MBTI® Step II™
MANUAL SUPPLEMENT

Nancy A. Schaubhut
Richard C. Thompson

800-624-1765 | www.cpp.com

Contents

Introduction

The *Myers-Briggs Type Indicator*® (MBTI®) instrument is one of the most widely used personality assessments in the world. Its typology is composed of four pairs of opposite preferences, called *dichotomies:*

- Extraversion (E) or Introversion (I)—where you focus your attention and get energy
- Sensing (S) or Intuition (N)—how you take in information
- Thinking (T) or Feeling (F)—how you make decisions
- Judging (J) or Perceiving (P)—how you deal with the outer world

The MBTI assessment combines an individual's four preferences—one preference from each dichotomy, denoted by its letter—to yield one of sixteen possible personality types (e.g., ESTJ, INFP, etc.). Each type is equally valuable, and an individual inherently belongs to one of the sixteen types. This model differentiates the MBTI assessment from most other personality instruments, which typically assess personality traits. Trait-based instruments measure how much of certain characteristics people possess. Unlike the MBTI assessment, those instruments usually consider one "end" of a trait to be more positive and the other to be more negative.

The MBTI assessment exists in several different forms and many different languages. This manual supplement focuses on the 144-item MBTI Step II™ (Form Q) assessment in North American English. For information on translations of the MBTI Form Q assessment, please refer to *MBTI® Step II™ Manual Supplement,* European edition (Quenk, Hammer, & Majors, 2004), and *MBTI® Step II Instrument, European Data Supplement* (OPP, 2009). MBTI Form M and Form Q data supplements are also available in Latin and North American Spanish (Schaubhut, 2008), Simplified Chinese (Schaubhut & Thompson, 2010a), and Traditional Chinese (Schaubhut & Thompson, 2010b), as well as in U.S. English in South Africa (Yiannakis & Taylor, 2009).

The MBTI Form Q assessment includes all of the items and the four dichotomies of the Form M assessment. In addition, it contains twenty facets, five for each dichotomy, to create a richer and more detailed description of an individual's behavior. The facets describe some of the ways in which each of the preferences can be different. The twenty facets are as follows:

Extraversion–Introversion (E–I)
- Initiating–Receiving
- Expressive–Contained
- Gregarious–Intimate
- Active–Reflective
- Enthusiastic–Quiet

Sensing–Intuition (S–N)
- Concrete–Abstract
- Realistic–Imaginative
- Practical–Conceptual
- Experiential–Theoretical
- Traditional–Original

Thinking–Feeling (T–F)
- Logical–Empathetic
- Reasonable–Compassionate
- Questioning–Accommodating
- Critical–Accepting
- Tough–Tender

Judging–Perceiving (J–P)
- Systematic–Casual
- Planful–Open-Ended
- Early Starting–Pressure-Prompted
- Scheduled–Spontaneous
- Methodical–Emergent

This supplement reports a number of different analyses related to the measurement properties of the Step II assessment. Its purpose is to provide analysis of data that may have been reported previously in the *MBTI® Step II™ Manual* (Quenk, Hammer, & Majors, 2001), using additional data collected since the manual was published, and to answer some questions that could not be addressed in the manual at the time due to insufficient data.

Data Collection and Methods

The data reported in this supplement are drawn primarily from CPP's commercial database of participants who completed the MBTI Step II assessment between 2008 and 2009. This database comprises results from hundreds of thousands of respondents who have completed the MBTI Step II assessment using the SkillsOne® online platform. Participants who fit the demographic profile needed for each analysis were selected from the commercial database. Participants within each of those groups were then randomly selected to create an analysis sample with an appropriate size and an equal number of men and women, when possible. A supplemental sample, a small U.S. representative sample obtained during global MBTI revision data collection, is also included to demonstrate reliability.

Reliability of the MBTI® Step II™ Assessment

Reliability refers to the consistency of measurement. An assessment is said to be reliable when it produces a consistent, although not necessarily identical, result. Two mea-

Table 1 Internal Consistency Reliabilities of MBTI® Step II™ Facets by Employment Status

	Employment Status				
Step II™ Facet Scale	Employed Full-Time	Employed Part-Time	Full-Time Student	Retired	Not Working for Income
E–I Facet Scales					
Initiating–Receiving	.85	.84	.85	.84	.85
Expressive–Contained	.81	.81	.80	.81	.81
Gregarious–Intimate	.69	.68	.65	.66	.67
Active–Reflective	.61	.64	.62	.62	.63
Enthusiastic–Quiet	.76	.74	.74	.75	.73
S–N Facet Scales					
Concrete–Abstract	.78	.78	.75	.80	.77
Realistic–Imaginative	.77	.76	.77	.82	.78
Practical–Conceptual	.49	.53	.51	.59	.52
Experiential–Theoretical	.79	.82	.80	.82	.81
Traditional–Original	.72	.77	.72	.78	.75
T–F Facet Scales					
Logical–Empathetic	.79	.78	.79	.82	.80
Reasonable–Compassionate	.76	.75	.77	.78	.77
Questioning–Accommodating	.44	.41	.36	.50	.42
Critical–Accepting	.53	.58	.52	.57	.53
Tough–Tender	.80	.80	.79	.83	.80
J–P Facet Scales					
Systematic–Casual	.74	.76	.76	.76	.75
Planful–Open-Ended	.82	.84	.82	.84	.83
Early Starting–Pressure-Prompted	.75	.77	.75	.69	.73
Scheduled–Spontaneous	.82	.83	.81	.82	.79
Methodical–Emergent	.65	.68	.66	.66	.68
Average age	41	39	33	58	44

Note: Retired $n = 518$; all other employment groups $n = 1{,}000$.

sures of reliability are typically used: (1) *internal consistency reliability,* which evaluates the consistency of responses across items intended to measure the same concept or construct, and (2) *test-retest reliability,* which evaluates the stability of a scale or assessment (i.e., replicability of results) over a period of time. Both forms of reliability for the MBTI Step II assessment are examined below.

Internal Consistency

Internal consistency reliability, as measured by Cronbach's alpha, evaluates the consistency of responses to a set of items assessing the same concept (Cronbach, 1951). Generally, assessments intended for use with a general population, such as the MBTI assessment, are considered to be superior when they show similar degrees of internal consistency across diverse samples of participants. To that end, the internal consistency reliability of the facets measured by the MBTI Step II assessment is examined across several different samples based on common demographics, such as individuals' employment status, ethnicity, age, and country or region of origin.

Reliability Based on Employment Status

Internal consistency reliability of the MBTI facets was computed for samples of adults who completed the MBTI Step II assessment from January 2008 to October 2009. Samples were generated for each of the following employment categories: employed full-time, employed part-time, full-time student, retired, and not working for income. Each of the five samples was then developed by randomly selecting cases based on gender so that each sample was 50% women and 50% men. Table 1 shows the reliabilities for the twenty facets for

Table 2 Internal Consistency Reliabilities of MBTI® Step II™ Facets by Ethnic Group

	Ethnic Group								
Step II™ Facet Scale	African American	American Indian/ Alaskan Native	Asian	Caucasian	Indian	Latino(a)/ Hispanic	Middle Easterner	Pacific Islander/ Native Hawaiian	Multi-ethnic
E–I Facet Scales									
Initiating–Receiving	.83	.83	.80	.74	.79	.80	.76	.84	.81
Expressive–Contained	.75	.84	.76	.84	.76	.78	.74	.81	.78
Gregarious–Intimate	.69	.71	.66	.75	.60	.68	.66	.64	.66
Active–Reflective	.54	.65	.57	.68	.51	.62	.53	.59	.48
Enthusiastic–Quiet	.66	.75	.73	.78	.72	.71	.68	.76	.70
S–N Facet Scales									
Concrete–Abstract	.72	.75	.73	.78	.70	.74	.68	.73	.73
Realistic–Imaginative	.74	.72	.72	.75	.74	.70	.70	.74	.75
Practical–Conceptual	.56	.53	.48	.43	.49	.55	.53	.40	.54
Experiential–Theoretical	.79	.78	.75	.80	.70	.75	.76	.77	.80
Traditional–Original	.70	.70	.71	.77	.68	.73	.68	.68	.69
T–F Facet Scales									
Logical–Empathetic	.72	.78	.76	.83	.73	.82	.75	.74	.80
Reasonable–Compassionate	.65	.78	.65	.78	.72	.73	.69	.65	.77
Questioning–Accommodating	.32	.43	.40	.41	.42	.53	.34	.45	.44
Critical–Accepting	.56	.51	.55	.56	.49	.52	.51	.48	.52
Tough–Tender	.81	.78	.80	.83	.78	.79	.77	.75	.79
J–P Facet Scales									
Systematic–Casual	.75	.77	.71	.74	.77	.73	.71	.71	.73
Planful–Open-Ended	.84	.84	.80	.82	.83	.82	.81	.81	.81
Early Starting–Pressure-Prompted	.68	.69	.73	.73	.68	.65	.73	.64	.69
Scheduled–Spontaneous	.77	.80	.78	.81	.79	.78	.75	.81	.81
Methodical–Emergent	.64	.66	.52	.67	.68	.58	.56	.68	.69
Average age	40	40	36	40	35	37	37	37	36

Note: Pacific Islander/Native Hawaiian n = 199; all other ethnic groups n = 200.

each group, as well as the average age of each group. The reliabilities for all five employment status samples are generally acceptable to good, ranging from .36 (Questioning Accommodating facet for the full-time student group) to .85 (Initiating–Receiving facet for employed full-time, full-time student, and not working for income groups). The pattern of facets with the highest and lowest reliabilities here is similar to that reported in the *MBTI® Step II™ Manual*. The internal consistency reliabilities reported in the manual for the national sample range from .57 (Questioning–Accommodating facet) to .85 (Initiating–Receiving facet).

Reliability Based on Ethnicity A second demographic variable used to examine internal consistency reliability was respondent ethnicity. Adults who completed the MBTI Step II assessment from January 2008 to October 2009 and self-reported being in one of eight different ethnic groups—African American, American Indian/Alaskan Native, Asian, Caucasian, Indian (from the Indian subcontinent), Latino(a)/Hispanic, Middle Easterner (from the Middle East or North Africa), Pacific Islander/Native Hawaiian—were drawn from the commercial database. A ninth group comprising respondents who self-reported membership in two or more of the above ethnic categories was also created. From the larger data set, an equal number of men and women were selected at random to create ethnic samples of 100 men and 100 women (the Pacific Islander/Native Hawaiian group contains 100 men and 99 women). The internal consistency reliabilities for the MBTI facets for each ethnic group are shown in table 2, as is the average age of each group. The

Table 3 Internal Consistency Reliability of MBTI® Step II™ Facets by Age Group

	Age Group					
Step II™ Facet Scale	<20	20–29	30–39	40–49	50–59	60+
E–I Facet Scales						
Initiating–Receiving	.84	.84	.84	.85	.85	.83
Expressive–Contained	.80	.81	.81	.81	.82	.80
Gregarious–Intimate	.68	.69	.69	.68	.68	.66
Active–Reflective	.65	.65	.65	.62	.62	.60
Enthusiastic–Quiet	.75	.75	.75	.75	.76	.75
S–N Facet Scales						
Concrete–Abstract	.73	.73	.75	.76	.79	.81
Realistic–Imaginative	.73	.74	.76	.76	.78	.81
Practical–Conceptual	.49	.49	.51	.53	.58	.63
Experiential–Theoretical	.79	.78	.79	.79	.82	.83
Traditional–Original	.69	.70	.73	.74	.76	.79
T–F Facet Scales						
Logical–Empathetic	.78	.79	.78	.79	.80	.81
Reasonable–Compassionate	.74	.75	.74	.73	.75	.77
Questioning–Accommodating	.44	.45	.41	.38	.42	.44
Critical–Accepting	.52	.56	.54	.54	.55	.57
Tough–Tender	.78	.79	.80	.80	.81	.82
J–P Facet Scales						
Systematic–Casual	.76	.74	.74	.74	.75	.77
Planful–Open-Ended	.81	.82	.82	.81	.83	.82
Early Starting–Pressure-Prompted	.77	.75	.74	.73	.69	.71
Scheduled–Spontaneous	.84	.82	.82	.81	.80	.81
Methodical–Emergent	.67	.67	.68	.65	.66	.66
Average age	18	25	35	44	54	63

Note: Each age group n = 2,772.

reliabilities are similar across ethnic groups, ranging from .32 (Questioning–Accommodating, African American group) to .84 (several facets and ethnic groups).

Reliability Based on Age Group

A third demographic variable used to evaluate internal consistency reliability was age. Respondents who completed the MBTI Step II assessment from January 2007 to June 2009 and self-reported their age were drawn from the commercial database; equal-sized age group samples were generated by random selection from the larger database for six different age groups (under 20, 20–29, 30–39, 40–49, 50–59, 60 and over). Each age group consists of an equal number of men and women. The internal consistency reliabilities of MBTI facets for each age group are presented in table 3, along with the average age for each group. Of the respondents, 63% were employed full-time and 5% part-time, and 19% were enrolled as full-time students (not all respondents provided demographic information). Overall, most of the reliabilities are good and appear to be similar across age groups.

Reliability in International Samples

The MBTI assessment is increasingly being administered to people around the globe. While considerable research has been done on the MBTI assessment in a variety of countries (Beuke, Freeman, & Wang, 2006; Deakin, 2006; Hackston, 2005; Kendall, 1998; Schaubhut, 2008; Schaubhut & Thompson, 2009, 2010a, 2010b; Taylor & Yiannakis, 2007; Yiannakis & Taylor, 2009), this analysis was undertaken to examine the internal consistency reliability of the MBTI Step II assessment in various regions of the world when administered using North American English. Samples from several regions of the world were used for this analysis:

Table 4 Internal Consistency Reliabilities of MBTI® Step II™ Facets by Region

Step II™ Facet Scale	Region					
	Africa	Asia	Australia/ New Zealand	Europe	Latin America	Middle East/ North Africa
E–I Facet Scales						
Initiating–Receiving	.82	.79	.82	.80	.77	.75
Expressive–Contained	.78	.75	.81	.80	.78	.74
Gregarious–Intimate	.71	.66	.66	.68	.72	.54
Active–Reflective	.64	.60	.60	.61	.64	.53
Enthusiastic–Quiet	.75	.72	.73	.74	.69	.62
S–N Facet Scales						
Concrete–Abstract	.72	.68	.76	.71	.69	.70
Realistic–Imaginative	.73	.71	.76	.73	.66	.73
Practical–Conceptual	.48	.49	.55	.49	.51	.51
Experiential–Theoretical	.68	.68	.76	.72	.66	.69
Traditional–Original	.69	.69	.73	.71	.67	.61
T–F Facet Scales						
Logical–Empathetic	.75	.76	.75	.73	.77	.75
Reasonable–Compassionate	.68	.67	.72	.66	.63	.70
Questioning–Accommodating	.39	.34	.40	.31	.28	.25
Critical–Accepting	.45	.43	.51	.43	.38	.38
Tough–Tender	.77	.74	.79	.77	.75	.78
J–P Facet Scales						
Systematic–Casual	.76	.74	.74	.73	.74	.72
Planful–Open-Ended	.81	.74	.81	.80	.77	.78
Early Starting–Pressure-Prompted	.66	.62	.68	.67	.61	.64
Scheduled–Spontaneous	.80	.75	.80	.78	.74	.73
Methodical–Emergent	.66	.54	.66	.60	.54	.59
Average age	35	29	39	34	33	36

Note: N = 10,878; Africa n = 1,609, Asia n = 3,866, Australia/New Zealand n = 1,806, Europe n = 2,508, Latin America n = 857, Middle East/North Africa n = 232.

- Africa (Botswana, Cameroon, Ethiopia, Ghana, Ivory Coast, Kenya, Nigeria, South Africa, Uganda, Zambia, and Zimbabwe)
- Asia (China, Hong Kong, India, Indonesia, Japan, Malaysia, Philippines, Singapore, South Korea, Taiwan, Thailand, and Vietnam)
- Australia and New Zealand
- Europe (Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Spain, Sweden, Switzerland, and United Kingdom)
- Latin America (Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Guatemala, Mexico, Peru, Puerto Rico, and Venezuela)
- Middle East and North Africa (Bahrain, Egypt, Israel, Jordan, Kuwait, Lebanon, Pakistan, Qatar, Saudi Arabia, and Syria)

All data were collected from June 2008 to November 2009. Respondents were included if they indicated, from an exhaustive list of possible countries, that their country of origin and country of residence were the same. The reliability estimates and average age of respondents for each region are presented in table 4. The internal consistency reliabilities for most facets are good. The lowest reliabilities for all

Table 5 Internal Consistency Reliabilities of MBTI® Step II™ Facets in a Small U.S. Representative Sample

Step II™ Facet Scale	Cronbach's Alpha
E–I Facet Scales	
Initiating–Receiving	.81
Expressive–Contained	.72
Gregarious–Intimate	.59
Active–Reflective	.60
Enthusiastic–Quiet	.71
S–N Facet Scales	
Concrete–Abstract	.71
Realistic–Imaginative	.73
Practical–Conceptual	.50
Experiential–Theoretical	.72
Traditional–Original	.65
T–F Facet Scales	
Logical–Empathetic	.75
Reasonable–Compassionate	.73
Questioning–Accommodating	.43
Critical–Accepting	.49
Tough–Tender	.79
J–P Facet Scales	
Systematic–Casual	.75
Planful–Open-Ended	.76
Early Starting–Pressure-Prompted	.60
Scheduled–Spontaneous	.79
Methodical–Emergent	.62

Note: N = 2,000.

regions were found for the Questioning–Accommodating facet. This facet has the fewest number of items and also has the lowest reliability in the U.S. national sample (Quenk et al., 2001). Although some variability in reliabilities was found here, the patterns are similar across the six regions. Compared to the other regions examined, the Gregarious–Intimate and Active–Reflective facets have somewhat lower reliabilities for the Middle East/North Africa region. Perhaps there are cultural differences in the understanding or expression of these two facets for this group.

