

Measurement of Personality





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Measurement of Personality

5.2nd Lecture

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Summary of 16PF predictive traits

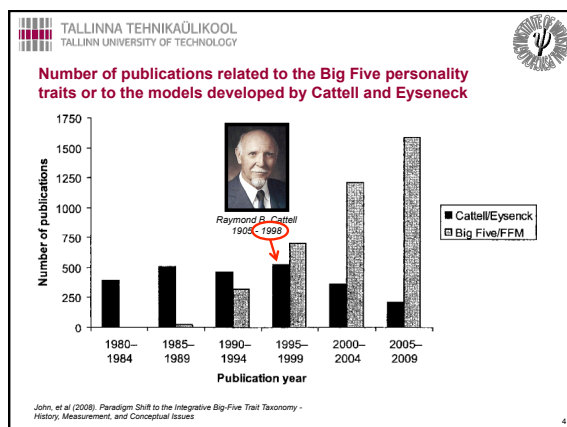
Scales	Warmth	Reasoning	Emotional Stability		Dominance	Loveiness	Sociability		Sensitivity		Abstractness	Phantasiness	Apprehension	Independence		Thronon		
	A	B	C	Q	F	G	H	I	L	M	N	O	Q ₁	Q ₂	Q ₄			
Police	+	+	+	+														
Major leaders	-	+				+												
Special leaders	-	+				+												
Effective leaders	+	+				+												
Technical leaders	+	+				+												
Top-level executives, developing long-term, innovative goals	0	+				+						+						
Managers, manufacturing and operations roles						+												
Entrepreneurs	+	+				+												
Men that distinguished entrepreneurs from other executives	+	+				+												
Effective entrepreneurs	+	+				+												
Scientific occupations						+												
Productive service officers	+	+				+												
Scientific or technological professions	+	+				+												
The Authoritative Leadership Style						+												
The Facilitative Leadership Style																		
The Permissive Leadership Style																		
Authoritative leader						+												
Facilitative leader	+					+												
Permissive leader	+					+												
Researcher in Creative leader	+					+												
Empathy	+	+				+												
Self-esteem	+	+				+												
Adjustment	+	+				+												
Conformity	+	+				+												
Creative individuals working in science and industry						+												
Creative individuals involved in the arts						+												
Scale 916																		
Emotional expressiveness																		
Emotional sensitivity																		
Emotional control																		
Actual speaking																		
Social ascendency																		
Self-assertiveness																		
	N=	12	8	11	11	14	15	13	11	13	17	11	15	22	9	13	14	251

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Predictive resolving power of 16PF scales

Scales	Warmth	Reasoning	Emotional Stability		Dominance	Loveiness	Sociability		Sensitivity		Abstractness	Phantasiness	Apprehension	Independence		Thronon		
	A	B	C	Q	F	G	H	I	L	M	N	O	Q ₁	Q ₂	Q ₄			
Police	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Major leaders	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
Special leaders	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
Effective leaders	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
Technical leaders	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
Top-level executives, developing long-term, innovative goals	0	1	0	0	0	-1	0	0	0	0	0	1	0	0	1	0	0	
Managers, manufacturing and operations roles	0	0	0	0	0	1	0	-1	0	-1	0	0	0	0	0	0	0	
Entrepreneurs	0	0	0	0	0	1	0	-1	0	-1	0	0	0	0	0	0	0	
Men that distinguished entrepreneurs from other executives	-1	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	0	0
Effective entrepreneurs	-1	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	0	0
Scientific occupations	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Productive service officers	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Scientific or technological professions	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
The Authoritative Leadership Style	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
The Facilitative Leadership Style	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
The Permissive Leadership Style	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Authoritative leader	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Facilitative leader	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Permissive leader	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Researcher in Creative leader	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Empathy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Self-esteem	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Conformity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Creative individuals working in science and industry	-1	0	0	0	0	0	0	0	0	1	-1	0	1	0	1	0	1	0
Creative individuals involved in the arts	-1	0	0	0	0	0	0	0	0	1	-1	0	1	0	1	0	1	0
Scale 916																		
Emotional expressiveness	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Emotional sensitivity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Emotional control	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Actual speaking	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Social ascendency	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Self-assertiveness	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	SD:	0.67	0.65	0.53	0.50	0.60	0.65	0.63	0.61	0.63	0.76	0.55	0.82	0.68	0.50	0.55	0.60	

Measurement of Personality



Primary tests of the Big Five

NEO-PI-R

- Authors:** Costa & McCrae (1992)
- Item format:** Self report Likert scale (5-points)
- Number of items:** 240
- Reliability:** 0.72-0.87
- Description:** 240 statements with which individuals are asked to rate their level of agreement on a five-point Likert scale. Divides each of the five personality domain into six facets, allowing for more precise measurement. 60-item short version (NEO-FFI), only 5 broad domains, not facets. Most widely used Big Five measure.
- Advantages:** precisions of domains, utility in multiple settings, strength of empirical support.
- Disadvantages:** Absence of validity and lie scales. Selection of some constructs of domains and facets – five or six domains structures, language-cultural differences in constructs.

