MBTI® MANUAL GLOBAL SUPPLEMENT SERIES



# China (Simplified Chinese) 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.<sup>1</sup> 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<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 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 China (Simplified Chinese) sample—hereafter, Simplified Chinese sample to the Global Step I and Step II assessments translated into Simplified Chinese. 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.

An initial translation of the 93-item MBTI Form M assessment into Chinese using simplified Chinese characters was completed by C. J. Beuke, D. G. Freeman, and S. Wang for CPPAP (formerly Australian Psychologists Press [APP]) for use in a 2006 study on the translated version's reliability and validity (Beuke, Freeman, & Wang, 2006). The assessment used in the study included an additional 15 items thought to be potentially useful and translated by a professional linguist. This 108-item version was evaluated by in-country expert reviewers and iterated until a satisfactory version of the translation

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

was developed. In the study, data were collected from a sample of 100 individuals in Shanghai and analyzed using classical test theory and prediction ratios, and a final set of items was selected. A "best-fit" type study was also included in the project.

The 93-item Form M translation was later used as the basis for the 230-item research form of the MBTI assessment in Chinese using simplified characters. For this global project, the existing 93-item Simplified Chinese version was again reviewed 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.) As MBTI°Complete was not used in collecting the Simplified Chinese 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 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,

Table 2 | Demographic summary: Simplified Chinese sample

	Target	Actual
Demographic	%	%
Age group		
18-24 years	_	22
25-44 years	_	72
45-64 years	_	6
65+ years	_	0
Mean age: 31 years	_	_
Gender		
Female	50	47
Male	50	53
Country of residence		
China—mainland	_	100
Employment status		
Working full-time or part-time (women)	40	38
Working full-time or part-time (men)	40	44
Full-time student (women)	10	9
Full-time student (men)	10	9
No response	_	<1

Note: N = 521. Percentages in a given category may not total 100% due to rounding of decimals.

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 mainland China who read simplified Chinese was obtained from a market research firm. Targets were set based on the populations of mainland China and provided by CPPAP. Table 2 shows the demographic target and actual obtained percentages. The resulting Simplified Chinese sample consists of 521 individuals, 47.0% women and 53.0% men. The age range is 18-60, with an average of 31 years (standard deviation = 7.6). All individuals reported residing in mainland China.

# MBTI® GLOBAL STEP I\* ASSESSMENT RESULTS FOR THE SIMPLIFIED CHINESE 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.

Table 3 | Reported MBTI® type distribution: Simplified Chinese sample

Sen	sing	Intui	tion		
Thinking	Fee	ling	Thinking		
<b>ISTJ</b> <i>n</i> = 96 18.4%	ISFJ n = 21 4.0%	INFJ n = 8 1.8%	<b>INTJ</b> <i>n</i> = 23 4.4%	Judging	Introv
<b>ISTP</b> <i>n</i> = 41 7.9%	<b>ISFP</b> n = 30 5.8%	INFP n = 17 3.3%	INTP n = 25 4.8%	Perceiving	Introversion
<b>ESTP</b> <i>n</i> = 45 8.6%	<b>ESFP</b> <i>n</i> = 15 2.9%	<b>ENFP</b> <i>n</i> = 17 3.3%	<b>ENTP</b> <i>n</i> = 21 4.0%	iving	Extrav
<b>ESTJ</b> <i>n</i> = 94 18.0%	<b>ESFJ</b> n = 23 4.4%	<b>ENFJ</b> n = 22 4.2%	<b>ENTJ</b> <i>n</i> = 23 4.4%	Judging	Extraversion

Note: N = 521.

Table 4 | Reported MBTI° type preference and preference combination distributions: Simplified Chinese sample

Preferences		eferences Orientation pairs		Process pairs			Orientation of energy and perceiving pairs			Judging and external orientation pairs				
	n	%		n	%		n	%		n	%		n	%
Ε	260	49.9	EJ	162	31.1	ST	276	53.0	ES	177	34.0	TJ	236	45.3
1	261	50.1	EP	98	18.8	SF	89	17.1	EN	83	15.9	TP	132	25.3
S	365	70.1	IJ	148	28.4	NF	64	12.3	IS	188	36.1	FJ	74	14.2
N	156	29.9	IP	113	21.7	NT	92	17.7	IN	73	14.0	FP	79	15.2
Т	368	70.6												
F	153	29.4												
J	310	59.5												
Р	211	40.5												

Note: N = 521.