Reliability in a Small U.S. Representative Sample During the data collection for a global MBTI revision, a small U.S. representative sample was created. This sample consists of 2,000 individuals (50% women, 50% men) that were selected to mirror the demographic composition of the United States in terms of work status, ethnicity, education level, and, for those employed, general line of business. It was included in this supplement as an additional sample to demonstrate internal consistency reliability (see table 5).

In each of the samples used to examine internal consistency reliability (employment status, ethnicity, age, country or region of origin, and a small U.S representative sample), the Questioning–Accommodating and Critical–Accepting facets had the lowest reliabilities. These two also have the lowest reliabilities reported in the *MBTI® Step II™ Manual*. This is likely due to the small number of items—five for Questioning–Accommodating and six for Critical–Accepting. Internal consistency reliability increases as the number of items on a scale increases (Schwab, 2005). These reliabilities are similar to those reported for the NEO PI-R™ (Costa & McCrae, 1992), with reliabilities for facets ranging from .56 to .81 for self-reports. Regarding the NEO PI-R alphas, Costa & McCrae (p. 44) note that "these values are acceptable for scales with only eight items." Several of the MBTI Step II facet scales have fewer than eight items, namely Gregarious–Intimate, Active–Reflective, Enthusiastic–Quiet, Realistic–Imaginative, Practical–Conceptual, Experiential–Theoretical, Questioning–Accommodating, Critical–Accepting, Systematic–Casual, Planful–Open-Ended, Early Starting–Pressure-Prompted, and Methodical–Emergent.

Test-Retest Reliability

Another method for evaluating reliability, termed *test-retest reliability,* examines consistency of scores resulting from a participant completing the same assessment at two different times. The length of time between administrations can affect a test-retest estimate. Shorter intervals between tests may result in higher correlations (Shultz & Whitney, 2005); longer intervals between tests often result in lower test-retest reliabilities. Additionally, according to Murphy & Davidshofer (2005), there are more factors contributing to measurement error in test-retest reliability than internal consistency reliability; thus test-retest reliability is typically lower. It can be difficult to provide an exact interpretation of what is an acceptable level of reliability. According to Murphy and Davidshofer (2005), "it is impossible to specify any particular figure as the minimum level of reliability needed for all testing applications" (p. 149). Test-retest reliabilities for the current sample are discussed below.

Test-retest reliability correlations were examined using a sample of respondents who each completed the MBTI Form Q assessment twice between January 2004 and September 2008. The sample consisted of 49% women and 49% men (2% did not report gender). At the time of the first assessment, the average age of respondents was 37 years. The test-retest reliability of the facets was evaluated by correlating the continuous scores from time 1 and time 2. The period

Table 6 MBTI® Step II™ Test-Retest Correlations

		Interval			
Step II™ Facet Scale	All intervals	≤3 weeks	1–6 months	6–12 months	>1 year
E–I Facet Scales					
Initiating–Receiving	.82	.80	.83	.80	.86
Expressive–Contained	.79	.75	.85	.75	.88
Gregarious–Intimate	.71	.73	.72	.61	.77
Active–Reflective	.77	.80	.75	.77	.75
Enthusiastic–Quiet	.81	.83	.84	.80	.77
S–N Facet Scales					
Concrete–Abstract	.79	.79	.73	.80	.85
Realistic–Imaginative	.77	.77	.81	.72	.79
Practical–Conceptual	.70	.80	.72	.65	.65
Experiential–Theoretical	.78	.71	.79	.75	.84
Traditional–Original	.78	.80	.83	.68	.79
T–F Facet Scales					
Logical–Empathetic	.81	.88	.79	.79	.81
Reasonable–Compassionate	.77	.83	.73	.76	.80
Questioning–Accommodating	.50	.49	.51	.53	.44
Critical–Accepting	.63	.73	.58	.62	.61
Tough–Tender	.76	.75	.75	.74	.82
J–P Facet Scales					
Systematic–Casual	.70	.75	.64	.72	.75
Planful–Open-Ended	.72	.79	.72	.72	.68
Early Starting–Pressure-Prompted	.79	.88	.74	.80	.78
Scheduled–Spontaneous	.77	.78	.73	.84	.73
Methodical–Emergent	.68	.78	.60	.68	.75

Note: ≤3 weeks n = 70, 1–6 months n = 139, 6–12 months n = 115, >1 year n = 85.

between the first and second completion of the assessment ranged from less than one week to more than four years. The test-retest correlations are presented in table 6, showing four different time intervals—3 weeks or less, 4 weeks–6 months, 6–12 months, and more than 1 year—plus all intervals combined. The correlations of the MBTI facets range from .44 (Questioning–Accommodating, >1 year interval) to .88 (Expressive–Contained, >1 year interval; Logical– Empathetic and Early Starting–Pressure-Prompted, both ≤3 weeks interval), indicating good reliability for most of the facets over long periods of time. These results are fairly similar to the test-retest reliabilities for the NEO PI-R facet correlations (.66–.92) reported in a study by McCrae and Costa (1983).

The test-retest correlations are presented separately for men and women in table 7. The correlations for men and women are similar: for men they range from .44 (Questioning–Accommodating, ≤3 weeks interval) to .91 (Early Starting–Pressure-Prompted, ≤3 weeks interval); for women they range from .42 (Questioning–Accommodating, >1 year interval) to .92 (Enthusiastic–Quiet, ≤3 weeks interval). The Questioning–Accommodating facet typically has the lowest internal consistency reliability of any facet; however, the test-retest reliabilities for this facet are somewhat higher. (The test-retest results from this sample were reported in a previous paper, Schaubhut & Herk, 2009.)

Comparing the Reliability of the MBTI® Step II™ Assessment to That of Other Assessments

Many users of the assessment may not have access to or experience with other personality instruments and thus may

Table 7 MBTI® Step II™ Test-Retest Correlations by Gender

	All intervals		Interval							
			≤3 weeks		1–6 months		6–12 months		>1 year	
Step II™ Facet Scale	Men (*n* = 182)	Women (*n* = 186)	Men (*n* = 39)	Women (*n* = 25)	Men (*n* = 54)	Women (*n* = 71)	Men (*n* = 51)	Women (*n* = 53)	Men (*n* = 38)	Women (*n* = 37)
E–I Facet Scales										
Initiating–Receiving	.81	.83	.85	.82	.84	.85	.70	.85	.88	.79
Expressive–Contained	.78	.81	.73	.86	.80	.88	.74	.80	.86	.66
Gregarious–Intimate	.68	.75	.72	.80	.71	.81	.56	.65	.74	.73
Active–Reflective	.75	.79	.85	.85	.83	.72	.59	.84	.70	.78
Enthusiastic–Quiet	.78	.82	.74	.92	.87	.80	.67	.85	.77	.75
S–N Facet Scales										
Concrete–Abstract	.78	.79	.73	.89	.75	.67	.77	.81	.86	.86
Realistic–Imaginative	.78	.77	.77	.72	.81	.79	.66	.81	.86	.67
Practical–Conceptual	.69	.73	.78	.85	.71	.73	.60	.75	.71	.55
Experiential–Theoretical	.79	.83	.60	.80	.84	.81	.75	.78	.90	.90
Traditional–Original	.76	.80	.80	.78	.81	.85	.66	.66	.81	.85
T–F Facet Scales										
Logical–Empathetic	.82	.81	.89	.91	.82	.76	.76	.86	.85	.80
Reasonable–Compassionate	.77	.76	.88	.77	.68	.71	.75	.80	.79	.80
Questioning–Accommodating	.51	.48	.44	.61	.50	.46	.61	.47	.51	.42
Critical–Accepting	.59	.62	.70	.57	.64	.51	.39	.73	.59	.56
Tough–Tender	.72	.80	.73	.84	.69	.75	.64	.84	.85	.82
J–P Facet Scales										
Systematic–Casual	.70	.70	.77	.73	.63	.65	.68	.72	.79	.75
Planful–Open-Ended	.73	.79	.89	.88	.73	.78	.62	.77	.69	.79
Early Starting–Pressure-Prompted	.85	.77	.91	.84	.82	.68	.81	.79	.90	.85
Scheduled–Spontaneous	.75	.82	.71	.83	.81	.75	.75	.90	.71	.86
Methodical–Emergent	.69	.66	.76	.81	.64	.58	.71	.56	.68	.84

not be equipped to evaluate the reported reliability information. Table 8 has been included to show how the MBTI Step II instrument compares to other commonly used and well-known personality assessments vis-à-vis internal consistency and test-retest reliabilities. Included are the internal consistency reliabilities (Cronbach's alpha) and test-retest reliabilities of the MBTI Step II assessment (Quenk et al., 2001), as well as the 16PF® instrument (Conn & Rieke, 1994) and *Golden Personality Type Profiler*™ (Golden, 2005). Since time intervals of test-retest correlations are different across assessments (and unreported in the *Golden Personality Type Profiler*™ *Manual*), it can be difficult to make direct comparisons. However, as shown in table 8, the internal consistency and test-retest reliabilities of the MBTI Step II assessment are comparable to those reported for the other personality assessments.

Validity of the MBTI® Step II™ Assessment

The validity of an assessment refers to the accuracy of the inferences that may be made based on the results of the assessment. An instrument is said to be valid when it measures what it has been designed to measure (Ghiselli, Campbell, & Zedeck, 1981; Murphy & Davidshofer, 2005). Additionally, a valid assessment maintains the same relationships with other assessments over time. Validity of personality assessments is often established through construct validity by showing that results of the assessment relate in a predictable manner to results of similar measures they should be related to (known as *convergent validity*) and are not

Table 8 Reliability of the MBTI® Step II™ Assessment and Other Personality Assessments

Step II™ Facet Scale	Cronbach's Alpha: National sample	Test-Retest Correlations: Adult sample
E–I Facet Scales		
Initiating–Receiving	.85	.90
Expressive–Contained	.79	.83
Gregarious–Intimate	.60	.74
Active–Reflective	.59	.86
Enthusiastic–Quiet	.72	.80
S–N Facet Scales		
Concrete–Abstract	.81	.75
Realistic–Imaginative	.79	.78
Practical–Conceptual	.67	.69
Experiential–Theoretical	.83	.74
Traditional–Original	.76	.74
T–F Facet Scales		
Logical–Empathetic	.80	.79
Reasonable–Compassionate	.77	.74
Questioning–Accommodating	.57	.56
Critical–Accepting	.60	.64
Tough–Tender	.81	.69
J–P Facet Scales		
Systematic–Casual	.74	.78
Planful–Open-Ended	.82	.83
Early Starting–Pressure-Prompted	.70	.80
Scheduled–Spontaneous	.82	.83
Methodical–Emergent	.71	.69

16PF® (5th ed.) Scale	Normative sample	2-month interval
Warmth	.69	.77
Reasoning	.77	.65
Emotional Stability	.78	.67
Dominance	.66	.69
Liveliness	.72	.69
Rule-Consciousness	.75	.76
Social Boldness	.85	.79
Sensitivity	.77	.76
Vigilance	.74	.56
Abstractedness	.74	.67
Privateness	.75	.70
Apprehension	.78	.64
Openness to Change	.64	.70
Self-Reliance	.78	.69
Perfectionism	.71	.77
Tension	.76	.68

Golden Personality Type Profiler™ Facet	Sample of employed adults and students	Unreported interval
Talkative	.85	.88
Quiet	.83	.91
Socially Bold	.85	.91
Reserved	.82	.93
Outgoing	.62	.84
Intimate	.58	.82
Participative	.79	.88
Reflective	.75	.87
Concrete	.78	.86
Abstract	.77	.82
Practical	.79	.83
Innovative	.82	.86
Conventional	.70	.79
Visionary	.74	.82
Traditional	.50	.71
Trend-Setting	.67	.73
Rational	.75	.84
Empathetic	.78	.89
Autonomous	.75	.81
Compassionate	.79	.80
Analytic	.71	.88
Warm	.72	.89
Competitive	.65	.87
Nurturing	.69	.87
Planned	.73	.84
Open Ended	.71	.90
Reliable	.81	.90
Casual	.74	.93
Deliberate	.73	.86
Spontaneous	.75	.85
Conforming	.77	.83
Non Conforming	.70	.80
Concerned	.70	.87
Optimistic	.72	.80
Unsure	.71	.87
Confident	.80	.87

Table 9 Proportion of Reported Type Out-of-Preference Scores

	Out-of-Preference Scores					
MBTI® Dichotomy	0	1	2	3	4	5
Extraversion–Introversion	63.2	26.7	9.1	1.0	0.1	0.0
Sensing–Intuition	68.2	25.6	5.8	0.5	0.0	0.0
Thinking–Feeling	52.3	33.3	11.3	3.0	0.2	0.0
Judging–Perceiving	52.6	31.2	13.6	2.6	0.1	0.0

related to results of measures they should not be related to (known as *divergent validity*). Convergent validity can be demonstrated when results of an assessment are related to results of similar measures, observations, or other information that assesses the same or a similar concept. Similarly, divergent validity can be demonstrated when results of an assessment fail to relate to those of other measures, observations, or information they should not be related to. Reported here as evidence of validity of the MBTI Step II assessment are the proportion of out-of-preference facets for each dichotomy; correlations between facets, between dichotomies and facets, and between the MBTI and seven other assessments; and a factor analysis.

The five facets within each dichotomy do not represent the entire content of the dichotomy. Further, it is not uncommon for individuals to have a facet score on the side opposite that of their preference in a given dichotomy. For example, an Extravert may score toward the Intimate pole. This apparent inconsistency is referred to as an out-of-preference score and defined as a facet score from –2 to –5 when a respondent has preferences for I, N, F, or P; or from 2 to 5 when a respondent has preferences for E, S, T, or J. While it is not unusual to have a number of out-of-preference scores, it is relatively rare to have three or more facets out-of-preference for any dichotomy. The small U.S. representative sample of 2,000 individuals (the same as in table 5) was used to calculate the proportion of out-of-preference facets for each dichotomy, shown in table 9.

Facet Intercorrelations

Correlations between the facets were examined using a sample of 10,000 respondents (50% women, 50% men) who completed the MBTI Step II assessment between January 2008 and October 2009. The average age of respondents in this sample was 40 years. Seventy-three percent of respondents were employed full- or part-time, 13% were full-time students, and 3% were not working for income (not all respondents provided demographic information).

The correlations are shown in table 10 and are very similar to those reported in the *MBTI® Step II™ Manual* (Quenk et al., 2001). The facets within each dichotomy correlate more highly with each other than with facets from other dichotomies (Quenk et al., 2001). Facet correlations in the table within the same dichotomy are shaded. In a few instances, some facets also correlate with facets from another dichotomy. For example, the T–F facet Tough–Tender correlates at .30 with Questioning–Accommodating (a T–F facet) and at .32 with Systematic–Casual (a J–P facet). However, most of the facet correlations within the T–F dichotomy are larger. These correlations further demonstrate the construct validity of the Step II assessment.

Facet–Dichotomy Correlations

The sample that was used to examine correlations between the MBTI facets was also used for correlations between Step II facets and MBTI dichotomies, as shown in table 11. The correlations between each facet and its dichotomy are significantly larger than those between the facet and the other three dichotomies. This is "compelling evidence for the theoretical hierarchical structure of the Step II facet scales in relation to the Step I scales" (Quenk et al., 2001, p. 104). In this sample, E–I facet correlations with the E–I dichotomy range from .78 to .88; S–N facet correlations with the S–N dichotomy, .72 to 88; T–F facets with the T–F dichotomy, .28 to .87; and J–P facets with the J–P dichotomy, .55 to .88. These correlations are comparable to those reported in the *MBTI® Step II™ Manual* (Quenk et al., 2001). The lowest correlation was found between the Questioning–Accommodating facet and the T–F dichotomy. This is not surprising given that this facet has the fewest number of items and typically the lowest internal consistency and test-retest reliabilities.

