MBTI® MANUAL GLOBAL SUPPLEMENT SERIES



# Sweden (Swedish) Supplement to the MBTI® Manual for the Global Step I™ and Step II™ Assessments

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### **CONTENTS**

Introduction	1
Translation Process	2
Data Collection	3
MBTI° Global Step I™ Assessment Results for	
the Swedish Sample	4
MBTI® Type and Preference Distributions	4
Relationships Between MBTI® Global Step I™, Form M, and European Step I™ Preference Pair Results	6
Global Step I <sup>™</sup> Preference Pair Intercorrelations	6
Reliability and Validity of Global Step I™ Results	7
MBTI° Global Step II™ Assessment Results for the Swedish Sample	17
Relationships Between MBTI® Global Step II™, Form Q	,
and European Step II™ Facet Results	17
Global Step II <sup>™</sup> Facet Intercorrelations	17
Reliability and Validity of Global Step II* Results	17
Global Step II <sup>™</sup> Facet Distributions	20
Conclusion	22
Notes	23
References	24

### INTRODUCTION

As steward of the Myers-Briggs Type Indicator (MBTI°) assessment, The Myers-Briggs Company had two overarching goals in undertaking its revision to create global Step I™ and Step II™ forms: (1) preserve the integrity of the Step I and Step II assessments and (2) improve the reliability and validity of the MBTI assessment overall. More specifically, the company sought to update existing representative samples and compile new representative samples in additional countries based on translations (or adaptations) of the assessment into additional languages, use a statistical model consistent with type theory, and, if supported by data analysis, use the same scoring method globally, so that scores could be compared across all those countries and languages.

Broadening existing and compiling new representative samples was a high priority. The prior revision of the MBTI assessment culminated in the 1998 publication of MBTI Form M (Step I), which replaced the earlier Form G. Form Q (Step II) was subsequently published in 2001 and replaced Form K. In the United Kingdom, the European Step I assessment was published in 1997. The European Step II assessment was published in 2003 based on pan-European samples compiled by OPP Ltd. Although all these forms of the MBTI assessment served their audiences well, no additional representative samples in the United States or the UK had been compiled subsequent to their publication. It was therefore important to update the US and UK representative samples as well as expand the number of representative samples to include additional countries and languages, reflecting the increasingly global reach of the MBTI assessment.

To address this need, data were collected in targeted countries (see table 1), with specific demographic targets set by experts for all samples except those from Brazil and South Africa. A consistent data collection effort yielded samples that responded to a common 230-item

MBTI research form containing all items on then-current forms of the assessment (i.e., MBTI Form M and Form Q, and European Step I and Step II); common demographic items; and other validation assessments. Participants who completed North American English or European English versions of the assessment also completed an online interpretation session through The Myers-Briggs Company's MBTI®Complete website, making their verified, or "best-fit," type available for analysis.

In brief, the revision of the MBTI assessment provided the opportunity to collect a wealth of data, resulting in national representative samples that had not existed previously. These samples served the global research effort for the revised assessments themselves and also provided 4 new large and 19 new moderate-size samples. (Please note: In this manual supplement series, a particular sample may be referred to by either country or language for convenience in a particular context. Refer as needed to the sample names listed in table 1 when considering the results presented.)

Two different categories of samples were collected for this global project. Table 1 lists the 4 "large" samples— United States, Canada, and Australia (all North American English), and the United Kingdom (European English) and the 19 "moderate-size" samples from around the world, which were all combined to form the global sample. Large samples were targeted to have 1,000 or more participants, to exceed the sample size of an existing representative sample (specifically, in the US and the UK), and to reflect the size of the market for the MBTI assessment. The moderate-size samples for the most part included targets to ensure that they were nationally representative; only 3 of these samples—Brazil (Brazilian Portuguese), South Africa (Afrikaans), and South Africa (North American English)—due in part to their smaller markets for the MBTI assessment, were distributor led and nonrepresentative.

The MBTI global sample consists of 16,773 individuals, as detailed and summarized in chapter 7 of the MBTI® Manual for the Global Step I<sup>™</sup> and Step II<sup>™</sup> Assessments (Myers, McCaulley, Quenk, & Hammer, 2018). The global sample was used to develop the Global Step I and Step Il assessments. It is critical to keep in mind that while analyses were conducted for each country/language sample used in this supplement series, the focus of the analyses was on the global sample reported in the 2018 MBTI manual.

This supplement to the 2018 manual summarizes results obtained from responses of the Sweden (Swedish) sample—hereafter, Swedish sample—to the Global Step I and Step II assessments translated into the Swedish language. Included in this supplement are a description of the sample and data collection efforts, type distribution tables specific to the sample, analyses of

Table 1 | List of large and moderate-size country/ language samples in the MBTI® global sample

Country/language sample	N
Large samples	
Australia (North American English)	776
Canada (North American English)	939
United Kingdom (European English)	2,831
United States (North American English)	3,578
Moderate-size samples	
Brazil (Brazilian Portuguese)*	839
Canada (Canadian French)	176
China (Simplified Chinese)	521
China (Traditional Chinese)	477
Denmark (Danish)	468
Finland (Finnish)	524
France (European French)	472
Germany (German)†	440
Greece (Greek)	277
Ireland (European English)	383
Italy (Italian)	458
Mexico (Latin American Spanish)	359
Netherlands (Dutch)	506
Norway (Norwegian)	493
Portugal (European Portuguese)	503
South Africa (Afrikaans)*	505
South Africa (North American English)*	189
Spain (European Spanish)	564
Sweden (Swedish)	495

Note: Global sample, N = 16,773.

Step I and Step II scales, and the results of reliability and validity studies conducted on the Swedish sample.

### TRANSLATION PROCESS

The Myers-Briggs Company's translation process for the MBTI Global Step I and Step II assessments was based on industry-standard methods for assessment translation (International Test Commission, 2005). Because each of the languages included in this project has a different history of translation and use, the process varied somewhat for different languages.

As part of the research process to develop the MBTI® European Step II<sup>™</sup> assessment, a research form containing 230 items from the Myers' pool of existing items (and known as the Pan-European Step II<sup>™</sup>—Trial Form) was created (see Quenk, Hammer, & Majors, 2004, for details). This form was translated into nine European languages— Danish, Dutch, English, French, German, Italian,

<sup>\*</sup>Data collection for this sample was distributor led; it is not a representative sample.

<sup>†</sup>Germany sample includes one individual residing in Switzerland.

Norwegian, Spanish, and Swedish—and used to collect MBTI assessment data. It later was refined to become the 166-item European Step II assessment, with a version for each language; all versions have been used extensively since their release. Additional research on these different language versions of the assessment, and on others developed since that time, has been reported by OPP Ltd (2009). The 230-item research form became the starting point for the translation of the Swedish-language version used in this global project.

OPP's original Swedish translation was created by a professional linguist; it was evaluated by in-country expert reviewers and iterated until a satisfactory version of the translation was developed. For this global project, the Swedish version was again evaluated by a professional linguist as well as in-country expert reviewers; modifications were made to item wordings to further improve the quality and accuracy of the translation. All changes were reviewed by the linguist as well as in-country expert reviewers, iteratively, until an agreed-upon translation was developed.

### DATA COLLECTION

Data for this revision of the assessment were collected almost exclusively online through two Myers-Briggs Company websites. The first site, built by the company's Research Division, accommodated the administration of the MBTI research form and other validity assessments, which were used for non-Englishspeaking research participants. The second site, for English-speaking participants, was a special modification of MBTI°Complete created for this research project using the 230-item MBTI research form, followed by MBTI®Complete's online interpretation session yielding respondents' best-fit type results. (For details on bestfit type, see chapter 7 in the 2018 MBTI manual.) As MBTI®Complete was not used in collecting the Swedish sample, best-fit type data for the sample are unavailable.

For the MBTI research form, specific sampling targets were set for each sample (table 2). Local MBTI distributors helped determine the final targets for samples in their respective countries or regions by selecting appropriate official sources. In general, sampling targets were designed to mirror the working-age population.

Once the websites were prepared and the sampling targets were set, data collection began. For most samples, the majority of participants were provided with incentives by an external market research firm. Such firms maintain panels of participants who have expressed willingness to participate in research. These participants were compensated for completing some combination

Table 2 | Demographic summary: Swedish sample

	Target	Actual
Demographic	%	%
Age group		
15-24 years	16	15
25-44 years	32	30
45-64 years	31	34
65+ years	21	22
Mean age: 47 years	_	_
Gender		
Female	50	51
Male	50	49
Country of residence		
Sweden	_	100
Employment status		
Working full-time	43	43
Working part-time	16	15
Student	9	9
Looking after family/home	12	2
Long-term sick	11	3
Retired / not working for income / none of the above	9	28
Self-employed		
Yes	3	8
No	97	46
No response	_	46

Note: N = 495. Percentages in a given category may not total 100% due to rounding of decimals.

of demographic items, the MBTI research form, and/ or other validity assessments. For some samples—for example, Brazil (Brazilian Portuguese)—the locally based MBTI distributor led the data collection effort. Once data were collected, all cases were thoroughly examined, and invalid cases (e.g., those with too many response omissions or where a participant had selected only the "A" response option across 230 items) were removed. This cleanup step, while reducing final sample sizes, was required to ensure that only the highest-quality data remained for analysis.

A representative sample of individuals from Sweden who read Swedish was obtained from a market research firm. Targets provided by OPP Ltd. were set based on the population of Sweden. Table 2 shows the demographic target and actual obtained percentages. The resulting Swedish sample consists of 495 individuals, 50.5% women and 49.5% men. The age range is 15-81, with an average of 47 years (standard deviation = 16.4). All individuals reported residing in Sweden.