### **MBTI**° Type and Preference Distributions

MBTI type was computed for all participants in the Simplified Chinese 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 ESTJ. The least common types are INFJ and ESFP. As reported in the Technical Brief for the MBTI® Form M and Form Q Assessments—Simplified Chinese (Schaubhut & Thompson, 2010), the most common types in a combined sample of research and

commercial data (N = 169) at that time were ISTJ and ESTJ. The least common types in that sample were ENFJ and ENTP. 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 preferences, Ss are more prevalent than Ns, and Ts more than Fs, while the other preferences are more evenly distributed.

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

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

Ser	ising	Intui	tion		
Thinking	Fee	ling	Thinking		
<b>ISTJ</b> <i>n</i> = 55 19.9%	ISFJ n = 10 3.6%	<b>INFJ</b> n = 4 1.4%	<b>INTJ</b> <i>n</i> = 12 4.3%	Judging	Introv
<b>ISTP</b> <i>n</i> = 27 9.8%	ISFP n = 16 5.8%	INFP n = 7 2.5%	INTP n = 10 3.6%	Perceiving	Introversion
<b>ESTP</b> <i>n</i> = 25 9.1%	<b>ESFP</b> <i>n</i> = 11 4.0%	<b>ENFP</b> <i>n</i> = 10 3.6%	<b>ENTP</b> <i>n</i> = 10 3.6%	iving	Extraversion
<b>ESTJ</b> <i>n</i> = 55 19.9%	<b>ESFJ</b> n = 6 2.2%	<b>ENFJ</b> n = 7 2.5%	<b>ENTJ</b> <i>n</i> = 11 4.0%	Judging	ersion

Note: n = 276.

Table 6 | Reported MBTI° type preference and preference combination distributions for men: Simplified Chinese sample

Preferences		Preferences Orientation pairs			Pr	Process pairs			Orientation of energy and perceiving pairs			Judging and external orientation pairs			
	n	%		n	%		n	%		n	%		n	%	
Е	135	48.9	EJ	79	28.6	ST	162	58.7	ES	97	35.1	TJ	133	48.2	
1	141	51.1	EP	56	20.3	SF	43	15.6	EN	38	13.8	TP	72	26.1	
S	205	74.3	IJ	81	29.3	NF	28	10.1	IS	108	39.1	FJ	27	9.8	
N	71	25.7	IP	60	21.7	NT	43	15.6	IN	33	12.0	FP	44	15.9	
Т	205	74.3													
F	71	25.7													
J	160	58.0													
Р	116	42.0													

Note: n = 276.

# Relationships Between MBTI® Global Step I™ and Form M Preference Pair Results

Correlations between MBTI Global Step I and Form M preference pair results for the Simplified Chinese sample are shown in table 9.3 The overall agreement rate of whole types between the Global Step I and Form M assessments was 69%, 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 continuous scores in the Simplified Chinese sample are shown in table 10 below the diagonal. The highest correlation is between the T-F and J-P preference pairs. The next highest is between S-N and J-P. These correlations are similar to those found for the global sample, shown in table 10 above the diagonal. The Simplified Chinese sample findings are likewise consistent with those reported for Form M in the 1998 MBTI® Manual (Myers et al.).

