MBTI® MANUAL GLOBAL SUPPLEMENT SERIES



United Kingdom (European English) Supplement to the MBTI® Manual for the Global Step I™ and Step II™ Assessments

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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.¹ 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. Respondents 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 respondents, 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 the MBTI® Manual for the Global Step I[™] and Step II[™] Assessments (Myers, McCaulley, Quenk, & Hammer, 2018). The global sample was used to develop the Global Step I and Step II assessments. It is critical to keep in mind that while analyses were conducted for each country/ language sample used in this supplement series and are summarized here, 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 United Kingdom (European English) sample—hereafter, UK (English) sample—to the Global Step I and Step II assessments in European English. Included in this supplement is a general description of the sample, along with statistical summaries, analyses, and type distributions based on those results.

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.

†Germany sample includes one individual residing in Switzerland.

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).2 Because each of the languages included in this project has a different history of translation and use, the process varied somewhat for different languages.

Initial development of the current commercial form of the MBTI assessment in European English was completed by OPP Ltd (Kendall, 1998). The 88 items of OPP's European Step I assessment were then integrated into the research form known as the Pan-European Step II[™]—Trial Form (see Quenk, Hammer, & Majors, 2004, for details). The trial form contained 230 items from Myers' pool of existing items and was translated into nine European languages-Danish, Dutch, English, French, German, Italian, Norwegian, Spanish, and Swedish. Later the form was refined to become the 166-item European Step II assessment, with a version for each language; all versions

^{*}Data collection for this sample was distributor led; it is not a representative sample.

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 European English version used in this global project.

OPP's original European English 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 European English version was again evaluated by a professional linguist as well as in-country expert reviewers; modifications were made to item wordings to reflect improvements, changes in language usage since the original translation, or other corrections needed 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.) MBTI research from data for the UK (English) sample were collected using the MBTI°Complete website; best-fit type data were collected at that time but are not reported here.

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 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 in the UK who read European English was obtained from a market research firm. Targets were set based on the population of the UK and provided by OPP Ltd. Table 2 shows the demographic target and actual obtained percentages. The resulting UK (English) sample consists of 2,831 individuals, 52.5% women and 47.5% men. The age range is 16-67, with an average of 38 years (standard deviation = 12.9). All individuals reported residing in the UK.

MBTI° GLOBAL STEP I" ASSESSMENT RESULTS FOR THE UK (ENGLISH) 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 UK (English) 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 for this group are ISTJ and ISTP. The least common types are ENTJ and ENFJ. As reported in the MBTI® Step I™ European Data Supplement (OPP Ltd, 2009), the most common types in a large British sample (N = 88,394) at that time were ESTJ and ENTJ. The least common types in that sample were ISFP and INFJ. Table 4 shows the distributions of preferences as well as four twopreference 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 preferences, Is are more prevalent than Es, and Ss more than Ns, while the other preferences are more evenly distributed.

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

Table 2 | Demographic summary: UK (English) sample

Demographic	Target %	Actual %	Demographic	Target %	Actu %
Demographic	/0	/0	решодгарпіс	/0	/6
Age group			Education level (cont.)		
16–19 years	8	8	Other qualifications (includes foreign and	9	
20-24 years	11	12	some professional qualifications)		
25-34 years	21	21	No qualifications	13	
35-49 years	36	36	No response	_	1
50-69 years	24	24			
Mean age: 38 years	_	_	Employment status	E 7	1
			Working full-time	57	4
Gender			Working part-time	18	1
Female	50	53	Unemployed	5	
Male	50	47	Student	4	
Ethnicity			Looking after family/home	6	
White—British	82	76	Long-term sick	6	
White—British	5	1	Other	4	•
White—irish White—other European	5 5	4	No response	_	1
Writte—Other European Black—Caribbean	1	1	Job sector		
Black—Canbbean Black—African	<1	<1	Public administration, education or health	29	2
	<1	<1		12	4
Black—other	2	2	Manufacturing	8	
Indian			Construction	1	
Bangladeshi	<1	<1	Distribution, hotels, or restaurants	7	
Pakistani	1	<1	Transport or communications	•	
Chinese	<1	<1	Banking, finance, or insurance	16	
Other Asian	<1	<1	Agriculture or fishing	2	<
Mixed	1	1	Energy or water	1	<
Other	<1	<1	Other services	6	:
No response	_	12	No response		
Country of residence			Job type		
England	84	75	Manager or senior official	16	1
Scotland	8	8	Professional occupation	13	1
Wales	5	4	Administrative or secretarial occupation	12	
Northern Ireland	3	2	Skilled trade occupation	11	
			Associate professional or technical occupation	15	
Education level			Sales or customer service occupation	8	
NVQ 4 equivalent and above*	29	29	Personal service occupation	8	
NVQ 3 equivalent	18	20	Elementary occupation	11	
NVQ 2 equivalent	18	16	Process, plant, or machine operative	7	
NVQ 1 equivalent	14	9	No response	_	3

Note: N = 2,831. Percentages in a given category may not total 100% due to rounding of decimals.

Relationships Between MBTI® Global Step I™, Form M, and European Step I[™] Preference Pair **Results**

Correlations between MBTI Global Step I, Form M, and European Step I preference pair results for the UK (English) sample are shown in table 9.3 The overall agreement rate of whole types between the Global Step I and Form M assessments is 77%, while between the Global Step I and European Step I assessments it is 52%.

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[™] Preference Pair Intercorrelations

Intercorrelations of Global Step I continuous scores in the UK (English) sample are shown in table 10 below the diagonal. The highest correlation is between the S-N

^{*}NVQ = National Vocational Qualification. For information on the five NVQ levels, visit: https://en.wikipedia.org/wiki/National_Vocational_Qualification

Table 3 | Reported MBTI° type distribution: UK (English) sample

Sen	sing	Intui	tion		
Thinking	Fee	ling	Thinking		
ISTJ <i>n</i> = 397 14.0%	ISFJ n = 274 9.7%	INFJ n = 72 2.5%	INTJ n = 69 2.4%	Judging	Introv
ISTP n = 289 10.2%	ISFP n = 181 6.4%	INFP n = 232 8.2%	INTP n = 166 5.9%	Perceiving	Introversion
ESTP <i>n</i> = 153 5.4%	ESFP n = 158 5.6%	ENFP n = 276 9.7%	ENTP <i>n</i> = 134 4.7%	iving	Extrav
ESTJ n = 158 5.6%	ESFJ <i>n</i> = 167 5.9%	ENFJ n = 61 2.2%	ENTJ <i>n</i> = 44 1.6%	Judging	Extraversion

Note: N = 2.831.

Table 4 | Reported MBTI° type preference and preference combination distributions: UK (English) sample

ı	Preferences		rences Orientation pairs		Pi	Process pairs			Orientation of energy and perceiving pairs			Judging and external orientation pairs			
	n	%		n	%		n	%		n	%		n	%	
Е	1,151	40.7	EJ	430	15.2	ST	997	35.2	ES	636	22.5	TJ	668	23.6	
1	1,680	59.3	EP	721	25.5	SF	780	27.6	EN	515	18.2	TP	742	26.2	
S	1,777	62.8	IJ	812	28.7	NF	641	22.6	IS	1,141	40.3	FJ	574	20.3	
N	1,054	37.2	IP	868	30.7	NT	413	14.6	IN	539	19.0	FP	847	29.9	
Т	1,410	49.8													
F	1,421	50.2													
J	1,242	43.9													
Р	1,589	56.1													

Note: N = 2,831.