Table 3 | Reported MBTI° type distribution: Swedish sample

Sen	sing	Intui	tion		
Thinking	Fee	ling	Thinking		
<b>ISTJ</b> <i>n</i> = 59 11.9%	<b>ISFJ</b> n = 28 5.7%	<b>INFJ</b> n = 6 1.2%	<b>INTJ</b> n = 6  1.2%	Judging	Introv
<b>ISTP</b> <i>n</i> = 53 10.7%	ISFP n = 44 8.9%	INFP n = 24 4.8%	INTP n = 15 3.0%	Perceiving	Introversion
<b>ESTP</b> n = 38 7.7%	<b>ESFP</b> <i>n</i> = 45 9.1%	<b>ENFP</b> <i>n</i> = 53 10.7%	<b>ENTP</b> <i>n</i> = 27 5.5%	iving	Extrav
<b>ESTJ</b> <i>n</i> = 53 10.7%	<b>ESFJ</b> n = 29 5.9%	<b>ENFJ</b> <i>n</i> = 10 2.0%	<b>ENTJ</b> <i>n</i> = 5 1.0%	Judging	Extraversion

Note: N = 495.

Table 4 | Reported MBTI® preference and preference combination distributions: Swedish sample

F	Preferences		Preferences Orientation pairs		Pi	Process pairs			Orientation of energy and perceiving pairs			Judging and external orientation pairs			
	n	%		n	%		n	%		n	%		n	%	
Е	260	52.5	EJ	97	19.6	ST	203	41.0	ES	165	33.3	TJ	123	24.8	
1	235	47.5	EP	163	32.9	SF	146	29.5	EN	95	19.2	TP	133	26.9	
S	349	70.5	IJ	99	20.0	NF	93	18.8	IS	184	37.2	FJ	73	14.7	
N	146	29.5	IP	136	27.5	NT	53	10.7	IN	51	10.3	FP	166	33.5	
Т	256	51.7													
F	239	48.3													
J	196	39.6													
Р	299	60.4													

Note: N = 495.

# MBTI° GLOBAL STEP I" ASSESSMENT RESULTS FOR THE SWEDISH SAMPLE

The Global Step I assessment contains 92 items used to help determine individuals' personality type by identifying their preferences on four pairs of opposites (Extraversion-Introversion, Sensing-Intuition, Thinking-Feeling, and Judging-Perceiving). Combining an individual's four preferences yields 1 of 16 possible MBTI types. The Global Step I assessment replaces the Form M assessment and the European Step I assessment.

# **MBTI° Type and Preference Distributions**

MBTI type was computed for all participants in the Swedish sample. Type, preference, and preference combination distributions for this sample are presented in tables 3 and 4.

Table 3 shows that the most common types are ISTJ, ESTJ, ISTP, and ENFP. The least common types for this group are ENTJ, INFJ, and INTJ. As reported in the MBTI® Step I<sup>TM</sup> Instrument European Data Supplement (OPP Ltd, 2011), the most common types in a general Swedish

Table 5 | Reported MBTI° type distribution for men: Swedish sample

Sen	sing	Intuit	tion		
Thinking	Fee	ling	Thinking		
<b>ISTJ</b> <i>n</i> = 32 13.1%	<b>ISFJ</b> n = 7 2.9%	INFJ n = 0 0.0%	INTJ n = 3 1.2%	Judging	Introv
<b>ISTP</b> <i>n</i> = 31 12.7%	ISFP n = 15 6.1%	INFP n = 10 4.1%	INTP n = 10 4.1%	Perceiving	Introversion
<b>ESTP</b> <i>n</i> = 22 9.0%	<b>ESFP</b> <i>n</i> = 26 10.6%	<b>ENFP</b> n = 20 8.2%	<b>ENTP</b> <i>n</i> = 20 8.2%	iving	Extrav
<b>ESTJ</b> <i>n</i> = 37 15.1%	<b>ESFJ</b> <i>n</i> = 6 2.4%	<b>ENFJ</b> n = 4 1.6%	<b>ENTJ</b> <i>n</i> = 2 0.8%	Judging	Extraversion

Note: n = 245.

Table 6 | Reported MBTI° preference and preference combination distributions for men: Swedish sample

Preferences		Preferences		Preferences Orientation pairs		Pı	Process pairs			Orientation of energy and perceiving pairs			Judging and external orientation pairs			
	n	%		n	%		n	%		n	%		n	%		
Е	137	55.9	EJ	49	20.0	ST	122	49.8	ES	91	37.1	TJ	74	30.2		
I	108	44.1	EP	88	35.9	SF	54	22.0	EN	46	18.8	TP	83	33.9		
S	176	71.8	IJ	42	17.1	NF	34	13.9	IS	85	34.7	FJ	17	6.9		
N	69	28.2	IP	66	26.9	NT	35	14.3	IN	23	9.4	FP	71	29.0		
Т	157	64.1														
F	88	35.9														
J	91	37.1														
Р	154	62.9														

Note: n = 245.

population sample (N = 915) at that time were ESTJ and ISTJ. The least common type in that sample was INTJ.

Table 4 shows the distributions of preferences as well as four two-preference combinations: (1) orientation pairs, (2) process pairs, (3) orientation of energy and perceiving process pairs, and (4) judging process and external orientation pairs. The table shows that of the orientation

pairs, EPs and IPs are more common than EJs and IJs. In addition, Ss are more prevalent than Ns, and Ps are more prevalent than Js, while the other preferences are more evenly distributed.

Tables 5–8 show type and preference distributions by gender.

Table 7 | Reported MBTI° type distribution for women: Swedish sample

Sen	ising	Intui	tion		
Thinking	Fee	ling	Thinking		
<b>ISTJ</b> <i>n</i> = 27 10.8%	ISFJ n = 21 8.4%	<b>INFJ</b> n = 6 2.4%	INTJ n = 3 1.2%	Judging	Introv
<b>ISTP</b> <i>n</i> = 22 8.8%	<b>ISFP</b> n = 29 11.6%	INFP n = 14 5.6%	INTP n = 5 2.0%	Perceiving	Introversion
<b>ESTP</b> <i>n</i> = 16 6.4%	<b>ESFP</b> <i>n</i> = 19 7.6%	<b>ENFP</b> <i>n</i> = 33 13.2%	<b>ENTP</b> n = 7 2.8%	iving	Extraversion
<b>ESTJ</b> <i>n</i> = 16 6.4%	<b>ESFJ</b> n = 23 9.2%	<b>ENFJ</b> n = 6 2.4%	<b>ENTJ</b> <i>n</i> = 3 1.2%	Judging	ersion

Note: n = 250.

Table 8 | Reported MBTI° preference and preference combination distributions for women: Swedish sample

Preferences		Preferences Orientation pairs		Pr	Process pairs		Orientation of energy and perceiving pairs			Judging and external orientation pairs				
	n	%		n	%		n	%		n	%		n	%
Ε	123	49.2	EJ	48	19.2	ST	81	32.4	ES	74	29.6	TJ	49	19.6
1	127	50.8	EP	75	30.0	SF	92	36.8	EN	49	19.6	TP	50	20.0
S	173	69.2	IJ	57	22.8	NF	59	23.6	IS	99	39.6	FJ	56	22.4
N	77	30.8	IP	70	28.0	NT	18	7.2	IN	28	11.2	FP	95	38.0
Т	99	39.6												
F	151	60.4												
J	105	42.0												
Р	145	58.0												

Note: n = 250.

# Relationships Between MBTI® Global Step I™, Form M, and European Step I<sup>™</sup> Preference Pair **Results**

Correlations between MBTI Global Step I, Form M, and European Step I preference pair results for the Swedish sample are shown in table 9.2 The overall agreement rate of whole types between the Global Step I and Form M assessments was 81%, while between the Global Step I and European Step I assessments it was 53%. The agreement rate between the Global Step I and Form M assessments is higher than the 60% agreement rate

between Form G and Form M reported in the 1998 MBTI® Manual (Myers, McCaulley, Quenk, & Hammer).

# Global Step I<sup>™</sup> Preference Pair **Intercorrelations**

Intercorrelations of Global Step I preference pair continuous scores in the Swedish sample are shown in table 10 below the diagonal. The highest correlation is between the S-N and J-P preference pairs. The next highest is between S-N and T-F. These correlations are very similar to those found for the global sample, shown

Table 9 | Relationships between MBTI° Global Step I", Form M, and European Step I" preference pair results: Swedish sample

	Global Step I <sup>™</sup> a	nd Form M	Global Step I" and European Step I"			
Preference pair	Correlation between continuous scores	Agreement rate (%)	Correlation between continuous scores	Agreement rate (%)		
E-I	.97	94	.92	87		
S-N	.96	94	.89	89		
T-F	.98	95	.86	81		
J-P	.96	95	.89	83		
Overall agreement ra	ate for whole types	81		53		

Note: N = 495.

Table 10 | Intercorrelations of Global Step I<sup>™</sup> preference pair continuous scores: Swedish and global samples

Preference pair	E-I	S-N	T-F	J-P
E-I	_	20	15	15
S-N	21	_	.27	.48
T-F	17	.32	_	.23
J-P	14	.42	.29	_

Note: Correlations for the Swedish sample (N = 495) are below the diagonal; those for the global sample (N = 16,773) are above the diagonal.

in table 10 above the diagonal. The Swedish sample findings are likewise consistent with those reported for Form M in the 1998 MBTI® Manual (Myers et al.).