Correlations with Other Personality Assessments

To further demonstrate convergent and divergent validity of the MBTI Step II facets (beyond that shown in prior manuals and research), the facets were correlated with scales of several other assessments, namely the CPI 260®, FIRO® (FIRO-B® and FIRO Business®), *Adjective Check List, Strong Interest Inventory®, Thomas-Kilmann Conflict Mode Instrument* (TKI), *Birkman Method®,* and *Benchmarks®* assessments. Descriptions of the relationships between the MBTI assessment and the other assessments follow.

Table 10 Correlations Between MBTI® Step II™ Facets

Step II™ Facet Scale	Initiating–Receiving	Expressive–Contained	Gregarious–Intimate	Active–Reflective	Enthusiastic–Quiet	Concrete–Abstract	Realistic–Imaginative	Practical–Conceptual	Experiential–Theoretical	Traditional–Original
E–I Facet Scales										
Initiating–Receiving										
Expressive–Contained	.59									
Gregarious–Intimate	.61	.56								
Active–Reflective	.71	.56	.63							
Enthusiastic–Quiet	.67	.62	.68	.66						
S–N Facet Scales										
Concrete–Abstract	–.13	–.10	–.07	–.06	–.15					
Realistic–Imaginative	–.13	–.12	–.10	–.08	–.21	.72				
Practical–Conceptual	–.08	–.02	.00	.02	–.09	.59	.61			
Experiential–Theoretical	–.09	–.05	–.02	–.01	–.09	.69	.58	.51		
Traditional–Original	–.13	–.07	–.07	–.06	–.17	.65	.61	.57	.55	
T–F Facet Scales										
Logical–Empathetic	–.09	–.20	–.06	–.09	–.14	.22	.23	.09	.10	.01
Reasonable–Compassionate	–.03	–.12	–.01	–.02	–.04	.20	.20	.09	.11	-.02
Questioning–Accommodating	.05	–.03	.00	.00	.06	–.15	–.10	–.17	–.18	-.32
Critical–Accepting	–.09	–.14	–.05	–.08	–.07	.18	.17	.12	.08	-.01
Tough–Tender	.01	–.11	.02	.00	.00	.24	.24	.14	.14	.01
J–P Facet Scales										
Systematic–Casual	–.10	–.13	–.12	–.12	–.17	.40	.38	.22	.28	.31
Planful–Open-Ended	–.02	–.03	–.04	–.05	–.05	.28	.26	.16	.24	.30
Early Starting–Pressure-Prompted	–.04	–.06	–.05	–.05	–.10	.24	.23	.15	.21	.25
Scheduled–Spontaneous	–.02	–.03	–.04	–.04	–.08	.34	.31	.20	.28	.35
Methodical–Emergent	.02	–.03	–.01	–.01	–.03	.18	.16	.06	.15	.14

Note: $N = 10{,}000$. Negative correlations are associated with E, S, T, and J facets; positive correlations are associated with I, N, F, and P facets.

Table 10 Correlations Between MBTI® Step II™ Facets *continued*

Step II™ Facet Scale	Logical–Empathetic	Reasonable–Compassionate	Questioning–Accommo-dating	Critical–Accepting	Tough–Tender	Systematic–Casual	Planful–Open-Ended	Early Starting–Pressure-Prompted	Scheduled–Spontaneous	Methodical–Emergent
T–F Facet Scales										
Logical–Empathetic										
Reasonable–Compassionate	.71									
Questioning–Accommodating	.22	.28								
Critical–Accepting	.44	.51	.35							
Tough–Tender	.62	.71	.30	.56						
J–P Facet Scales										
Systematic–Casual	.38	.33	.00	.22	.32					
Planful–Open-Ended	.12	.10	-.09	.05	.09	.61				
Early Starting–Pressure-Prompted	.10	.06	–.13	–.01	.06	.43	.45			
Scheduled–Spontaneous	.18	.14	–.10	.06	.13	.66	.74	.51		
Methodical–Emergent	.17	.13	–.02	.03	.11	.47	.47	.46	.53	

Note: $N = 10{,}000$. Negative correlations are associated with E, S, T, and J facets; positive correlations are associated with I, N, F, and P facets.

Table 11 Correlations Between MBTI® Step II™ Facets and MBTI® Dichotomies

	MBTI® Dichotomy			
Step II™ Facet Scale	E–I	S–N	T–F	J–P
E–I Facet Scales				
Initiating–Receiving	.88	–.15	–.07	–.05
Expressive–Contained	.78	–.10	–.18	–.07
Gregarious–Intimate	.78	–.08	–.04	–.07
Active–Reflective	.79	–.07	–.07	–.09
Enthusiastic–Quiet	.83	–.19	–.11	–.12
S–N Facet Scales				
Concrete–Abstract	–.13	.88	.28	.38
Realistic–Imaginative	–.16	.85	.29	.36
Practical–Conceptual	–.06	.72	.15	.21
Experiential–Theoretical	–.08	.82	.15	.30
Traditional–Original	–.13	.75	.04	.36
T–F Facet Scales				
Logical–Empathetic	–.13	.18	.87	.24
Reasonable–Compassionate	–.06	.16	.87	.19
Questioning–Accommodating	.03	–.19	.28	–.07
Critical–Accepting	–.10	.14	.57	.11
Tough–Tender	–.02	.20	.84	.18
J–P Facet Scales				
Systematic–Casual	–.14	.39	.40	.80
Planful–Open-Ended	.04	.30	.12	.88
Early Starting–Pressure-Prompted	–.07	.27	.09	.55
Scheduled–Spontaneous	.05	.36	.17	.88
Methodical–Emergent	–.01	.18	.15	.64

Note: N = 10,000.

CPI 260® Assessment The CPI 260 assessment measures personality characteristics intended to provide a clear and accurate description of the respondent to increase self-awareness and understanding (Gough & Bradley, 2005). A sample of 1,828 adults (50% women, 50% men) was generated from a larger data set of individuals who completed the CPI 260 and MBTI Step II assessments. Of these respondents, 51% were employed full- or part-time, 7% were not working for income, and 1% were full-time students (not all respondents provided demographic information). The average age of respondents was 42 years. The measures provided by the two assessments were correlated, and the results are shown in table 12. Correlation coefficients with $r \geq .20$ are in bold to indicate stronger relationships between the facets and the CPI 260 scales. The CPI 260 assessment scales are arranged in six different categories, as described below. The correlations reported here are similar to those found in the *MBTI® Step II™ Manual* for the CPI™ 434 assessment (Quenk et al., 2001), providing additional evidence of the validity of the MBTI Step II assessment.

- **Dealing With Others category.** Includes seven CPI 260 scales measuring different aspects of self-presentation: Dominance, Capacity for Status, Sociability, Social Presence, Self-acceptance, Independence, and Empathy. All of the E–I facets in the direction of Extraversion are related to higher scores on each of these scales. For the S–N facets, most in the direction of Intuition are also related to higher scores on these scales. T–F facets Logical–Empathetic, Reasonable–Compassionate, and Tough–Tender, in the direction of Thinking, are related to higher scores on Dominance and Independence. None of the J–P facets is highly correlated with any Dealing With Others scales.
- **Self-management category.** Includes seven CPI 260 scales measuring characteristics such as self-control, conscientiousness, values, and personal integration: Responsibility, Social Conformity, Self-control, Good Impression, Communality, Well-being, and Tolerance. All of the facets in the direction of Extraversion are related to higher scores on Well-being. S–N facets Realistic–Imaginative and Traditional–Original, both in the direction of Sensing, are related to higher scores on Social Conformity, Self-control, Good Impression, and Communality. T–F facet Questioning–Accommodating, in the direction of Feeling, is related to higher scores on Self-control and Good Impression; Logical–Empathetic, in the direction of Thinking, is related to higher scores on Well-being. All of the J–P facets in the Judging direction are related to higher scores on several of these CPI scales, including Responsibility, Good Impression, and Communality.
- **Motivations and Thinking Style category.** Includes three CPI 260 scales measuring different motivations and ways of thinking: Achievement via Conformance, Achievement via Independence, and Conceptual Fluency. All of the E–I facets in the direction of Extraversion, and all of the S–N facets in the direction of Intuition, are related to higher scores on Conceptual Fluency. All of the S–N facets in the direction of Intuition are also related to higher scores on Achievement via Independence. For the T–F facets, Logical–Empathetic, in the direction of Thinking, is related to higher scores on Achievement via Conformance and Conceptual Fluency. Finally, all of the J–P facets in the direction of Judging are related to higher scores on Achievement via Conformance.
- **Personal Characteristics category.** Includes three CPI 260 scales of heterogeneous content: Insightfulness, Flexibility, and Sensitivity. All of the E–I facets in the direction of Introversion are related to higher scores on Sensitivity. All of the S–N facets in the direction of

Table 12 Correlations Between MBTI® Step II™ Facets and CPI 260® Scales

Step II™ Facet Scale	CPI 260® Scale: *Dealing With Others Scales*							*Self-management Scales*						
	Domi-nance	Capac-ity for Status	Socia-bility	Social Pres-ence	Self-accep-tance	Indepen-dence	Em-pathy	Respon-sibility	Social Con-formity	Self-control	Good Impres-sion	Commu-nality	Well-being	Toler-ance
E–I Facet Scales														
Initiating–Receiving	**–.63**	**–.55**	**–.71**	**–.49**	**–.58**	**–.42**	**–.48**	–.12	–.15	.09	–.13	–.03	**–.30**	–.15
Expressive–Contained	**–.42**	**–.39**	**–.51**	**–.41**	**–.39**	**–.28**	**–.37**	–.08	–.15	.11	–.09	–.02	**–.24**	–.18
Gregarious–Intimate	**–.46**	**–.42**	**–.55**	**–.43**	**–.42**	**–.33**	**–.38**	–.04	–.14	.12	–.09	.02	**–.24**	–.12
Active–Reflective	**–.51**	**–.43**	**–.61**	**–.47**	**–.49**	**–.35**	**–.37**	–.04	–.15	.13	–.08	.02	**–.26**	–.13
Enthusiastic–Quiet	**–.48**	**–.47**	**–.59**	**–.51**	**–.47**	**–.33**	**–.42**	–.01	–.08	**.23**	.00	.08	–.19	–.10
S–N Facet Scales														
Concrete–Abstract	.09	**.33**	.16	**.26**	.16	.17	**.34**	.06	–.17	–.17	–.15	–.18	–.02	.13
Realistic–Imaginative	.10	**.36**	.17	**.30**	.17	.15	**.33**	.02	–.18	**–.24**	**–.20**	**–.21**	–.04	.11
Practical–Conceptual	.09	**.30**	.12	.19	.14	.14	**.29**	.12	–.09	–.07	–.08	–.09	.00	.12
Experiential–Theoretical	.08	**.27**	.11	.21	.12	.14	**.28**	.07	–.18	–.13	–.15	–.15	–.04	.11
Traditional–Original	**.21**	**.37**	**.20**	**.32**	**.25**	**.29**	**.33**	.08	–.18	**–.20**	–.18	–.18	.01	.11
T–F Facet Scales														
Logical–Empathetic	**–.22**	–.04	–.04	–.03	–.15	**–.27**	.07	–.14	–.15	–.12	–.11	–.12	**–.20**	–.05
Reasonable–Compassionate	**–.23**	–.06	–.07	–.06	–.19	**–.26**	.08	–.06	–.12	–.04	–.07	–.10	–.17	–.02
Questioning–Accommodating	–.14	–.10	–.06	–.13	–.17	–.16	–.03	.05	.13	**.21**	**.24**	.10	.06	.09
Critical–Accepting	–.07	.07	.05	–.02	–.08	–.10	.17	.14	.06	.14	.15	.08	.06	.19
Tough–Tender	**–.25**	–.03	–.09	–.08	**–.21**	**–.28**	.09	.02	–.05	.03	.00	–.02	–.12	.07
J–P Facet Scales														
Systematic–Casual	–.13	.07	.02	.17	–.02	–.07	.16	**–.25**	**–.28**	**–.30**	**–.31**	**–.24**	–.19	–.10
Planful–Open-Ended	–.10	.04	–.02	.13	.00	.01	.09	**–.20**	**–.29**	**–.25**	**–.29**	**–.24**	–.14	–.09
Early Starting–Pressure-Prompted	.03	.12	.05	.18	.12	.07	.14	–.15	–.18	**–.28**	**–.26**	**–.22**	–.09	–.07
Scheduled–Spontaneous	–.11	.04	–.03	.14	.00	–.02	.09	**–.27**	**–.34**	**–.33**	**–.37**	**–.28**	**–.23**	–.15
Methodical–Emergent	–.11	–.01	–.07	.09	–.03	–.03	.03	**–.21**	**–.24**	**–.27**	**–.29**	**–.24**	–.18	–.11

Note: N = 1,828. Negative correlations are associated with E, S, T, and J facets; positive correlations are associated with I, N, F, and P facets. Bold indicates correlation coefficients with $r \geq .20$.

Table 12 Correlations Between MBTI® Step II™ Facets and CPI 260® Scales *continued*

Step II™ Facet Scale	CPI 260® Scale: *Motivations and Thinking Style Scales*			*Personal Characteristics Scales*			*Work-Related Measures*						*Higher-Order Measures*		
	Achievement via Conformance	Achievement via Independence	Conceptual Fluency	Insightfulness	Flexibility	Sensitivity	Managerial Potential	Work Orientation	Creative Temperament	Leadership	Amicability	Law Enforcement Orientation	Vector 1	Vector 2	Vector 3
E–I Facet Scales															
Initiating–Receiving	**–.23**	–.17	**–.32**	–.13	–.06	**.22**	**–.35**	–.16	**–.28**	**–.53**	–.13	–.17	**.47**	–.11	–.18
Expressive–Contained	–.13	–.14	**–.22**	–.08	–.10	.14	**–.27**	–.16	**–.25**	**–.36**	–.15	–.10	**.38**	–.05	**–.20**
Gregarious–Intimate	–.12	–.13	**–.21**	–.08	–.06	**.23**	**–.25**	–.10	**–.25**	**–.38**	–.13	–.13	**.42**	–.08	–.14
Active–Reflective	–.10	–.11	**–.22**	–.07	–.05	**.26**	**–.27**	–.11	**–.24**	**–.42**	–.13	–.18	**.45**	–.07	–.13
Enthusiastic–Quiet	–.07	–.12	**–.21**	–.05	–.12	**.20**	**–.23**	–.05	**–.31**	**–.37**	–.06	–.06	**.50**	–.01	–.12
S–N Facet Scales															
Concrete–Abstract	–.08	**.31**	**.21**	.11	**.45**	.11	.06	–.03	**.46**	.06	–.06	**–.30**	–.15	**–.29**	.16
Realistic–Imaginative	–.09	**.27**	.19	.08	**.41**	.07	.05	–.06	**.45**	.05	–.08	**–.33**	**–.20**	**–.28**	.13
Practical–Conceptual	.07	**.29**	**.24**	.16	**.31**	.11	.09	.02	**.35**	.09	–.03	**–.23**	–.10	–.16	.15
Experiential–Theoretical	–.06	**.29**	**.20**	.12	**.44**	.07	.05	–.03	**.44**	.05	–.08	**–.29**	–.12	**–.27**	.15
Traditional–Original	–.06	**.31**	**.27**	.16	**.40**	–.04	.10	–.04	**.48**	.16	–.11	**–.27**	**–.25**	**–.27**	.15
T–F Facet Scales															
Logical–Empathetic	**–.23**	–.10	**–.22**	**–.27**	**.20**	**.38**	–.19	–.15	.05	**–.25**	–.06	**–.26**	.09	**–.20**	–.03
Reasonable–Compassionate	–.17	–.05	–.18	**–.20**	**.23**	**.39**	–.17	–.11	.06	**–.24**	–.01	**–.24**	.14	–.18	.01
Questioning–Accommodating	.07	–.04	–.08	–.04	–.07	.15	.03	.12	–.14	–.06	**.24**	.05	**.20**	.12	.10
Critical–Accepting	.07	.14	.03	.00	.16	**.27**	.08	.14	.08	–.01	**.21**	–.04	.14	–.02	**.20**
Tough–Tender	–.10	.05	–.10	–.13	**.26**	**.43**	–.12	–.02	.08	**–.22**	.06	**–.24**	**.20**	–.14	.09
J–P Facet Scales															
Systematic–Casual	**–.43**	–.02	–.14	–.19	**.44**	.14	**–.24**	**–.24**	**.33**	**–.23**	–.19	**–.36**	–.04	**–.47**	–.06
Planful–Open-Ended	**–.44**	.01	–.07	–.10	**.41**	.02	**–.21**	**–.20**	**.34**	–.19	–.17	**–.28**	–.01	**–.48**	–.05
Early Starting–Pressure-Prompted	**–.26**	.03	–.05	–.04	**.38**	–.04	–.10	–.17	**.31**	–.06	–.15	–.19	–.16	**–.34**	–.04
Scheduled–Spontaneous	**–.48**	–.03	–.13	–.17	**.43**	.07	**–.25**	**–.29**	**.34**	**–.23**	**–.27**	**–.35**	–.06	**–.51**	–.10
Methodical–Emergent	**–.38**	–.07	–.15	–.14	**.33**	.05	**–.22**	**–.23**	**.24**	**–.20**	–.19	**–.28**	–.05	**–.41**	–.09

Note: N = 1,828. Negative correlations are associated with E, S, T, and J facets; positive correlations are associated with I, N, F, and P facets. Bold indicates correlation coefficients with $r \geq .20$.