Table 7 | Reported MBTI\* type distribution for women: Simplified Chinese sample

Ser	ising	Intui	tion		
Thinking	Fee	ling	Thinking		
<b>ISTJ</b> <i>n</i> = 41 16.7%	<b>ISFJ</b> <i>n</i> = 11 4.5%	<b>INFJ</b> n = 4 1.6%	<b>INTJ</b> n = 11 4.5%	Judging	Introv
<b>ISTP</b> <i>n</i> = 14 5.7%	<b>ISFP</b> <i>n</i> = 14 5.7%	INFP n = 10 4.1%	INTP n = 15 6.1%	Perceiving	Introversion
<b>ESTP</b> <i>n</i> = 20 8.2%	<b>ESFP</b> <i>n</i> = 4 1.6%	<b>ENFP</b> n = 7 2.9%	<b>ENTP</b> <i>n</i> = 11 4.5%	iving	Extrav
<b>ESTJ</b> <i>n</i> = 39 15.9%	<b>ESFJ</b> <i>n</i> = 17 6.9%	<b>ENFJ</b> <i>n</i> = 15 6.1%	<b>ENTJ</b> <i>n</i> = 12 4.9%	Judging	Extraversion

Note: n = 245.

Table 8 | Reported MBTI° type preference and preference combination distributions for women: **Simplified Chinese sample** 

Preferences		references Orientation pairs		Pr	Process pairs			Orientation of energy and perceiving pairs			Judging and external orientation pairs			
	n	%		n	%		n	%		n	%		n	%
E	125	51.0	EJ	83	33.9	ST	114	46.5	ES	80	32.7	ТJ	103	42.0
I	120	49.0	EP	42	17.1	SF	46	18.8	EN	45	18.4	TP	60	24.5
S	160	65.3	IJ	67	27.3	NF	36	14.7	IS	80	32.7	FJ	47	19.2
N	85	34.7	IP	53	21.6	NT	49	20.0	IN	40	16.3	FP	35	14.3
Т	163	66.5												
F	82	33.5												
J	150	61.2												
Р	95	38.8												

Note: n = 245.

# Reliability and Validity of Global Step I™ Results

This section covers measurement properties for the Simplified Chinese version of the MBTI Global Step I 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<sup>™</sup> 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

Table 9 | Relationships between MBTI° Global Step I<sup>™</sup> and Form M preference pair results: Simplified Chinese sample

	Global Step I* and Form M preference pair results						
Preference pair	Correlation between continuous scores	Agreement rate (%)					
E-I	.95	90					
S-N	.93	88					
T-F	.97	92					
J-P	.95	93					
Overall agreement ra	te	69					

Note: N = 521.

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 Simplified Chinese sample and for the global sample for comparison purposes. The Simplified Chinese sample alphas range from .74 to .88.

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 Simplified Chinese 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 Simplified Chinese sample. Sixtysix 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

Table 10 | Intercorrelations of Global Step I<sup>™</sup> continuous scores: Simplified Chinese sample

Preference pair	E-I	S-N	T-F	J-P
E-I S-N T-F J-P	14 14 05	20 - .18 .28	15 .27 - .36	15 .48 .23 -

Note: Correlations for the Simplified Chinese sample (N = 521) are below the diagonal; those for the global sample (N = 16,773) are above the

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

		Cronbach's alpha				
Sample	N	E-I	S-N	T-F	J-P	
Simplified Chinese Global	521 16,773	.88 .89		.79 .89	.77 .88	
		Test-	retest	correl	ation	
Sample (interval)	n	E-I	S-N	T-F	J-P	
Simplified Chinese (≤15 weeks)	96	.78	.59	.51	.62	
<b>Global</b> (≤15 weeks)	1,762	.86	.83	.82	.81	
		agı	Test-i		(%)	
Sample (interval)	n	E-I	S-N	T-F	J-P	
Simplified Chinese (≤15 weeks)	96	79	73	60	69	
Global (≤15 weeks)	1,762	84	86	79	79	

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

				of pre		
Sample (interval)	n	4	3	2	1	0
Simplified Chinese (<15 weeks)	96	25	41	26	7	1

examination of convergent and discriminant validity was conducted by analyzing relationships found between the Simplified Chinese translation of the MBTI Global Step I assessment and the Adjective Check List (ACL; Gough & Heilbrun, 1983), as well as those between the Simplified Chinese translation and the CPI 260° assessment (Gough & Bradley, 2005).