# Reliability and Validity of Global Step I™ Results

This section covers measurement properties for the Swedish translation of the MBTI Global Step I assessment used in Sweden, including reliability and validity. For full Step I reliability and validity information for the global sample, refer to chapters 8 and 9 of the MBTI® Manual for the Global Step I™ and Step I™ Assessments (Myers et al., 2018).

### RELIABILITY

Reliability refers to consistency of measurement. A measure is said to be reliable when it produces a consistent, though not necessarily identical, result. Scores, not assessments, are either reliable or unreliable for a particular population of respondents, as reliability is affected by both the sample and the items contained in the instrument (Capraro & Capraro, 2002). Because reliability hinges at least partially on total score variability, samples that are homogeneous on the characteristic

Table 11 | Internal consistency and test-retest reliabilities of Global Step I<sup>™</sup> preference pair continuous scores: Swedish and global samples

		Cronbach's alpha					
Sample	N	E-I	S-N	T-F	J-P		
Swedish Global	495 16,773	.88 .89	.84 .87	.84 .89	.89 .88		
		Test	retest	correl	ation		
Sample (interval)	n	E-I	S-N	T-F	J-P		
Swedish (≤15 weeks) Global (≤15 weeks)	97 1,721	.90 .86	.81 .83	.01	.83 .81		
		Test-retest agreement rate (%)					
Sample (interval)	n	E-I	S-N	T-F	J-P		
Swedish (≤15 weeks) Global (≤15 weeks)	97 1,721	85 84	81 85	81 79	86 79		

being measured will likely yield a low total score variance, and the reliability of the scores regarding the characteristic may be poor. Conversely, participants in a sample that is heterogeneous with respect to the characteristic will likely score differently from each other, thereby increasing variability and providing stronger reliability (Dawis, 1987).

Internal consistency reliability measures the consistency of responses across items in a particular measure for a particular sample. The most commonly used estimator of internal consistency reliability is Cronbach's alpha (Cronbach, 1951). Table 11 shows the Cronbach's alphas for Global Step I preference pairs in the Swedish sample and in the global sample for comparison purposes. The Swedish sample alphas range from .84 to .89.

Another form of reliability is test-retest, which estimates how stable a measure is over time. Test-retest reliability correlations of Global Step I continuous scores in the Swedish sample are also presented in table 11. The testretest interval was ≤15 weeks. This table also shows the rate of test-retest agreement for each preference pair. Test-retest correlations and test-retest agreement rates are also shown for the global sample in this table for comparison purposes.

Table 12 shows the percentage of individuals who reported zero, one, two, three, or four preferences the same upon retest in the Swedish sample. Eighty-five percent of individuals reported having either three or four preferences the same at time of retest.

### VALIDITY

An instrument is said to be valid when it measures what it has been designed to measure (Ghiselli, Campbell, & Zedeck, 1981; Murphy & Davidshofer, 2005). Validity can be demonstrated using a number of different approaches. Convergent validity and discriminant validity are often examined by looking at the patterns of relationships on different instruments. An initial examination of convergent and discriminant validity was conducted by analyzing relationships found between the Swedish version of the MBTI Global Step I assessment and the Adjective Check List (ACL; Gough & Heilbrun, 1983) as well as the CPI 260° assessment (Gough  $\vartheta$ Bradley, 2005).

**ACL assessment.** A portion of the Swedish sample participants (n = 88) also completed a translated version of the ACL when completing the research version of the MBTI assessment. The ACL consists of 300 different adjectives-such as intelligent, alert, clear-thinking, and *noisy*—encompassing a wide variety of behaviors.

Table 12 | Percentage of individuals with preferences the same at retest: Swedish sample

		Number of preferences the same at retest (%)				
Sample (interval)	n	4	3	2	1	0
Swedish (≤15 weeks)	97	49	36	12	2	0

Respondents were asked to select the adjectives they believed were self-descriptive (Gough & Heilbrun, 1983). According to Gough and Heilbrun, results for any respondent with fewer than 20 adjectives or more than 250 adjectives checked should be cautiously interpreted; those with fewer than 10 or more than 270 checked are almost always invalid. As a result, respondents with too many or too few adjectives were omitted prior to analysis. The more conservative approach was taken here, and respondents with fewer than 20 adjectives or more than 250 adjectives checked were removed from the analysis of the ACL. Scales on the ACL assessment result from combinations of adjectives. Selected ACL scale means, standard deviations, and Cohen's d (Cohen, 1992; mean differences expressed in units of standard deviation<sup>3</sup>) for MBTI preferences for the Swedish sample are presented in tables 13–16.

**CPI 260° assessment.** The CPI 260 assessment measures personality characteristics and is intended to provide a clear and accurate description of the respondent (Gough & Bradley, 2005). A portion of the Swedish sample (n =102) also completed the CPI 260 assessment. CPI 260 scale means, standard deviations, and Cohen's d for each of the four preference pairs are shown in tables 17–20.

Table 13 | ACL scale means, standard deviations, and Cohen's *d* for Global Step I<sup>™</sup> E−I preferences: Swedish sample

		Extrave	ersion	Introve	ersion	
ACL scale	ACL scale description	М	SD	М	SD	Cohen's d
Sum of number checked	Total number of adjectives checked	69.77	31.82	72.11	37.02	0.07
Sum of favorable checked	Total number of favorable adjectives checked	34.87	15.04	30.71	13.39	-0.29
Sum of unfavorable checked	Total number of unfavorable adjectives checked	5.21	5.79	8.11	7.52	0.45
Communality	An indicator of providing common or similar responses compared to the responses of people in general	6.87	3.55	7.49	3.35	0.18
Achievement	To strive to be outstanding in pursuits of socially recognized significance	8.53	5.52	5.80	4.46	-0.53
Dominance	To seek and maintain a role as leader in groups, or to be influential and controlling in individual relationships	6.06	4.40	0.14	4.01	-1.39
Endurance	To persist in any task undertaken	5.89	5.57	5.80	4.70	-0.02
Order	To place special emphasis on neatness, organization, and planning in one's activities	4.51	4.55	4.00	4.47	-0.11
Intraception	To engage in attempts to understand one's behavior or the behavior of others	10.21	5.18	8.94	4.53	-0.26
Nurturance	To engage in behaviors that provide material or emotional benefits to others	9.58	5.62	8.06	5.86	-0.27
Affiliation	To seek and maintain numerous personal friendships	15.60	6.67	12.26	6.84	-0.50
Exhibition	To behave in such a way as to elicit the immediate attention of others	3.53	3.67	-1.63	4.81	-1.24
Autonomy	To act independently of others or of social values and expectations	1.42	2.92	-0.49	3.53	-0.60
Aggression	To engage in behaviors that attack or hurt others	0.55	2.93	-3.00	4.30	-1.00
Change	To seek novelty of experience and to avoid routine	3.09	2.84	0.83	3.37	-0.74
Succorance	To solicit sympathy, affection, or emotional support from others	0.23	2.23	2.31	3.05	0.81
Deference	To seek and maintain subordinate roles in relationships with others	0.75	2.99	2.80	3.36	0.65
Self-Control	To control one's behaviors and emotions	-0.77	2.24	1.86	3.26	0.98
Self-Confidence	Poise, self-assurance, and belief in one's ability to achieve one's goals	8.08	5.17	2.46	4.04	-1.18
Personal Adjustment	The ability to cope with situational and interpersonal demands, and a feeling of efficacy	6.02	3.73	5.00	3.75	-0.27
Ideal Self	Strong sense of personal worth; or harmony between what one is and what one wants to be	5.58	5.29	2.23	5.08	-0.64
Creative Personality	The desire to do and think differently from the norm, and a talent for originality	3.40	3.24	2.09	2.97	-0.42
Military Leadership	Steadiness, self-discipline, and good judgment of the kind required in positions of military (or related) leadership	6.17	4.26	4.57	4.15	-0.38
Adult	Attitudes of independence, objectivity, and industriousness associated with the concept of "mature adult"	5.53	5.33	3.69	4.96	-0.36

Note: Extraversion, n = 53; Introversion, n = 35. For information on Cohen's d, see note 3 at the back of this supplement.