Intuition are related to higher scores on Flexibility. For the T–F facets, Logical–Empathetic, in the direction of Thinking, is related to higher scores on Insightfulness and, in the direction of Empathy, to higher scores on Flexibility and Sensitivity. Tough–Tender, in the direction of Feeling, is related to higher scores on Flexibility and Sensitivity. Lastly, all of the J–P facets in the direction of Perceiving are related to higher scores on Flexibility.

- **Work-Related Measures category.** Includes six CPI 260 scales measuring orientations to different aspects of work: Managerial Potential, Work Orientation, Creative Temperament, Leadership, Amicability, and Law Enforcement Orientation. All of the E–I facets, in the direction of Extraversion, are related to higher scores on Managerial Potential, Creative Temperament, and Leadership. All of the S–N facets in the direction of Intuition are related to higher scores on Creative Temperament and, in the direction of Sensing, on Law Enforcement Orientation. T–F facets Logical–Empathetic, Reasonable–Compassionate, and Tough–Tender, in the direction of Thinking, are related to higher scores on Leadership and Law Enforcement Orientation. Questioning–Accommodating and Critical–Accepting, in the direction of Feeling, are related to higher scores on Amicability. All of the J–P facets in the direction of Judging are related to higher scores on Managerial Potential, Work Orientation, Leadership, Amicability, and Law Enforcement Orientation, while all of these facets in the direction of Perceiving are related to higher scores on Creative Temperament.
- **Higher-Order Measures category.** Includes the three CPI 260 vector scales. Vector 1 (orientation toward others) assesses involvement, participation, and readiness to act at one pole versus desire for privacy, sheltering of feelings, and reluctance to commit to a permanent course of action at the other pole. Vector 2 (orientation toward societal values) assesses perspective of questioning rules and doubting societal norms at one pole versus perspective of accepting rules and favoring societal norms at the other pole. Vector 3 (orientation toward self) assesses feelings of dissatisfaction and inadequacy at one pole versus feelings of competence and resilience at the other pole. All of the E–I facets in the direction of Introversion are related to the vector 1 pole associated with desire for privacy, sheltering of feelings, and reluctance to commit to a permanent course of action, and Expressive–Contained, in the direction of Extraversion, is related to the vector 3 pole associated with feelings of competence and resilience. All S–N facets in the direction of Sensing are related to the vector 1 pole associated with desire for privacy, sheltering of feelings, and reluctance to commit to a permanent course of action and the vector 2 pole associated with accepting rules and favoring societal norms. The T–F facet Logical–Empathetic, in the direction of Thinking, is related to the vector 2 pole associated with accepting rules and favoring societal norms, while, in the direction of Feeling, Questioning–Accommodating is related to the vector 1 pole associated with desire for privacy, sheltering of feelings, and reluctance to commit to a permanent course of action, and Critical–Accepting is related to the vector 3 pole associated with feelings of competence and resilience. All of the J–P facets in the direction of Judging are related to the vector 2 pole associated with accepting rules and favoring societal norms.

FIRO-B® Assessment

The FIRO-B assessment evaluates three interpersonal needs: Inclusion (extent of contact one wants with others), Control (extent of influence one wants over others), and Affection (extent of close personal connections one wants with others; Schutz, 1958). In addition, the assessment also evaluates how much of each of these three needs is *expressed* (how much a person behaves in that way toward others) or *wanted* (how much a person wants others to behave that way toward him or her; Hammer & Schnell, 2000). The relationship between the FIRO-B assessment and the MBTI Step II assessment was examined using a sample of 492 individuals (50% women, 50% men) who completed both assessments. Of the respondents, 65% were employed full- or part-time, 5% were full-time students, and 5% were not working for income (not all respondents provided demographic information). Their average age was 42 years.

The correlations between the MBTI facets and the FIRO-B scales are shown in table 13. These correlations are consistent with those shown in the *FIRO-B® Technical Guide* (Hammer & Schnell, 2000) and the *MBTI® Step II™ Manual* (Quenk et al., 2001). All of the E–I facets in the direction of Extraversion are related to five of the six need/dimension combinations measured by the FIRO-B assessment, with Wanted Control being the exception. The S–N facet Realistic–Imaginative, in the direction of Intuition, is related to Wanted and Expressed Inclusion. For the T–F facets, Logical–Empathetic, in the direction of Feeling, is related to Expressed and Wanted Affection, and Critical–Accepting, in the direction of Thinking, is related to Expressed Control and, in the direction of Feeling, Wanted Affection. Tough–Tender, in the direction of Thinking, is related to Expressed Control and, in the direction of Feeling, Wanted Control, Expressed Affection, and Wanted Affection. All of the J–P facets have small correlations with the FIRO-B scales.

FIRO Business® Assessment

The FIRO Business assessment also measures interpersonal needs but in terms of workplace behaviors (Herk, Thompson, Morris, & Schaubhut, 2009). The needs measured are Involvement (extent of contact one wants with others), Influence (extent of influence one wants over others), and Connection (extent of close personal connections one wants with others). The items that compose the FIRO Business assessment are a subset of items on the FIRO-B assessment. Therefore, the same sample of 492 respondents was utilized for correlations

Table 13 Correlations Between MBTI® Step II™ Facets and FIRO-B® Scales

	FIRO-B® Scale					
Step II™ Facet Scale	Expressed Inclusion	Wanted Inclusion	Expressed Control	Wanted Control	Expressed Affection	Wanted Affection
E–I Facet Scales						
Initiating–Receiving	**–.43**	**–.23**	–.19	.04	**–.33**	–.17
Expressive–Contained	**–.45**	**–.26**	–.19	–.13	**–.51**	**–.30**
Gregarious–Intimate	**–.52**	**–.37**	**–.23**	–.03	**–.35**	**–.25**
Active–Reflective	**–.46**	**–.28**	**–.20**	.00	**–.34**	**–.22**
Enthusiastic–Quiet	**–.51**	**–.36**	**–.28**	–.04	**–.41**	**–.28**
S–N Facet Scales						
Concrete–Abstract	.11	.11	.02	.02	.11	.08
Realistic–Imaginative	**.20**	**.20**	.12	.07	.16	.14
Practical–Conceptual	.07	.06	.00	.03	.06	.04
Experiential–Theoretical	.08	.08	.03	.06	.09	.04
Traditional–Original	.08	.08	.03	.06	.09	.04
T–F Facet Scales						
Logical–Empathetic	.12	.11	–.10	.16	**.22**	**.23**
Reasonable–Compassionate	.11	.07	–.16	.19	.18	.18
Questioning–Accommodating	–.01	–.06	–.19	.11	.01	.07
Critical–Accepting	.10	.02	**–.24**	.15	.18	**.21**
Tough–Tender	.10	.08	–.19	**.25**	**.20**	**.23**
J–P Facet Scales						
Systematic–Casual	.10	.13	–.08	.06	.08	.09
Planful–Open-Ended	–.05	.04	–.06	–.01	–.05	–.02
Early Starting–Pressure-Prompted	.06	.15	.11	.02	.05	.04
Scheduled–Spontaneous	–.04	.08	–.03	–.03	–.04	.01
Methodical–Emergent	–.02	.06	.01	.05	–.03	–.01

Note: $N = 492$. Negative correlations are associated with E, S, T, and J facets; positive correlations are associated with I, N, F, and P facets. Bold indicates correlation coefficients with $r \geq .20$.

between the MBTI Step II assessment and the FIRO-B and FIRO Business assessments. The correlations between the MBTI facets and FIRO Business scales are shown in table 14. These correlations are very similar to those shown in the *FIRO Business® Technical Guide* (Herk et al., 2009).

Adjective Check List The *Adjective Check List* (ACL) consists of 300 different adjectives, such as *intelligent, alert, clear-thinking, poised,* and *noisy,* encompassing a wide variety of behaviors. Respondents are asked to select the ones they believe are self-descriptive (or descriptive of another person). The results provide descriptions of oneself or other people (Gough & Heilbrun, 1983). A sample of 185 respondents (76% women, 24% men) who had completed the ACL (selecting from an additional 69 research adjectives, as well) and MBTI Step II assessments was used to explore relationships between the two assessments. Most respondents (82%) were employed full- or part-time, while 8% were full-time students (not all respondents provided demographic information). The average age of respondents was 42 years.

The ACL items were correlated with the Step II facets; a selection of these correlations is presented in table 15. The table shows three adjectives that correlate with each pole of each facet. The relationships between the MBTI Step II assessment and the ACL are consistent with those reported in the *MBTI® Step II™ Manual* (Quenk et al., 2001).

Table 14 Correlations Between MBTI® Step II™ Facets and FIRO Business® Scales

Step II™ Facet Scale	FIRO Business® Scale: Expressed Involvement	Wanted Involvement	Expressed Influence	Wanted Influence	Expressed Connection	Wanted Connection
E–I Facet Scales						
Initiating–Receiving	**–.44**	**–.28**	–.18	.06	**–.31**	**–.22**
Expressive–Contained	**–.42**	**–.31**	–.18	–.10	**–.48**	**–.35**
Gregarious–Intimate	**–.51**	**–.40**	**–.22**	–.02	**–.33**	**–.28**
Active–Reflective	**–.47**	**–.32**	**–.21**	.01	**–.31**	**–.25**
Enthusiastic–Quiet	**–.48**	**–.41**	**–.28**	–.03	**–.42**	**–.34**
S–N Facet Scales						
Concrete–Abstract	.10	.13	.02	.03	.14	.11
Realistic–Imaginative	.17	**.22**	.11	.09	**.21**	.18
Practical–Conceptual	.07	.08	.01	.02	.11	.09
Experiential–Theoretical	.06	.10	.02	.07	.12	.08
Traditional–Original	.08	.12	.12	–.08	.12	.07
T–F Facet Scales						
Logical–Empathetic	.11	.11	–.12	.16	**.20**	**.23**
Reasonable–Compassionate	.09	.08	–.18	.16	.17	.19
Questioning–Accommodating	–.01	–.02	**–.22**	.11	.01	.06
Critical–Accepting	.10	.07	**–.27**	.17	.13	.19
Tough–Tender	.08	.11	**–.20**	**.25**	.19	**.24**
J–P Facet Scales						
Systematic–Casual	.09	.11	–.10	.05	.11	.11
Planful–Open-Ended	–.06	.01	–.09	–.02	–.03	–.02
Early Starting–Pressure-Prompted	.06	.13	.09	–.01	.08	.05
Scheduled–Spontaneous	–.07	.05	–.05	–.04	–.01	.01
Methodical–Emergent	–.04	.03	–.01	.06	.01	.01

Note: $N = 492$. Negative correlations are associated with E, S, T, and J facets; positive correlations are associated with I, N, F, and P facets. Bold indicates correlation coefficients with $r \geq .20$.

The ACL can also be used to score measures of the "Big Five" theory of personality: Extraversion, Agreeableness, Conscientiousness, Openness, and Neuroticism. In order to integrate different interpretations of the Big Five factors, John (1989, 1990) mapped them into a common language using the *Adjective Check List*. Using the findings from this research, the adjectives from the ACL can be scored to represent the Big Five factors, and these measures were correlated with Step II facets. The results are presented in table 16. All of the E–I facets in the direction of Extraversion are related to higher scores on Big Five factors Extraversion and Agreeableness, with Initiating–Receiving, in the direction of Extraversion, also related to higher scores on Openness. All of the S–N facets in the direction of Intuition are related to higher scores on Openness. Realistic–Imaginative, in the direction of Sensing, is related to higher scores on Conscientiousness. All of the T–F facets in the direction of Feeling are related to higher scores on Agreeableness. All of the J–P facets in the direction of Judging are related to higher scores on Conscientiousness. In the direction of Perceiving, Systematic–Casual is related to higher scores on Extraversion and Openness, and Scheduled–Spontaneous is also related to higher scores on Openness.

Strong Interest Inventory® Assessment

The *Strong Interest Inventory* (*Strong*) instrument is a widely used vocational

Table 15 Correlations Between MBTI® Step II™ Facets and Adjective Check List (ACL) Items

Step II™ Facet Scale	ACL Item					
E–I Facet Scales						
Initiating–Receiving	outgoing	talkative	sociable	reserved	shy	quiet
	–.61	–.49	–.47	.61	.47	.45
Expressive–Contained	talkative	outgoing	sociable	reserved	quiet	shy
	–.50	–.43	–.39	.53	.45	.35
Gregarious–Intimate	outgoing	talkative	sociable	quiet	reserved	serious
	–.48	–.44	–.43	.47	.45	.35
Active–Reflective	outgoing	sociable	talkative	reserved	quiet	shy
	–.59	–.54	–.49	.48	.46	.44
Enthusiastic–Quiet	talkative	outgoing	sociable	reserved	quiet	silent
	–.53	–.50	–.45	.53	.52	.37
S–N Facet Scales						
Concrete–Abstract	conventional	interests narrow	organized	imaginative	artistic	inventive
	–.31	–.27	–.25	.49	.38	.33
Realistic–Imaginative	conventional	obedient	interests narrow	imaginative	inventive	artistic
	–.35	–.32	–.30	.42	.40	.34
Practical–Conceptual	rigid	obnoxious	thankless	artistic	insightful	imaginative
	–.27	–.27	–.24	.40	.34	.31
Experiential–Theoretical	conventional	greedy	bossy	imaginative	artistic	idealistic
	–.27	–.27	–.26	.42	.33	.29
Traditional–Original	conventional	obedient	conservative	unconventional	inventive	interests wide
	–.43	–.36	–.32	.41	.41	.35
T–F Facet Scales						
Logical–Empathetic	opinionated	sarcastic	dominant	sentimental	soft-hearted	emotional
	–.26	–.24	–.22	.45	.44	.42
Reasonable–Compassionate	opinionated	sarcastic	arrogant	soft-hearted	gentle	affectionate
	–.33	–.30	–.29	.37	.33	.33
Questioning–Accommodating	sarcastic	assertive	individualistic	kind	praising	appreciative
	–.37	–.32	–.32	.28	.27	.26
Critical–Accepting	sarcastic	pessimistic	indifferent	openhearted	soft-hearted	praising
	–.24	–.11	–.10	.32	.31	.27
Tough–Tender	aggressive	dominant	opinionated	soft-hearted	sympathetic	sentimental
	–.32	–.31	–.31	.38	.34	.33
J–P Facet Scales						
Systematic–Casual	organized	meticulous	punctual	spontaneous	leisurely	impulsive
	–.47	–.38	–.35	.49	.37	.32
Planful–Open-Ended	organized	planful	methodical	spontaneous	absent-minded	careless
	–.43	–.41	–.33	.38	.27	.23
Early Starting–Pressure-Prompted	organized	meticulous	planful	distractible	absent-minded	spontaneous
	–.43	–.38	–.36	.37	.35	.33
Scheduled–Spontaneous	organized	planful	steady	spontaneous	absent-minded	disorderly
	–.48	–.34	–.34	.39	.30	.28
Methodical–Emergent	methodical	organized	planful	spontaneous	irresponsible	absent-minded
	–.43	–.40	–.31	.36	.22	.20

Note: $N = 185$. Negative correlations are associated with E, S, T, and J facets; positive correlations are associated with I, N, F, and P facets.

Table 16 Correlations Between MBTI® Step II™ Facets and Big Five Factors Based on the ACL

	Big Five Factor				
Step II™ Facet Scale	Extraversion	Agreeableness	Conscientiousness	Openness	Neuroticism
E–I Facet Scales					
Initiating–Receiving	**–.65**	**–.28**	.12	**–.23**	.11
Expressive–Contained	**–.53**	**–.30**	.09	–.15	.03
Gregarious–Intimate	**–.54**	–.17	**.23**	–.10	.00
Active–Reflective	**–.62**	**–.26**	.11	–.15	.06
Enthusiastic–Quiet	**–.65**	**–.24**	.16	–.17	.02
S–N Facet Scales					
Concrete–Abstract	.01	.04	–.18	**.42**	–.07
Realistic–Imaginative	.10	.05	**–.28**	**.39**	–.07
Practical–Conceptual	–.08	.03	–.04	**.36**	–.10
Experiential–Theoretical	–.03	.05	–.06	**.37**	–.15
Traditional–Original	.17	.00	–.17	**.45**	–.12
T–F Facet Scales					
Logical–Empathetic	.04	**.43**	–.04	–.05	.10
Reasonable–Compassionate	–.07	**.41**	–.03	–.06	–.01
Questioning–Accommodating	–.06	**.34**	.10	–.18	–.06
Critical–Accepting	.04	**.39**	–.01	.07	–.05
Tough–Tender	–.17	**.43**	–.04	–.02	–.05
J–P Facet Scales					
Systematic–Casual	**.20**	.18	**–.45**	**.25**	.07
Planful–Open-Ended	.09	–.06	**–.45**	.11	.00
Early Starting–Pressure-Prompted	.16	.06	**–.46**	.12	.12
Scheduled–Spontaneous	.14	–.02	**–.46**	**.20**	.03
Methodical–Emergent	.14	–.05	**–.41**	.00	.09

Note: $N = 185$. Negative correlations are associated with E, S, T, and J facets; positive correlations are associated with I, N, F, and P facets. Bold indicates correlation coefficients with $r \geq .20$.

interest assessment. A sample of 4,470 individuals (50% women, 50% men) who had completed both the *Strong* and MBTI Step II assessments was used to examine relationships between the two assessments. In this sample, 40% of respondents reported being employed full- or part-time, 25% were not working for income, and 12% were full-time students (not all respondents provided demographic information). The average age of respondents was 40 years.