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 in table 10 above the diagonal. The UK (English) 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 European English version of the MBTI Global Step I assessment used in the UK, including reliability and validity. For full reliability and validity information for the global sample, refer to the MBTI® Manual for the Global Step I[™] and Step II[™] 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 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

Table 5 | Reported MBTI® type distribution for men: UK (English) sample

Sen	sing	Intui			
Thinking	Fee	ling	Thinking		
ISTJ <i>n</i> = 225 16.7%	ISFJ n = 92 6.8%	INFJ n = 21 1.6%	INTJ n = 46 3.4%	Judging	Introv
ISTP <i>n</i> = 180 13.4%	ISFP n = 80 6.0%	INFP n = 84 6.3%	INTP n = 110 8.2%	Perceiving	Introversion
ESTP n = 98 7.3%	ESFP <i>n</i> = 59 4.4%	ENFP n = 82 6.1%	ENTP <i>n</i> = 85 6.3%	iving	Extrav
ESTJ <i>n</i> = 96 7.1%	ESFJ n = 48 3.6%	ENFJ <i>n</i> = 16 1.2%	ENTJ <i>n</i> = 22 1.6%	Judging	Extraversion

Note: n = 1,344.

Table 6 | Reported MBTI* type preference and preference combination distributions for men: **UK (English) sample**

Preferences		Preferences Orientation pairs		Process pairs			Orientation of energy and perceiving pairs			Judging and external orientation pairs				
	n	%		n	%		n	%		n	%		n	%
Ε	506	37.6	EJ	182	13.5	ST	599	44.6	ES	301	22.4	ТJ	389	28.9
I	838	62.4	EP	324	24.1	SF	279	20.8	EN	205	15.3	TP	473	35.2
S	878	65.3	IJ	384	28.6	NF	203	15.1	IS	577	42.9	FJ	177	13.2
N	466	34.7	IP	454	33.8	NT	263	19.6	IN	261	19.4	FP	305	22.7
Т	862	64.1												
F	482	35.9												
J	566	42.1												
Р	778	57.9												

Note: n = 1.344.

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 UK (English) sample and in the global sample for comparison purposes. The UK (English) sample alphas range from .88 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 UK (English) sample are also presented in table 11. The test-retest 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 UK (English) sample. Eighty percent of individuals reported having either three or four preferences the same at time of retest.

Table 7 | Reported MBTI® type distribution for women: UK (English) sample

Sen	sing	Intui	tion		
Thinking	Fee	ling	Thinking		
ISTJ <i>n</i> = 172 11.6%	ISFJ n = 182 12.2%	INFJ n = 51 3.4%	INTJ n = 23 1.5%	Judging	Introv
ISTP n = 109 7.3%	ISFP <i>n</i> = 101 6.8%	INFP n = 148 10.0%	INTP n = 56 3.8%	Perceiving	Introversion
ESTP <i>n</i> = 55 3.7%	ESFP n = 99 6.7%	ENFP <i>n</i> = 194 13.0%	ENTP <i>n</i> = 49 3.3%	iving	Extrav
ESTJ <i>n</i> = 62 4.2%	ESFJ <i>n</i> = 119 8.0%	ENFJ n = 45 3.0%	ENTJ <i>n</i> = 22 1.5%	Judging	Extraversion

Note: n = 1.487.

Table 8 | Reported MBTI° type preference and preference combination distributions for women: UK (English) sample

P	Preferences		Preferences Orientation pairs		Pro	Process pairs			Orientation of energy and perceiving pairs			Judging and external orientation pairs			
	n	%		n	%		n	%		n	%		n	%	
Ε	645	43.4	EJ	248	16.7	ST	398	26.8	ES	335	22.5	ТJ	279	18.8	
I	842	56.6	EP	397	26.7	SF	501	33.7	EN	310	20.8	TP	269	18.1	
S	899	60.5	IJ	428	28.8	NF	438	29.5	IS	564	37.9	FJ	397	26.7	
N	588	39.5	IP	414	27.8	NT	150	10.1	IN	278	18.7	FP	542	36.4	
Т	548	36.9													
F	939	63.1													
J	676	45.5													
Р	811	54.5													

Note: n = 1,487.

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 European English 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 & Bradley, 2005).

ACL assessment. A portion of the UK (English) sample participants (n = 199) also completed 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 noisyencompassing a wide variety of behaviors. 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

Table 9 | Relationships between MBTI° Global Step I", Form M, and European Step I" preference pair results: **UK (English) sample**

Preference pair	Global Step I* a preference pa		Global Step I" and European Step I" preference pair results			
	Correlation between continuous scores	Agreement rate (%)	Correlation between continuous scores	Agreement rate (%)		
E-I	.96	92	.94	86		
S-N	.96	93	.92	87		
T-F	.98	95	.89	83		
J-P	.97	93	.89	80		
Overall agreement ra	nte	77		52		

Note: N = 2,831.

Table 10 | Intercorrelations of Global Step I™ continuous scores: UK (English) sample

T-F J-P
1515
.27 .48
23
.17 —

Note: Correlations for the UK (English) sample (N = 2,831) are below the diagonal; those for the global sample (N = 16,773) are above the diagonal.

Table 11 | Internal consistency and test-retest reliabilities of Global Step I[™] preference pair continuous scores: UK (English) and global samples

		Cronbach's alpha			
Sample	N	E-I	S-N	T-F	J-P
UK (English) Global	2,831 16,773	.89 .89	.88 .87	.89 .89	.88 .88
		Test-retest correlation			
Sample (interval)	n	E-I	S-N	T-F	J-P
UK (English) (≤15 weeks) Global (≤15 weeks)	88 1,762	.88 .86	.81 .83	.85 .82	.85 .81
		Test-retest agreement rate (%)			
Sample (interval)	n	E-I	S-N	T-F	J-P
	88	84	82	78	77

Table 12 | Percentage of individuals with preferences the same at retest: UK (English) sample

		Number of preferent the same at retest (
Sample (interval)	n	4	3	2	1	0		
UK (English) (≤15 weeks)	88	47	33	17	2	1		

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 deviation⁴) for MBTI preferences for the UK (English) sample are presented in tables 13-16.

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 portion of the UK (English) sample (n = 214) 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[™] E−I preferences: UK (English) sample