**ACL assessment.** A portion of the Simplified Chinese sample participants (n = 92) 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. 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>4</sup>) for MBTI preferences for the Simplified Chinese 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 Simplified Chinese sample (n = 86) 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: **Simplified Chinese sample** 

			ersion	Introve	ersion			
ACL scale	ACL scale description	М	SD	М	SD	Cohen's d		
Sum of number checked	Total number of adjectives checked	65.31	42.47	68.35	36.43	0.08		
Sum of favorable checked	Total number of favorable adjectives checked	30.08	19.32	27.80	19.11	-0.12		
Sum of unfavorable checked	Total number of unfavorable adjectives checked	5.25	7.62	6.48	5.72	0.18		
Communality	An indicator of providing common or similar responses compared to the responses of people in general	5.42	4.57	5.70	4.56	0.06		
Achievement	To strive to be outstanding in pursuits of socially recognized significance	6.54	5.17	5.85	5.60	-0.13		
Dominance	To seek and maintain a role as leader in groups, or to be influential and controlling in individual relationships	2.58	3.74	-0.33	4.15	-0.74		
Endurance	To persist in any task undertaken	5.75	5.30	5.43	6.73	-0.05		
Order	To place special emphasis on neatness, organization, and planning in one's activities	5.69	5.30	6.65	6.49	0.16		
Intraception	To engage in attempts to understand one's behavior or the behavior of others	7.81	5.90	8.10	6.08	0.05		
Nurturance	To engage in behaviors that provide material or emotional benefits to others	7.17	6.11	7.13	6.52	-0.01		
Affiliation	To seek and maintain numerous personal friendships	13.13	8.48	11.25	7.90	-0.23		
Exhibition	To behave in such a way as to elicit the immediate attention of others	1.06	3.11	-2.85	4.07	-1.10		
Autonomy	To act independently of others or of social values and expectations	1.48	3.10	1.10	2.92	-0.13		
Aggression	To engage in behaviors that attack or hurt others	-1.62	2.88	-4.98	4.71	-0.89		
Change	To seek novelty of experience and to avoid routine	1.85	2.51	0.53	3.29	-0.46		
Succorance	To solicit sympathy, affection, or emotional support from others	-1.31	2.50	0.00	3.40	0.45		
Deference	To seek and maintain subordinate roles in relationships with others	0.88	2.27	2.58	3.59	0.58		
Self-Control	To control one's behaviors and emotions	1.19	2.50	2.95	3.57	0.58		
Self-Confidence	Poise, self-assurance, and belief in one's ability to achieve one's goals	5.44	5.09	2.50	4.43	-0.61		
Personal Adjustment	The ability to cope with situational and interpersonal demands, and a feeling of efficacy	5.83	3.58	4.60	4.67	-0.30		
Ideal Self	Strong sense of personal worth; or harmony between what one is and what one wants to be	7.19	6.62	5.75	7.05	-0.21		
Creative Personality	The desire to do and think differently from the norm, and a talent for originality	2.81	3.06	1.08	3.63	-0.52		
Military Leadership	Steadiness, self-discipline, and good judgment of the kind required in positions of military (or related) leadership	5.06	5.14	4.73	5.68	-0.06		
Adult	Attitudes of independence, objectivity, and industriousness associated with the concept of "mature adult"	5.12	4.99	5.60	6.33	0.09		