Table 14 | ACL scale means, standard deviations, and Cohen's *d* for Global Step I<sup>™</sup> S−N preferences: Swedish sample

		Sens	ing	Intui	tion		
ACL scale	ACL scale description	М	SD	М	SD	Cohen's d	
Sum of number checked	Total number of adjectives checked	70.17	33.11	71.56	35.35	0.04	
Sum of favorable checked	Total number of favorable adjectives checked	32.31	14.43	34.65	14.64	0.16	
Sum of unfavorable checked	Total number of unfavorable adjectives checked	6.81	7.06	5.65	5.96	-0.18	
Communality	An indicator of providing common or similar responses compared to the responses of people in general	7.17	3.44	7.03	3.55	-0.04	
Achievement	To strive to be outstanding in pursuits of socially recognized significance	7.78	5.19	6.91	5.44	-0.16	
Dominance	To seek and maintain a role as leader in groups, or to be influential and controlling in individual relationships	3.91	5.43	3.38	4.68	-0.10	
Endurance	To persist in any task undertaken	6.54	4.79	4.76	5.74	-0.34	
Order	To place special emphasis on neatness, organization, and planning in one's activities	5.02	4.30	3.18	4.63	-0.42	
Intraception	To engage in attempts to understand one's behavior or the behavior of others	9.06	4.90	10.74	4.91	0.34	
Nurturance	To engage in behaviors that provide material or emotional benefits to others	8.41	6.02	9.88	5.22	0.26	
Affiliation	To seek and maintain numerous personal friendships	13.81	7.08	15.00	6.63	0.17	
Exhibition	To behave in such a way as to elicit the immediate attention of others	1.19	5.10	1.94	4.47	0.16	
Autonomy	To act independently of others or of social values and expectations	0.46	3.50	0.97	2.96	0.15	
Aggression	To engage in behaviors that attack or hurt others	-1.04	4.29	-0.59	3.31	0.11	
Change	To seek novelty of experience and to avoid routine	1.61	3.46	3.12	2.67	0.47	
Succorance	To solicit sympathy, affection, or emotional support from others	1.19	2.80	0.85	2.74	-0.12	
Deference	To seek and maintain subordinate roles in relationships with others	1.91	3.61	1.03	2.63	-0.27	
Self-Control	To control one's behaviors and emotions	0.69	3.19	-0.38	2.50	-0.36	
Self-Confidence	Poise, self-assurance, and belief in one's ability to achieve one's goals	5.74	5.83	6.00	4.94	0.05	
Personal Adjustment	The ability to cope with situational and interpersonal demands, and a feeling of efficacy	5.50	3.81	5.79	3.71	0.08	
Ideal Self	Strong sense of personal worth; or harmony between what one is and what one wants to be	3.74	5.45	5.06	5.38	0.24	
Creative Personality	The desire to do and think differently from the norm, and a talent for originality	2.26	3.08	3.85	3.14	0.51	
Military Leadership	Steadiness, self-discipline, and good judgment of the kind required in positions of military (or related) leadership	5.54	4.25	5.53	4.36	0.00	
Adult	Attitudes of independence, objectivity, and industriousness associated with the concept of "mature adult"	5.22	5.06	4.12	5.51	-0.21	

Note: Sensing, n = 54; Intuition, n = 34.

Table 15 | ACL scale means, standard deviations, and Cohen's *d* for Global Step I™ T−F preferences: Swedish sample

		Thinl	king	Feel	ing	
ACL scale	ACL scale description	М	SD	М	SD	Cohen's
Sum of number checked	Total number of adjectives checked	72.43	35.54	68.73	32.01	-0.11
Sum of favorable checked	Total number of favorable adjectives checked	34.36	15.38	31.90	13.43	-0.17
Sum of unfavorable checked	Total number of unfavorable adjectives checked	6.15	7.08	6.61	6.18	0.07
Communality	An indicator of providing common or similar responses compared to the responses of people in general	7.45	3.05	6.73	3.89	-0.21
Achievement	To strive to be outstanding in pursuits of socially recognized significance	9.04	5.62	5.61	4.21	-0.68
Dominance	To seek and maintain a role as leader in groups, or to be influential and controlling in individual relationships	4.83	5.31	2.41	4.65	-0.48
Endurance	To persist in any task undertaken	7.13	5.63	4.39	4.32	-0.54
Order	To place special emphasis on neatness, organization, and planning in one's activities	5.77	4.45	2.63	3.98	-0.74
Intraception	To engage in attempts to understand one's behavior or the behavior of others	10.36	5.21	8.95	4.56	-0.29
Nurturance	To engage in behaviors that provide material or emotional benefits to others	8.77	6.04	9.22	5.42	0.08
Affiliation	To seek and maintain numerous personal friendships	14.66	7.59	13.83	6.07	-0.12
Exhibition	To behave in such a way as to elicit the immediate attention of others	1.66	4.56	1.27	5.22	-0.08
Autonomy	To act independently of others or of social values and expectations	0.83	2.94	0.46	3.68	-0.11
Aggression	To engage in behaviors that attack or hurt others	-0.53	3.71	-1.24	4.18	-0.18
Change	To seek novelty of experience and to avoid routine	2.21	3.32	2.17	3.20	-0.01
Succorance	To solicit sympathy, affection, or emotional support from others	0.47	2.95	1.73	2.41	0.47
Deference	To seek and maintain subordinate roles in relationships with others	1.11	3.34	2.10	3.17	0.30
Self-Control	To control one's behaviors and emotions	0.23	2.79	0.32	3.20	0.03
Self-Confidence	Poise, self-assurance, and belief in one's ability to achieve one's goals	6.91	6.14	4.61	4.36	-0.43
Personal Adjustment	The ability to cope with situational and interpersonal demands, and a feeling of efficacy	5.94	3.80	5.24	3.71	-0.18
Ideal Self	Strong sense of personal worth; or harmony between what one is and what one wants to be	5.15	5.84	3.22	4.79	-0.36
Creative Personality	The desire to do and think differently from the norm, and a talent for originality	3.04	3.28	2.68	3.11	-0.11
Military Leadership	Steadiness, self-discipline, and good judgment of the kind required in positions of military (or related) leadership	6.34	4.47	4.61	3.87	-0.41
Adult	Attitudes of independence, objectivity, and industriousness associated with the concept of "mature adult"	6.32	5.54	3.05	4.30	-0.65

Note: Thinking, n = 47; Feeling, n = 41.

Table 16 | ACL scale means, standard deviations, and Cohen's *d* for Global Step I<sup>™</sup> J−P preferences: Swedish sample

		Judg	ing	Percei	iving		
ACL scale	ACL scale description	М	SD	М	SD	Cohen's	
Sum of number checked	Total number of adjectives checked	58.82	22.35	77.84	37.50	0.58	
Sum of favorable checked	Total number of favorable adjectives checked	29.09	10.61	35.69	15.94	0.46	
Sum of unfavorable checked	Total number of unfavorable adjectives checked	4.58	4.72	7.44	7.40	0.44	
Communality	An indicator of providing common or similar responses compared to the responses of people in general	6.33	3.39	7.58	3.46	0.36	
Achievement	To strive to be outstanding in pursuits of socially recognized significance	7.00	4.31	7.71	5.80	0.13	
Dominance	To seek and maintain a role as leader in groups, or to be influential and controlling in individual relationships	3.45	4.73	3.85	5.40	0.08	
Endurance	To persist in any task undertaken	6.82	4.09	5.27	5.75	-0.30	
Order	To place special emphasis on neatness, organization, and planning in one's activities	5.39	3.66	3.65	4.85	-0.39	
Intraception	To engage in attempts to understand one's behavior or the behavior of others	8.52	3.50	10.42	5.54	0.39	
Nurturance	To engage in behaviors that provide material or emotional benefits to others	8.27	4.82	9.40	6.22	0.20	
Affiliation	To seek and maintain numerous personal friendships	12.48	5.79	15.35	7.32	0.42	
Exhibition	To behave in such a way as to elicit the immediate attention of others	1.06	4.39	1.73	5.13	0.14	
Autonomy	To act independently of others or of social values and expectations	-0.18	2.84	1.16	3.46	0.41	
Aggression	To engage in behaviors that attack or hurt others	-1.39	3.60	-0.55	4.11	0.22	
Change	To seek novelty of experience and to avoid routine	0.79	2.72	3.04	3.26	0.73	
Succorance	To solicit sympathy, affection, or emotional support from others	1.30	2.93	0.91	2.68	-0.14	
Deference	To seek and maintain subordinate roles in relationships with others	2.39	3.20	1.07	3.25	-0.41	
Self-Control	To control one's behaviors and emotions	1.21	2.57	-0.29	3.08	-0.52	
Self-Confidence	Poise, self-assurance, and belief in one's ability to achieve one's goals	5.27	4.85	6.18	5.83	0.17	
Personal Adjustment	The ability to cope with situational and interpersonal demands, and a feeling of efficacy	4.79	3.02	6.11	4.08	0.36	
Ideal Self	Strong sense of personal worth; or harmony between what one is and what one wants to be	3.61	3.94	4.64	6.16	0.19	
Creative Personality	The desire to do and think differently from the norm, and a talent for originality	2.03	2.65	3.38	3.39	0.43	
Military Leadership	Steadiness, self-discipline, and good judgment of the kind required in positions of military (or related) leadership	5.45	3.98	5.58	4.46	0.03	
Adult	Attitudes of independence, objectivity, and industriousness associated with the concept of "mature adult"	4.88	4.92	4.75	5.46	-0.03	

Note: Judging, n = 33; Perceiving, n = 55.