		Extrave	ersion	Introve		
ACL scale	ACL scale description	М	SD	М	SD	Cohen's d
Sum of number checked	Total number of adjectives checked	72.88	45.02	60.70	34.21	-0.32
Sum of favorable checked	Total number of favorable adjectives checked	34.02	14.21	27.61	15.11	-0.43
Sum of unfavorable checked	Total number of unfavorable adjectives checked	7.76	12.21	6.53	6.75	-0.14
Communality	An indicator of providing common or similar responses compared to the responses of people in general	8.07	4.49	8.28	4.43	0.05
Achievement	To strive to be outstanding in pursuits of socially recognized significance	6.29	4.66	4.96	4.60	-0.29
Dominance	To seek and maintain a role as leader in groups, or to be influential and controlling in individual relationships	4.29	3.84	0.48	4.22	-0.93
Endurance	To persist in any task undertaken	4.31	4.55	4.50	5.32	0.04
Order	To place special emphasis on neatness, organization, and planning in one's activities	3.37	3.75	4.54	4.81	0.26
Intraception	To engage in attempts to understand one's behavior or the behavior of others	8.59	4.79	8.17	5.30	-0.08
Nurturance	To engage in behaviors that provide material or emotional benefits to others	9.75	6.36	7.29	6.34	-0.39
Affiliation	To seek and maintain numerous personal friendships	14.53	6.37	10.43	6.35	-0.64
Exhibition	To behave in such a way as to elicit the immediate attention of others	4.22	3.94	-0.84	3.60	-1.37
Autonomy	To act independently of others or of social values and expectations	2.75	4.51	0.84	3.29	-0.52
Aggression	To engage in behaviors that attack or hurt others	1.59	3.73	-1.86	3.79	-0.91
Change	To seek novelty of experience and to avoid routine	3.66	3.00	1.83	3.03	-0.61
Succorance	To solicit sympathy, affection, or emotional support from others	0.12	3.21	0.69	2.98	0.19
Deference	To seek and maintain subordinate roles in relationships with others	-0.69	4.94	1.81	3.98	0.58
Self-Control	To control one's behaviors and emotions	-2.12	3.38	0.53	2.97	0.86
Self-Confidence	Poise, self-assurance, and belief in one's ability to achieve one's goals	6.19	3.87	2.76	3.79	-0.90
Personal Adjustment	The ability to cope with situational and interpersonal demands, and a feeling of efficacy	4.92	4.14	3.80	3.50	-0.30
Ideal Self	Strong sense of personal worth; or harmony between what one is and what one wants to be	3.58	5.29	1.84	4.64	-0.36
Creative Personality	The desire to do and think differently from the norm, and a talent for originality	3.71	3.50	2.09	3.13	-0.50
Military Leadership	Steadiness, self-discipline, and good judgment of the kind required in positions of military (or related) leadership	5.42	4.36	5.15	4.56	-0.06
Adult	Attitudes of independence, objectivity, and industriousness associated with the concept of "mature adult"	4.19	5.18	4.38	5.00	0.04

Note: Extraversion, n = 59; Introversion, n = 140. For information on Cohen's d, see note 4 at the back of this supplement.

Table 14 | ACL scale means, standard deviations, and Cohen's *d* for Global Step I[™] S−N preferences: UK (English) sample

		Sens	ing	Intui		
ACL scale	ACL scale description	М	SD	М	SD	Cohen's d
Sum of number checked	Total number of adjectives checked	59.70	34.16	72.27	43.01	0.33
Sum of favorable checked	Total number of favorable adjectives checked	26.74	14.91	34.30	14.29	0.51
Sum of unfavorable checked	Total number of unfavorable adjectives checked	6.53	7.18	7.52	10.90	0.11
Communality	An indicator of providing common or similar responses compared to the responses of people in general	7.89	4.42	8.78	4.44	0.20
Achievement	To strive to be outstanding in pursuits of socially recognized significance	4.65	4.47	6.56	4.72	0.42
Dominance	To seek and maintain a role as leader in groups, or to be influential and controlling in individual relationships	0.75	4.34	3.10	4.29	0.54
Endurance	To persist in any task undertaken	4.45	5.33	4.42	4.70	-0.01
Order	To place special emphasis on neatness, organization, and planning in one's activities	4.38	4.85	3.86	3.96	-0.11
Intraception	To engage in attempts to understand one's behavior or the behavior of others	7.59	5.30	9.52	4.66	0.38
Nurturance	To engage in behaviors that provide material or emotional benefits to others	7.54	6.57	8.85	6.13	0.20
Affiliation	To seek and maintain numerous personal friendships	10.60	6.44	13.45	6.55	0.44
Exhibition	To behave in such a way as to elicit the immediate attention of others	-0.35	4.00	2.41	4.42	0.66
Autonomy	To act independently of others or of social values and expectations	0.53	3.19	2.90	4.25	0.66
Aggression	To engage in behaviors that attack or hurt others	-1.40	3.89	0.14	4.25	0.38
Change	To seek novelty of experience and to avoid routine	1.37	2.68	4.10	3.11	0.96
Succorance	To solicit sympathy, affection, or emotional support from others	0.90	3.01	-0.14	3.02	-0.34
Deference	To seek and maintain subordinate roles in relationships with others	1.85	4.17	-0.29	4.55	-0.50
Self-Control	To control one's behaviors and emotions	0.35	3.21	-1.30	3.25	-0.51
Self-Confidence	Poise, self-assurance, and belief in one's ability to achieve one's goals	2.85	3.92	5.37	3.96	0.64
Personal Adjustment	The ability to cope with situational and interpersonal demands, and a feeling of efficacy	3.85	3.67	4.62	3.79	0.21
Ideal Self	Strong sense of personal worth; or harmony between what one is and what one wants to be	1.08	4.59	4.56	4.62	0.76
Creative Personality	The desire to do and think differently from the norm, and a talent for originality	1.38	2.75	4.63	3.23	1.11
Military Leadership	Steadiness, self-discipline, and good judgment of the kind required in positions of military (or related) leadership	4.96	4.70	5.70	4.11	0.16
Adult	Attitudes of independence, objectivity, and industriousness associated with the concept of "mature adult"	3.89	5.14	5.07	4.82	0.23

Note: Sensing, n = 126; Intuition, n = 73.

Table 15 | ACL scale means, standard deviations, and Cohen's *d* for Global Step I[™] T−F preferences: UK (English) sample

		Thinl	king	Feel	ing	
ACL scale	ACL scale description	М	SD	М	SD	Cohen's d
Sum of number checked	Total number of adjectives checked	60.19	32.44	75.18	24.09	0.22
Sum of favorable checked	Total number of favorable adjectives checked	26.63	14.09	35.09	11.19	0.39
Sum of unfavorable checked	Total number of unfavorable adjectives checked	7.30	6.57	7.05	5.93	-0.09
Communality	An indicator of providing common or similar responses compared to the responses of people in general	7.82	4.36	9.82	3.45	0.18
Achievement	To strive to be outstanding in pursuits of socially recognized significance	5.40	5.01	5.18	5.02	-0.02
Dominance	To seek and maintain a role as leader in groups, or to be influential and controlling in individual relationships	1.73	4.86	1.27	5.27	-0.05
Endurance	To persist in any task undertaken	4.52	5.18	3.86	6.20	-0.03
Order	To place special emphasis on neatness, organization, and planning in one's activities	4.77	4.64	3.55	5.12	-0.25
Intraception	To engage in attempts to understand one's behavior or the behavior of others	7.42	5.08	9.64	4.25	0.34
Nurturance	To engage in behaviors that provide material or emotional benefits to others	5.21	5.75	8.73	5.95	0.96
Affiliation	To seek and maintain numerous personal friendships	9.86	5.83	13.50	6.37	0.56
Exhibition	To behave in such a way as to elicit the immediate attention of others	0.34	4.76	0.50	4.59	0.15
Autonomy	To act independently of others or of social values and expectations	2.10	3.88	3.09	4.60	-0.37
Aggression	To engage in behaviors that attack or hurt others	-0.56	4.60	-1.73	4.59	-0.14
Change	To seek novelty of experience and to avoid routine	2.09	3.29	4.18	3.22	0.18
Succorance	To solicit sympathy, affection, or emotional support from others	-0.15	2.71	0.32	3.29	0.45
Deference	To seek and maintain subordinate roles in relationships with others	-0.05	4.54	-1.18	4.95	0.52
Self-Control	To control one's behaviors and emotions	-0.49	3.47	-0.59	4.38	0.14
Self-Confidence	Poise, self-assurance, and belief in one's ability to achieve one's goals	3.46	4.17	4.23	4.67	0.15
Personal Adjustment	The ability to cope with situational and interpersonal demands, and a feeling of efficacy	3.30	3.32	5.45	3.70	0.45
Ideal Self	Strong sense of personal worth; or harmony between what one is and what one wants to be	2.45	4.41	3.86	5.99	-0.04
Creative Personality	The desire to do and think differently from the norm, and a talent for originality	2.71	3.31	4.77	3.69	-0.08
Military Leadership	Steadiness, self-discipline, and good judgment of the kind required in positions of military (or related) leadership	4.91	4.77	6.50	4.74	0.14
Adult	Attitudes of independence, objectivity, and industriousness associated with the concept of "mature adult"	4.73	5.23	4.59	4.85	-0.16

Note: Thinking, n = 99; Feeling, n = 100.