Correlations between the *Strong* General Occupational Themes (GOTs) and the MBTI Step II facets are shown in table 17. The six GOTs (Themes) representing Holland's categories of occupational interests (Holland, 1959) are as follows: Realistic (building, repairing, working outside); Investigative (researching, analyzing, questioning); Artistic (creating or enjoying art, music, writing); Social (helping, teaching, caregiving); Enterprising (selling, managing, influencing); and Conventional (organizing, data processing, accounting). Most of these correlations are consistent with those reported in the *MBTI® Step II™ Manual* (Quenk et al., 2001). The sample reported in the manual was smaller and consisted of 86% men, while the sample used here is larger, is gender balanced, and utilizes a new version of the *Strong* released since the manual was first published.

All of the E–I facets in the direction of Extraversion are related to higher scores on the Social and Enterprising Themes. All of the S–N facets in the direction of Intuition are related to higher scores on Artistic and, in the direction of Sensing, to Conventional. All of the T–F facets (with the exception of Questioning–Accommodating) in the direction of Thinking are related to higher scores on Realistic and Investigative and, in the direction of Feeling, to high scores on Social. The J–P facet Systematic–Casual, in the direction of Judging, is related to higher scores on Conventional and, in the direction of Perceiving, is related to higher scores on Artistic.

Table 17 Correlations Between MBTI® Step II™ Facets and Strong Interest Inventory® GOTs

	General Occupational Theme					
Step II™ Facet Scale	Realistic	Investigative	Artistic	Social	Enterprising	Conventional
E–I Facet Scales						
Initiating–Receiving	.00	.08	–.10	**–.21**	**–.35**	.05
Expressive–Contained	.07	.10	–.07	–.18	**–.24**	.07
Gregarious–Intimate	–.04	.07	–.03	–.14	**–.33**	.00
Active–Reflective	–.04	.09	.01	–.12	**–.34**	.03
Enthusiastic–Quiet	.03	.09	–.10	–.17	**–.34**	.10
S–N Facet Scales						
Concrete–Abstract	–.07	.07	**.46**	.10	.03	**–.27**
Realistic–Imaginative	–.02	.11	**.47**	.09	.05	**–.23**
Practical–Conceptual	–.08	.18	**.47**	.13	–.03	–.19
Experiential–Theoretical	–.04	.12	**.38**	.11	.00	**–.25**
Traditional–Original	.03	.18	**.41**	.05	.07	**–.22**
T–F Facet Scales						
Logical–Empathetic	**–.29**	**–.28**	.15	**.21**	–.07	**–.23**
Reasonable–Compassionate	**–.26**	**–.23**	.14	**.26**	–.12	–.17
Questioning–Accommodating	–.09	–.14	–.10	.08	–.05	.07
Critical–Accepting	**–.20**	–.17	.15	**.26**	–.03	–.09
Tough–Tender	**–.25**	–.14	.18	**.22**	–.15	–.14
J–P Facet Scales						
Systematic–Casual	–.02	–.07	.19	.04	–.02	**–.23**
Planful–Open-Ended	.12	.04	.12	–.05	–.04	–.12
Early Starting–Pressure-Prompted	.06	.05	.11	.01	.06	–.11
Scheduled–Spontaneous	.06	.02	.15	–.05	–.03	–.18
Methodical–Emergent	.01	–.03	.06	–.05	–.04	–.13

Note: Negative correlations are associated with E, S, T, and J facets; positive correlations are associated with I, N, F, and P facets.
Bold indicates correlation coefficients with $r \geq .20$.

The *Strong* also includes five Personal Style Scales (PSSs), which measure preferences for styles of living and working (Donnay, Morris, Schaubhut, & Thompson, 2005): Work Style, Learning Environment, Leadership Style, Risk Taking, and Team Orientation. Each of these scales is bipolar, with opposing preferences at either pole:

- Work Style: "Works with ideas/data/things" versus "Works with people"
- Learning Environment: "Practical" versus "Academic"
- Leadership Style: "Leads by example" versus "Directs others"
- Risk Taking: "Plays it safe" versus "Takes chances"
- Team Orientation: "Accomplishes tasks independently" versus "Accomplishes tasks as a team"

Correlations between the Step II facets and the *Strong* Personal Style Scales are shown in table 18. For the Work Style scale, higher scores (over 50) are associated with the "Works with people" pole, while lower scores (less than 50) are associated with the "Works with ideas/data/things" pole. For the Learning Environment scale, higher scores are associated with the "Practical" pole and lower scores are associated with the "Academic" pole. For the Leadership Style scale, higher scores are associated with the "Leads by example" pole and lower scores with the "Directs others" pole. For the Risk Taking scale, higher scores are associated with the "Plays it safe" pole, while lower scores are associated with the "Takes chances" pole. For the Team Orientation scale, higher scores are associated with the "Accomplishes tasks independently" pole and lower scores with the "Accomplishes tasks as a team" pole.

All of the E–I facets in the direction of Extraversion are related to the "Works with people" pole of Work Style, the "Directs others" pole of Leadership, and the "Accomplishes tasks as a team" pole of Team Orientation. All of the S–N facets in the direction of Intuition are related to the "Academic" pole of Learning Environment and the "Directs others" pole of Leadership Style. The Questioning–Accommodating

Table 18 Correlations Between MBTI® Step II™ Facets and Strong Interest Inventory® PSSs

	Personal Style Scale				
Step II™ Facet Scale	Work Style	Learning Environment	Leadership Style	Risk Taking	Team Orientation
E–I Facet Scales					
Initiating–Receiving	**–.34**	–.13	**–.45**	–.13	**–.29**
Expressive–Contained	**–.30**	–.07	**–.31**	–.02	**–.26**
Gregarious–Intimate	**–.28**	–.04	**–.34**	–.17	**–.27**
Active–Reflective	**–.28**	–.01	**–.37**	–.18	**–.25**
Enthusiastic–Quiet	**–.32**	–.12	**–.41**	–.15	**–.26**
S–N Facet Scales					
Concrete–Abstract	.06	**.41**	.19	.01	.04
Realistic–Imaginative	.02	**.41**	.19	.06	.03
Practical–Conceptual	.00	**.51**	.18	–.04	.02
Experiential–Theoretical	.01	**.45**	**.21**	.03	.03
Traditional–Original	–.05	**.46**	**.28**	.12	.04
T–F Facet Scales					
Logical–Empathetic	**.37**	–.09	–.10	**–.24**	–.01
Reasonable–Compassionate	**.35**	–.06	–.11	**–.27**	.01
Questioning–Accommodating	.15	**–.24**	**–.22**	–.17	.03
Critical–Accepting	**.31**	.01	–.05	**–.24**	.13
Tough–Tender	**.27**	.00	–.16	**–.31**	.02
J–P Facet Scales					
Systematic–Casual	.09	.03	–.01	.06	–.05
Planful–Open-Ended	–.10	.03	–.03	.16	–.09
Early Starting–Pressure-Prompted	.00	.11	.12	.16	-.01
Scheduled–Spontaneous	–.07	.06	–.01	.12	–.12
Methodical–Emergent	–.04	.00	–.03	.07	–.11

Note: $N = 4{,}470$. Negative correlations are associated with E, S, T, and J facets; positive correlations are associated with I, N, F, and P facets. Bold indicates correlation coefficients with $r \geq .20$.

facet, in the direction of Thinking, is related to the "Academic" pole of Learning Environment and the "Directs others" pole of Leadership Style. All of the T–F facets in the direction of Feeling are related to the "Works with people" pole of Work Style and, in the direction of Thinking, to the "Takes chances" pole of Risk Taking. None of the J–P facets is highly correlated with the *Strong* Personal Style Scales. Because each of the variables in these correlations (facets and PSSs) has two poles, the interpretation of the correlations can be somewhat confusing. To aid in interpretation of the correlations, figures 1–3 show examples of a negative, positive, and null correlation for relationships summarized in table 18.

Thomas-Kilmann Conflict Mode Instrument The *Thomas-Kilmann Conflict Mode Instrument* (TKI) measures preferences for five different styles, or modes, of handling conflict: *competing, collaborating, compromising, avoiding,* and *accommodating* (Thomas & Kilmann, 1974). Relationships between the TKI and MBTI assessments have been examined by several researchers (Johnson, 1997; Kilmann & Thomas, 1975; Mathew & Bhatewara, 2006; Mills, Robey, & Smith, 1985; Percival, Smitheram, & Kelly, 1992; Schaubhut, Herk, & Thompson, 2009). Here we examined the relationships using the MBTI Step II assessment with a sample of 4,344 individuals (50% women, 50% men). Most respondents (65%) in this sample were employed full- or part-time, while 4% were full-time students and 2% were not working for income (not all respondents provided demographic information). The average age of respondents was 41 years.

Correlations between Step II facets and TKI modes are presented in table 19. The current sample shows the following pattern of relationships. All of the E–I facets in the direction of Extraversion are related to higher scores on Collabo-

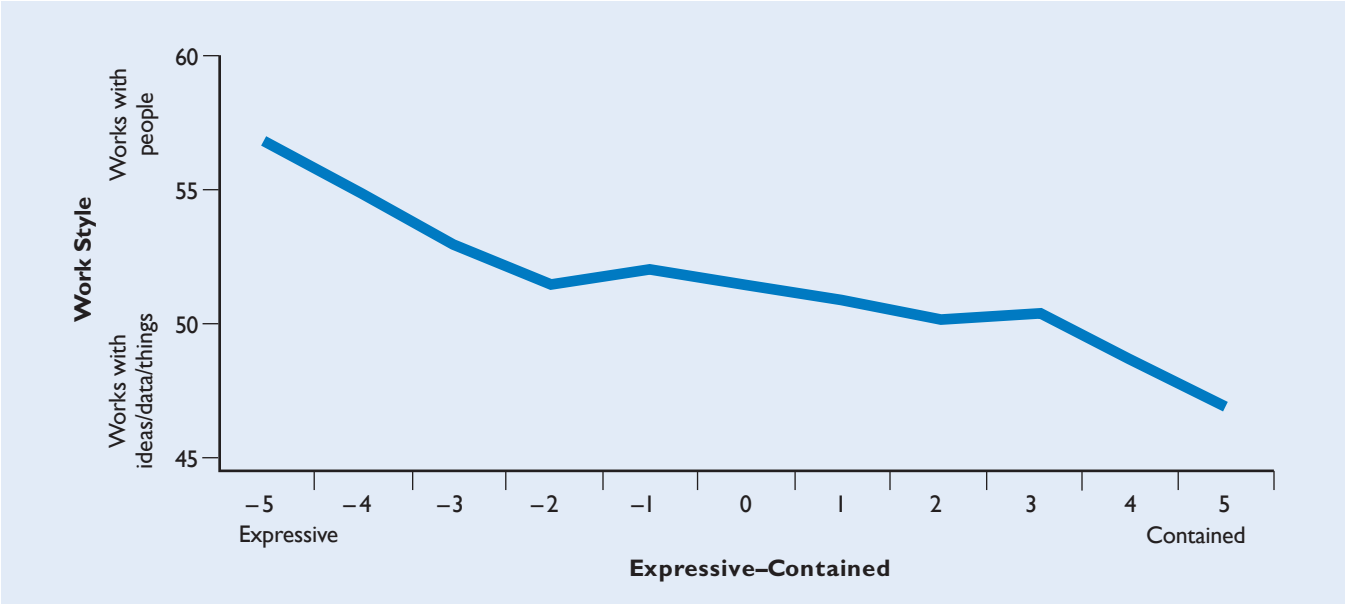

Figure 1 Example of a Negative Correlation—Between the Work Style PSS and the E–I Facet Expressive–Contained

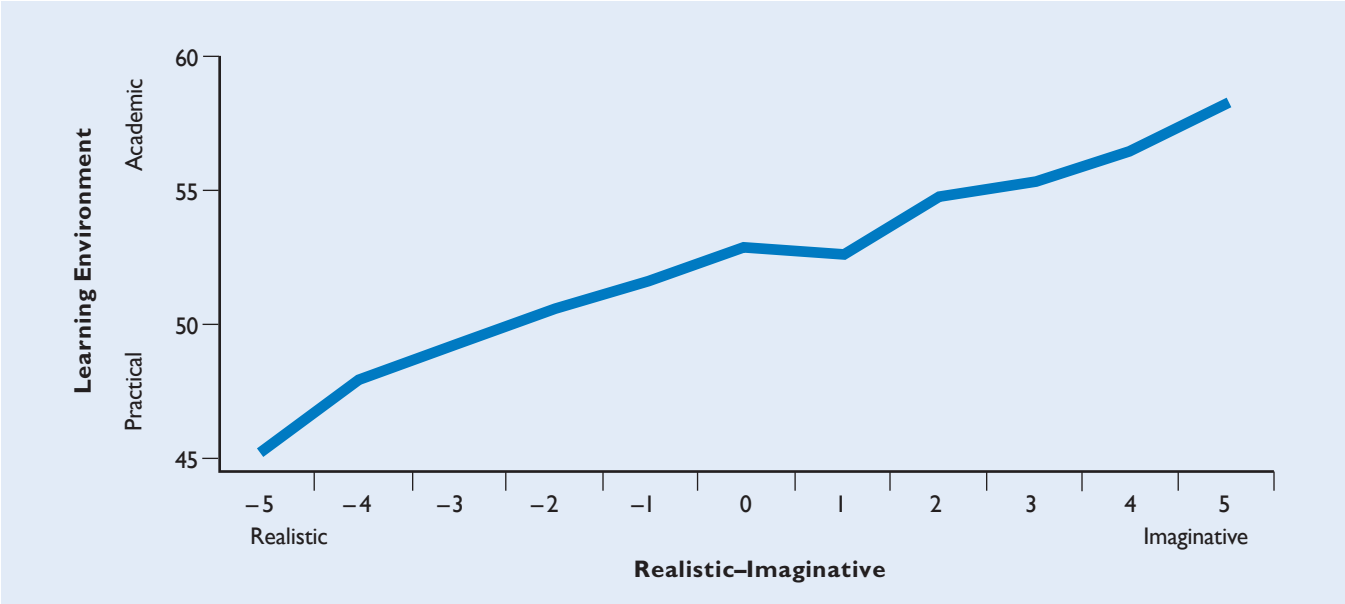

Figure 2 Example of a Positive Correlation—Between the Learning Environment PSS and the S–N Facet Realistic–Imaginative

rating and, in the direction of Introversion, to higher scores on Avoiding. All of the S–N facets in the direction of Sensing are related to higher scores on Avoiding and, in the direction of Intuition, to higher scores on Collaborating. All of the T–F facets in the direction of Thinking are related to higher scores on Competing and, in the direction of Feeling, to higher scores on Accommodating. None of the J–P facets is highly correlated with any of the TKI modes, and the Compromising mode is not strongly related to any of the facets. The same pattern of relationships was found in a comparison of MBTI Form M dichotomies and TKI modes (Schaubhut et al., 2009).

Birkman Method® The *Birkman Method* personality assessment measures occupational preferences (Interests), effective behaviors (Usual behaviors), interpersonal and environmental preferences (Needs), and ineffective behaviors (Stress behaviors) (Birkman, Elizondo, Lee, Wadlington, & Zamzow, 2008). The *Birkman Method* scales were correlated with the MBTI Step II facets using a sample of 216 adults who had completed both assessments. The sample consisted of 55% women and 40% men (5% did not report gender). The majority of respondents (92%) were employed full- or part-time, and the average age was 53 years.