Domain	Description	Facet	Description
Neuroticism	identifies individuals who are prone to psychological distress	Anxiety	tire of free floating anxiety
		Angry Hostility	tendency to experience anger and related states such as frustration and bitterness
		Depression	tendency to experience feelings of guilt, sadness, despondency and loneliness
		Self-Consciousness	shyness or social anxiety
Extraversion	quantity and intensity of energy directed outwards into the social world	Impulsiveness	tendency to act on cravings and urges rather than reining them in and delaying gratification
		Sensitivity	general susceptibility to stress
		Warmth	interest in and friendliness towards others
		Sociability	preference for the company of others
Openness to Experience	the active seeking and appreciation of experiences for their own sake	Imagination	social spontaneity and forcefulness of expression
		Activity	pace of living
		Excitement Seeking	need for environmental stimulation
		Positive Emotions	tendency to experience positive emotions
Agreeableness	the kinds of interactions an individual prefers from compassion to tough-mindedness	Trust	responsivity to the inner world of imagination
		Aesthetics	appreciation of art and beauty
		Feelings	openness to inner feelings and emotions
		Altruism	openness to new experiences on a practical level
Conscientiousness	degree of organization, persistence, control and motivation in goal directed behaviour	Order	intellectual curiosity
		Humility	readiness to re-examine own values and those of authority figures
		Compliance	belief in the sincerity and good intentions of others
		Self-Discipline	frankness in expression

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NEO-PI-R Distribution of test values

	Minimum		Maximum		Mean		Standard dev.	
	m	f	m	f	m	f	m	f
Facets								
N1 Anxiety	0	1	29	27	12.2	13.5	4.6	4.7
N2 Angry Hostility	0	0	28	21	9.4	9.9	4.5	4.1
N3 Depression	0	1	30	28	9.4	10.2	5.2	4.9
N4 Self-Consciousness	0	1	28	24	11.2	11.8	4.3	4.5
N5 Impulsiveness	0	1	28	28	13.9	14.6	4.5	4.6
N6 Vulnerability	0	0	21	20	6.3	7.2	3.6	3.9
E1 Warmth	8	13	32	32	23.4	25.0	3.9	3.4
E2 Gregariousness	2	4	31	30	19.6	19.7	4.6	4.4
E3 Assertiveness	5	5	32	31	21.0	20.5	4.4	4.5
E4 Activity	6	9	32	31	21.6	21.9	4.1	4.0
E5 Excitement Seeking	5	4	31	30	17.8	16.5	4.6	4.7
E6 Positive Emotions	4	6	32	32	21.9	23.2	4.7	4.4
O1 Openness to Fantasy	1	4	30	32	17.2	17.8	4.7	4.7
O2 Openness to Aesthetics	1	5	31	32	18.7	20.3	5.9	5.3
O3 Openness to Feelings	9	2	32	32	21.4	22.9	4.2	3.9
O4 Openness to Actions	8	8	31	32	20.1	21.2	4.2	3.8
O5 Openness to Ideas	1	6	32	32	21.7	21.5	5.0	4.8
O6 Openness to Values	8	9	32	31	23.9	24.1	3.6	3.1
A1 Trust	1	5	32	32	22.6	22.8	4.1	4.1
A2 Straightforwardness	3	9	31	32	19.5	20.2	4.5	4.2
A3 Altruism	12	12	32	32	23.7	25.0	3.4	3.2
A4 Compliance	5	6	30	32	18.9	19.6	4.1	3.9
A5 Modesty	5	7	32	30	18.1	18.6	4.4	4.1
A6 Tender-Mindedness	6	2	31	30	19.6	20.5	3.5	3.5
C1 Competence	11	13	32	32	24.4	24.2	3.5	3.5
C2 Order	5	3	31	30	18.4	19.1	4.4	4.5
C3 Dutifulness	9	15	32	32	25.0	24.7	3.6	3.8
C4 Achievement Striving	7	11	32	31	23.1	23.1	4.0	4.1
C5 Self-Discipline	7	6	32	32	23.6	23.9	4.3	4.3
C6 Deliberation	3	3	32	32	19.0	18.5	4.5	4.4
Domains								
N Neuroticism	16	16	141	137	62.3	67.2	20.1	20.3
E Extraversion	70	75	179	168	125.3	126.8	18.3	17.4
O Openness to Experience	84	81	175	174	122.0	127.8	18.8	16.3
A Agreeableness	86	84	173	175	123.3	126.8	15.7	14.6
C Conscientiousness	60	76	176	178	133.4	133.6	18.2	18.4

<http://www.unir.ch/zip/HTS/inf/WEB-Informationssystem/en/001/059066de/Ses4/17/80/121d3ed2/rldcho.htm>

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THE BIG FIVE PERSONALITY TEST

BFI Big Five Inventory

I see myself as someone who...

Strongly Disagree 1 2 3 4 5 Strongly Agree

1. . is talkative	24. . is emotionally stable, not easily upset
2. . tends to find fault with others	25. . is inventive
3. . does a thorough job	26. . has an imaginative personality
4. . is depressed, blue	27. . can be cool and stoic
5. . is original, comes up with new ideas	28. . perseveres until the task is finished
6. . is reserved	29. . can be moody
7. . is helpful and unselfish with others	30. . values artistic, aesthetic experiences
8. . can be somewhat careless	31. . is sometimes shy, inhibited
9. . is relaxed, handles stress well	32. . is considerate and kind to almost everyone
10. . is curious about many different things	33. . does things attentively
11. . is full of energy	34. . remains calm in tense situations
12. . starts quarrels with others	35. . prefers work that is routine
13. . is a reliable worker	36. . is outgoing, sociable
14. . can be mean	37. . is sometimes rude to others
15. . is ingenious, a deep thinker	38. . makes plans and follows through with them
16. . generates a lot of enthusiasm	39. . gets nervous easily
17. . has a forgiving nature	40. . likes to reflect, play with ideas
18. . tends to be disorganized	41. . has few artistic interests
19. . worries a lot	42. . likes to cooperate with others
20. . has an active imagination	43. . is easily distracted
21. . tends to be quiet	44. . is sophisticated in art, music, or literature
22. . is generally trusting	45. . is practically-minded
23. . tends to be lazy	