Note: Extraversion, n = 52; Introversion, n = 40. 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<sup>™</sup> S−N preferences: **Simplified Chinese 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	64.62	38.67	71.00	42.45	0.16
Sum of favorable checked	Total number of favorable adjectives checked	27.75	19.48	32.00	18.42	0.22
Sum of unfavorable checked	Total number of unfavorable adjectives checked	6.06	6.65	5.17	7.33	-0.13
Communality	An indicator of providing common or similar responses compared to the responses of people in general	5.29	4.71	6.10	4.19	0.18
Achievement	To strive to be outstanding in pursuits of socially recognized significance	6.13	5.66	6.48	4.66	0.07
Dominance	To seek and maintain a role as leader in groups, or to be influential and controlling in individual relationships	1.63	4.12	0.62	4.22	-0.24
Endurance	To persist in any task undertaken	5.32	6.07	6.24	5.67	0.16
Order	To place special emphasis on neatness, organization, and planning in one's activities	5.90	5.84	6.55	5.91	0.11
Intraception	To engage in attempts to understand one's behavior or the behavior of others	7.56	6.15	8.76	5.50	0.20
Nurturance	To engage in behaviors that provide material or emotional benefits to others	6.67	6.69	8.21	5.13	0.25
Affiliation	To seek and maintain numerous personal friendships	11.90	8.08	13.21	8.65	0.16
Exhibition	To behave in such a way as to elicit the immediate attention of others	-0.43	4.08	-1.10	3.98	-0.17
Autonomy	To act independently of others or of social values and expectations	1.57	2.98	0.76	3.05	-0.27
Aggression	To engage in behaviors that attack or hurt others	-2.60	4.06	-4.10	4.13	-0.37
Change	To seek novelty of experience and to avoid routine	1.05	2.85	1.76	3.09	0.24
Succorance	To solicit sympathy, affection, or emotional support from others	-0.84	2.85	-0.52	3.29	0.11
Deference	To seek and maintain subordinate roles in relationships with others	1.44	3.10	2.00	2.84	0.18
Self-Control	To control one's behaviors and emotions	1.70	3.06	2.52	3.23	0.26
Self-Confidence	Poise, self-assurance, and belief in one's ability to achieve one's goals	4.14	5.28	4.21	4.45	0.01
Personal Adjustment	The ability to cope with situational and interpersonal demands, and a feeling of efficacy	5.14	4.08	5.62	4.22	0.12
Ideal Self	Strong sense of personal worth; or harmony between what one is and what one wants to be	5.83	7.01	8.17	6.18	0.35
Creative Personality	The desire to do and think differently from the norm, and a talent for originality	2.05	3.53	2.07	3.18	0.01
Military Leadership	Steadiness, self-discipline, and good judgment of the kind required in positions of military (or related) leadership	4.63	5.66	5.52	4.64	0.16
Adult	Attitudes of independence, objectivity, and industriousness associated with the concept of "mature adult"	4.97	5.50	6.10	5.78	0.20

Note: Sensing, n = 63; Intuition, n = 29.

Table 15 | ACL scale means, standard deviations, and Cohen's *d* for Global Step I<sup>™</sup> T−F preferences: **Simplified Chinese sample** 

		Thinl	king	Feel		
ACL scale	ACL scale description	М	SD	М	SD	Cohen's a
Sum of number checked	Total number of adjectives checked	69.10	43.21	62.00	32.51	-0.18
Sum of favorable checked	Total number of favorable adjectives checked	32.30	20.27	23.06	15.41	-0.49
Sum of unfavorable checked	Total number of unfavorable adjectives checked	4.62	6.47	7.97	7.10	0.50
Communality	An indicator of providing common or similar responses compared to the responses of people in general	6.45	4.48	3.84	4.21	-0.59
Achievement	To strive to be outstanding in pursuits of socially recognized significance	7.28	5.57	4.28	4.33	-0.58
Dominance	To seek and maintain a role as leader in groups, or to be influential and controlling in individual relationships	2.22	3.70	-0.38	4.50	-0.65
Endurance	To persist in any task undertaken	7.00	5.93	3.00	5.07	-0.71
Order	To place special emphasis on neatness, organization, and planning in one's activities	7.33	6.10	3.81	4.55	-0.63
Intraception	To engage in attempts to understand one's behavior or the behavior of others	9.05	6.05	5.84	5.24	-0.55
Nurturance	To engage in behaviors that provide material or emotional benefits to others	8.12	6.15	5.34	6.15	-0.45
Affiliation	To seek and maintain numerous personal friendships	13.60	8.81	9.91	6.51	-0.46
Exhibition	To behave in such a way as to elicit the immediate attention of others	-0.42	3.79	-1.06	4.50	-0.16
Autonomy	To act independently of others or of social values and expectations	1.27	2.91	1.41	3.23	0.05
Aggression	To engage in behaviors that attack or hurt others	-2.97	3.53	-3.28	5.10	-0.08
Change	To seek novelty of experience and to avoid routine	1.37	2.58	1.09	3.53	-0.09
Succorance	To solicit sympathy, affection, or emotional support from others	-1.43	2.48	0.56	3.42	0.70
Deference	To seek and maintain subordinate roles in relationships with others	1.75	2.45	1.38	3.90	-0.12
Self-Control	To control one's behaviors and emotions	2.15	2.95	1.59	3.43	-0.18
Self-Confidence	Poise, self-assurance, and belief in one's ability to achieve one's goals	5.20	4.90	2.22	4.68	-0.62
Personal Adjustment	The ability to cope with situational and interpersonal demands, and a feeling of efficacy	6.12	4.04	3.75	3.84	-0.60
Ideal Self	Strong sense of personal worth; or harmony between what one is and what one wants to be	8.00	6.83	3.88	6.00	-0.63
Creative Personality	The desire to do and think differently from the norm, and a talent for originality	2.48	3.51	1.25	3.10	-0.37
Military Leadership	Steadiness, self-discipline, and good judgment of the kind required in positions of military (or related) leadership	5.85	5.23	3.16	5.20	-0.52
Adult	Attitudes of independence, objectivity, and industriousness associated with the concept of "mature adult"	6.65	5.65	2.84	4.58	-0.72