Table 16 | ACL scale means, standard deviations, and Cohen's *d* for Global Step I[™] J−P preferences: UK (English) sample

		Judg	jing	Perce	iving		
ACL scale	ACL scale description	М	SD	М	SD	Cohen's	
Sum of number checked	Total number of adjectives checked	63.17	38.48	65.42	37.75	0.06	
Sum of favorable checked	Total number of favorable adjectives checked	29.13	14.52	29.88	15.70	0.05	
Sum of unfavorable checked	Total number of unfavorable adjectives checked	6.83	8.34	6.96	9.10	0.02	
Communality	An indicator of providing common or similar responses compared to the responses of people in general	8.35	4.42	8.09	4.47	-0.06	
Achievement	To strive to be outstanding in pursuits of socially recognized significance	5.48	4.64	5.23	4.67	-0.05	
Dominance	To seek and maintain a role as leader in groups, or to be influential and controlling in individual relationships	1.56	4.16	1.65	4.75	0.02	
Endurance	To persist in any task undertaken	5.35	4.72	3.56	5.31	-0.35	
Order	To place special emphasis on neatness, organization, and planning in one's activities	5.09	4.34	3.32	4.59	-0.40	
Intraception	To engage in attempts to understand one's behavior or the behavior of others	8.45	5.08	8.15	5.23	-0.06	
Nurturance	To engage in behaviors that provide material or emotional benefits to others	7.76	6.35	8.28	6.52	0.08	
Affiliation	To seek and maintain numerous personal friendships	11.24	6.12	12.03	7.06	0.12	
Exhibition	To behave in such a way as to elicit the immediate attention of others	-0.10	3.86	1.41	4.69	0.35	
Autonomy	To act independently of others or of social values and expectations	0.61	3.42	2.17	3.98	0.42	
Aggression	To engage in behaviors that attack or hurt others	-1.01	3.72	-0.66	4.42	0.08	
Change	To seek novelty of experience and to avoid routine	1.46	2.84	3.26	3.15	0.60	
Succorance	To solicit sympathy, affection, or emotional support from others	0.83	2.88	0.22	3.20	-0.20	
Deference	To seek and maintain subordinate roles in relationships with others	1.77	3.88	0.39	4.81	-0.31	
Self-Control	To control one's behaviors and emotions	0.42	3.10		3.40	-0.41	
Self-Confidence	Poise, self-assurance, and belief in one's ability to achieve one's goals	3.41	3.78	4.13	4.40	0.18	
Personal Adjustment	The ability to cope with situational and interpersonal demands, and a feeling of efficacy	4.16	3.45	4.10	4.00	-0.02	
Ideal Self	Strong sense of personal worth; or harmony between what one is and what one wants to be	1.95	4.35	2.75	5.35	0.16	
Creative Personality	The desire to do and think differently from the norm, and a talent for originality	1.86	2.93	3.27	3.54	0.43	
Military Leadership	Steadiness, self-discipline, and good judgment of the kind required in positions of military (or related) leadership	5.51	4.50	4.96	4.50	-0.12	
Adult	Attitudes of independence, objectivity, and industriousness associated with the concept of "mature adult"	4.78	4.92	3.88	5.15	-0.18	

Note: Judging, n = 98; Perceiving, n = 101.

Table 17 | CPI 260° scale means, standard deviations, and Cohen's d for Global Step I" E–I preferences: UK (English) sample

		Extrave	rsion	Introve		
CPI 260° scale	CPI 260° scale description	М	SD	М	SD	Cohen's d
Dominance (Do)	Prosocial interpersonal power and influence	21.04	5.84	13.97	6.45	-1.13
Capacity for Status (Cs)	Ambition for challenge and social status	15.47	4.12	10.61	4.04	-1.19
Sociability (Sy)	Social participation	15.71	3.59	10.14	4.06	-1.43
Social Presence (Sp)	Poise and comfort with attention and recognition	19.00	4.12	14.39	4.25	-1.10
Self-acceptance (Sa)	Sense of personal worth and self-confidence	15.32	3.25	10.88	3.87	-1.21
Independence (In)	Self-sufficiency and self-directedness	14.25	3.60	11.03	4.29	-0.79
Empathy (Em)	Capacity to understand and respond to others' needs	15.19	3.25	11.48	3.47	-1.09
Responsibility (Re)	Conscientiousness and follow-through	14.47	3.30	13.84	3.60	-0.18
Social Conformity (So)	Conformance with social norms and customs	20.14	4.35	18.96	4.64	-0.26
Self-control (Sc)	Cautiousness and self-regulation	14.36	4.72	16.09	4.70	0.37
Good Impression (Gi)	Tact and positive self-presentation	12.58	4.46	12.62	4.27	0.01
Communality (Cm)	Conventional behavior and attitudes	18.39	2.77	18.09	2.54	-0.11
Well-being (Wb)	Overall sense of health and optimism	14.25	3.82	12.34	3.83	-0.50
Tolerance (To)	Open-mindedness and respect for others	11.75	4.08	10.22	3.68	-0.40
Achievement via Conformance (Ac)	Motivation within organized settings	19.32	4.27	17.61	4.13	-0.41
Achievement via Independence (Ai)	Motivation within unstructured settings	15.26	4.07	13.51	3.92	-0.44
Conceptual Fluency (Cf)	Comfort with intellectual and conceptual matters	19.75	4.43	17.18	4.90	-0.54
Insightfulness (Is)	Analytical insight into the motivations of others	12.52	3.11	11.45	3.09	-0.35
Flexibility (Fx)	Adaptability and comfort with change	10.62	3.89	9.50	3.76	-0.30
Sensitivity (Sn)	Tough- versus tender-mindedness	13.01	3.30	14.72	3.63	0.48
Managerial Potential (Mp)	Inclination for supervisory responsibilities	14.75	4.44	11.93	4.06	-0.67
Work Orientation (Wo)	Sense of dedication to work	14.97	3.37	14.03	3.87	-0.26
Creative Temperament (Ct)	Individualization and capacity for innovativeness	15.86	4.65	12.88	4.02	-0.70
Leadership (Lp)	Initiative and effectiveness in leading others	24.95	6.03	18.46	6.62	-1.01
Amicability (Ami)	Cooperation and friendliness	16.77	4.49	15.72	4.69	-0.23
Law Enforcement Orientation (Leo)	Conventional and practical values	16.78	3.25	15.90	3.12	-0.28
Vector 1 (v.1)	Extraversion versus introversion	8.81	4.22	12.80	4.51	0.91
Vector 2 (v.2)	Rule-following versus rule-questioning	12.48	3.23	11.68	3.33	-0.24
Vector 3 (v.3)	Fulfillment of personal potential	16.58	6.04	14.10	5.38	-0.44

Note: Extraversion, n = 77; Introversion, n = 137. For information on Cohen's d, see note 4 at the back of this supplement.