<http://www.outofservice.com/bigfive/>

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BFI Scale Scores

Compute scores as the means:

- Extraversion (8 items): 1, 6R, 11, 16, 21R, 26, 31R, 36
- Agreeableness (9 items): 2R, 7, 12R, 17, 22, 27R, 32, 37R, 42
- Conscientiousness (9 items): 3, 8R, 13, 18R, 23R, 28, 33, 38, 43R
- Neuroticism (8 items): 4, 9R, 14, 19, 24R, 29, 34R, 39
- Openness (10 items): 5, 10 15, 20, 25, 30, 35R, 40, 41R, 44

Reverse score items are labeled „R“

John, et al (2008). Paradigm Shift to the Integrative Big-Five Trait Taxonomy - History, Measurement, and Conceptual Issues

Measurement of Personality

Factor initial (number)	Big Five domains				
	E (Factor I)	A (Factor II)	C (Factor III)	N (Factor IV)	O (Factor V)
Verbal labels	Extraversion Energy Enthusiasm	Agreeableness Altruism Affection	Conscientiousness Constraint Control of impulse	Neuroticism Negative Emotionality Nervousness	Openness Originality Open-Mindedness
Conceptual definition	Implies an energetic approach toward the social and material world and includes traits such as sociability, activity, assertiveness, and positive emotionality.	Connotes a prosocial and communal orientation toward others with antagonism and includes traits such as altruism, tender-mindedness, trust, and modesty.	Describes socially prescribed impulse control that facilitates task and goal-directed behavior, such as thinking before acting, delaying gratification, following norms and rules, and planning, organizing and prioritizing tasks.	Contrasts emotional stability and even-temperateness with negative emotionality, such as feeling anxious, nervous, sad, and tense.	Describes the breadth, depth, originality, and complexity of an individual's mental and experiential life.
Behavioral examples	Approach strangers at a party and introduce myself; Take the lead in organizing a project; Keep quiet when disagree with others (R)	Emphasize the good qualities of other people when I talk about them; Lend things to people I know (e.g., class notes, books, milk); Console a friend who is upset	Arrive early or on time for appointments; Study hard in order to get the highest grade in class; Double-check a term paper for typing and spelling errors; Let dirty dishes stack up for more than one day (R)	Accept the good and the bad in my life without complaining or bragging (R); Get upset when somebody is angry with me; Take it easy and relax (R)	Take the time to learn something simply for the joy of learning; Watch documentaries or educational TV; Come up with novel setups for my living space; Look for stimulating activities that break up my routine
Examples of external criteria predicted	High pole: Social status in groups and leadership positions; selection as jury foreperson; positive emotion expression; number of friends and sex partners Low pole: Poorer relationships with parents; rejection by peers	High pole: Better performance in work groups Low pole: Risk for cardiovascular disease, juvenile delinquency, interpersonal problems	High pole: Higher academic grade-point averages; better job performance; adherence to diet treatment regimens; longer lives Low pole: Smoking, substance abuse, and poor diet and exercise habits; attention-deficit/hyperactivity disorder (ADHD)	High pole: Better coping and reactions to illness; experience of burnout and job changes Low pole: Feeling committed to work organizations; greater relationship satisfaction	High pole: Years of education completed; better performance on creative tests; success in artistic jobs; create distinctive-looking work and home environments Low pole: Conservative attitudes and political party preferences

John, et al (2008). Paradigm Shift to the Integrative Big-Five Trait Taxonomy - History, Measurement, and Conceptual Issues 10


Trait	Hard Criteria Type					Mean Hard Criteria	Soft Criteria (Subjective Ratings)
	Productivity Data	Turnover/Tenure	Status Change	Salary			
Conscientiousness	.17	.12	.15	.17	.14	.26	
Extraversion	.10	-.03	.14	.06	.10	.14	
Emotional Stability	-.04	.02	.11	-.01	.05	.09	
Agreeableness	-.05	.09	.13	-.02	.05	.09	
Openness to Experience	.01	-.11	.12	.05	.02	.04	

Barrick and Mount (1991).

Big Five measures are better predictors of subjective performance ratings than objective performance measures.

- Raters rely on personality when evaluating person's performance (halo effect?, other rater bias?).

What is performance?



Contextual Performance


consists of prosocial and extrarole behaviours that go above and beyond task performance.

- These behaviours may not contribute to actual task performance, but they are making positive contributions to the work environment and, therefore, may have utility in personal selection.

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Task Performance and Contextual Performance

	Conscientiousness	Emotional Stability	Extraversion	Agreeableness	Openness to Experience
Task Performance	.15	.13	.06	.07	-.01
<i>Contextual Performance</i>					
Job Dedication	.18	.13	.05	.08	.01
Interpersonal Facilitation	.16	.16	.10	.17	.05


From Hertz and Donovan, 2000.

Conscientiousness, Emotional stability and Agreeableness are predictors of contextual performance.

Is a nice person good for overall productivity?

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Bif Five traits:


Predicting Absence and Turnover

Certain personality traits may predispose employees to miss work more or less frequently than other.