Table 17 | CPI 260° scale means, standard deviations, and Cohen's d for Global Step I" E-I preferences: Swedish sample

		Extrave	ersion	Introve	rsion		
CPI 260° scale	CPI 260° scale description	М	SD	М	SD	Cohen's d	
Dominance (Do)	Prosocial interpersonal power and influence	22.35	6.03	14.60	6.12	-1.28	
Capacity for Status (Cs)	Ambition for challenge and social status	15.69	3.74	10.56	3.64	-1.39	
Sociability (Sy)	Social participation	16.56	3.09	10.83	4.24	-1.56	
Social Presence (Sp)	Poise and comfort with attention and recognition	19.35	3.50	14.85	3.66	-1.26	
Self-acceptance (Sa)	Sense of personal worth and self-confidence	15.06	3.54	10.48	3.73	-1.26	
Independence (In)	Self-sufficiency and self-directedness	15.39	3.78	11.54	4.63	-0.92	
Empathy (Em)	Capacity to understand and respond to others' needs	3.77	11.04	3.61	-0.86		
Responsibility (Re)	Conscientiousness and follow-through	15.39	3.41	15.00	3.12	-0.12	
Social Conformity (So)	Conformance with social norms and customs	19.11	3.56	18.40	4.29	-0.18	
Self-control (Sc)	Cautiousness and self-regulation	14.19	5.17	15.88	4.30	0.35	
Good Impression (Gi)	Tact and positive self-presentation	12.81	4.82	12.73	4.21	-0.02	
Communality (Cm)	Conventional behavior and attitudes	17.91	2.16	17.63	1.94	-0.14	
Well-being (Wb)	Overall sense of health and optimism	14.46	3.79	12.23	3.75	-0.59	
Tolerance (To)	Open-mindedness and respect for others	11.85	3.62	11.50	4.21	-0.09	
Achievement via Conformance (Ac)	Motivation within organized settings	19.50	4.36	18.10	3.87	-0.34	
Achievement via Independence (Ai)	Motivation within unstructured settings	14.19	3.84	13.60	4.25	-0.14	
Conceptual Fluency (Cf)	Comfort with intellectual and conceptual matters	19.98	4.29	17.46	3.89	-0.61	
Insightfulness (Is)	Analytical insight into the motivations of others	12.13	3.00	10.96	2.76	-0.41	
Flexibility (Fx)	Adaptability and comfort with change	8.20	4.27	8.33	3.84	0.03	
Sensitivity (Sn)	Tough- versus tender-mindedness	12.30	3.63	14.44	3.27	0.62	
Managerial Potential (Mp)	Inclination for supervisory responsibilities	15.59	3.78	13.75	4.28	-0.46	
Work Orientation (Wo)	Sense of dedication to work	16.17	3.47	14.94	3.81	-0.34	
Creative Temperament (Ct)	Individualization and capacity for innovativeness	15.31	4.62	12.27	4.19	-0.69	
Leadership (Lp)	Initiative and effectiveness in leading others	25.69	6.10	19.25	6.32	-1.04	
Amicability (Ami)	Cooperation and friendliness	17.33	4.91	17.04	4.38	-0.06	
Law Enforcement Orientation (Leo)	Conventional and practical values	16.59	3.14	16.73	2.78	0.05	
Vector 1 (v.1)	Extraversion versus introversion	8.31	4.73	11.94	4.09	0.82	
Vector 2 (v.2)	Rule-following versus rule-questioning	13.00	3.29	12.31	3.32	-0.21	
Vector 3 (v.3)	Fulfillment of personal potential	17.28	6.12	16.33	5.92	-0.16	

Note: Extraversion, n = 54; Introversion, n = 48. See appendix C of the 2018 MBTI manual for more detailed descriptions of the CPI 260 scales. For information on Cohen's d, see note 3 at the back of this supplement.

Table 18 | CPI 260° scale means, standard deviations, and Cohen's *d* for Global Step I<sup>™</sup> S−N preferences: Swedish sample

		Sens	ing	Intuit	ion	
CPI 260° scale	CPI 260° scale description	М	SD	М	SD	Cohen's d
Dominance (Do)	Prosocial interpersonal power and influence	17.97	7.14	20.47	7.11	0.35
Capacity for Status (Cs)	Ambition for challenge and social status	12.28	4.20	15.67	4.30	0.80
Sociability (Sy)	Social participation	13.08	4.59	15.73	4.32	0.59
Social Presence (Sp)	Poise and comfort with attention and recognition	16.43	4.01	19.17	4.12	0.68
Self-acceptance (Sa)	Sense of personal worth and self-confidence	12.47	4.24	13.93	4.27	0.34
Independence (In)	Self-sufficiency and self-directedness	13.26	4.52	14.33	4.79	0.23
Empathy (Em)	Capacity to understand and respond to others' needs	11.81	3.58	14.93	4.18	0.83
Responsibility (Re)	Conscientiousness and follow-through	15.22	3.16	15.17	3.55	-0.02
Social Conformity (So)	Conformance with social norms and customs	19.25	3.86	17.63	3.89	-0.42
Self-control (Sc)	Cautiousness and self-regulation	15.63	4.77	13.43	4.70	-0.46
Good Impression (Gi)	Tact and positive self-presentation	13.25	4.67	11.63	3.99	-0.36
Communality (Cm)	Conventional behavior and attitudes	17.85	2.18	17.60	1.73	-0.12
Well-being (Wb)	Overall sense of health and optimism	13.18	3.54	13.97	4.73	0.20
Tolerance (To)	Open-mindedness and respect for others	11.24	3.91	12.77	3.70	0.40
Achievement via Conformance (Ac)	Motivation within organized settings	19.04	4.04	18.37	4.52	-0.16
Achievement via Independence (Ai)	Motivation within unstructured settings	13.10	3.95	15.87	3.58	0.72
Conceptual Fluency (Cf)	Comfort with intellectual and conceptual matters	18.13	4.18	20.40	4.15	0.55
Insightfulness (Is)	Analytical insight into the motivations of others	11.17	2.84	12.57	2.96	0.49
Flexibility (Fx)	Adaptability and comfort with change	7.26	3.76	10.67	3.75	0.90
Sensitivity (Sn)	Tough- versus tender-mindedness	13.39	3.76	13.10	3.27	-0.08
Managerial Potential (Mp)	Inclination for supervisory responsibilities	14.35	4.17	15.63	3.86	0.31
Work Orientation (Wo)	Sense of dedication to work	15.35	3.54	16.17	3.96	0.22
Creative Temperament (Ct)	Individualization and capacity for innovativeness	12.74	4.16	16.63	4.69	0.90
Leadership (Lp)	Initiative and effectiveness in leading others	21.88	6.67	24.53	7.42	0.39
Amicability (Ami)	Cooperation and friendliness	17.11	4.26	17.40	5.54	0.06
Law Enforcement Orientation (Leo)	Conventional and practical values	16.97	3.04	15.90	2.67	-0.37
Vector 1 (v.1)	Extraversion versus introversion	10.65	4.85	8.50	4.30	-0.46
Vector 2 (v.2)	Rule-following versus rule-questioning	13.11	3.16	11.63	3.47	-0.45
Vector 3 (v.3)	Fulfillment of personal potential	16.21	5.83	18.33	6.29	0.36

Note: Sensing, n = 72; Intuition, n = 30.

Table 19 | CPI 260° scale means, standard deviations, and Cohen's *d* for Global Step I<sup>™</sup> T−F preferences: Swedish sample

		Think	ing	Feeli	ng	
CPI 260° scale	CPI 260° scale description	М	SD	М	SD	Cohen's d
Dominance (Do)	Prosocial interpersonal power and influence	20.69	6.78	16.48	7.04	-0.61
Capacity for Status (Cs)	Ambition for challenge and social status	13.50	4.63	13.02	4.34	-0.11
Sociability (Sy)	Social participation	14.33	4.58	13.33	4.71	-0.22
Social Presence (Sp)	Poise and comfort with attention and recognition	17.70	4.09	16.71	4.33	-0.24
Self-acceptance (Sa)	Sense of personal worth and self-confidence	13.67	4.03	12.04	4.42	-0.38
Independence (In)	Self-sufficiency and self-directedness	14.98	4.07	12.00	4.70	-0.68
Empathy (Em)	Capacity to understand and respond to others' needs	13.35	4.30	12.02	3.57	-0.33
Responsibility (Re)	Conscientiousness and follow-through	15.78	3.28	14.56	3.16	-0.38
Social Conformity (So)	Conformance with social norms and customs	19.26	4.07	18.23	3.71	-0.26
Self-control (Sc)	Cautiousness and self-regulation	15.09	4.73	14.85	4.98	-0.05
Good Impression (Gi)	Tact and positive self-presentation	13.15	4.53	12.35	4.52	-0.18
Communality (Cm)	Conventional behavior and attitudes	18.00	1.87	17.52	2.23	-0.23
Well-being (Wb)	Overall sense of health and optimism	13.85	3.58	12.92	4.25	-0.24
Tolerance (To)	Open-mindedness and respect for others	11.78	4.03	11.58	3.77	-0.05
Achievement via Conformance (Ac)	Motivation within organized settings	19.93	3.90	17.63	4.18	-0.57
Achievement via Independence (Ai)	Motivation within unstructured settings	14.59	3.98	13.15	3.99	-0.36
Conceptual Fluency (Cf)	Comfort with intellectual and conceptual matters	19.69	4.36	17.79	4.00	-0.45
Insightfulness (Is)	Analytical insight into the motivations of others	12.11	2.72	10.98	3.08	-0.39
Flexibility (Fx)	Adaptability and comfort with change	8.33	3.76	8.19	4.40	-0.04
Sensitivity (Sn)	Tough- versus tender-mindedness	12.00	3.52	14.77	3.14	0.83
Managerial Potential (Mp)	Inclination for supervisory responsibilities	15.70	4.21	13.63	3.73	-0.52
Work Orientation (Wo)	Sense of dedication to work	15.89	3.61	15.25	3.74	-0.17
Creative Temperament (Ct)	Individualization and capacity for innovativeness	14.50	4.52	13.19	4.75	-0.28
Leadership (Lp)	Initiative and effectiveness in leading others	24.67	6.76	20.40	6.55	-0.64
Amicability (Ami)	Cooperation and friendliness	17.39	4.31	16.98	5.04	-0.09
Law Enforcement Orientation (Leo)	Conventional and practical values	17.24	3.08	16.00	2.71	-0.43
Vector 1 (v.1)	Extraversion versus introversion	8.83	4.54	11.35	4.72	0.54
Vector 2 (v.2)	Rule-following versus rule-questioning	13.20	3.12	12.08	3.44	-0.34
Vector 3 (v.3)	Fulfillment of personal potential	17.13	5.79	16.50	6.31	-0.10

Note: Thinking, n = 54; Feeling, n = 48.