Table 18 | CPI 260° scale means, standard deviations, and Cohen's *d* for Global Step I[™] S−N preferences: UK (English) 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	15.76	7.05	17.59	7.05	0.26	
Capacity for Status (Cs)	Ambition for challenge and social status	11.19	4.42	14.02	4.57	0.63	
Sociability (Sy)	Social participation	11.44	4.50	13.15	4.87	0.37	
Social Presence (Sp)	Poise and comfort with attention and recognition	15.21	4.44	17.26	4.93	0.44	
Self-acceptance (Sa)	Sense of personal worth and self-confidence	11.96	4.09	13.23	4.34	0.30	
Independence (In)	Self-sufficiency and self-directedness	11.57	4.28	13.07	4.27	0.35	
Empathy (Em)	Capacity to understand and respond to others' needs	11.82	3.66	14.25	3.63	0.67	
Responsibility (Re)	Conscientiousness and follow-through	13.46	3.54	14.93	3.27	0.43	
Social Conformity (So)	Conformance with social norms and customs	19.21	4.47	19.64	4.70	0.09	
Self-control (Sc)	Cautiousness and self-regulation	15.79	4.67	15.02	4.91	-0.16	
Good Impression (Gi)	Tact and positive self-presentation	12.75	4.21	12.41	4.51	-0.08	
Communality (Cm)	Conventional behavior and attitudes	18.19	2.84	18.22	2.29	0.01	
Well-being (Wb)	Overall sense of health and optimism	12.70	3.85	13.50	4.00	0.20	
Tolerance (To)	Open-mindedness and respect for others	9.79	3.50	12.18	3.99	0.65	
Achievement via Conformance (Ac)	Motivation within organized settings	18.06	4.25	18.45	4.27	0.09	
Achievement via Independence (Ai)	Motivation within unstructured settings	12.90	3.74	15.91	3.85	0.79	
Conceptual Fluency (Cf)	Comfort with intellectual and conceptual matters	16.92	4.85	19.80	4.45	0.61	
Insightfulness (Is)	Analytical insight into the motivations of others	11.21	3.11	12.73	2.96	0.50	
Flexibility (Fx)	Adaptability and comfort with change	8.55	3.38	11.84	3.63	0.94	
Sensitivity (Sn)	Tough- versus tender-mindedness	13.79	3.56	14.56	3.64	0.21	
Managerial Potential (Mp)	Inclination for supervisory responsibilities	12.35	4.17	13.81	4.61	0.33	
Work Orientation (Wo)	Sense of dedication to work	13.93	3.76	15.00	3.57	0.29	
Creative Temperament (Ct)	Individualization and capacity for innovativeness	12.35	3.81	16.24	4.38	0.96	
Leadership (Lp)	Initiative and effectiveness in leading others	19.71	7.14	22.34	6.84	0.37	
Amicability (Ami)	Cooperation and friendliness	15.90	4.52	16.38	4.81	0.10	
Law Enforcement Orientation (Leo)	Conventional and practical values	16.67	3.11	15.57	3.21	-0.35	
Vector 1 (v.1)	Extraversion versus introversion	11.94	4.79	10.52	4.71	-0.30	
Vector 2 (v.2)	Rule-following versus rule-questioning	12.26	3.43	11.55	3.10	-0.22	
Vector 3 (v.3)	Fulfillment of personal potential	13.75	5.28	16.78	5.92	0.55	

Note: Sensing, n = 126; Intuition, n = 88.

Table 19 | CPI 260° scale means, standard deviations, and Cohen's *d* for Global Step I[™] T−F preferences: UK (English) sample

		Think	ing	Feeli		
CPI 260° scale	CPI 260° scale description	М	SD	М	SD	Cohen's d
Dominance (Do)	Prosocial interpersonal power and influence	16.53	7.18	16.50	7.02	0.00
Capacity for Status (Cs)	Ambition for challenge and social status	12.28	4.29	12.44	5.14	0.03
Sociability (Sy)	Social participation	11.64	4.47	12.74	4.97	0.24
Social Presence (Sp)	Poise and comfort with attention and recognition	15.78	4.55	16.38	4.96	0.13
Self-acceptance (Sa)	Sense of personal worth and self-confidence	12.46	4.14	12.51	4.35	0.01
Independence (In)	Self-sufficiency and self-directedness	12.18	4.44	12.19	4.22	0.00
Empathy (Em)	Capacity to understand and respond to others' needs	12.51	3.86	13.18	3.78	0.18
Responsibility (Re)	Conscientiousness and follow-through	13.81	3.57	14.37	3.41	0.16
Social Conformity (So)	Conformance with social norms and customs	18.78	4.51	20.09	4.54	0.29
Self-control (Sc)	Cautiousness and self-regulation	15.14	4.77	15.87	4.76	0.15
Good Impression (Gi)	Tact and positive self-presentation	12.34	4.47	12.93	4.16	0.14
Communality (Cm)	Conventional behavior and attitudes	17.79	2.75	18.68	2.39	0.34
Well-being (Wb)	Overall sense of health and optimism	12.66	4.04	13.47	3.76	0.21
Tolerance (To)	Open-mindedness and respect for others	10.35	3.70	11.27	4.06	0.24
Achievement via Conformance (Ac)	Motivation within organized settings	17.86	4.29	18.65	4.19	0.19
Achievement via Independence (Ai)	Motivation within unstructured settings	13.83	3.97	14.51	4.14	0.17
Conceptual Fluency (Cf)	Comfort with intellectual and conceptual matters	17.97	4.83	18.27	4.98	0.06
Insightfulness (Is)	Analytical insight into the motivations of others	11.90	3.25	11.76	3.00	-0.05
Flexibility (Fx)	Adaptability and comfort with change	9.42	4.05	10.47	3.51	0.27
Sensitivity (Sn)	Tough- versus tender-mindedness	13.57	3.65	14.73	3.46	0.33
Managerial Potential (Mp)	Inclination for supervisory responsibilities	12.86	4.25	13.05	4.60	0.04
Work Orientation (Wo)	Sense of dedication to work	14.25	3.89	14.51	3.52	0.07
Creative Temperament (Ct)	Individualization and capacity for innovativeness	13.64	4.35	14.32	4.62	0.15
Leadership (Lp)	Initiative and effectiveness in leading others	20.35	6.99	21.32	7.28	0.14
Amicability (Ami)	Cooperation and friendliness	15.72	4.89	16.55	4.30	0.18
Law Enforcement Orientation (Leo)	Conventional and practical values	16.22	3.29	16.20	3.08	-0.01
Vector 1 (v.1)	Extraversion versus introversion	11.14	4.93	11.62	4.65	0.10
Vector 2 (v.2)	Rule-following versus rule-questioning	11.98	3.27	11.95	3.37	-0.01
Vector 3 (v.3)	Fulfillment of personal potential	14.47	5.38	15.61	6.10	0.20

Note: Thinking, n = 116; Feeling, n = 98.