Note: Thinking, n = 60; Feeling, n = 32.

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

		Judg	jing	Perce	iving	
ACL scale	ACL scale description	М	SD	М	SD	Cohen's a
Sum of number checked	Total number of adjectives checked	68.80	41.10	63.55	38.14	-0.13
Sum of favorable checked	Total number of favorable adjectives checked	32.07	20.10	24.84	17.09	-0.38
Sum of unfavorable checked	Total number of unfavorable adjectives checked	4.50	5.96	7.61	7.65	0.46
Communality	An indicator of providing common or similar responses compared to the responses of people in general	4.64	3.89	3.88	-0.65	
Achievement	To strive to be outstanding in pursuits of socially recognized significance	7.00	5.76	5.16	4.55	-0.35
Dominance	To seek and maintain a role as leader in groups, or to be influential and controlling in individual relationships	1.50	4.47	1.05	3.72	-0.11
Endurance	To persist in any task undertaken	6.78	5.97	3.95	5.54	-0.49
Order	To place special emphasis on neatness, organization, and planning in one's activities	7.31	5.94	4.39	5.29	-0.51
Intraception	To engage in attempts to understand one's behavior or the behavior of others	8.72	6.27	6.82	5.34	-0.32
Nurturance	To engage in behaviors that provide material or emotional benefits to others	8.28	6.41	5.55	5.74	-0.44
Affiliation	To seek and maintain numerous personal friendships	13.57	8.41	10.53	7.75	-0.37
Exhibition	To behave in such a way as to elicit the immediate attention of others	-1.09	4.06	0.00	3.97	0.27
Autonomy	To act independently of others or of social values and expectations	0.67	2.46	2.24	3.48	0.54
Aggression	To engage in behaviors that attack or hurt others	-3.63	3.68	-2.29	4.60	0.33
Change	To seek novelty of experience and to avoid routine	1.33	2.71	1.18	3.26	-0.05
Succorance	To solicit sympathy, affection, or emotional support from others	-1.15	2.90	-0.16	3.04	0.34
Deference	To seek and maintain subordinate roles in relationships with others	2.15	2.57	0.87	3.47	-0.43
Self-Control	To control one's behaviors and emotions	2.70	2.74	0.89	3.34	-0.60
Self-Confidence	Poise, self-assurance, and belief in one's ability to achieve one's goals	4.59	5.48	3.55	4.25	-0.21
Personal Adjustment	The ability to cope with situational and interpersonal demands, and a feeling of efficacy	6.11	4.39	4.13	3.41	-0.49
Ideal Self	Strong sense of personal worth; or harmony between what one is and what one wants to be	7.76	6.75	4.87	6.62	-0.43
Creative Personality	The desire to do and think differently from the norm, and a talent for originality	2.09	3.59	2.00	3.17	-0.03
Military Leadership	Steadiness, self-discipline, and good judgment of the kind required in positions of military (or related) leadership	6.13	5.39	3.18	4.86	-0.57
Adult	Attitudes of independence, objectivity, and industriousness associated with the concept of "mature adult"	6.70	5.35	3.37	5.38	-0.62

Note: Judging, n = 54; Perceiving, n = 38.

