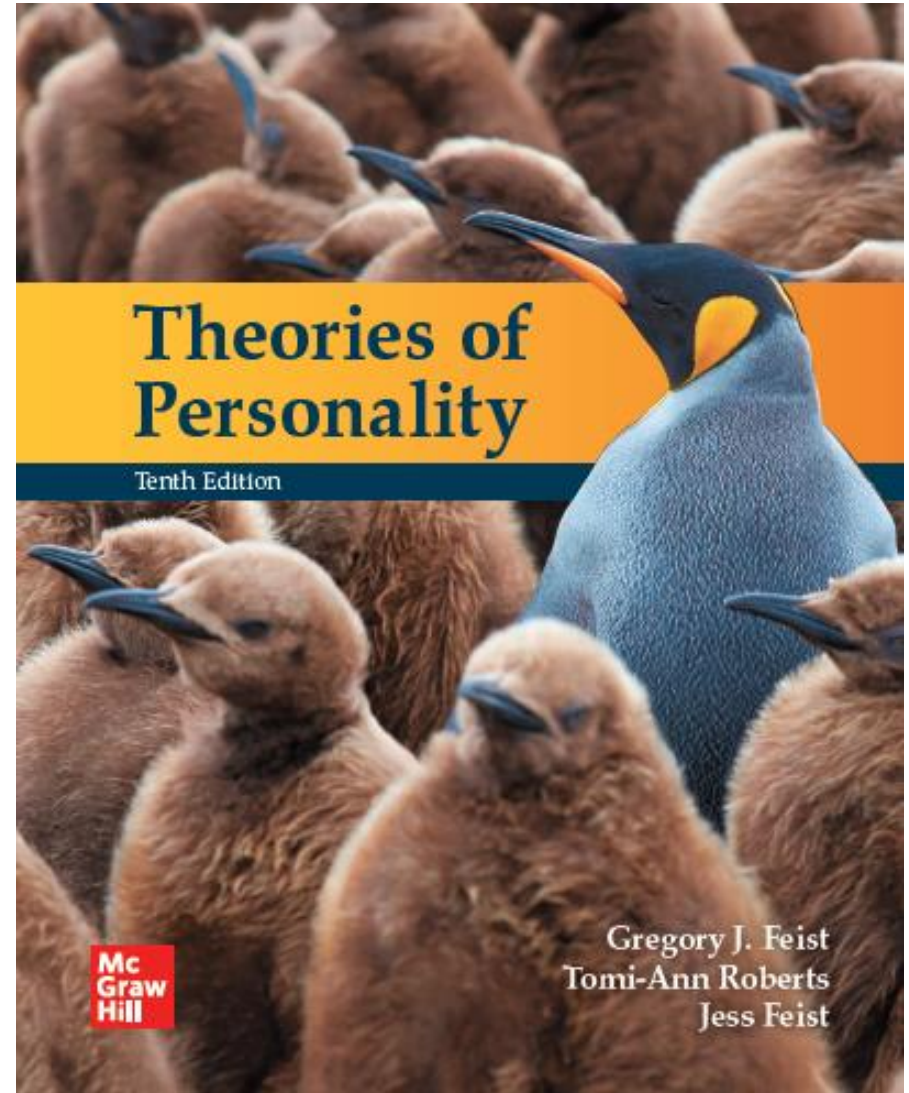