Table 20 | CPI 260° scale means, standard deviations, and Cohen's *d* for Global Step I[™] J−P preferences: UK (English) 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	16.50	7.68	16.52	6.51	0.00	
Capacity for Status (Cs)	Ambition for challenge and social status	11.90	4.74	12.79	4.61	0.19	
Sociability (Sy)	Social participation	11.69	5.03	12.59	4.38	0.19	
Social Presence (Sp)	Poise and comfort with attention and recognition	15.50	4.89	16.59	4.56	0.23	
Self-acceptance (Sa)	Sense of personal worth and self-confidence	12.03	4.34	12.92	4.09	0.21	
Independence (In)	Self-sufficiency and self-directedness	11.87	4.61	12.50	4.04	0.15	
Empathy (Em)	Capacity to understand and respond to others' needs	12.35	3.90	13.27	3.72	0.24	
Responsibility (Re)	Conscientiousness and follow-through	14.65	3.57	13.50	3.35	-0.33	
Social Conformity (So)	Conformance with social norms and customs	20.24	4.57	18.56	4.42	-0.37	
Self-control (Sc)	Cautiousness and self-regulation	16.57	4.25	14.41	5.02	-0.46	
Good Impression (Gi)	Tact and positive self-presentation	13.89	4.16	11.38	4.14	-0.60	
Communality (Cm)	Conventional behavior and attitudes	18.90	2.39	17.53	2.67	-0.54	
Well-being (Wb)	Overall sense of health and optimism	13.36	4.01	12.71	3.84	-0.17	
Tolerance (To)	Open-mindedness and respect for others	11.27	3.75	10.29	3.97	-0.25	
Achievement via Conformance (Ac)	Motivation within organized settings	19.32	3.99	17.17	4.25	-0.52	
Achievement via Independence (Ai)	Motivation within unstructured settings	14.40	4.04	13.89	4.07	-0.13	
Conceptual Fluency (Cf)	Comfort with intellectual and conceptual matters	18.59	5.07	17.63	4.68	-0.20	
Insightfulness (Is)	Analytical insight into the motivations of others	12.13	3.19	11.54	3.07	-0.19	
Flexibility (Fx)	Adaptability and comfort with change	8.83	3.48	10.94	3.90	0.57	
Sensitivity (Sn)	Tough- versus tender-mindedness	14.36	3.84	13.85	3.36	-0.14	
Managerial Potential (Mp)	Inclination for supervisory responsibilities	13.60	4.56	12.32	4.17	-0.29	
Work Orientation (Wo)	Sense of dedication to work	14.88	3.91	13.88	3.47	-0.27	
Creative Temperament (Ct)	Individualization and capacity for innovativeness	12.83	4.35	15.03	4.35	0.51	
Leadership (Lp)	Initiative and effectiveness in leading others	21.13	7.53	20.47	6.72	-0.09	
Amicability (Ami)	Cooperation and friendliness	17.10	4.66	15.14	4.43	-0.43	
Law Enforcement Orientation (Leo)	Conventional and practical values	17.21	3.18	15.26	2.90	-0.64	
Vector 1 (v.1)	Extraversion versus introversion	11.90	4.68	10.84	4.87	-0.22	
Vector 2 (v.2)	Rule-following versus rule-questioning	13.15	2.85	10.83	3.33	-0.75	
Vector 3 (v.3)	Fulfillment of personal potential	15.56	5.59	14.45	5.85	-0.19	

Note: Judging, n = 105; Perceiving, n = 109.

MBTI® GLOBAL STEP II™ ASSESSMENT RESULTS FOR THE UK (ENGLISH) 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 | Relationships between Global Step II*, Form Q, and European Step II[™] facet results: **UK (English) sample**

	Correlation between	een continuous score
Global Step II [®] facet	Global Step II [™] and Form Q facet results	Global Step II" and European Step II" facet results
E-I facets		
Initiating-Receiving	.98	.96
Expressive-Contained	.99	.94
Gregarious-Intimate	.97	.99
Active-Reflective	.86	.88
Enthusiastic-Quiet	.99	.97
S-N facets		
Concrete-Abstract	.96	.95
Realistic-Imaginative	.99	.99
Practical-Conceptual	.85	.86
Experiential-Theoretical	94	.98
Traditional-Original	.96	.95
T-F facets		
Logical-Empathetic	.94	.95
Reasonable – Compassionate	.94	.97
Questioning – Accommodating	.58	.70
Critical-Accepting	.83	.82
Tough-Tender	.98	.97
J-P facets		
Systematic-Casual	.95	.97
Planful-Open-Ended	.98	.98
Early Starting – Pressure-Prompted	.93	.94
Scheduled- Spontaneous	.96	.94
Methodical-Emergent	.96	.89

Note: N = 2,831.

Relationships Between MBTI® Global Step II®, Form Q, and European Step II™ Facet Results

Table 21 presents the relationships between MBTI Global Step II, Form Q, and European Step II facet results for the UK (English) sample.

Global Step II[™] 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 European English version of the MBTI Global Step II assessment, including reliability and validity. For full reliability and validity information for the global sample, refer to the MBTI® Manual for the Global Step I™ and Step II[™] Assessments (Myers et al., 2018).

RELIABILITY

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

VALIDITY

Reported here as evidence of the validity of the European English version of the MBTI Global Step II assessment are the percentage of out-ofpreference 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. 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 out-of-preference scores in three or more facets within any one preference pair. The percentage of out-of-preference facet scores for each preference pair in the UK (English) sample is shown in table 24

Table 22 | Intercorrelations of Global Step II[™] facets: UK (English) 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	.59	_																		
3. Gregarious-Intimate	.57	.55	_																	
4. Active-Reflective	.72	.58	.55	_																
5. Enthusiastic-Quiet	.64	.57	.61	.65	_															
S-N facets																				
6. Concrete-Abstract	12	13	11	11	24	_														
7. Realistic-Imaginative	13	14	13	14	29	.69	_													
8. Practical-Conceptual	10	07	10	08	22	.60	.66	_												
9. Experiential–Theoretical	07	06	06	07	12	.59	.53	.45	_											
10. Traditional-Original	16	07	09	10	25	.62	.60	.60	.43	_										
T–F facets																				
11. Logical–Empathetic	10	25	09	15	17	.31	.25	.14	.16	.09	_									
12. Reasonable – Compassionate	08	22	07	11	13	.31	.24	.12	.18	.09	.78	_								
13. Questioning-Accommodating	.07	11	01	.00	.04	.08	.04	10	.01	20	.52	.58	_							
14. Critical-Accepting	11	21	09	12	13	.23	.17	.07	.08	.06	.56	.64	.69	_						
15. Tough–Tender	01	17	01	04	03	.26	.19	.08	.14	.03	.64	.71	.71	.70	_					
J–P facets																				
16. Systematic–Casual	18	17	21	16	30	.53	.47	.40	.32	.56	.35	.33	.12	.24	.24	_				
17. Planful-Open-Ended	14	09	15	11	20	.31	.27	.23	.19	.41	.13	.12	01	.08	.06	.67	_			
18. Early Starting—Pressure-Prompted	03	07	10	06	15	.26	.25	.22	.22	.29	.03	.03	04	05	01	.46	.49	_		
19. Scheduled-Spontaneous	12	09	16	12	21	.41	.37	.31	.29	.49	.15	.13	02	.03	.06	.75	.75	.58	_	
20. Methodical-Emergent	.00	07	09	01	09	.21	.19	.15	.17	.21	.13	.13	.05	.00	.06	.49	.49	.57	.58	_

Note: N = 2,831.

Table 23 | Internal consistency and test-retest reliabilities of Global Step II[™] facet continuous scores: UK (English) sample

Global Step II" facet	Cronbach's alpha	Test-retest correlation
E-I facets		
Initiating-Receiving	.83	.78
Expressive-Contained	.74	.85
Gregarious-Intimate	.63	.74
Active-Reflective	.63	.66
Enthusiastic-Quiet	.71	.83
S-N facets		
Concrete-Abstract	.75	.71
Realistic-Imaginative	.73	.77
Practical-Conceptual	.63	.67
Experiential-Theoretical	.68	.64
Traditional-Original	.72	.77
T–F facets		
Logical-Empathetic	.79	.75
Reasonable-Compassionate	.75	.76
Questioning-Accommodating	.63	.71
Critical-Accepting	.62	.77
Tough-Tender	.76	.79
J–P facets		
Systematic-Casual	.78	.73
Planful-Open-Ended	.81	.79
Early Starting-Pressure-Prompted	.64	.77
Scheduled-Spontaneous	.83	.74
Methodical-Emergent	.66	.70

Note: N = 2,831; test-retest, n = 88.