- **Extraversion-Absenteeism:** individual scoring high on measures of extraversion were more likely to be absent more frequently - „carefree, excitement seeking, hedonistic nature“.
- **Conscientiousness-Absenteeism:** individuals scoring high on measures of Conscientiousness were less absent than those who scored low. – „dutiful, role-bound and reliable person“.
- **Turnover or intention to quit:**
 - Negative Affectivity positively correlated, Positive Affectivity not correlated;
 - Extraversion and Neuroticism not correlated;
 - Conscientiousness positively correlated
 - Extraversion, Agreeableness and Emotional Stability negatively correlated

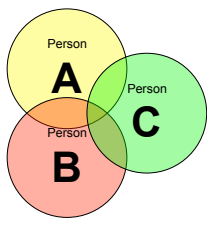
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Bif Five traits:

Group Composition and Performance




Individual personality can contribute to or hinder group performance.


- **Correlations with group performance:** Conscientiousness (r=0.26), Emotional Stability (r=0.24), Agreeableness (r=0.34), same correlations weaker on individual level (Barrick et al 1998).
- **Extraversion:** too many or too few extraverts can hinder group performance (Stewart, 1997).
- **Average trait levels:**
 - Average trait levels of Conscientiousness, Agreeableness and Openness to Experience are positively correlated with team performance (**have high levels of**).
 - Diversity on Extraversion and Emotional Stability is strongly positively correlated with team performance (**have more different people!**).

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Bif Five traits:
Leadership


- **Conscientiousness** is defined as an individual's tendency to be organized, thorough, controlled, decisive, and dependable. It is the personality factor that has been **related to leadership** second most strongly (after extraversion).
- **Agreeableness**, or an individual's tendency to be trusting, nurturing, conforming, and accepting, has been only **weakly associated with leadership**.
- **Neuroticism**, or the tendency to be anxious, hostile, depressed, vulnerable, and insecure, has been **moderately and negatively related to leadership**, suggesting that most leaders tend to be low in neuroticism.
- **Openness**, sometimes referred to as openness to experience, refers to an individual's tendency to be curious, creative, insightful, and informed. Openness has been **moderately related to leadership**, suggesting that leaders tend to be somewhat higher in openness than nonleaders.
- **Extraversion** is the personality factor that has been **most strongly associated with leadership**. Defined as the tendency to be sociable, assertive, and have positive energy, extraversion has been described as the most important personality trait of effective leaders.

Bligh, Michelle C. "Personality Theories of Leadership." *Encyclopedia of Group Processes & Intergroup Relations*. 2009. SAGE Publications.

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Leadership traits:
Intelligence


A great deal of research suggests that leaders have above-average intelligence. Intellectual ability has been positively associated with cognitive reasoning skills, the capacity to articulate ideas and thoughts to others, and the perceptual ability to recognize important situational factors. Research has focused on the link between intelligence and a leader's development of good problem-solving skills, the ability to adequately assess social situations, and the ability to understand complex organizational issues.

Although intelligence has consistently been shown, in a wide variety of studies, to relate positively to leadership, other research has pointed out that it is important that the leader's intellectual ability is not too dissimilar from that of his or her followers. If leaders far surpass their followers in intelligence, they may be unable to express ideas and issues in ways that appeal to or connect with their followers.

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Leadership traits:
Self-Confidence


Research has pointed to a consistent relationship between a leader's effectiveness, on one hand, and confidence in his or her skills, technical competencies, and ideas, on the other. Having high self-esteem, a positive regard for one's own ability to lead, and assurance that one's vision or purpose is the right one all help a leader influence others. While some studies have examined self-confidence and others have focused on confidence more generally, it is clear that feeling and communicating certainty about one's own abilities as a leader is a common leadership trait.

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Leadership traits:


Determination or Perseverance

Leadership is often a difficult, thankless, long, and arduous process. Perhaps as a result of this fact, a great deal of research has suggested that leaders must be determined to complete a task or get a job done, even in the face of adversity or when there is less than overwhelming support from others. Leaders show initiative and drive and frequently constitute the motivational energy behind a project or social change movement. Thus, the ability to assert oneself when necessary, be proactive, and continue to push on in the face of obstacles is a key component of leadership. In addition, this determination often involves displaying dominance and a drive to succeed even in the face of initial failures.

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Leadership traits:


Sociability

Sociability is defined as a leader's desire for high-quality social relationships and the ability to maintain and restore positive relationships in difficult times that often involve adversity and crisis. Across studies, leaders often demonstrate the ability to be friendly, extraverted (outgoing), courteous, tactful, and diplomatic. In addition, leaders tend to be sensitive to the needs of others, even at the cost of attending to their own needs. In short, leaders care about the interests of others and put others' interests before their own. Leaders have good interpersonal skills that communicate their concern for others, and they work to smooth out conflicts and disagreements to maintain the group's social harmony.

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Leadership traits:

Integrity


Integrity, addresses the finding that leaders tend to be honest and trustworthy, inspiring others to respect them and trust them with important decisions and resources. Leaders are often variously described as loyal, responsible, dependable, and honest. These characteristics inspire the confidence of others and provide evidence that leaders are authentic and have the best interests of the group at heart.

This is in stark opposition to individuals who use the efforts and resources of the group for their own prosperity or power and manipulate the group's time and money for their own personal gain (e.g., cult leaders Jim Jones and David Koresh).

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Leadership traits:
Leadership and Emotional Intelligence

Emotional intelligence, abbreviated variously as EQ or EI, is defined as one's ability to perceive and express emotions, understand and reason with emotions, and effectively manage emotions, both in oneself and in others. More recently, a number of assessments have been developed to measure emotional intelligence, and efforts have been made to link emotional intelligence to one's leadership abilities and even one's ultimate successes in life.