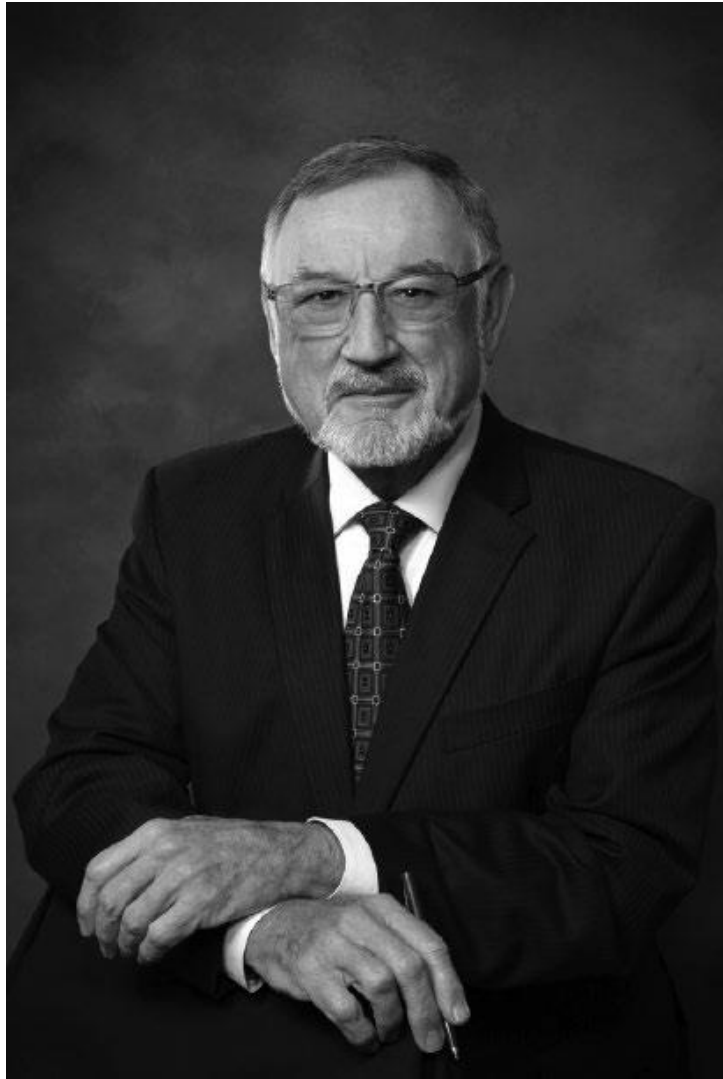