Table 24 | Percentage of reported out-ofpreference Global Step II[™] facet scores: **UK (English) sample**

Preference	Number of out-of-preference facet scores (%)													
pair	0	1	2	3	4	5								
E-I	68	25	6	<1	0	0								
S-N	70	25	5	<1	0	0								
T-F	74	18	6	1	<1	0								
J-P	62	26	9	2	0	0								

Note: N = 2,831.

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 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,

Table 25 | Correlations between Global Step II[™] facets and preference pairs: UK (English) sample

	Preference pair									
Global Step II" facet	E-I	S-N	T-F	J-P						
E-I facets										
Initiating-Receiving	.87	16	08	14						
Expressive-Contained	.77	14	24	11						
Gregarious-Intimate	.73	14	07	17						
Active-Reflective	.83	14	12	12						
Enthusiastic-Quiet	.82	30	13	23						
S-N facets										
Concrete-Abstract	18	.87	.31	.44						
Realistic-Imaginative	21	.85	.24	.39						
Practical-Conceptual	14	.76	.11	.33						
Experiential-Theoretical	09	.68	.17	.29						
Traditional-Original	18	.79	.06	.51						
T–F facets										
Logical-Empathetic	18	.27	.90	.19						
Reasonable-	15	.26	.91	.18						
Compassionate										
Questioning-	.01	01	.69	.01						
Accommodating										
Critical-Accepting	16	.18	.72	09						
Tough-Tender	06	.20	.84	.10						
J-P facets										
Systematic-Casual	24	.59	.33	.83						
Planful-Open-Ended	16	.36	.11	.86						
Early Starting –	10	.31	.01	.63						
Pressure-Prompted				_						
Scheduled-Spontaneous	16	.47	.12	.94						
Methodical-Emergent	05	.23	.11	.63						

Note: N = 2,831.

2001, p. 104). The UK (English) 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 correlations between a facet and its corresponding preference pair are between Early-Starting-Pressure-Prompted and Methodical-Emergent and J-P.

To further demonstrate convergent and divergent validity of the MBTI Global Step II facets using the European English version in the UK, 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.

ACL assessment. ACL scales correlated with the Global Step II facets; a selection of these correlations is presented in table 26. The relationships between

Table 26 | Selected correlations between Global Step II" facets and ACL scales: UK (English) sample

							ACL sca	ile					
Global Step II" 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	.01	51	06	.09	19	26	56	25	.27	.35	44	20	21
Expressive – Contained	01	39	.00	.13	25	26	46	16	.14	.29	40	23	13
Gregarious-Intimate	01	31	01	.10	20	19	40	19	.11	.29	31	12	06
Active-Reflective	.02	47	03	.11	18	26	54	32	.25	.39	43	17	21
Enthusiastic-Quiet	04	41	02	.08	22	30	52	33	.19	.32	41	20	21
S–N facet scales													
Concrete-Abstract	.06	.15	05	14	.17	.24	.24	.39	17	19	.24	.10	.43
Realistic-Imaginative	.03	.20	06	11	.04	.16	.29	.40	24	26	.26	.02	.42
Practical-Conceptual	.12	.31	.05	.01	.04	.18	.28	.41	24	25	.32	.02	.44
Experiential-Theoretical	09	.08	08	14	.00	.07	.17	.29	16	18	.16	01	.25
Traditional-Original	.06	.22	.04	.00	.02	.18	.27	.44	32	23	.27	.05	.44
T–F facet scales													
Logical-Empathetic	.05	.02	06	21	.43	.25	.10	.10	.17	.02	.07	.22	05
Reasonable-Compassionate	.07	02	09	21	.42	.22	.07	.13	.21	.06	.01	.20	03
Questioning-Accommodating	01	27	19	25	.27	.01	18	14	.35	.16	20	.13	27
Critical-Accepting	.10	06	02	13	.46	.22	01	.01	.30	.12	.05	.31	07
Tough-Tender	.10	23	13	21	.42	.16	09	02	.38	.17	12	.16	13
J-P facet scales													
Systematic-Casual	03	.03	21	29	.06	.10	.27	.40	22	28	.14	01	.22
Planful-Open-Ended	07	03	18	19	.00	.07	.16	.23	19	24	.04	.00	.17
Early Starting-Pressure-Prompted	10	.00	27	27	12	01	.21	.29	24	22	.01	18	.14
Scheduled-Spontaneous	13	03	27	29	07	.01	.25	.35	29	30	.04	12	.22
Methodical-Emergent	23	10	32	35	26	18	.15	.18	28	24	11	26	.06

Note: n = 199.

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 UK sample are shown in table 27. 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 Global Step II assessment.

Global Step II[™] 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 giving feedback to respondents, for practitioners the most important verification issue is the accuracy with which the scores reflect their 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.

Table 28 shows the percentages and rank order of inpreference, midzone, and out-of-preference scores for the 20 Global Step II facets for the UK (English) sample. Interpreters may find this table useful because it shows which facets are more or less likely to yield scores in

Table 27 | Correlations between Global Step II facets and CPI 260 scales: UK (English) sample