There has been considerable debate, however, as to whether emotional intelligence represents a unique construct that is sufficiently different from the five key traits and Big Five personality factors. Despite this debate, it seems likely that people who are sensitive to both their own emotions and the emotions of others, and who are adept at managing emotions and accurately discerning their impact, will be more effective leaders.

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Critiques of the Trait Approach to Leadership

- **Trait and personality theories assume that people inherit certain qualities and traits that make them suited to be good leaders: particular personality or behavioral characteristics that leaders share.** This approach has been criticized for its **lack of explanatory power: it is unable to consistently distinguish between leaders and nonleaders.**
- Other types of leadership and leadership as relationship:
 - Charismatic leadership - the personal characteristics of the leader to attract and influence others and suggests that charisma is a quality that some leaders can effectively capitalize on to galvanize others into action.
 - Leadership as a relationship between leaders and followers or as a set of behaviors and competencies that anyone can develop. Given the right experiences, circumstances, and training, each of us has both the capacity and the ability to enact effective leadership, regardless of the specific traits and personality characteristics with which we were born.

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Big Five traits:
Transformational Leadership


Transformational leader is: (1) inspirational, (2) provides intellectual stimulation and (3) exhibits individual consideration for their followers.

- Modest correlations between Transformational Leadership and Agreeableness (strongest), Extraversion and Openness to Experience. Conscientiousness and Emotional Stability not correlated. (Judge, Bono, 2000)
- Extraversion+Openness to Experience predicted maximum performance as Transformational Leader. Extraversion+Emotional Stability predicted typical performance as Transformational Leader (Polyhart et al 2001)

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Bif Five traits:
Job Satisfaction

- Teams with the highest job satisfaction were precisely the ones whose members scored highest for the personality factors Agreeableness and Conscientiousness (Acuna, Gomez, Juristo, 2009) .
- Personality traits correlated with career satisfaction included Conscientiousness, Extraversion, and Openness (Lounsbury et al, 2003).
- The significant negative correlation between Neuroticism and Intrinsic, Extrinsic, General Job Satisfaction suggests that neurotic individuals i.e., individuals who are emotionally reactive and vulnerable to stress, are more likely to interpret ordinary situations as threatening, and minor frustrations as hopelessly difficult, resulting in decreased levels of Job Satisfaction. A positive correlation between Extraversion and Extrinsic, General Job Satisfaction. This means that extroverts - assertive, enthusiastic, action-oriented individuals are more likely to have high levels of Extrinsic Job Satisfaction which concerns with aspects of the work situation, such as fringe benefits and pay, and also Overall Job Satisfaction. Since Job Satisfaction is linked to higher levels of productivity and commitment, it will be wise on the part of the managements to hire extroverts, especially for faculty positions in the Higher Education Sector (Patrick, 2010)

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Bif Five traits:
Work-Family Conflict (WFC)


occurs when an individual's efforts to fulfill roles at work interfere with efforts to fulfill roles outside of work and vice versa (Greenhaus and Beutell, 1985).

- Negative affectivity (NA) correlate significantly with various measures of job stressors and strains (e.g., Brief, Burke, George, Robinson, & Webster, 1988; Jex & Spector, 1996).
- High NA individuals tend to place themselves in situations where they encounter more stressors (Bolger & Zuckerman, 1995).
- High NA individuals tend to report greater WFC. (Frone et al., 1993; Carlson, 1999)
- NA was a significant predictor of both work-to-family conflict and family-to-work conflict. (Stoeva et al., 2002)
- NA are more likely to experience WFC and this effect was especially pronounced for the strain-based form of WFC. NA may be a primary dispositional factor underlying WFC. (Bruck, Allen, 2003)

Bruck, Allen (2003) The relationship between big five personality traits, negative affectivity, type A behavior, and work-family conflict

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Personality and work-related not standard performance criteria

- High Conscientiousness and low Agreeableness were related to high-maintenance employee behavior, defined as chronic and annoying behaviors in the workplace. (Burke and Witt, 2004)
- Relations between the FFM and upward influence tactic strategies: Extraversion was related to the use of inspirational appeal and ingratiation, Openness to Experience was related to low use of coalitions, Emotional Stability was related to the use of rational persuasion and low use of inspirational appeal, Agreeableness was related to low use of legitimization or pressure, and Conscientiousness was related to the use of rational appeal. (Cable and Judge, 2003)
- A significant correlation between Conscientiousness and organizational citizenship behaviors. (O'Connell, Doverspike, Norris-Watts, and Hatstrup, 2001)

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Primary tests of the Big Five
Hogan Personality Inventory

- 206 true and false items
- 15- to 20-minute completion time
- Simple and comprehensible items based on a 4th-grade reading level
- Research indicates no adverse impact by age, race, ethnicity or gender
- HPI scores are stable over time; test-retest reliabilities range from 0,69 to 0,87
- Norms are available by group in sizes ranging up to 45,000 cases
- Over a million job candidates have been tested with the HPI
- Used in over 400 validity studies
- Successfully predicts occupational success in all major job categories
- Based on socioanalytic theory and captures key behavioral tendencies relevant to getting along with and getting ahead of others
- Research archives date back to the mid 1970s

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Hogan Personality Inventory

- Designed to predict occupational success
- Based on the Five-Factor Model
- Useful reports available for employee selection or development
- Developed exclusively on working adults
- Normed on more than 150,000 working adults worldwide
- Validated on more than 200 occupations covering all major industries
- No invasive or intrusive items
- Instantaneous scoring and reporting output
- No adverse impact
- Online administration by protected access
- Test items and reports available in multiple languages

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Socioanalytic Theory

People are motivated in a deep biological sense to engage in social interaction, which is regulated two broad and usually unconscious motives:

1. to seek acceptance and recognition of our peers and to try avoid their criticism and rejection.
2. to seek status and power relative to our peers and to try to avoid losing status and control.