Table 17 | CPI 260° scale means, standard deviations, and Cohen's d for Global Step I" E–I preferences: Simplified Chinese 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	23.37	6.13	15.73	5.64	-1.29
Capacity for Status (Cs)	Ambition for challenge and social status	15.89	3.71	10.73	3.27	-1.47
Sociability (Sy)	Social participation	17.07	4.45	11.73	4.12	-1.24
Social Presence (Sp)	Poise and comfort with attention and recognition	18.59	3.79	15.48	3.43	-0.86
Self-acceptance (Sa)	Sense of personal worth and self-confidence	14.78	3.35	11.43	3.16	-1.03
Independence (In)	Self-sufficiency and self-directedness	14.39	4.34	11.10	3.78	-0.80
Empathy (Em)	Capacity to understand and respond to others' needs	15.43	2.71	11.75	2.73	-1.35
Responsibility (Re)	Conscientiousness and follow-through	14.50	3.80	13.55	3.15	-0.27
Social Conformity (So)	Conformance with social norms and customs	18.80	5.17	18.00	4.85	-0.16
Self-control (Sc)	Cautiousness and self-regulation	11.74	3.62	13.13	4.56	0.34
Good Impression (Gi)	Tact and positive self-presentation	14.07	4.80	12.18	3.58	-0.44
Communality (Cm)	Conventional behavior and attitudes	16.52	3.15	16.50	3.02	-0.01
Well-being (Wb)	Overall sense of health and optimism	13.00	4.56	10.53	3.71	-0.59
Tolerance (To)	Open-mindedness and respect for others	10.04	4.60	7.53	4.08	-0.58
Achievement via Conformance (Ac)	Motivation within organized settings	19.91	4.66	18.53	4.04	-0.32
Achievement via Independence (Ai)	Motivation within unstructured settings	13.30	3.95	11.13	3.74	-0.57
Conceptual Fluency (Cf)	Comfort with intellectual and conceptual matters	19.15	4.98	16.33	4.40	-0.60
Insightfulness (Is)	Analytical insight into the motivations of others	12.39	3.14	11.20	3.26	-0.37
Flexibility (Fx)	Adaptability and comfort with change	5.28	2.09	5.10	2.91	-0.07
Sensitivity (Sn)	Tough- versus tender-mindedness	10.89	2.56	14.33	2.58	1.34
Managerial Potential (Mp)	Inclination for supervisory responsibilities	4.09	2.87	8.65	4.82	1.17
Work Orientation (Wo)	Sense of dedication to work	16.30	2.81	15.50	3.01	-0.28
Creative Temperament (Ct)	Individualization and capacity for innovativeness	11.37	5.60	8.53	4.56	-0.55
Leadership (Lp)	Initiative and effectiveness in leading others	14.67	4.03	10.78	3.25	-1.06
Amicability (Ami)	Cooperation and friendliness	13.28	4.79	12.35	3.76	-0.21
Law Enforcement Orientation (Leo)	Conventional and practical values	13.22	3.19	10.23	3.56	-0.89
Vector 1 (v.1)	Extraversion versus introversion	26.33	7.10	19.60	6.30	-1.00
Vector 2 (v.2)	Rule-following versus rule-questioning	15.57	5.37	13.65	4.88	-0.37
Vector 3 (v.3)	Fulfillment of personal potential	17.13	3.40	16.20	2.79	-0.30