Selected correlations between the Step II facets and *Birkman Method* scales are shown in table 20. Because of the

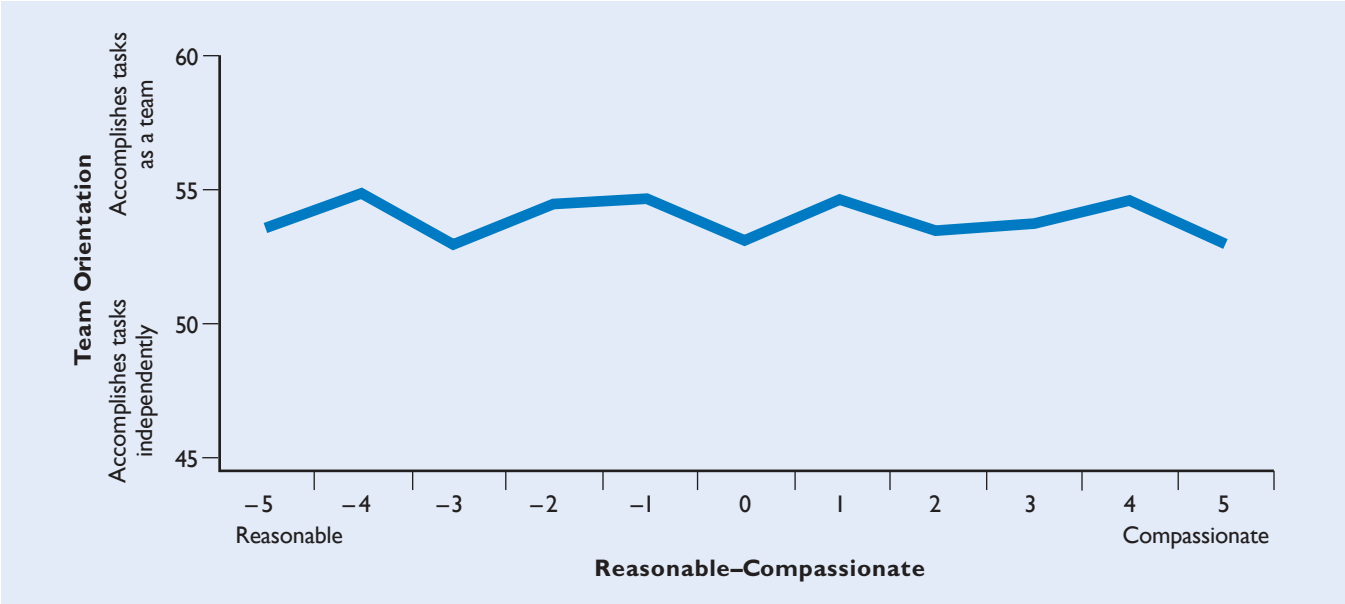

Figure 3 Example of a Null Correlation—Between the Team Orientation PSS and the T–F Facet Reasonable–Compassionate

Table 19 Correlations Between MBTI® Step II™ Facets and TKI Modes

	TKI Mode				
Step II™ Facet Scale	Competing	Collaborating	Compromising	Avoiding	Accommodating
E–I Facet Scales					
Initiating–Receiving	–.01	–.15	–.08	**.21**	.01
Expressive–Contained	.02	–.16	–.04	.19	–.03
Gregarious–Intimate	–.03	–.14	–.06	.19	.03
Active–Reflective	–.04	–.14	–.06	**.20**	.03
Enthusiastic–Quiet	–.08	–.16	–.04	**.23**	.04
S–N Facet Scales					
Concrete–Abstract	–.08	.10	.02	–.11	.08
Realistic–Imaginative	–.03	.11	.00	–.13	.08
Practical–Conceptual	–.02	.11	.01	–.11	.02
Experiential–Theoretical	–.02	.10	.00	–.11	.04
Traditional–Original	.08	.19	–.01	**–.22**	–.05
T–F Facet Scales					
Logical–Empathetic	**–.30**	–.07	–.04	.12	**.35**
Reasonable–Compassionate	**–.37**	–.08	–.02	.16	**.39**
Questioning–Accommodating	**–.31**	–.11	.03	**.20**	**.25**
Critical–Accepting	**–.40**	–.01	.09	.12	**.31**
Tough–Tender	**–.41**	–.08	.00	.18	**.39**
J–P Facet Scales					
Systematic–Casual	–.13	.00	–.03	.02	.17
Planful–Open-Ended	–.03	.02	–.05	.00	.07
Early Starting–Pressure-Prompted	.07	–.02	–.03	–.07	.02
Scheduled–Spontaneous	–.01	.01	–.07	.00	.08
Methodical–Emergent	.00	–.04	–.08	.02	.08

Note: $N = 4{,}344$. Negative correlations are associated with E, S, T, and J facets; positive correlations are associated with I, N, F, and P facets. Bold indicates correlation coefficients with $r \geq .20$.

Table 20 Correlations Between MBTI® Step II™ Facets and Birkman Method® Scales

Step II™ Facet Scale	Birkman Method® Scale: Emotive Orientation (Usual)	Social Orientation (Usual)	Process Orientation (Usual)	Control Orientation (Usual)	Change Orientation (Usual)	Activity Preference (Usual)	Empathy Preference (Usual)	Thought Preference (Usual)	Communcation Preference (Usual)	Interaction Preference (Usual)
E–I Facet Scales										
Initiating–Receiving	.19	**–.68**	–.11	–.13	–.12	**–.22**	.14	.12	**.45**	**–.72**
Expressive–Contained	.08	**–.43**	–.03	–.06	–.12	–.13	.00	.15	.17	**–.58**
Gregarious–Intimate	**.20**	**–.40**	–.02	–.02	**–.25**	–.15	.19	.13	**.24**	**–.46**
Active–Reflective	.18	**–.52**	–.07	–.08	–.16	**–.22**	.11	.09	**.30**	**–.60**
Enthusiastic–Quiet	.18	**–.52**	–.03	–.06	**–.24**	**–.22**	.14	.06	**.30**	**–.60**
S–N Facet Scales										
Concrete–Abstract	.16	.11	–.11	.07	.15	–.07	**.20**	.08	–.06	.12
Realistic–Imaginative	.19	.14	–.12	.08	.16	–.11	.19	.16	–.06	.19
Practical–Conceptual	**.20**	.07	–.07	.04	.03	–.14	.18	**.20**	–.07	.06
Experiential–Theoretical	.16	.06	–.16	.08	.13	.01	**.23**	.15	–.03	.08
Traditional–Original	**.22**	.13	–.19	.07	.17	–.14	**.22**	.16	–.09	.13
T–F Facet Scales										
Logical–Empathetic	.15	–.01	–.06	–.14	.15	–.09	.15	.14	.12	.11
Reasonable–Compassionate	.18	–.10	–.12	–.17	.14	–.15	.15	.17	.17	.01
Questioning–Accommodating	.01	–.18	.13	**–.29**	.00	–.02	.00	.01	**.21**	–.10
Critical–Accepting	–.07	–.04	–.03	**–.31**	.06	.01	–.08	–.09	.14	.08
Tough–Tender	.15	–.13	–.11	–.15	.14	–.14	.12	.09	**.25**	.03
J–P Facet Scales										
Systematic–Casual	**.20**	–.08	**–.38**	.09	.06	–.18	.16	.16	.12	–.01
Planful–Open-Ended	**.20**	–.14	**–.43**	.07	.08	**–.20**	.13	**.21**	.11	–.13
Early Starting–Pressure-Prompted	**.20**	–.03	**–.40**	.10	.18	–.13	**.20**	.15	.04	–.01
Scheduled–Spontaneous	**.20**	–.07	**–.39**	.13	.09	–.15	.19	.13	.05	–.08
Methodical–Emergent	.13	–.01	**–.34**	.13	.08	–.06	.14	.09	.05	.04

Note: $N = 216$. Negative correlations are associated with E, S, T, and J facets; positive correlations are associated with I, N, F, and P facets. Bold indicates correlation coefficients with $r \geq .20$. Birkman and CPP, Inc., collaborated to collect this data; the same analyses appear in the *Birkman® Method Manual* (Birkman et al., 2008).

Table 20 Correlations Between MBTI® Step II™ Facets and Birkman Method® Scales *continued*

Step II™ Facet Scale	Birkman Method® Scale: Incentive Preference (Usual)	Authority Preference (Usual)	Personal Autonomy (Usual)	Personal Autonomy (Needs)	Perspective Alignment (Needs)	Emotive Orientation (Needs)	Social Orientation (Needs)	Process Orientation (Needs)	Control Orientation (Needs)	Change Orientation (Needs)
E–I Facet Scales										
Initiating–Receiving	–.08	–.12	**.20**	.01	**.24**	.11	–.09	–.09	–.02	.00
Expressive–Contained	–.01	–.08	.05	–.05	.17	–.02	–.02	–.03	.05	–.02
Gregarious–Intimate	.02	–.04	.13	**.21**	–.01	**.22**	**–.21**	–.10	.17	.10
Active–Reflective	–.01	–.11	.15	.04	.17	.10	–.07	–.08	.02	.06
Enthusiastic–Quiet	.01	–.11	.12	.06	.12	.12	–.12	–.13	.06	.01
S–N Facet Scales										
Concrete–Abstract	.05	.05	.10	**.21**	–.05	.15	–.02	–.02	.13	.04
Realistic–Imaginative	.13	.01	.12	.14	–.02	.14	.03	–.07	.07	.13
Practical–Conceptual	.09	–.01	.09	.19	–.14	**.20**	–.14	–.13	.15	.07
Experiential–Theoretical	.08	.06	.10	.18	–.04	.15	–.08	–.10	.07	.02
Traditional–Original	.10	.02	.15	**.23**	–.05	.18	–.04	–.10	.11	.15
T–F Facet Scales										
Logical–Empathetic	–.05	–.17	.08	**.21**	–.12	.19	–.08	–.11	.07	**.23**
Reasonable–Compassionate	–.06	**–.21**	.08	**.25**	–.16	**.25**	–.15	**–.20**	.13	**.23**
Questioning–Accommodating	–.12	**–.32**	–.04	–.01	.01	.04	.04	.03	–.13	.04
Critical–Accepting	–.17	**–.33**	–.06	.06	–.14	.07	–.09	.04	–.01	.18
Tough–Tender	–.02	**–.20**	.09	**.20**	–.10	.19	–.13	–.16	.09	.17
J–P Facet Scales										
Systematic–Casual	.13	.02	**.22**	.19	.09	.12	–.01	–.11	**.21**	.18
Planful–Open-Ended	.10	.02	**.24**	.14	.15	.08	.03	.16	.17	.11
Early Starting–Pressure-Prompted	.09	.07	**.24**	.06	.18	.04	.06	–.08	.08	.05
Scheduled–Spontaneous	.12	.10	**.23**	.19	.11	.10	.04	–.16	**.25**	.09
Methodical–Emergent	.08	.12	.18	.19	.08	.07	–.01	–.06	.15	.10

Note: $N = 216$. Negative correlations are associated with E, S, T, and J facets; positive correlations are associated with I, N, F, and P facets. Bold indicates correlation coefficients with $r \geq .20$. Birkman and CPP, Inc., collaborated to collect this data; the same analyses appear in the *Birkman® Method Manual* (Birkman et al., 2008).

Table 20 Correlations Between MBTI® Step II™ Facets and Birkman Method® Scales *continued*

Step II™ Facet Scale	Birkman Method® Scale: Activity Preference (Needs)	Empathy Preference (Needs)	Thought Preference (Needs)	Communication Preference (Needs)	Interaction Preference (Needs)	Incentive Preference (Needs)	Authority Preference (Needs)
E–I Facet Scales							
Initiating–Receiving	–.11	.09	.07	.04	–.12	.08	–.11
Expressive–Contained	–.03	–.06	.00	–.02	–.05	.11	–.04
Gregarious–Intimate	–.18	**.21**	.11	.13	**–.23**	**.22**	.06
Active–Reflective	–.07	.12	.01	.01	–.11	.09	–.05
Enthusiastic–Quiet	–.13	.12	.02	.05	–.15	.13	–.04
S–N Facet Scales							
Concrete–Abstract	–.01	.18	.16	.04	.00	.09	.12
Realistic–Imaginative	–.06	.15	.14	.05	.08	.05	.07
Practical–Conceptual	–.12	.17	**.22**	.16	–.09	.17	.09
Experiential–Theoretical	–.03	.17	.15	.11	–.03	.06	.05
Traditional–Original	–.06	**.20**	.17	.08	.00	.11	.07
T–F Facet Scales							
Logical–Empathetic	–.16	.18	.13	.12	–.03	.08	.04
Reasonable–Compassionate	**–.24**	**.22**	.15	.19	–.08	.14	.07
Questioning–Accommodating	–.07	.02	.01	–.01	.06	–.08	–.13
Critical–Accepting	–.10	.04	.04	.08	–.08	–.01	–.01
Tough–Tender	–.18	.18	.09	.17	–.06	.06	.10
J–P Facet Scales							
Systematic–Casual	–.10	.13	.05	.07	.04	.19	.16
Planful–Open-Ended	–.07	.08	.04	.01	.06	.16	.12
Early Starting–Pressure-Prompted	.08	.12	.01	.01	.10	.05	.09
Scheduled–Spontaneous	–.03	.16	–.03	.00	.07	**.25**	.17
Methodical–Emergent	–.01	.11	.01	.04	.01	.14	.11

Note: $N = 216$. Negative correlations are associated with E, S, T, and J facets; positive correlations are associated with I, N, F, and P facets. Bold indicates correlation coefficients with $r \geq .20$. Birkman and CPP, Inc., collaborated to collect this data; the same analyses appear in the *Birkman® Method Manual* (Birkman et al., 2008).

large number of correlations, only some of the notable correlations for each set of facets are discussed here. The E–I facets in the direction of Extraversion are related to higher scores on Social Orientation (Usual), which measures the degree of social interaction sought by an individual; Change Orientation (Usual), which measures an individual's degree of restlessness; Activity Preference (Usual), which measures the degree to which action, quick thinking, and physical energy are preferred; and Interaction Preference (Usual), which measures the extent an individual desires to be talkative, enjoys group parties, and is approachable. The E–I facets in the direction of Intuition are related to higher scores on Communication Preference (Usual), which measures sensitivity, including shyness, ability to say no, getting feelings hurt, and embarrassment; and Personal Autonomy (Usual), which measures the degree to which an individual's pattern of responding to items is conventional or unconventional.

The S–N facets in the direction of Intuition are related to higher scores on Emotive Orientation (Usual and Needs), which measures an individual's favored rate of action, as well as the extent an individual expresses emotions and makes decisions; Empathy Preference (Usual and Needs), which measures an individual's comfort level with expressing emotions and involving feelings; Personal Autonomy (Needs); and Thought Preference (Needs), which measures the extent to which conclusions and decisions are approached, the concern for making correct decisions the first time, and consequences of decisions.

The T–F facets in the direction of Thinking are related to higher scores on Activity Preference (Needs); Control Orientation (Usual), which measures the extent an individual approaches others; and Authority Preference (Usual), which measures how much an individual desires to persuade others, speak out, and openly express opinions. The T–F facets in the direction of Feeling are related to higher scores on Communication Preference (Usual); Emotive Orientation (Needs); and Change Orientation (Needs).

The J–P facets in the direction of Judging are related to higher scores on Process Orientation (Usual), which measures the degree an individual wants accuracy, to give or receive clear directions, use systems, finish tasks, and work with details; and Activity Preference (Usual). The J–P facets in the direction of Perceiving are related to higher scores on Emotive Orientation (Usual); Empathy Preference (Usual); Thought Preference (Usual); Personal Autonomy (Usual); and Control Orientation (Needs).

Benchmarks® Historically, the MBTI Step II assessment was used as part of the Leadership Development Program (LDP) of the Center for Creative Leadership (CCL). The LDP program is one of CCL's most successful public training programs. The MBTI Step II assessment, along with a variety of other assessments of personality and behavior, was used to paint an extensive profile of the LDP participants, and detailed feedback was provided to the participants in the program. In addition to personality assessments, participants completed a 360-degree, or multisource, rating instrument—CCL's *Benchmarks*—as part of their feedback profile. *Benchmarks* measures sixteen skills and perspectives that are critical for success: Resourcefulness, Doing Whatever It Takes, Being a Quick Study, Decisiveness, Leading Employees, Confronting Problem Employees, Participative Management, Change Management, Building and Mending Relationships, Compassion and Sensitivity, Straightforwardness and Composure, Balance Between Personal Life and Work, Self-Awareness, Putting People at Ease, Differences Matter, and Career Management. It also measures five potential career derailers: Problems with Interpersonal Relationships, Difficulty Building and Leading a Team, Difficulty Changing or Adapting, Failure to Meet Business Objectives, and Too Narrow Functional Orientation (CCL, 2004).

An anonymous sample of LDP participants who completed the MBTI Step II and *Benchmarks* assessments was obtained from CCL. For each individual, ratings across groups (bosses, superiors, peers, self, and direct reports) were averaged for each of the *Benchmarks* scales and then correlated with the MBTI Step II facets. The results are presented in tables 21–25.