**McCrae and Costa's
Five-Factor Trait
Theory**

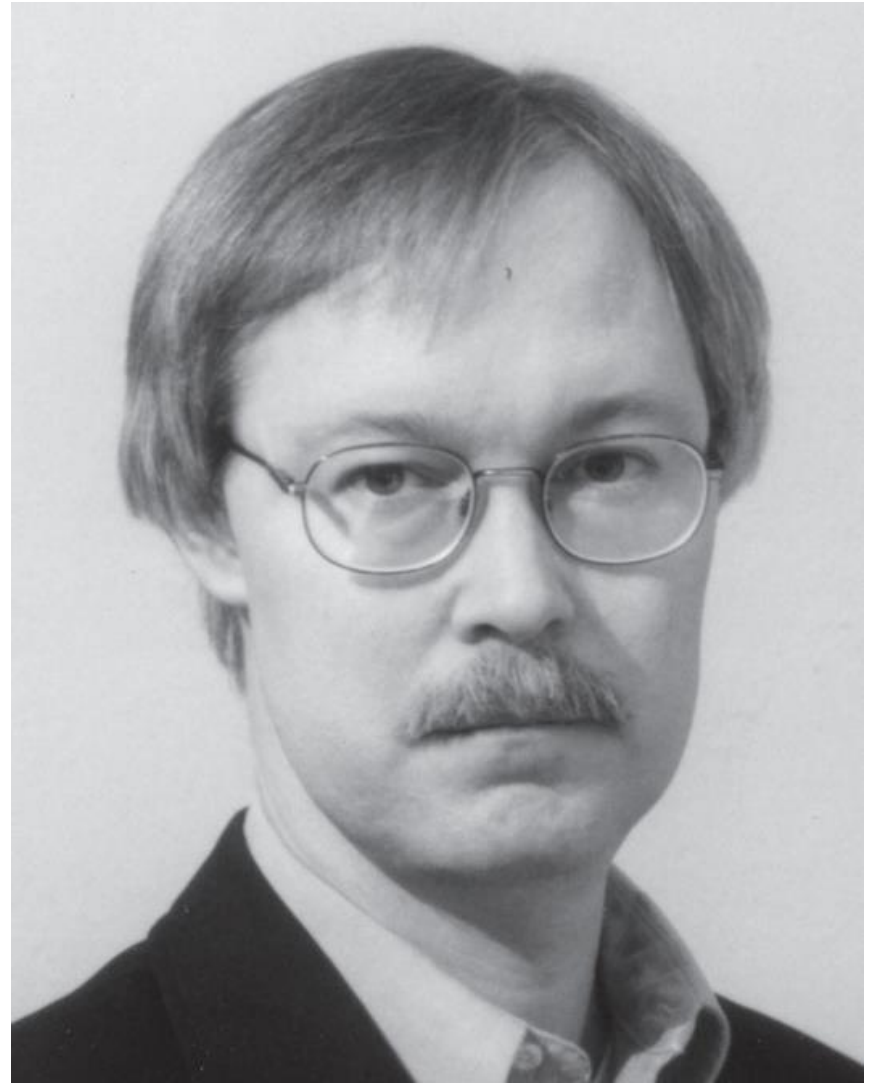
Chapter 13



Paul T. Costa, Junior and Robert R. McCrae



Courtesy Paul T. Costa Jr., PhD



Courtesy Robert R. McCrae, PhD

Chapter Outline

- Overview of trait and factor theories.
- The pioneering work of Raymond B. Cattell.
- Basics of factor analysis.
- The Big Five: taxonomy or theory?
- Biographies of Robert R. McCrae and Paul T. Costa, Junior.
- In search of the Big Five.
- Evolution of the Five-Factor Theory.
- Related research.
- Critique of trait and factor theories.
- Concept of humanity.

Overview of Factor and Trait Theories

Disagreement on how many personality traits.

- Cattell: many factors.
- Eysenck: three factors.
- McCrae and Costa: five factors.

Cattell's Trait Theory

Cattell's method.

- Used **inductive method** to gather data.
- Used three different media of observation.
 - L data.
 - Q data.
 - T data.
- Divided traits into common and unique traits.
- Yielded 35 primary, or first-order traits.
- (L-data involves data gathered from individuals' everyday lives, T-data involves gathering data from objective tests or laboratory observations, and Q-data involves obtaining information via a questionnaire form.)
- 16PF Scale

Basics of Factor Analysis

- **Factor analysis.**
- **Correlation coefficient.**
- **Factors.**
- **Factor loadings.**
- **Unipolar and bipolar traits.**
- **Orthogonal rotation.**
- **Oblique rotation.**

The Big Five: Taxonomy or Theory?

Taxonomies are not theories. (Theories guide research and generate a multitude of hypothesis to be tested to see if the theory is supported or not. A taxonomy classifies relationships and when it generates testable hypothesis to explain findings it can evolve into a theory.)

The Five-Factor Model began as an attempt to identify basic personality traits as revealed by factor analysis.

- Evolved into a taxonomy.
 - The model then became a theory, which can predict and explain behavior.

Biography of Robert R. McCrae

Born in Maryville, Missouri, in 1949.

Youngest of three children.

Completed his P h D in psychology at Boston University, where he was referred to Paul Costa.

- Began collaborating in 1976.

Biography of Paul T. Costa, Junior

- Born in Franklin, New Hampshire, in 1942.
- He received his P h D in human development from the University of Chicago in 1970.
- The collaboration between McCrae and Costa has been fruitful, producing over 200 joint publications.

In Search of the Big Five ¹

Five factors found.

- Costa and McCrae utilized every major personality inventory and came up with a five-factor solution.
- Most personality psychologists have opted for this model.
 - Cross-cultural.
 - Demonstrates stability over time.

In Search of the Big Five ₂

Description of the five factors.