Getting along and getting ahead of others are dominant themes in social life.

Over time people develop identities; idealized self-images (e.g. athlete, scholar, lover etc), and these self-images tend to guide behavior during social interaction.

People also develop repertoires of self-presentational behaviour which they use to tell others about these idealized self-images.

Identities and self-presentations are the basis on which social acceptance and status are rewarded or withdrawn - in social interaction other observe us and react.

These processes are in adults nearly automatic and go on outside of awareness.

Five factors / dimensions are main areas of differences in acceptance or withdrawal or personal survival in social environment.

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Measurement of Personality

TALLINNA TEHNIKAÜLIKOOL TALLINN UNIVERSITY OF TECHNOLOGY		Hogan Personality Inventory Scales	
Primary Scales	Description	High score	Low score
Adjustment	confidence, self-esteem, and composure under pressure	confident, resilient, and optimistic	tense, irritable, and negative
Ambition	initiative, competitiveness, and desire for leadership roles	competitive and eager to advance	unassertive and less interested in advancement
Sociability	extraversion, gregarious, and need for social interaction	outgoing, colorful, impulsive and dislike working alone	reserved, quiet, prefer working alone
Interpersonal Sensitivity	tact, perceptiveness, and ability to maintain relationships	friendly, warm, and popular	independent, frank, and direct
Prudence	self-discipline, responsibility, and conscientiousness	organized, dependable, and thorough	impulsive, flexible, and creative
Inquisitive	imagination, curiosity, and creative potential	quick-witted, visionary, and pay less attention to details	practical, focused, and able to concentrate for long periods
Learning Approach	achievement-oriented and up-to-date on business and technical matters	enjoy reading and studying	less interested in formal education than in hands-on learning
Occupational Scales	Description		
Service Orientation	being attentive, pleasant, and courteous to customers		
Stress Tolerance	being able to handle stress, even-tempered, and calm under fire		
Reliability	honesty, integrity, and positive organizational citizenship		
Clerical Potential	follows directions, pays attention to detail, and communicates clearly	http://www.hoganassessments.com/hogan-personality-inventory	
Sales Potential	energy, social skills, and the ability to solve problems for customers		
Managerial Potential	leadership ability, planning, and decision-making skills	<i>Hogan (1992) Hogan Personality Inventory Manual.</i> www.drboothurley.com/pdf/HPIManual.pdf	

Facebook reveals secrets you haven't shared
 By Bede McCarthy and Robert Cookson. *Financial Times*, March 11, 2013

The increasing amount of personal information that can be gleaned by computer programs that track how people use Facebook has been revealed by an extensive academic study.

Such programs can discern undisclosed private information such as Facebook users' sexuality, drug-use habits and even whether their parents separated when they were young, according to the study by the University of Cambridge academics.

In one of the biggest studies of its kind, scientists from the university's psychometrics team and a Microsoft-funded research centre analysed data from 58,000 Facebook users to predict traits and other information that were not provided in their profiles.

The algorithms were 88 per cent accurate in predicting male sexual orientation, 95 per cent for race and 80 per cent for religion and political leanings. Personality types and emotional stability were also predicted with accuracy ranging from 62-75 per cent.

<http://www.ft.com/intl/cms/s/0/09c8172c-8a45-11e2-bf79-00144feabdc0.html>

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Your One Click Personality
Estimated using your Facebook Likes (read more)

Like on your profile
Likes used in calculation.

Do you like us?

OPENNESS:
This trait refers to the extent to which you prefer novelty versus convention

» read more »

CONSCIENTIOUSNESS:
This trait refers to the extent to which you prefer an organised, or a flexible, approach to life.

» read more »

EXTRAVERSION:
This trait refers to the extent to which you enjoy company and seek excitement and stimulation

» read more »

AGREEABLENESS:
This trait refers to the way you express your opinions and manage relationships

» read more »

STABILITY:
This trait refers to the way you cope with, and respond to, the demands of life.

» read more »


Why Is It So Amazing?
 We believe that that our One Click Personality Test is revolutionary. As opposed to traditional methods of psychometric assessment, it:

- is extremely quick; there are no questions at all!
- has real world validity; we do not use a personality test that asks you about your real-world behaviour - we look at your actual Facebook behaviour
- is difficult to fake; in traditional testing, people often misrepresent themselves (even if they do not mean to). Here, we observe your actual behaviour and choices from the past, thus "cheating" on our test is much more difficult

A few of the "Likes" that are most indicative of your profile: <http://youarewhatyoulike.com/>

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How Do We Calculate Your Score

People of different personalities like different things. For instance, people who like deviantART.com are on average liberal, while those who like NASCAR are rather traditional. Thanks to LikeAudience.com we can check what is the average personality profile of someone who follows any of the hundreds of thousands of likes they store in their database.


In order to estimate your score, we first record your likes. Then we check what is the typical personality of the people who like each of the things that you like. Based on that, we estimate your profile by adding up the profiles of your likes. If most of the things you like are liked by liberal people (e.g. Quentin Tarantino) - it is quite likely that you are also liberal.