Although most of the correlations are low, there are a few of note. For example, the E–I facets in the direction of Extraversion are related to higher boss and superior ratings on Putting People at Ease and to higher self-ratings on several scales, including Resourcefulness, Doing Whatever It Takes, Decisiveness, and Leading Employees. The E–I facets in the direction of Introversion are related to higher self-ratings on Difficulty Building and Leading a Team. The S–N facets in the direction of Intuition are related to higher self-ratings on Doing Whatever It Takes and Being a Quick Study. The T–F facets in the direction of Feeling are related to higher boss, superior, and self-ratings on Compassion and Sensitivity and Putting People at Ease; and, in the direction of Thinking, to higher self-ratings on Decisiveness and Problems with Interpersonal Relationships. The J–P facets Systematic–Casual, Methodical–Emergent, and Early Starting–Pressure-Prompted, in the direction of Judging, are related to higher self-ratings on Confronting Problem Employees; Systematic–Casual, in the direction of Feeling, is related to higher self-ratings on Putting People at Ease.

The low correlations do not indicate a lack of validity. Instead, the pattern of relationships suggests that the MBTI Step II assessment demonstrates construct validity by relating to areas of *Benchmarks* scales in a manner that is consistent with what is being measured. Keep in mind that self-ratings and the ratings of others on a 360-degree assessment are influenced by a myriad of factors outside of personality, which accounts for the low correlations.

Table 21 Correlations Between MBTI® Step II™ Facets and Average Boss Ratings on Benchmarks® Scales

	Benchmarks® Scale										
Step II™ Facet Scale	Resource-fulness	Doing Whatever It Takes	Being a Quick Study	Decisive-ness	Leading Employees	Confronting Problem Employees	Partici-pative Manage-ment	Change Manage-ment	Building & Mending Relation-ships	Com-passion & Sensi-tivity	Straight-forward-ness & Com-posure
E–I Facet Scales											
Initiating–Receiving	.02	–.05	.05	–.02	–.02	–.02	.01	.00	.01	–.02	.05
Expressive–Contained	.02	–.03	.07	.00	–.03	–.01	.00	.01	–.01	–.05	.05
Gregarious–Intimate	.01	–.03	.04	–.02	–.02	.00	–.02	–.02	–.02	–.03	–.01
Active–Reflective	.02	–.02	.06	–.02	.01	–.02	.02	.00	.01	.00	.04
Enthusiastic–Quiet	.02	–.04	.04	–.01	.01	.02	.03	.01	.04	.01	.06
S–N Facet Scales											
Concrete–Abstract	.00	.03	.02	–.04	.00	–.05	–.01	–.01	–.02	.03	–.02
Realistic–Imaginative	.01	.05	.03	–.02	.01	–.05	.00	–.01	–.01	.04	–.01
Practical–Conceptual	.00	.02	.05	–.04	.00	–.05	–.01	–.01	–.03	.03	–.02
Experiential–Theoretical	.02	.04	.04	–.04	.00	–.04	–.01	.00	–.02	.02	–.01
Traditional–Original	–.02	.04	.04	–.03	–.02	–.06	–.05	–.03	–.06	–.02	–.05
T–F Facet Scales											
Logical–Empathetic	–.03	–.04	–.12	–.06	.01	–.03	.05	.00	.04	.11	–.04
Reasonable–Compassionate	–.01	–.05	–.08	–.06	.03	–.02	.08	.02	.06	.14	.00
Questioning–Accommodating	.00	–.03	–.06	.00	.01	.02	.05	.02	.06	.06	.05
Critical–Accepting	–.01	–.05	–.09	–.05	.03	–.01	.09	.02	.08	.13	.05
Tough–Tender	–.02	–.07	–.07	–.08	.02	–.04	.08	.00	.06	.13	.00
J–P Facet Scales											
Systematic–Casual	–.05	–.06	–.06	–.07	–.03	–.08	–.01	–.04	.00	.03	–.04
Planful–Open-Ended	–.03	–.04	–.02	–.04	–.05	–.07	–.04	–.04	–.02	–.02	–.02
Early Starting–Pressure-Prompted	.00	.01	.01	–.02	–.03	–.05	–.04	–.02	–.02	–.03	–.02
Scheduled–Spontaneous	–.03	–.03	–.02	–.05	–.05	–.07	–.05	–.05	–.04	–.02	–.05
Methodical–Emergent	–.03	–.04	–.02	–.04	–.04	–.05	–.04	–.05	–.01	–.02	–.04

Note: N = 3,953. Negative correlations are associated with E, S, T, and J facets; positive correlations are associated with I, N, F, and P facets.

Table 21 Correlations Between MBTI® Step II™ Facets and Average Boss Ratings on Benchmarks® Scales *continued*

	Benchmarks® Scale									
Step II™ Facet Scale	Balance Between Personal Life & Work	Self-Aware-ness	Putting People at Ease	Differ-ences Matter	Career Manage-ment	Problems with Inter-personal Relation-ships	Difficulty Building & Leading a Team	Difficulty Changing or Adapting	Failure to Meet Business Objectives	Too Narrow Functional Orien-tation
E–I Facet Scales										
Initiating–Receiving	–.02	.04	–.11	.00	–.07	–.04	.02	.00	–.06	–.02
Expressive–Contained	–.02	.02	–.15	.01	–.06	–.01	.04	.00	–.05	–.02
Gregarious–Intimate	–.05	.00	–.14	.00	–.06	.02	.04	.03	–.03	.01
Active–Reflective	–.01	.04	–.11	.02	–.02	–.03	.02	.00	–.06	–.02
Enthusiastic–Quiet	–.01	.04	–.09	.03	–.03	–.04	.01	–.01	–.06	–.01
S–N Facet Scales										
Concrete–Abstract	.02	–.03	.01	.05	.01	.03	.02	.04	.06	.02
Realistic–Imaginative	.05	–.02	.05	.05	.01	.02	.01	.03	.05	.03
Practical–Conceptual	.02	–.02	.01	.05	.01	.02	.01	.03	.03	.02
Experiential–Theoretical	.00	–.03	.01	.03	.01	.02	.01	.02	.03	.00
Traditional–Original	–.02	–.04	–.03	.00	–.02	.06	.03	.06	.07	.02
T–F Facet Scales										
Logical–Empathetic	.04	.01	.15	.03	.04	–.05	–.02	.00	.04	.04
Reasonable–Compassionate	.09	.02	.13	.07	.05	–.09	–.04	–.03	.00	.02
Questioning–Accommodating	.03	.02	.08	.03	.03	–.07	–.02	–.05	–.03	–.01
Critical–Accepting	.09	.04	.14	.08	.06	–.11	–.06	–.06	–.04	.00
Tough–Tender	.09	.01	.11	.07	.04	–.09	–.02	–.01	.00	.03
J–P Facet Scales										
Systematic–Casual	.05	–.02	.09	.01	–.03	.00	.02	.04	.08	.05
Planful–Open-Ended	–.04	–.04	.02	–.02	–.06	.03	.04	.05	.06	.05
Early Starting–Pressure-Prompted	–.03	–.03	.02	–.01	–.03	.03	.02	.02	.05	.00
Scheduled–Spontaneous	–.02	–.04	.03	–.02	–.05	.04	.05	.06	.07	.06
Methodical–Emergent	–.02	–.02	.04	–.03	–.03	.02	.04	.03	.05	.03

Note: N = 3,953. Negative correlations are associated with E, S, T, and J facets; positive correlations are associated with I, N, F, and P facets.

Table 22 Correlations Between MBTI® Step II™ Facets and Average Superior Ratings on Benchmarks® Scales

Step II™ Facet Scale	Benchmarks® Scale: Resourcefulness	Doing Whatever It Takes	Being a Quick Study	Decisiveness	Leading Employees	Confronting Problem Employees	Participative Management	Change Management	Building & Mending Relationships	Compassion & Sensitivity	Straightforwardness & Composure
E–I Facet Scales											
Initiating–Receiving	–.02	–.07	.03	–.06	–.01	–.02	–.01	–.03	–.01	–.03	.03
Expressive–Contained	–.01	–.07	.03	–.04	–.03	–.04	–.01	–.02	–.02	–.04	.04
Gregarious–Intimate	.01	–.04	.03	–.03	–.01	–.02	.00	–.01	–.02	.00	.01
Active–Reflective	.01	–.04	.04	–.04	.01	.00	.02	.00	.00	.01	.03
Enthusiastic–Quiet	.03	–.04	.03	–.04	.02	.01	.03	.01	.03	.02	.06
S–N Facet Scales											
Concrete–Abstract	–.01	.03	.03	–.03	.01	–.04	–.01	–.01	–.04	.01	–.03
Realistic–Imaginative	.03	.07	.06	.02	.05	–.03	.04	.04	.02	.03	.01
Practical–Conceptual	.03	.06	.07	–.02	.02	–.03	.03	.03	.01	.04	.01
Experiential–Theoretical	.01	.05	.04	–.04	.01	–.03	–.01	–.01	–.03	.00	–.03
Traditional–Original	.00	.06	.08	.00	.00	–.06	–.03	–.01	–.06	–.04	–.04
T–F Facet Scales											
Logical–Empathetic	–.04	–.02	–.10	–.03	.01	–.02	.05	.02	.05	.08	.00
Reasonable–Compassionate	–.01	–.03	–.10	–.05	.04	–.02	.07	.04	.07	.14	.03
Questioning–Accommodating	–.02	–.03	–.06	–.03	.01	.01	.05	.02	.06	.05	.05
Critical–Accepting	–.02	–.03	–.09	–.06	.01	–.01	.05	.02	.05	.11	.04
Tough–Tender	–.04	–.06	–.10	–.09	.01	–.05	.05	.00	.05	.11	.02
J–P Facet Scales											
Systematic–Casual	–.05	–.04	–.06	–.04	–.01	–.05	.01	–.03	–.01	.01	–.03
Planful–Open-Ended	-.04	–.03	.00	–.04	–.06	–.06	–.05	–.05	–.05	–.06	–.04
Early Starting–Pressure-Prompted	.00	.02	.03	.01	–.02	–.03	–.03	–.01	–.01	–.03	.00
Scheduled–Spontaneous	–.05	–.04	–.01	–.04	–.05	–.07	–.05	–.05	–.06	–.06	–.07
Methodical–Emergent	–.04	–.02	.00	.00	–.03	–.02	–.02	–.02	–.01	–.02	–.01

Note: N = 2,077. Negative correlations are associated with E, S, T, and J facets; positive correlations are associated with I, N, F, and P facets.

Table 22 Correlations Between MBTI® Step II™ Facets and Average Superior Ratings on Benchmarks® Scales *continued*

Step II™ Facet Scale	Benchmarks® Scale: Balance Between Personal Life & Work	Self-Awareness	Putting People at Ease	Differences Matter	Career Management	Problems with Interpersonal Relationships	Difficulty Building & Leading a Team	Difficulty Changing or Adapting	Failure to Meet Business Objectives	Too Narrow Functional Orientation
E–I Facet Scales										
Initiating–Receiving	–.04	.01	–.11	.00	–.08	–.03	.02	.01	–.06	–.01
Expressive–Contained	–.02	–.02	–.12	.00	–.08	–.01	.04	.02	–.02	.01
Gregarious–Intimate	–.03	.02	–.10	.01	–.05	.00	.02	.03	–.03	.02
Active–Reflective	–.03	.02	–.11	.02	–.04	–.02	.00	.00	–.04	.00
Enthusiastic–Quiet	–.01	.03	–.08	.03	–.04	–.07	–.02	–.01	–.07	–.03
S–N Facet Scales										
Concrete–Abstract	.00	–.01	.01	.02	.02	.03	.02	.03	.03	.02
Realistic–Imaginative	.02	.02	.06	.07	.06	.01	.00	.00	.02	–.01
Practical–Conceptual	.00	.02	.03	.05	.06	.01	.01	.01	.01	–.02
Experiential–Theoretical	.00	–.01	–.02	.02	.01	.05	.01	.03	.03	.00
Traditional–Original	–.04	–.02	–.03	.01	.01	.07	.05	.05	.04	.02
T–F Facet Scales										
Logical–Empathetic	.04	.05	.11	.06	.06	–.07	–.04	–.04	–.01	–.01
Reasonable–Compassionate	.08	.06	.13	.09	.07	–.10	–.05	–.05	.00	–.01
Questioning–Accommodating	.02	.04	.10	.02	.03	–.07	–.03	–.06	–.01	–.02
Critical–Accepting	.07	.03	.11	.06	.04	–.08	–.05	–.05	–.01	–.01
Tough–Tender	.07	.03	.10	.08	.04	–.08	–.02	–.02	.01	.01
J–P Facet Scales										
Systematic–Casual	.04	–.01	.08	.01	.00	–.04	.00	.01	.03	.03
Planful–Open-Ended	–.03	–.04	–.01	–.04	–.06	.04	.07	.06	.05	.05
Early Starting–Pressure-Prompted	–.02	–.02	.01	–.01	.00	.00	.01	–.01	.00	–.02
Scheduled–Spontaneous	–.03	–.04	–.01	–.03	–.05	.03	.05	.06	.07	.07
Methodical–Emergent	.02	–.01	.04	–.01	–.01	–.02	.02	.00	.03	.03

Note: $N = 2{,}077$. Negative correlations are associated with E, S, T, and J facets; positive correlations are associated with I, N, F, and P facets.

Table 23 Correlations Between MBTI® Step II™ Facets and Average Peer Ratings on Benchmarks® Scales

Step II™ Facet Scale	Benchmarks® Scale: Resourcefulness	Doing Whatever It Takes	Being a Quick Study	Decisiveness	Leading Employees	Confronting Problem Employees	Participative Management	Change Management	Building & Mending Relationships	Compassion & Sensitivity	Straightforwardness & Composure
E–I Facet Scales											
Initiating–Receiving	.01	–.05	.04	–.05	–.01	–.04	.02	–.01	.01	–.03	.04
Expressive–Contained	.00	–.06	.03	–.05	–.03	–.04	–.01	–.01	–.01	–.05	.04
Gregarious–Intimate	.01	–.03	.03	–.03	–.01	–.02	.00	.00	–.01	–.02	.00
Active–Reflective	.02	–.03	.04	–.03	.00	–.02	.03	.01	.02	.01	.05
Enthusiastic–Quiet	.03	–.04	.04	–.02	.02	.00	.05	.02	.05	.03	.08
S–N Facet Scales											
Concrete–Abstract	.00	.01	.02	–.03	–.01	–.04	–.03	–.01	–.02	.01	–.01
Realistic–Imaginative	–.01	.01	.00	–.02	–.01	–.04	–.03	–.01	–.03	.00	–.02
Practical–Conceptual	.00	.01	.04	–.04	–.02	–.05	–.02	–.01	–.02	.01	–.02
Experiential–Theoretical	.00	.01	.03	–.02	–.01	–.03	–.04	.00	–.02	.00	–.01
Traditional–Original	–.01	.03	.04	.00	–.03	–.03	–.05	–.01	–.05	–.04	–.04
T–F Facet Scales											
Logical–Empathetic	–.02	–.03	–.08	–.05	.02	–.02	.04	.00	.04	.10	–.01
Reasonable–Compassionate	.01	–.02	–.06	–.03	.04	–.01	.06	.03	.06	.13	.03
Questioning–Accommodating	–.01	–.02	–.04	–.01	.02	.00	.04	.01	.05	.05	.05
Critical–Accepting	.01	–.01	–.05	–.02	.04	.01	.07	.03	.07	.14	.05
Tough–Tender	.00	–.04	–.05	–.05	.03	–.03	.06	.01	.06	.12	.02
J–P Facet Scales											
Systematic–Casual	–.04	–.04	–.04	–.04	–.02	–.05	–.01	–.03	.01	.03	–.01
Planful–Open-Ended	–.03	–.03	–.01	–.03	–.04	–.03	–.04	–.03	–.02	–.02	–.02
Early Starting–Pressure-Prompted	–.02	–.01	.01	–.03	–.02	–.04	–.03	–.02	–.01	.00	.00
Scheduled–Spontaneous	–.04	–.03	–.02	–.03	–.04	–.04	–.04	–.04	–.03	–.01	–.05
Methodical–Emergent	–.01	.00	.01	.01	–.01	–.01	–.01	–.02	.00	.01	–.01

Note: $N = 3{,}963$. Negative correlations are associated with E, S, T, and J facets; positive correlations are associated with I, N, F, and P facets.