- Extraversion.
 - Neuroticism.
 - Openness.
 - Agreeableness.
 - Conscientiousness.
- OCEAN (acronym)

Evolution of the Five-Factor Theory ¹

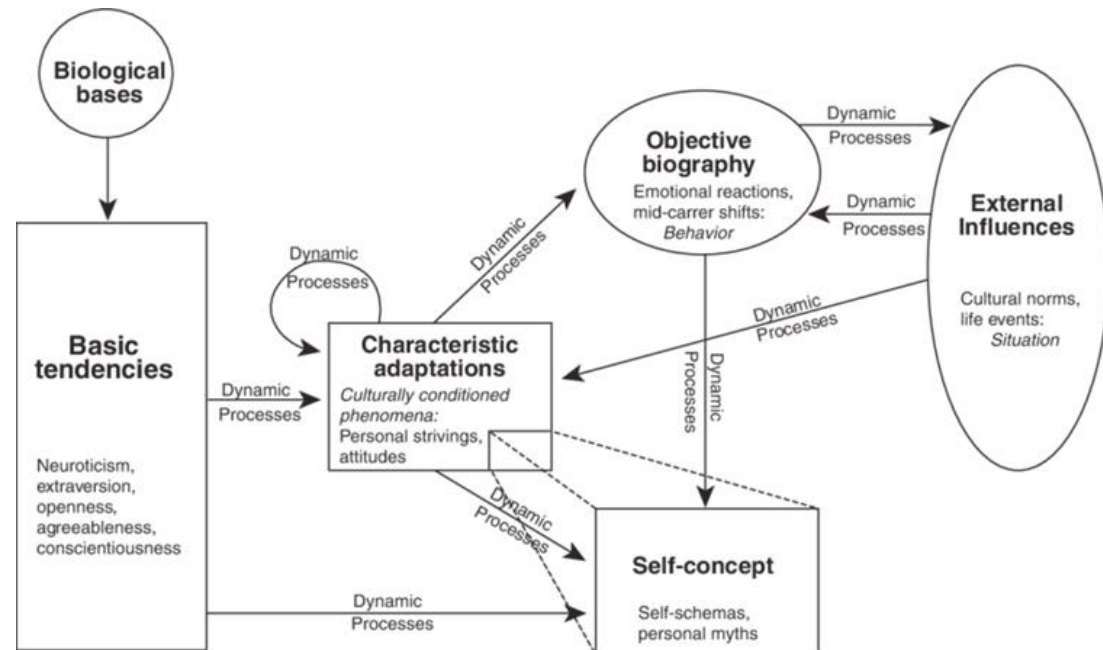
Units of the five-factor theory.

- Core components of personality.
 - **Basic tendencies.**
 - **Characteristic adaptations.**
 - **Self-concept.**
- Peripheral components.
 - Biological bases.
 - **Objective biography.**
 - **External influences.**

Evolution of the Five-Factor Theory ²

Basic postulates.

- Postulates for basic tendencies.(individuality, origin, development, structure)
- Postulates for characteristic adaptations.(consistency, maladjustment, change over time)



Related Research

➤ Revised NEO-PI (1992)

Traits have been linked to.

- Academic success.
 - Nettle & Robins, 2007.
- More common, everyday outcomes such as mood.
 - McNiel & Fleeson, 2006.

Critique of Trait and Factor Theories

Trait and factor theories are:

- Very high on generating research and parsimony.
- High on organizing knowledge.
- Moderate to high on falsifiability.
- Moderate to low as a guide for practitioners and internal consistency
- High in parsimony – explaining complex phenomena in their simplest form.
- Parsimony (Measure of Parsimony) A model high in parsimony (simplicity) is a model with relatively few parameters and relatively many degrees of freedom. On the other hand, a model with many parameters and few degrees of freedom is said to be complex or lacking in parsimony.
- Internal consistency is a measure of reliability. Reliability refers to the extent to which a measure yields the same number or score each time it is administered, all other things being equal (Hays & Revicki, 2005).

Concept of Humanity

McCrae and Costa are not concerned with concepts of determinism versus free choice, optimism versus pessimism, and causality versus teleology.

- Humans possess not only consciousness, but self-consciousness as well.
- Emphasizes on genetic factors of personality.
- Trait and factor theories lean toward individual differences.



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