Obviously, your likes might not reflect your personality correctly and thus your score can be wrong! Remember - no test is 100% accurate. In fact, we also run a real personality test on Facebook, used in actual scientific research, called My Personality, so you might want to take that test and compare the results.

<http://youarewhatyoulike.com/>

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Personality and Patterns of Facebook Usage

We show how users' activity on Facebook relates to their personality, as measured by the standard Five Factor Model. Our dataset consists of the personality profiles and Facebook profile data of 180,000 users. We examine correlations between users' personality and the properties of their Facebook profiles such as the size and density of their friendship network, number uploaded photos, number of events attended, number of group memberships, and number of times user has been tagged in photos. Our results show significant relationships between personality traits and various features of Facebook profiles. We then show how multivariate regression allows prediction of the personality traits of an individual user given their Facebook profile. The best accuracy of such predictions is achieved for Extraversion and Neuroticism, the lowest accuracy is obtained for Agreeableness, with Openness and Conscientiousness lying in the middle.


Bachrach et al (2012) Personality and Patterns of Facebook Usage

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- Facebook is becoming an increasingly natural environment for a growing fraction of the world's population.
- Currently it facilitates daily interactions of over 800 million users spending more than 40 minutes daily on the platform on average.
- Facebook profiles became an important source of information used to form impressions about others. For example, people examine other people's Facebook profiles when:
 - trying to decide whether to start dating them, and
 - **they are also used when assessing job candidates**




Bachrach et al (2012) Personality and Patterns of Facebook Usage

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Measurement of Personality

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Use of Personality Testing

- 30% of American companies used personality tests to screen job applicants (Heller, 2005).
- Integrity tests, a particular type of personality assessment, are given to as many as five million job applicants a year (a number that has been growing by 20% a year), and are reported used by 20% of the members of the Society of Human Resource Management (Heller, 2005).
- 40% of Fortune 100 companies reported using personality tests for assessing some level of job applicant from front line workers to the CEO (Erickson, 2004).
- Every one of the top 100 companies in Great Britain reported using personality tests as part of their hiring procedure (Faulder, 2005).
- Two thirds of medium to large organizations use some type of psychological testing, including aptitude as well as personality, in job applicant screening (Beagrie, 2005)
- Personality testing is a \$400 million industry in the United States and it is growing at an average of 10% a year (Hsu, 2004)
- The most prevalent reason given for using personality testing was their contribution to improving employee fit and reducing turnover by rates as much as 20% (Geller, 2004), 30% (Berta, 2005), 40% (Daniel, 2005), and even 70% (Wagner, 2000)


Robstain, Giffin (2006) The use of personality measures in personnel selection - What does current research support

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... we have a problem!




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Common Bias in Responding



- Order effects - routine, fatigue
- Acquiescence or Yea- and Nay-saying - tendency to agree or disagree with everything
- Self-serving bias - tendency to enhance self
- Social desirability

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Problem of social desirability bias:

people who know that their responses will be scored and evaluated to make decisions affecting them, usually in an important way such as job selection, are almost always motivated to “fake good” and present themselves in a manner that will lead to favorable evaluations. (Lounsbury, Gibson, Saudargas, 2006)

- Halo error reflects a disposition to attribute socially desirable characteristics to oneself or to somebody else (Campbell & Fiske, 1959; Thorndike, 1920).

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Problem of Faking


Personality testing ... provides an almost ideal setting for dissimulation: Job applicants are motivated to present themselves in the best possible light; transparency of items makes it possible to endorse items that will make them look good, and there is little apparent chance of being caught in a lie. (Rosse, Strecher, Miller, and Levin, 1998),

- A meta-analysis comparing applicants in real selection situations to nonapplicants has shown that applicants do appear to inflate their scores on self-report personality inventories on job-relevant dimensions, and this inflation is more pronounced on direct measures of the Big Five than on indirect measures (Birkeland, Manson, Kisamore, Brannick, & Smith, 2006).
- Across all job types, applicants scored significantly higher than nonapplicants on Extraversion, Emotional Stability, Conscientiousness, and Openness.

(Morgeson et al., 2007).

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Faking and Warning

- Potential problem with using tests for selections is applicant faking.
- Applicants can fake, some applicants do fake and faking may alter selection decision.
- One method – warn applicants that a socially desirable scale is included on the personality measure. Warning may result in even less favorable applicant reactions – applicant may feel, that employer is distrusting or limiting their ability to present themselves as they would like.
- Applicant use an organisation’s selection practices as a signal how it might operate. Therefore, negative experience in selection process may result in applicant perception that the organisation would not be a desirable place to work (Rynes, 1993).
- Research – negative applicant reactions toward selection procedures result in applicant self-selection out of the process (Ryan, 2002; etc)


Negative reactions could result in failure to hire the most qualified people.

(McFarland, 2003)

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Justice and Fairness


Organizational justice – fairness of distribution of organizational outcomes (outcome fairness) and the fairness of procedures (procedural justice).

- **Procedural justice** in selection refers to the fairness of the selection procedures that are used to make hiring decision.
- Applicant holds standards, procedural justice rules, for how they expect to be treated and how selection procedures should be administered. These rules determine perceptions of process fairness.
- Model:
Justice Rules → Process Fairness → Intentions/Behaviour

(McFarland, 2003)

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Procedural Justice Rules


- **Face validity (job relatenss)** reflects whether the test looks like it measures constructs related to the job.
- **Perceived predictive validity** assess whether applicants believe the test can predict job performance.
- **Opportunity to perform** refers to whether applicants believe the test method allows them to demonstrate their full abilities.
- **Selection information** refers to wheter applicants believe they were provided with sufficient information for why the selection procedure should be used.
- **Question impropriety** refers wheter the questions on the test are invasive or deal with issues deemed to be personal.