Table 20 | CPI 260° scale means, standard deviations, and Cohen's *d* for Global Step I<sup>™</sup> J−P preferences: Swedish sample

		Judg	ing	Percei	ving	
CPI 260° scale	CPI 260° scale description	М	SD	М	SD	Cohen's d
Dominance (Do)	Prosocial interpersonal power and influence	17.89	7.32	19.38	7.07	0.21
Capacity for Status (Cs)	Ambition for challenge and social status	12.22	4.41	14.14	4.40	0.44
Sociability (Sy)	Social participation	13.02	5.01	14.55	4.25	0.33
Social Presence (Sp)	Poise and comfort with attention and recognition	16.09	4.05	18.18	4.14	0.51
Self-acceptance (Sa)	Sense of personal worth and self-confidence	12.43	4.23	13.29	4.32	0.20
Independence (In)	Self-sufficiency and self-directedness	13.52	4.37	13.63	4.83	0.02
Empathy (Em)	Capacity to understand and respond to others' needs	11.41	3.71	13.80	3.96	0.62
Responsibility (Re)	Conscientiousness and follow-through	15.50	3.15	14.96	3.36	-0.16
Social Conformity (So)	Conformance with social norms and customs	19.63	4.04	18.07	3.71	-0.40
Self-control (Sc)	Cautiousness and self-regulation	16.26	4.26	13.93	5.05	-0.50
Good Impression (Gi)	Tact and positive self-presentation	13.70	4.71	12.02	4.25	-0.38
Communality (Cm)	Conventional behavior and attitudes	17.80	1.80	17.75	2.26	-0.03
Well-being (Wb)	Overall sense of health and optimism	13.17	3.66	13.61	4.14	0.11
Tolerance (To)	Open-mindedness and respect for others	11.54	3.61	11.80	4.14	0.07
Achievement via Conformance (Ac)	Motivation within organized settings	19.85	3.88	18.02	4.26	-0.45
Achievement via Independence (Ai)	Motivation within unstructured settings	13.70	3.95	14.09	4.12	0.10
Conceptual Fluency (Cf)	Comfort with intellectual and conceptual matters	18.76	3.89	18.82	4.61	0.01
Insightfulness (Is)	Analytical insight into the motivations of others	11.93	2.61	11.29	3.17	-0.22
Flexibility (Fx)	Adaptability and comfort with change	7.37	4.05	9.00	3.95	0.41
Sensitivity (Sn)	Tough- versus tender-mindedness	13.80	3.80	12.89	3.43	-0.25
Managerial Potential (Mp)	Inclination for supervisory responsibilities	14.70	3.96	14.75	4.26	0.01
Work Orientation (Wo)	Sense of dedication to work	15.63	3.01	15.55	4.16	-0.02
Creative Temperament (Ct)	Individualization and capacity for innovativeness	12.41	4.14	15.09	4.74	0.60
Leadership (Lp)	Initiative and effectiveness in leading others	22.02	6.88	23.18	7.06	0.17
Amicability (Ami)	Cooperation and friendliness	17.00	4.17	17.36	5.04	0.08
Law Enforcement Orientation (Leo)	Conventional and practical values	17.09	3.32	16.30	2.61	-0.27
Vector 1 (v.1)	Extraversion versus introversion	10.80	4.97	9.38	4.55	-0.30
Vector 2 (v.2)	Rule-following versus rule-questioning	13.41	3.28	12.07	3.22	-0.41
Vector 3 (v.3)	Fulfillment of personal potential	16.00	5.02	17.52	6.70	0.25

Note: Judging, n = 46; Perceiving, n = 56.

# MBTI® GLOBAL STEP II™ ASSESSMENT RESULTS FOR THE SWEDISH SAMPLE

The Global Step II assessment contains all 92 Global Step I items plus an additional 51 items needed to score the Step II facets, for a total of 143. Step II results expand on descriptions of the four preference pairs by providing information about five facets of each pair (see table 21). The Global Step II assessment replaces the Form Q assessment and the European Step II assessment.

Table 21 | Correlations between Global Step II\*, Form Q, and European Step II<sup>™</sup> continuous scores: Swedish sample

Global Step II <sup>™</sup> facet	Form Q correlation	European Step II <sup>™</sup> correlation
E-I facets		
Initiating-Receiving	.98	.96
Expressive-Contained	.99	.95
Gregarious-Intimate	.97	.98
Active-Reflective	.84	.89
Enthusiastic-Quiet	.99	.96
S-N facets		
Concrete-Abstract	.95	.93
Realistic-Imaginative	.99	.99
Practical-Conceptual	.84	.85
Experiential-Theoretical	.91	.96
Traditional-Original	.96	.95
T-F facets		
Logical-Empathetic	.92	.93
Reasonable-	.93	.97
Compassionate		
Questioning-	.57	.70
Accommodating		
Critical-Accepting	.81	.82
Tough-Tender	.96	.92
J-P facets		
Systematic-Casual	.94	.97
Planful-Open-Ended	.98	.98
Early Starting-	.92	.92
Pressure-Prompted		
Scheduled-	.95	.93
Spontaneous		
Methodical-Emergent	.96	.91

Note: N = 495.

# Relationships Between MBTI® Global Step II®, Form Q, and European Step II<sup>™</sup> Facet Results

Table 21 presents the relationships between MBTI Global Step II, Form Q, and European Step II facet results for the Swedish sample. Most scales are highly correlated, as the table shows. The lower correlation on the Questioning-Accommodating scale reflects changes made to that scale when creating the Global Step II assessment.

## Global Step II<sup>™</sup> Facet Intercorrelations

Intercorrelations of Global Step II facets are presented in table 22. Facets within each preference pair correlate higher with other facets of the same preference pair than with facets of different preference pairs.

# Reliability and Validity of Global Step II™ Results

This section covers measurement properties for the Swedish translation of the MBTI Global Step II assessment, including reliability and validity. For full Step II reliability and validity information for the global sample, refer to chapters 8 and 10 of the MBTI® Manual for the Global Step I<sup>™</sup> and Step II<sup>™</sup> Assessments (Myers et al., 2018).

### **RELIABILITY**

Internal consistency and test-retest reliabilities for Global Step II facets in the Swedish sample are presented in table 23.

# VALIDITY

Reported here as evidence of the validity of the Swedish translation of the MBTI Global Step II assessment are the percentage of out-of-preference facet scores for each preference pair, correlations between preference pairs and facets, and correlations between the MBTI assessment and two other assessments.

The five facets within each preference pair do not represent the entire conceptual domain of the preference pair. Further, it is not uncommon for individuals to have a facet score on the side opposite that of their preference in a given preference pair. For example, an Extravert may score toward the Intimate pole on the Gregarious-Intimate facet. 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 a preference for I, N, F, or P; or from 2 to 5 when a respondent has a preference 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 out-of-preference scores on three or more facets within any one preference pair. The percentage of

Table 22 | Intercorrelations of Global Step II<sup>™</sup> facets: Swedish sample

Global Step II" facet	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.
E–I facets																				
1. Initiating-Receiving	_																			
2. Expressive-Contained	.72	_																		
3. Gregarious-Intimate	.49	.47	_																	
4. Active-Reflective	.72	.68	.48	_																
5. Enthusiastic-Quiet	.61	.61	.50	.62	_															
S-N facets																				
6. Concrete-Abstract	14	07	11	11	23	_														
7. Realistic-Imaginative	15	08	14	12	25	.64	_													
8. Practical-Conceptual	12	.00	02	06	19	.53	.60	_												
9. Experiential–Theoretical	.00	.04	02	.01	.00	.40	.37	.32	_											
10. Traditional-Original	23	09	04	13	21	.57	.51	.55	.29	_										
T–F facets																				
11. Logical-Empathetic	09	18	.00	12	24	.37	.34	.12	.09	.08	_									
12. Reasonable–Compassionate	05	14	.01	07	16	.30	.31	.11	.11	.08	.74	_								
13. Questioning-Accommodating	.12	03	03	.06	08	.04	.12	07	.00	18	.34	.43	_							
14. Critical-Accepting	15	22	12	16	32	.26	.32	.15	.01	.16	.46	.50	.60	_						
15. Tough–Tender	05	10	02	03	20	.31	.24	.15	.08	.09	.46	.54	.55	.58	_					
J-P facets																				
16. Systematic–Casual	19	18	12	16	28	.50	.46	.26	.17	.45	.42	.41	.21	.40	.35	_				
17. Planful–Open-Ended	08	05	04	04	08	.33	.26	.20	.10	.34	.13	.14	.08	.18	.18	.64	_			
18. Early Starting-Pressure-Prompted	11	02	09	12	14	.27	.27	.23	.16	.30	.08	.10	01	.09	.11	.48	.45	_		
19. Scheduled-Spontaneous	10	08	06	07	12	.35	.31	.22	.11	.40	.23	.22	.08	.22	.19	.74	.75	.47	_	
20. Methodical–Emergent	01	02	06	01	05	.15	.20	.09	.06	.12	.15	.19	.12	.12	.09	.50	.52	.45	.55	_

Note: N = 495.