														CPI	260 ° s	cale													
Global Step II" facet scale	Do	Cs	Sy	Sp	Sa	ln	Em	Re	So	Sc	Gi	Cm	Wb	То	Ac	Ai	Cf	ls	Fx	Sn	Мр	Wo	Ct	Lp	Ami	Leo	v.1	v.2	٧.
E-I facet scales																													
Initiating-Receiving	58	56	69	51	58	42	48	10	11	.12	06	09	28	22	25	23	31	21	14	.29	39	17	36	55	13	18	.41	12	2
Expressive-Contained	44	42	55	47	46	32	40	08	16	.21	.04	14	27	18	19	19	20	12	17	.24	26	17	28	41	12	20	.37	13	2
Gregarious-Intimate	38	46	50	48	39	29	51	06	19	.16	02	.00	25	27	10	29	26	20	35	.19	32	18	41	38	21	02	.34	.00	2
Active-Reflective	49	50	58	49	50	33	46	04	12	.23	.02	05	19	14	21	21	23	13	19	.20	25	08	35	44	04	14	.47	16	1
Enthusiastic-Quiet	43	45	53	46	47	30	45	05	10	.26	.11	07	13	14	17 ·	20	24	07	19	.15	24	06	33	39	03	12	.45	09	1
S-N facet scales																													
Concrete-Abstract	.08	.32	.20	.25	.14	.08	.32	.24	.07	11	08	01	.04	.23	.14	.34	.24	.16	.42	.22	.10	.09	.38	.13	.03	26	14	.02	.2
Realistic-Imaginative	.15	.33	.26	.25	.22	.13	.32	.20	.06	17	11	11	.00	.19	.10	.30	.25	.14	.38	.13	.13	.05	.43	.18	01	19	23	03	.1
Practical-Conceptual	.11	.25	.16	.17	.18	.13	.21	.23	.10	13	05	07	.04	.21	.12	.26	.22	.09	.28	.14	.14	.13	.30	.13	.01	06	18	01	.1
Experiential-Theoretical	.02	.16	.05	.16	.04	.08	.22	.11	04	12	06	11	02	.13	03	.24	.12	.17	.40	.06	.03	.01	.32	.03	01	21	10	17	.0
Traditional-Original	.18	.22	.21	.23	.22	.20	.24	.06	10	22	22	03	.02	.06	05	.16	.19	.09	.29	02	.05	.02	.35	.16	17	16	23	15	.0
T–F facet scales																													
Logical-Empathetic	01	.04	.14	.10	.00	07	.13	.00	.08	.01	.03	.09	.06	.08	.06	.01	02	10	.10	.23	03	01	.01	.04	.09	11	.01	.02	.1
Reasonable – Compassionate	04	.10	.13	.09	.01	08	.14	.11	.08	.07	.10	.04	.05	.15	.10	.13	.06	02	.18	.25	.02	.05	.10	.06	.14	09	.06	.02	.1
Questioning – Accommodating	16	.00	.02	.04	13	16	.02	.03	.11	.13	.10	02	.02	.09	.05	.00	08	10	.13	.21	07	.00	.00	08	.16	14	.13	01	.0
Critical-Accepting	.05	.10	.18	.16	.04	.06	.20	.17	.25	.13	.15	.24	.23	.22	.21	.19	.16	.06	.17	.13	.11	.18	.07	.15	.22	.04	.00	.08	. 2
Tough-Tender	10	.02	.05	.05	08	10	.13	.19	.17	.14	.13	.11	.08	.19	.17	.15	.05	02	.22	.24	.03	.11	.08	01	.17	11	.09	.04	.1
J-P facet scales																													
Systematic–Casual	.03	.12	.19	.24	.14	.12	.19	14	16	25	30	15	.02	02	23	.01	01	04	.36	02	11	08	.31	.02	14	32	10	36	(
Planful–Open-Ended	08	.02	.00	.11	.03	.06	.11	17	14	16	26	12	02	09	28	03	06	10	.27	03	19	07	.24	11	13	35	.01	35	C
Early Starting – Pressure-Prompted	.12	.20	.18	.24	.17	.19	.22	.01	.02	25	25	18	.05	.01	12	.10	.07	.04	.39	11	.04	.00	.40	.08	06	17	22	18	.(
Scheduled-Spontaneous	.00	.12	.08	.17	.12	.10	.17	14	17	28	33	19	07	09	29	01	06	07	.38 -	04	15	14	.33	04	21	36	13	35	(
Methodical–Emergent	14	.01	01	.08	01	01			13																				

Note: n = 214.

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

	In-pre	ference	Mid	zone	Out-of-preference		
Global Step II [®] facet	%	Rank	%	Rank	%	Rank	
E-I facets							
Initiating-Receiving	62.91	5	32.64	10	4.45	17	
Expressive-Contained	55.17	18	37.12	3	7.70	8	
Gregarious-Intimate	56.45	16	31.79	11	11.76	5	
Active-Reflective	59.24	10	34.40	9	6.36	10	
Enthusiastic-Quiet	61.53	9	29.92	17	8.55	7	
S-N facets							
Concrete-Abstract	58.85	13	35.71	4	5.44	15	
Realistic-Imaginative	63.55	1	31.79	11	4.66	16	
Practical-Conceptual	58.85	13	34.58	8	6.57	9	
Experiential-Theoretical	55.46	17	31.44	14	13.10	4	
Traditional-Original	53.13	19	40.76	2	6.11	11	
T–F facets							
Logical-Empathetic	62.31	6	34.62	7	3.07	18	
Reasonable-Compassionate	62.06	8	35.36	6	2.58	19	
Questioning-Accommodating	48.75	20	42.18	1	9.08	6	
Critical-Accepting	58.95	12	27.52	18	13.53	3	
Tough-Tender	63.41	2	30.63	16	5.97	13	
J–P facets							
Systematic-Casual	62.13	7	31.79	11	6.08	12	
Planful-Open-Ended	63.23	4	30.87	15	5.90	14	
Early Starting-Pressure-Prompted	58.14	15	22.25	20	19.60	1	
Scheduled-Spontaneous	63.37	3	35.64	5	0.99	20	
Methodical-Emergent	59.10	11	23.03	19	17.87	2	

Note: N = 2,831.

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 19.60%, followed by Methodical-Emergent at 17.87%. The Scheduled-Spontaneous facet (0.99%) and the Reasonable-Compassionate facet (2.58%) appear least likely to elicit out-of-preference responses.

Gender differences on the Step II facets in the UK (English) sample are presented in table 29.

CONCLUSION

Initial analyses of the European English versions of the MBTI Global Step I and Step II assessments used in the UK demonstrate that they each have good internal consistency and test-retest reliabilities and are consistent with those of prior forms of the MBTI assessment (i.e., Form M and Form 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-of-preference facet scores is also presented. While more research should be conducted, all these analyses show that the European English versions of the MBTI Global Step I and Step II assessments have adequate reliability and validity and are appropriate for use with individuals in the UK who read and understand European English.

Table 29 | Means, standard deviations, and Cohen's d of the Global Step II[™] facets by total sample and gender: UK (English) sample

	Total s (N = 2	cample 2,831)		en .,344)	Wor (n = 1	Gender difference	
Global Step II [™] facet	М	SD	М	SD	М	SD	Cohen's d
E-I facets							
Initiating-Receiving	0.15	0.92	0.20	0.86	0.12	0.97	0.08
Expressive-Contained	0.12	0.84	0.14	0.78	0.10	0.90	0.04
Gregarious-Intimate	0.07	0.79	0.02	0.79	0.12	0.79	-0.13
Active-Reflective	0.10	0.83	0.12	0.79	0.09	0.86	0.04
Enthusiastic-Quiet	0.16	0.86	0.20	0.82	0.11	0.88	0.10
S-N facets							
Concrete-Abstract	-0.06	0.91	-0.14	0.88	0.02	0.93	-0.18
Realistic-Imaginative	-0.19	0.85	-0.22	0.82	-0.16	0.87	-0.06
Practical-Conceptual	-0.21	0.78	-0.21	0.76	-0.21	0.80	0.00
Experiential-Theoretical	0.04	0.83	0.07	0.82	0.01	0.83	0.07
Traditional-Original	-0.12	0.87	-0.13	0.85	-0.10	0.88	-0.03
T–F facets							
Logical-Empathetic	-0.01	0.86	-0.27	0.78	0.24	0.86	-0.62
Reasonable-Compassionate	0.12	0.86	-0.11	0.82	0.33	0.85	-0.53
Questioning-Accommodating	0.05	0.80	-0.14	0.80	0.22	0.77	-0.46
Critical-Accepting	0.09	0.78	-0.14	0.77	0.30	0.73	-0.59
Tough-Tender	-0.03	0.89	-0.27	0.88	0.19	0.84	-0.54
J-P facets							
Systematic-Casual	0.05	0.92	0.01	0.89	0.09	0.94	-0.09
Planful-Open-Ended	0.09	0.90	0.14	0.86	0.05	0.94	0.10
Early Starting-Pressure-Prompted	0.10	0.80	0.14	0.78	0.07	0.81	0.09
Scheduled-Spontaneous	0.06	0.94	0.10	0.92	0.03	0.96	0.08
Methodical-Emergent	-0.01	0.81	0.06	0.79	-0.07	0.82	0.16

Note: For information on Cohen's d, see note 4, below.

NOTES

- 1. Originally, samples from India (North American English) and Saudi Arabia (Arabic) were collected, but these were later dropped from the global sample due to sample composition and psychometric concerns.
- 2. 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.
- 3. Correlation coefficients 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 guidelines 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).
- 4. 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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