These five procedural justice rules will influence perceptions of the fairness of the selection procedure. When rules are violated, the selection process is perceived as unfair.

- Research: those individuals who perceived the testing process as fair were less likely to fake the test (McFarland, 2003).

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Are personality measures valid predictors of job performance?

- **Meta-analysis (Schmitt, Gooding, Noe, and Kirsch 1984):** a mean uncorrected correlation of 0,15 across all personality traits, performance criteria, and occupations - **personality measures were less valid than other predictors of job performance.**
- Estimated true correlation between FFM (five factor model) **dimensions of personality and performance across both occupational groups and criterion types ranged from 0,04 for Openness to Experience to 0,22 for Conscientiousness.** Although correlations in this range may seem relatively modest, nevertheless these results provided a more optimistic view of the potential of personality for predicting job performance (Mount & Barrick, 1998; Murphy, 1997, 2000).


In summary, despite the controversies surrounding meta-analysis and the FFM, the weight of the meta-analytic evidence clearly leads to the conclusion that personality measures may be an important contributor to the prediction of job performance.

Rothstein, Goffin (2006)The use of personality measures in personnel selection - What does current research support

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Uncorrected Average Correlations Between "Big Five" Personality Measures and Job Performance Criteria

Personality Measure	Hurtz and Donovan (2000)	Salgado (1997)	Barrick and Mount (1991)
Conscientiousness	.15	.10	.13
Extraversion	.06	.06	.06
Agreeableness	.07	-.00	.04
Emotional Stability	.09	.08	.04
Openness to Experience	.03	.00	-.02


Two conclusions are warranted based on this data:

- First, the magnitude of the correlation between various personality measures and job performance is quite low (ranging from -.02 to .15).
- Second, the magnitude of the correlation has been surprisingly consistent across time.

Even if one makes the most optimistic assumptions about the low correlations among the Big Five and about the correctness of the entire string of corrections needed to reach the conclusion that the entire span of normal personality accounts for about 5% of the variance in job performance, one is left with the conclusion that about 95% of the variance in performance appears to have nothing to do with normal personality, as measured by currently available methods.

(Morgeson et al., 2007). 46

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Moderator Effects


- The best predictor of job performance across various performance criteria and occupational groups was Conscientiousness, but the other FFM dimensions varied in their predictive effects depending on the nature of the performance criterion and occupational group (Barrick and Mount, 1991)
- Different FFM dimensions predicted pharmaceutical sales depending on the specific nature of the criterion (overall sales versus performance growth) and job stage (maintenance versus transitional). (Thoresen, Bliese, Bradley, and Thorenson, 2004)
- Conscientiousness was positively related to employee development, but only when employees felt that the degree of autonomy in their jobs did not fit their needs. (Simmering, Colquitt, Noe, and Porter, 2003)
- FFM dimensions were not generally related to overall job performance, Agreeableness and Openness to Experience were related to performance involving interpersonal skills. (Nikolou, 2003)
- Conscientiousness was related to performance when employees perceived high levels of organizational politics, but no relations were found among employees perceiving low levels of organizational politics. (Hochwarter, Witt, and Kacmar, 2000)
- Extraversion was related to job performance when employees were also high in Conscientiousness, but with employees low in Conscientiousness, Extraversion was negatively related to performance. (Witt, 2002)

This makes the use of validity generalization principles to justify the use of a personality measure in selection more challenging because there may be numerous situational moderators.

Rohstein, Goffin (2006) The use of personality measures in personnel selection - What does current research support

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Problems with Personality Assessment

- Faking on self-report personality tests should be expected, and it probably cannot be avoided, although there is some disagreement among the authors on the extent to which faking is problematic.
- Faking or the ability to fake may not always be bad. In fact, it may be job related or at least socially adaptive in some situations.
- Corrections for faking do not appear to improve validity. However, the use of bogus items may be a potentially useful way of identifying fakers.
- We must not forget that personality tests have very low validity for predicting overall job performance. Some of the highest reported validities in the literature are potentially inflated due to extensive corrections or methodological weaknesses.
- Due to the low validity and content of some items, many published self-report personality tests should probably not be used for personnel selection. Some are better than others, of course, and when those better personality tests are combined with cognitive ability tests, in many cases validity is likely to be greater than when either is used separately.
- If personality tests are used, customized personality measures that are clearly job-related in face valid ways might be more easily explained to both candidates and organizations.
- Future research might focus on areas of the criterion domain that are likely to be more predictable by personality measures.
- Personality constructs certainly have value in understanding work behavior, but future research should focus on finding alternatives to self-report personality measures. There is some disagreement among the authors in terms of the future potential of the alternative approaches to personality assessment currently being pursued.

(Morgeson et al., 2007). 48

Measurement of Personality

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Recommendations for further reading

John, O. P., Naumann, L. P., & Soto, C. J. (2008). Paradigm Shift to the Integrative Big-Five Trait Taxonomy: History, Measurement, and Conceptual Issues. In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (pp. 114-158). New York, NY: Guilford Press.
<http://www.ocf.berkeley.edu/~johnlab/pdfs/2008chapter.pdf>

Hogan (1992) Hogan Personality Inventory Manual.
www.drbohburlley.com/pdf/HPIManual.pdf

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Thank You!

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