Table 23 | Internal consistency and test-retest reliabilities of Global Step II<sup>™</sup> facet continuous scores: Swedish sample

Global Step II <sup>®</sup> facet	Cronbach's alpha	Test-retest correlation
E-I facets		
Initiating-Receiving	.83	.86
Expressive-Contained	.77	.88
Gregarious-Intimate	.57	.68
Active-Reflective	.62	.80
Enthusiastic-Quiet	.64	.82
S–N facets		
Concrete-Abstract	.66	.81
Realistic-Imaginative	.74	.74
Practical-Conceptual	.63	.68
Experiential-Theoretical	.47	.52
Traditional-Original	.70	.75
T–F facets		
Logical-Empathetic	.74	.76
Reasonable-Compassionate	.71	.76
Questioning-Accommodating	.53	.72
Critical-Accepting	.54	.63
Tough-Tender	.67	.66
J-P facets		
Systematic-Casual	.77	.77
Planful-Open-Ended	.81	.80
Early Starting-Pressure-Prompted	.61	.63
Scheduled-Spontaneous	.80	.79
Methodical-Emergent	.67	.63

Note: N = 495; test-retest, n = 97.

Table 24 | Percentage of reported out-ofpreference Global Step II<sup>™</sup> facet scores: Swedish sample

Preference	Numl	per of ou	t-of-pref	erence fa	cet score	es (%)
pair	0	1	2	3	4	5
E-I	68	27	4	<1	0	0
S-N	72	23	5	0	0	0
T-F	70	22	7	1	0	0
J-P	57	34	7	2	0	0

Note: N = 495.

out-of-preference facet scores for each preference pair in the Swedish sample is shown in table 24.

Correlations between facets and preference pairs are presented in table 25. The correlation between each facet and its corresponding preference pair is significantly higher than those between the facet and the other three

Table 25 | Correlations between Global Step II<sup>™</sup> facets and preference pairs: Swedish sample

		Prefere	nce pair	
Global Step II* facet	E-I	S-N	T-F	J-P
E-I facets				
Initiating-Receiving	.88	20	09	12
Expressive-Contained	.84	08	20	10
Gregarious-Intimate	.63	11	02	08
Active-Reflective	.84	13	12	09
Enthusiastic-Quiet	.79	29	26	16
S-N facets				
Concrete-Abstract	17	.82	.37	.40
Realistic-Imaginative	19	.83	.35	.35
Practical-Conceptual	12	.74	.14	.24
Experiential-Theoretical	.00	.52	.10	.13
Traditional-Original	20	.76	.10	.42
T–F facets				
Logical-Empathetic	15	.30	.88	.25
Reasonable-	11	.27	.89	.26
Compassionate				
Questioning-	.03	.03	.53	.12
Accommodating  Critical According	0.5			
Critical-Accepting	25	.29	.62	.26
Tough-Tender	10	.27	.70	.24
J-P facets				
Systematic-Casual	23	.51	.46	.83
Planful-Open-Ended	07	.34	.17	.86
Early Starting –	12	.31	.09	.57
Pressure-Prompted				
Scheduled-Spontaneous	11	.38	.24	.93
Methodical–Emergent	03	.16	.16	.63

Note: N = 495.

preference pairs. This is "compelling evidence for the theoretical hierarchical structure of the Step II facets in relation to the Step I scales" (Quenk, Hammer, & Majors, 2001, p. 104). The Swedish sample correlations are comparable to those reported in the MBTI® Step II\*\* Manual (Quenk et al., 2001) and the MBTI® Step II\* Manual, European Edition (Quenk, Hammer, & Majors, 2004). The lowest correlation between a facet and its corresponding preference pair is between Experiential-Theoretical and S-N.

To further demonstrate convergent and divergent validity of the MBTI Global Step II facets in the Swedish version, the facets were correlated with scales of two other assessments, the Adjective Check List (ACL) and the CPI 260° assessment. Descriptions of the relationships between the MBTI assessment and the other assessments follow.

Table 26 | Selected correlations between Global Step II<sup>™</sup> facets and ACL scales: Swedish sample

							ACL sca	ıle					
Global Step II <sup>™</sup> facet scale	Communality	Dominance	Endurance	Order	Nurturance	Affiliation	Exhibition	Change	Deference	Self-Control	Self-Confidence	Personal Adjustment	Creative Personality
E-I facet scales													
Initiating-Receiving	06	68	12	17	18	40	60	40	.37	.50	62	24	40
Expressive – Contained	.10	54	.10	.10	18	32	64	38	.21	.48	47	20	21
Gregarious-Intimate	09	38	.02	01	12	23	33	33	.09	.35	37	15	14
Active-Reflective	02	63	.02	02	15	35	59	43	.30	.51	55	24	32
Enthusiastic-Quiet	.04	37	.14	.19	22	26	46	45	.16	.40	38	12	22
S-N facet scales													
Concrete-Abstract	08	07	32	36	.08	.07	.12	.44	15	26	05	.02	.25
Realistic-Imaginative	.03	06	26	38	.21	.14	.10	.28	.00	11	.01	.08	.21
Practical-Conceptual	05	03	30	30	.08	.08	.07	.29	15	04	.01	.03	.34
Experiential-Theoretical	09	03	22	27	.02	04	.00	.15	13	08	.00	03	.13
Traditional-Original	08	.09	21	21	.08	.10	.20	.37	29	24	.13	.14	.42
T–F facet scales													
Logical–Empathetic	20	16	33	47	.04	08	02	.11	.08	06	21	08	14
Reasonable-Compassionate	14	27	36	45	.06	07	12	.04	.16	.02	26	10	18
Questioning-Accommodating	.16	27	09	19	.15	.05	29	09	.40	.30	16	.00	19
Critical-Accepting	.07	11	14	29	.15	.09	01	.10	.23	.15	06	.09	.01
Tough-Tender	.25	20	.00	15	.33	.13	17	.02	.35	.16	08	.13	.03
J–P facet scales													
Systematic-Casual	.15	13	35	41	.17	.21	.02	.40	02	15	03	.15	.18
Planful-Open-Ended	.21	.02	24	26	.16	.24	.08	.36	13	14	.11	.24	.32
Early Starting-Pressure-Prompted	.05	09	22	29	.03	.07	.05	.10	15	15	.00	.05	.18
Scheduled-Spontaneous	.14	.00	29	33	.08	.20	.09	.38	19	26	.06	.16	.21
Methodical-Emergent	.11	12	28	39	.12	.11	.02	.27	.01	18	01	.10	.16

Note: n = 88.

ACL assessment. ACL scales correlated with the Global Step II facets; a selection of these correlations is presented in table 26. The relationships between the MBTI Global Step II assessment and the ACL are consistent with those reported in the MBTI® Step II\* Manual (Quenk et al., 2001) and the MBTI® Step II® Manual, European Edition (Quenk et al., 2004).

CPI 260° assessment. Correlations between the Global Step II facets and CPI 260 scales for the Swedish sample are shown in table 27. The correlations reported here are similar to those found in the MBTI® Step II® Manual (Quenk et al., 2001) for the CPI<sup>™</sup> 434 assessment, providing additional evidence of the validity of the MBTI Global Step II assessment.

# Global Step II<sup>™</sup> Facet Distributions

Determining whether a particular score is in-preference, midzone, or out-of-preference provides the basis for recognizing and understanding individual differences among people of the same type. When practitioners give feedback to respondents, the most important verification issue is the accuracy with which the scores reflect respondents' placement at either pole or in the midzone. If a respondent disagrees with results on a facet, interpretation will be affected. For example, a respondent may judge a facet score that was reported as midzone to be actually out-of-preference or in-preference. In such an instance, statements in the report will be incorrect for that facet, so the practitioner must provide appropriate interpretive information that corresponds to the respondent's verified placement. Practitioners may refer to Understanding Your MBTI® Step II™ Results (Kummerow

Table 27 | Correlations between Global Step II<sup>™</sup> facets and CPI 260<sup>®</sup> scales: Swedish sample