Table 23 Correlations Between MBTI® Step II™ Facets and Average Peer Ratings on Benchmarks® Scales *continued*

	Benchmarks® Scale									
Step II™ Facet Scale	Balance Between Personal Life & Work	Self-Aware-ness	Putting People at Ease	Differ-ences Matter	Career Manage-ment	Problems with Inter-personal Relation-ships	Difficulty Building & Leading a Team	Difficulty Changing or Adapting	Failure to Meet Business Objectives	Too Narrow Functional Orien-tation
E–I Facet Scales										
Initiating–Receiving	.00	.03	–.09	.00	–.06	–.02	.03	.00	–.04	–.01
Expressive–Contained	–.02	.00	–.11	.01	–.06	.00	.04	.00	–.02	.00
Gregarious–Intimate	–.01	.02	–.09	.02	–.04	.00	.02	.01	–.04	–.01
Active–Reflective	.00	.04	–.07	.04	–.03	–.04	.00	–.02	–.06	–.01
Enthusiastic–Quiet	.04	.06	–.05	.05	–.02	–.06	.00	–.03	–.06	–.02
S–N Facet Scales										
Concrete–Abstract	.01	–.01	.00	.03	.01	.01	.00	.02	.03	.02
Realistic–Imaginative	.01	–.01	.02	.02	.01	.02	.01	.02	.04	.03
Practical–Conceptual	.00	–.01	.00	.04	.01	.00	.01	.02	.02	.01
Experiential–Theoretical	.00	–.01	.00	.02	.01	.02	.01	.02	.03	.01
Traditional–Original	–.03	–.03	–.05	.00	–.01	.06	.02	.05	.05	.04
T–F Facet Scales										
Logical–Empathetic	.03	.03	.13	.05	.04	–.07	–.05	–.02	.02	.02
Reasonable–Compassionate	.07	.05	.12	.08	.07	–.08	–.06	–.04	–.01	.01
Questioning–Accommodating	.03	.03	.07	.03	.01	–.05	–.01	–.03	–.01	.00
Critical–Accepting	.11	.04	.13	.10	.06	–.08	–.04	–.04	–.02	.00
Tough–Tender	.10	.05	.11	.08	.05	–.08	–.04	–.03	–.01	.01
J–P Facet Scales										
Systematic–Casual	.05	–.01	.08	.02	.00	–.03	–.02	.00	.04	.03
Planful–Open-Ended	–.01	–.02	.01	–.01	–.03	.02	.01	.03	.03	.03
Early Starting–Pressure-Prompted	–.02	.00	.04	.01	.00	.00	–.01	.01	.04	.02
Scheduled–Spontaneous	–.01	–.03	.02	–.02	–.02	.02	.02	.04	.06	.04
Methodical–Emergent	.02	.01	.05	.00	.00	–.02	–.02	.00	.03	.02

Note: $N = 3{,}963$. Negative correlations are associated with E, S, T, and J facets; positive correlations are associated with I, N, F, and P facets.

Table 24 Correlations Between MBTI® Step II™ Facets and Average Self-Ratings on Benchmarks® Scales

	Benchmarks® Scale										
Step II™ Facet Scale	Resource-fulness	Doing Whatever It Takes	Being a Quick Study	Decisive-ness	Leading Employees	Confronting Problem Employees	Partici-pative Manage-ment	Change Manage-ment	Building & Mending Relation-ships	Com-passion & Sensi-tivity	Straight-forward-ness & Com-posure
E–I Facet Scales											
Initiating–Receiving	–.16	–.20	–.05	–.17	–.13	–.18	–.10	–.14	–.16	–.12	–.07
Expressive–Contained	–.11	–.13	.01	–.11	–.13	–.11	–.10	–.10	–.12	–.15	–.01
Gregarious–Intimate	–.12	–.14	–.04	–.12	–.11	–.10	–.11	–.12	–.15	–.09	–.08
Active–Reflective	–.12	–.15	–.03	–.15	–.11	–.15	–.07	–.12	–.12	–.08	–.04
Enthusiastic–Quiet	–.11	–.17	–.07	–.15	–.10	–.11	–.05	–.10	–.08	–.05	.00
S–N Facet Scales											
Concrete–Abstract	.04	.12	.11	.01	.03	–.04	.00	.03	.01	.03	.04
Realistic–Imaginative	.06	.15	.12	.03	.04	–.03	.01	.05	.02	.03	.04
Practical–Conceptual	.04	.12	.13	–.01	.02	–.03	.01	.02	.01	.03	.02
Experiential–Theoretical	.06	.12	.10	.01	.02	–.03	.01	.04	.01	.02	.06
Traditional–Original	.05	.18	.15	.08	.04	.01	–.01	.07	–.02	–.02	.04
T–F Facet Scales											
Logical–Empathetic	–.06	–.08	–.13	–.12	.00	–.05	.05	–.03	.05	.20	–.07
Reasonable–Compassionate	–.04	–.08	–.11	–.12	.02	–.05	.07	–.01	.08	.24	.00
Questioning–Accommodating	–.04	–.07	–.08	–.05	.02	–.01	.06	.02	.08	.12	.03
Critical–Accepting	–.04	–.06	–.10	–.10	.04	–.03	.11	.02	.10	.20	.05
Tough–Tender	–.05	–.10	–.07	–.16	.00	–.12	.07	–.04	.07	.21	–.01
J–P Facet Scales											
Systematic–Casual	–.06	–.05	–.03	–.07	–.06	–.11	–.03	–.05	–.01	.04	–.03
Planful–Open-Ended	–.05	–.01	.02	–.02	–.05	–.07	–.06	–.02	–.03	–.02	.00
Early Starting–Pressure-Prompted	–.02	.00	.04	–.03	–.07	–.10	–.09	–.03	–.03	–.04	.00
Scheduled–Spontaneous	–.04	.01	.03	–.02	–.04	–.08	–.07	–.04	–.04	–.01	–.03
Methodical–Emergent	–.08	–.05	–.03	–.03	–.08	–.11	–.10	–.07	–.05	–.02	–.05

Note: $N = 4{,}407$. Negative correlations are associated with E, S, T, and J facets; positive correlations are associated with I, N, F, and P facets.

Table 24 Correlations Between MBTI® Step II™ Facets and Average Self-Ratings on Benchmarks® Scales *continued*

Step II™ Facet Scale	Benchmarks® Scale: Balance Between Personal Life & Work	Self-Awareness	Putting People at Ease	Differences Matter	Career Management	Problems with Interpersonal Relationships	Difficulty Building & Leading a Team	Difficulty Changing or Adapting	Failure to Meet Business Objectives	Too Narrow Functional Orientation
E–I Facet Scales										
Initiating–Receiving	–.11	–.09	–.27	–.14	–.27	.06	.16	.11	.06	.11
Expressive–Contained	–.13	–.12	–.30	–.09	–.23	.04	.13	.06	.00	.03
Gregarious–Intimate	–.10	–.08	–.24	–.10	–.21	.08	.13	.10	.04	.08
Active–Reflective	–.10	–.07	–.22	–.08	–.19	.05	.13	.09	.04	.10
Enthusiastic–Quiet	–.07	–.07	–.20	–.08	–.19	–.01	.10	.07	.04	.08
S–N Facet Scales										
Concrete–Abstract	.04	–.01	.00	.06	.01	.01	.00	.02	.00	.00
Realistic–Imaginative	.03	.00	.04	.06	.02	.01	–.01	.00	.00	–.01
Practical–Conceptual	.01	.01	.01	.07	.02	.01	–.01	.01	–.03	–.01
Experiential–Theoretical	.03	.00	–.02	.04	.01	.02	.01	.02	.01	–.01
Traditional–Original	.00	.01	–.07	.08	.01	.05	–.01	.02	–.01	–.02
T–F Facet Scales										
Logical–Empathetic	.08	.03	.22	.03	.08	–.09	–.05	.00	.06	.06
Reasonable–Compassionate	.12	.02	.21	.06	.07	–.13	–.06	–.02	.03	.04
Questioning–Accommodating	.03	.01	.12	.03	.05	–.11	–.04	–.05	.01	.02
Critical–Accepting	.12	.05	.18	.08	.07	–.16	–.08	–.06	–.02	.02
Tough–Tender	.13	.03	.20	.05	.02	–.11	–.02	.02	.04	.07
J–P Facet Scales										
Systematic–Casual	.05	–.04	.11	–.01	–.04	–.01	.03	.03	.08	.05
Planful–Open-Ended	–.04	–.05	–.01	–.01	–.06	.02	.04	.04	.05	.03
Early Starting–Pressure-Prompted	–.06	–.05	.01	–.02	–.05	.06	.05	.03	.08	–.01
Scheduled–Spontaneous	–.01	–.04	.00	–.02	–.05	.05	.05	.05	.07	.03
Methodical–Emergent	–.04	–.07	.00	–.05	–.06	.04	.07	.06	.10	.06

Note: $N = 4{,}407$. Negative correlations are associated with E, S, T, and J facets; positive correlations are associated with I, N, F, and P facets.

Table 25 Correlations Between MBTI® Step II™ Facets and Average Direct Report Ratings on Benchmarks® Scales

Step II™ Facet Scale	Benchmarks® Scale: Resourcefulness	Doing Whatever It Takes	Being a Quick Study	Decisiveness	Leading Employees	Confronting Problem Employees	Participative Management	Change Management	Building & Mending Relationships	Compassion & Sensitivity	Straightforwardness & Composure
E–I Facet Scales											
Initiating–Receiving	–.03	–.06	.04	–.04	–.04	–.06	–.02	–.01	–.01	–.04	.03
Expressive–Contained	–.02	–.06	.04	–.03	–.03	–.03	–.03	–.02	–.01	–.04	.02
Gregarious–Intimate	–.03	–.03	.03	–.02	–.03	–.02	–.02	–.01	–.03	–.02	–.02
Active–Reflective	–.01	–.05	.03	–.03	–.03	–.04	–.01	–.01	–.01	–.02	.00
Enthusiastic–Quiet	–.01	–.05	.03	–.01	–.01	–.03	.01	.00	.01	.01	.05
S–N Facet Scales											
Concrete–Abstract	–.01	.03	.00	–.01	.00	–.03	.00	.00	.00	.03	.00
Realistic–Imaginative	–.01	.03	.01	–.02	–.01	–.04	–.02	–.01	–.01	.00	–.01
Practical–Conceptual	.01	.05	.04	–.01	.02	.00	–.01	.01	.01	.03	.01
Experiential–Theoretical	.00	.04	.01	.01	.01	–.02	.00	.01	.01	.02	.01
Traditional–Original	–.01	.03	.01	.00	–.02	–.04	–.03	–.02	–.04	–.03	–.02
T–F Facet Scales											
Logical–Empathetic	.00	.01	–.02	.00	.04	.01	.07	.04	.06	.10	.01
Reasonable–Compassionate	.01	.01	–.03	.00	.06	.02	.08	.06	.07	.13	.05
Questioning–Accommodating	.00	–.01	–.01	–.02	.02	.00	.03	.02	.03	.03	.03
Critical–Accepting	.04	.02	.00	.00	.06	.04	.08	.06	.09	.14	.09
Tough–Tender	.01	–.01	–.02	–.03	.04	–.02	.06	.04	.06	.13	.04
J–P Facet Scales											
Systematic–Casual	–.02	–.01	–.02	–.01	.00	–.05	.02	.00	.02	.04	.01
Planful–Open-Ended	–.04	–.02	.00	.00	–.03	–.06	–.02	–.02	–.02	–.02	–.01
Early Starting—Pressure-Prompted	.01	.02	.02	.00	–.02	–.03	–.02	–.01	–.01	–.01	.00
Scheduled–Spontaneous	–.04	–.01	–.01	.00	–.03	–.05	–.02	–.03	–.02	–.01	–.02
Methodical–Emergent	–.03	–.03	–.01	.00	–.02	–.04	–.02	–.03	–.01	–.01	–.01

Note: $N = 3{,}874$. Negative correlations are associated with E, S, T, and J facets; positive correlations are associated with I, N, F, and P facets.

Table 25 Correlations Between MBTI® Step II™ Facets and Average Direct Report Ratings on Benchmarks® Scales *continued*

Step II™ Facet Scale	Benchmarks® Scale: Balance Between Personal Life & Work	Self-Awareness	Putting People at Ease	Differences Matter	Career Management	Problems with Interpersonal Relationships	Difficulty Building & Leading a Team	Difficulty Changing or Adapting	Failure to Meet Business Objectives	Too Narrow Functional Orientation
E–I Facet Scales										
Initiating–Receiving	–.05	.00	–.08	–.02	–.06	–.01	.04	–.01	–.03	–.01
Expressive–Contained	–.04	–.02	–.10	–.01	–.07	.00	.04	.00	–.02	.01
Gregarious–Intimate	–.05	–.01	–.09	–.01	–.05	.02	.03	.02	–.02	.01
Active–Reflective	–.03	.00	–.08	.00	–.04	.00	.03	.01	–.02	.01
Enthusiastic–Quiet	.00	.02	–.05	.02	–.03	–.03	.01	–.02	–.04	–.02
S–N Facet Scales										
Concrete–Abstract	.03	.00	.01	.03	.00	.01	.01	.02	.02	.02
Realistic–Imaginative	.02	–.01	.01	.01	.00	.03	.03	.04	.05	.03
Practical–Conceptual	.02	.01	.02	.03	.00	.01	.00	.01	.00	.00
Experiential–Theoretical	.04	.00	.01	.02	.01	.01	.01	.02	.02	.01
Traditional–Original	–.01	–.03	–.02	–.01	–.02	.04	.04	.05	.04	.03
T–F Facet Scales										
Logical–Empathetic	.05	.01	.08	.03	.01	–.03	–.02	–.01	.01	.01
Reasonable–Compassionate	–.01	–.03	.00	–.01	–.04	.02	.03	.04	.04	.04
Questioning–Accommodating	–.02	–.01	.02	.00	–.02	.01	.02	.00	.03	.01
Critical–Accepting	.00	–.02	.01	–.02	–.03	.02	.02	.03	.04	.03
Tough–Tender	–.01	–.02	.02	–.01	–.02	.01	.02	.02	.03	.03
J–P Facet Scales										
Systematic–Casual	.05	.01	.08	.03	.01	–.03	–.02	–.01	.01	.01
Planful–Open-Ended	–.01	–.03	.00	–.01	–.04	.02	.03	.04	.04	.04
Early Starting–Pressure-Prompted	–.02	–.01	.02	.00	–.02	.01	.02	.00	.03	.01
Scheduled–Spontaneous	.00	–.02	.01	–.02	–.03	.02	.02	.03	.04	.03
Methodical–Emergent	–.01	–.02	.02	–.01	–.02	.01	.02	.02	.03	.03

Note: $N = 3{,}874$. Negative correlations are associated with E, S, T, and J facets; positive correlations are associated with I, N, F, and P facets.

Table 26 Factor Analysis Rotated Component Matrix

Step II™ Facet Scale	Factor 1 (S–N)	Factor 2 (E–I)	Factor 3 (J–P)	Factor 4 (T–F)
E–I Facet Scales				
Initiating–Receiving	–.10	.85	.02	.00
Expressive–Contained	–.03	.78	–.03	–.14
Gregarious–Intimate	.00	.83	–.03	.01
Active–Reflective	.02	.86	–.04	–.01
Enthusiastic–Quiet	–.12	.86	–.05	–.01
S–N Facet Scales				
Concrete–Abstract	.85	–.06	.19	.15
Realistic–Imaginative	.81	–.10	.17	.17
Practical–Conceptual	.80	.01	.02	.05
Experiential–Theoretical	.78	–.01	.15	.03
Traditional–Original	.80	–.08	.21	–.15
T–F Facet Scales				
Logical–Empathetic	.09	–.11	.17	.79
Reasonable–Compassionate	.08	–.01	.11	.85
Questioning–Accommodating	–.31	.03	–.10	.54
Critical–Accepting	.09	–.08	–.02	.74
Tough–Tender	.14	.03	.08	.85
J–P Facet Scales				
Systematic–Casual	.24	–.11	.73	.30
Planful–Open-Ended	.16	–.01	.82	.01
Early Starting–Pressure-Prompted	.14	–.05	.70	–.05
Scheduled–Spontaneous	.21	–.01	.85	.04
Methodical–Emergent	.01	.02	.75	.06

Note: N = 10,000.

Factor Analysis

A principal components factor analysis with varimax rotation was conducted using the same sample of 10,000 respondents that was used for the Step II facet intercorrelation analysis and correlation analysis between facets and dichotomies. All of the facets were used in the factor analysis to determine whether they clearly exhibit a four-factor solution, and whether the facets appear within the appropriate factor. Table 26 shows a four-factor solution (the four dichotomies), with all of the facets within the factor: all S–N facets in factor 1, all E–I facets in factor 2, all J–P facets in factor 3, and all T–F facets in factor 4.

Conclusion

This *MBTI® Step II™ Manual* supplement extends the analyses conducted since publication of the manual (Quenk et al., 2001). It includes a number of samples from respondents who completed the assessment in recent years, including a small U.S. representative sample. Analyses conducted using these samples demonstrate that most of the facets have very good internal consistency reliability across different employment statuses, ethnic groups, age groups, and international regions. Analyses also demonstrated good test-retest reliabilities for most facets spanning four different time intervals, for both women and men. A comparison with similar personality assessments shows that the internal consistency and test-retest reliabilities of the MBTI Step II assessment are comparable.

Validity is demonstrated in several ways. First, correlations between the facets and dichotomies, and among the factors, show anticipated relationships. Also included in this supplement are correlations of the MBTI Step II assessment with seven other assessments: the CPI 260, FIRO (FIRO-B and FIRO Business), *Adjective Check List, Strong Interest Inventory, Thomas-Kilmann Conflict Mode Instrument* (TKI), *Birkman Method,* and *Benchmarks* assessments. The correlations show expected relationships with these other instruments. Finally, factor analysis shows that all facets within one dichotomy appear within one factor. These analyses demonstrate the measurement or construct validity of the MBTI Step II assessment.

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