														CPI	<b>260</b> ° s	cale													
Global Step II <sup>®</sup> facet scale	Do	Cs	Sy	Sp	Sa	In	Em	Re	So	Sc	Gi	Cm	Wb	То	Ac	Ai	Cf	ls	Fx	Sn	Мр	Wo	Ct	Lp	Ami	Leo	v.1	v.2	V.
E-I facet scales																													
Initiating-Receiving	68	65	74	58	68	53	50	11	15	.14	.00	10	31	13	23	20 ·	38	28	09	.43	35	20	46	59	05	09	.44	09	:
Expressive-Contained	46	52	61	47	49	33	32	.04	06	.16	04	01	18	04	11	04	21	13	.03	.26	18	15	24	41	02	.00	.28	09	:
Gregarious-Intimate	37	35	40	39	40	26	40	03	11	.20	.07	.03	13	04	08	13	21	19	03	.28	15	10	24	32	09	03	.36	10	.(
Active-Reflective	56	53	58	52	53	36	36	.02	05	.33	.12	.02	16	04	04	04 ·	20	15	05	.37	24	09	29	44	.09	07	.47	01	0
Enthusiastic-Quiet	44	52	51	45	46	25	43	08	09	.28	.04	02	18	19	10	16	25	21	16	.17	27	20	35	38	06	02	.36	.02	:
S-N facet scales																													
Concrete-Abstract	.06	.30	.18	.14	.17	07	.22	16	25	30	30	13	12	.02	17	.05	.03	.07	.16	.15	04	08	.16	.04	13	17	13	15	
Realistic-Imaginative	.04	.30	.17	.23	.09	04	.22	06	17	23	16	16	05	.09	14	.15	.08	.08	.25	.15	.04	01	.23	.04	04	26	14	21	.(
Practical-Conceptual	.10	.22	.12	.07	.12	02	.15	.04	18	22	12	10	07	07	06	.10	.06	.00	.15	.08	04	08	.15	.11	11	13	23	01	(
Experiential-Theoretical	.06	.05	.04	.07	.02	.06	.19	09	.01	04	09	10	03	.09	09	.11	.01	.13	.22	.03	.07	.03	.16	.00	03	.00	14	08	
Traditional–Original	.35	.41	.29	.25	.34	.31	.31	07	23	35	25	06	.06	.01	09	.19	.17	.22	.23	17	.11	07	.40	.33	18	16	39	16	(
T–F facet scales																													_
Logical-Empathetic	24	03	06	03	17	33	03	27	21	11	13	12	12	.00	36	16	26	19	.09	.26	21	02	07	23	02	17	.19	29	(
Reasonable –	34	06	14	10	28	40	08	20	09	02	06	08	11	.05	31	12	25	18	.13	.34	19	.01	10	35	.07	14	.31	29	
Compassionate																													
Questioning-	39	22	26	20	38	35	14	11	01	.16	.12	.01	07	.09	16	08	18	17	.18	.27	12	.09	12	38	.16	09	.41	29	
Accommodating																													
Critical-Accepting	02	.16	.06	.09	07	07	.19	.04	.01	.08	.17				.01	.23	.09	.10	.30	.16			.18	.01	.17			16	
Tough-Tender	12	.11	.03	.07	16	09	.14	.05	.08	.10	.16	.20	.13	.25	.03	.16	.03	.05	.29	.21	.13	.32	.13	04	.25	.03	.18	15	
J–P facet scales																													
Systematic–Casual	.04	.21	.14	.23	.07	09	.24	21	12	23	19	03	.06	.13	29	.03	01	02	.36	03	02	.06	.27	.00	.10	11	06	39	
Planful-Open-Ended	.17	.20	.13	.22	.18	.03	.31	08	22	22	14	.06	.08	.04	26	.00	.02	02	.24	24	.01	.01	.22	.14	.07	.04	19	28	.(
Early Starting— Pressure-Prompted	.15	.21	.18	.25	.10	.07	.32	.08	04	12	06	.05	.10	.24	06	.17	.14	.08	.40	03	.24	.11	.36	.17	.12	01	20	18	
Scheduled-Spontaneous	.12	.21	.12	.19	.16	02	.25	18	25	28	22	09	.00	.03	33	.01	02	08	.25	17	04	07	.25	.06	02	06	18	27	
Methodical–Emergent	06	05	06	.04	03	18	.01	19	22	28	27	07	12	12	35	23	13	24	.11	01	15	16	.05	12	05	07	05	24	

Note: n = 102.

Table 28 | In-preference, midzone, and out-of-preference percentages and rankings for the Global Step II™ facets: Swedish sample

	In-pre	ference	Mid	zone	Out-of-preference		
Global Step II <sup>™</sup> facet	%	Rank	<b>%</b>	Rank	<b>%</b>	Rank	
E-I facets							
Initiating-Receiving	66.26	3	31.11	13	2.63	19	
Expressive-Contained	61.41	6	32.32	11	6.26	11	
Gregarious-Intimate	55.15	14	30.51	15	14.34	3	
Active-Reflective	56.36	11	39.19	7	4.44	15	
Enthusiastic-Quiet	59.80	9	30.91	14	9.29	6	
S-N facets							
Concrete-Abstract	45.66	18	51.52	2	2.83	18	
Realistic-Imaginative	66.67	2	27.88	17	5.45	13	
Practical-Conceptual	60.81	7	30.51	15	8.69	8	
Experiential-Theoretical	47.27	17	43.43	4	9.29	6	
Traditional-Original	53.54	15	40.00	6	6.46	10	
T–F facets							
Logical-Empathetic	55.56	13	41.41	5	3.03	17	
Reasonable-Compassionate	59.19	10	37.58	9	3.23	16	
Questioning–Accommodating	38.38	20	53.33	1	8.28	9	
Critical-Accepting	42.83	19	46.46	3	10.71	5	
Tough-Tender	52.32	16	34.55	10	13.13	4	
J-P facets							
Systematic-Casual	63.03	4	31.92	12	5.05	14	
Planful-Open-Ended	68.28	1	25.86	18	5.86	12	
Early Starting-Pressure-Prompted	56.16	12	18.99	20	24.85	1	
Scheduled-Spontaneous	60.61	8	38.59	8	0.81	20	
Methodical-Emergent	62.42	5	20.81	19	16.77	2	

Note: N = 495.

& Quenk, 2018) and MBTI® Step II™ User's Guide (Quenk & Kummerow, 2019) for interpretations of all possible Step II facet results.

Table 28 shows the percentages and rank order of in-preference, midzone, and out-of-preference scores for the 20 Global Step II facets for the Swedish sample. Interpreters may find this table useful because it shows which facets are more or less likely to yield scores in these three categories. There are wide variations in the frequency with which facet scores are likely to be out-ofpreference. Here, the facet with the highest percentage of out-of-preference scores is Early Starting-Pressure-Prompted at 24.85%, followed by Methodical-Emergent at 16.77%. The Scheduled-Spontaneous facet (0.81%) and the Initiating-Receiving facet (2.63%) appear least likely to elicit out-of-preference responses.

Gender differences on the Step II facets in the Swedish sample are presented in table 29.

### CONCLUSION

Initial analyses of the Swedish translations of the MBTI Global Step I and Step II assessments demonstrate that they each have good internal consistency and testretest reliabilities that are consistent with those of prior forms of the MBTI assessment (i.e., Forms M and Q, European Step I and Step II). Validity was established in several ways. First, included in this supplement are mean ACL and CPI 260 scale differences between Global Step I preferences. The differences show meaningful and expected relationships between the assessments. Next, correlations of the Global Step II assessment with two other assessments (the ACL and CPI 260) show anticipated relationships. The percentage of out-ofpreference facet scores is also presented. While more research should be conducted, all these analyses show that the Swedish translations of the MBTI Global Step I and Step II assessments have adequate reliability and validity and are appropriate for use with individuals in Sweden who read and understand Swedish.

Table 29 | Means, standard deviations, and Cohen's d of the Global Step II<sup>™</sup> facets by total sample and gender: Swedish sample

		sample 495)	<b>M</b> (n =		<b>Wor</b> (n =	Gender difference	
Global Step II <sup>™</sup> facet	М	SD	М	SD	М	SD	Cohen's c
E-I facets							
Initiating-Receiving	0.02	0.87	-0.06	0.84	0.10	0.89	-0.19
Expressive-Contained	-0.11	0.87	-0.15	0.87	-0.07	0.86	-0.09
Gregarious-Intimate	0.05	0.72	-0.07	0.74	0.17	0.68	-0.33
Active-Reflective	0.02	0.79	-0.02	0.80	0.06	0.78	-0.10
Enthusiastic-Quiet	-0.24	0.70	-0.22	0.72	-0.26	0.69	0.06
S-N facets							
Concrete-Abstract	-0.25	0.71	-0.33	0.72	-0.17	0.69	-0.23
Realistic-Imaginative	-0.32	0.86	-0.38	0.84	-0.27	0.88	-0.14
Practical-Conceptual	-0.28	0.80	-0.26	0.79	-0.29	0.80	0.04
Experiential-Theoretical	-0.17	0.65	-0.15	0.67	-0.18	0.64	0.03
Traditional-Original	-0.22	0.84	-0.20	0.87	-0.24	0.80	0.04
T–F facets							
Logical-Empathetic	-0.11	0.77	-0.37	0.76	0.14	0.70	-0.68
Reasonable-Compassionate	-0.15	0.79	-0.39	0.77	0.07	0.74	-0.61
Questioning-Accommodating	-0.01	0.63	-0.09	0.62	0.07	0.64	-0.25
Critical-Accepting	-0.11	0.68	-0.25	0.69	0.04	0.63	-0.43
Tough-Tender	0.23	0.72	0.12	0.76	0.34	0.67	-0.30
J-P facets							
Systematic-Casual	0.07	0.89	-0.01	0.91	0.14	0.86	-0.18
Planful-Open-Ended	0.27	0.88	0.35	0.83	0.20	0.93	0.16
Early Starting-Pressure-Prompted	0.07	0.75	0.09	0.75	0.04	0.76	0.07
Scheduled-Spontaneous	0.16	0.87	0.19	0.87	0.13	0.86	0.07
Methodical-Emergent	0.25	0.82	0.29	0.78	0.20	0.85	0.10

Note: For information on Cohen's d, see note 3, below.

### NOTES

1. The terms translation and adaptation are often used interchangeably in the testing and measurement literature. Historically, translation has been used to describe the process by which an assessment is converted to a language other than the one in which it was originally constructed. However, the term adaptation is increasingly being used to reflect the fact that an effective conversion of assessment items from one language to another often requires not a word-forword translation but rather a modification intended to maintain the general sense or purpose of those items in a particular language. Nevertheless, as the more readily understood term, translation is used here.

- 2. Correlation coefficients (typically identified by *r*) range from -1 to 1 and can be squared and used as effect sizes (measures of the practical significance of the relationship between the two variables in question). Cohen's quidelines regarding effect sizes indicate that  $r^2$  = .10 is a small effect size,  $\vec{r}$  = .30 is medium, and  $\vec{r}$  = .50 is large (Cohen, 1988, 1992).
- 3. Cohen's *d* is an estimate of an effect size computed by taking the difference between the means of two groups and dividing by their pooled standard deviations. Because the metric is in standard deviation units, effect sizes can easily be compared to evaluate the magnitude of a difference. Cohen (1992) provides an overview of the computation of a variety of effect sizes, along with guidance on interpretation. Cohen proposed that d = .20be considered small, d = .50 be considered medium, and d = .80 be considered large. In psychological research, small to medium effect sizes are typical.

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