Note: Extraversion, n = 46; Introversion, n = 40. 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<sup>™</sup> S−N preferences: **Simplified Chinese 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	19.69	7.78	20.07	5.09	0.05	
Capacity for Status (Cs)	Ambition for challenge and social status	13.00	4.47	14.56	3.93	0.36	
Sociability (Sy)	Social participation	14.19	5.42	15.44	4.06	0.25	
Social Presence (Sp)	Poise and comfort with attention and recognition	16.73	4.25	18.04	2.98	0.34	
Self-acceptance (Sa)	Sense of personal worth and self-confidence	13.07	3.96	13.56	2.93	0.13	
Independence (In)	Self-sufficiency and self-directedness	12.88	4.27	12.81	4.73	-0.02	
Empathy (Em)	Capacity to understand and respond to others' needs	13.19	3.52	14.89	2.33	0.53	
Responsibility (Re)	Conscientiousness and follow-through	14.14	3.39	13.89	3.88	-0.07	
Social Conformity (So)	Conformance with social norms and customs	18.64	4.69	17.96	5.72	-0.14	
Self-control (Sc)	Cautiousness and self-regulation	12.36	3.92	12.44	4.61	0.02	
Good Impression (Gi)	Tact and positive self-presentation	12.92	4.07	13.78	4.97	0.20	
Communality (Cm)	Conventional behavior and attitudes	16.54	2.84	16.44	3.60	-0.03	
Well-being (Wb)	Overall sense of health and optimism	11.69	4.32	12.19	4.45	0.11	
Tolerance (To)	Open-mindedness and respect for others	8.46	4.52	9.78	4.48	0.29	
Achievement via Conformance (Ac)	Motivation within organized settings	19.14	4.17	19.56	4.96	0.09	
Achievement via Independence (Ai)	Motivation within unstructured settings	11.98	3.89	12.96	4.18	0.25	
Conceptual Fluency (Cf)	Comfort with intellectual and conceptual matters	17.36	4.62	18.89	5.40	0.31	
Insightfulness (Is)	Analytical insight into the motivations of others	11.64	2.98	12.26	3.75	0.19	
Flexibility (Fx)	Adaptability and comfort with change	5.12	2.59	5.37	2.31	0.10	
Sensitivity (Sn)	Tough- versus tender-mindedness	12.53	3.28	12.41	2.63	-0.04	
Managerial Potential (Mp)	Inclination for supervisory responsibilities	12.54	4.15	13.56	4.17	0.24	
Work Orientation (Wo)	Sense of dedication to work	12.44	4.01	13.74	4.96	0.30	
Creative Temperament (Ct)	Individualization and capacity for innovativeness	11.49	3.79	12.56	3.33	0.29	
Leadership (Lp)	Initiative and effectiveness in leading others	22.93	7.60	23.78	7.39	0.11	
Amicability (Ami)	Cooperation and friendliness	14.25	5.02	15.59	5.58	0.26	
Law Enforcement Orientation (Leo)	Conventional and practical values	16.71	3.12	16.67	3.27	-0.01	
Vector 1 (v.1)	Extraversion versus introversion	6.53	4.91	5.52	3.43	-0.22	
Vector 2 (v.2)	Rule-following versus rule-questioning	15.81	3.14	16.19	2.39	0.13	
Vector 3 (v.3)	Fulfillment of personal potential	9.54	5.29	11.15	5.27	0.30	

Note: Sensing, n = 59; Intuition, n = 27.

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

		Think	king	Feeli		
CPI 260° scale	CPI 260° scale description	М	SD	М	SD	Cohen's d
Dominance (Do)	Prosocial interpersonal power and influence	20.51	6.92	18.30	7.11	-0.32
Capacity for Status (Cs)	Ambition for challenge and social status	13.92	4.24	12.56	4.51	-0.31
Sociability (Sy)	Social participation	15.03	5.06	13.59	4.96	-0.29
Social Presence (Sp)	Poise and comfort with attention and recognition	17.78	3.63	15.74	4.26	-0.53
Self-acceptance (Sa)	Sense of personal worth and self-confidence	13.42	3.82	12.78	3.30	-0.18
Independence (In)	Self-sufficiency and self-directedness	13.36	4.55	11.78	3.89	-0.36
Empathy (Em)	Capacity to understand and respond to others' needs	13.66	3.31	13.85	3.25	0.06
Responsibility (Re)	Conscientiousness and follow-through	14.59	3.60	12.89	3.12	-0.49
Social Conformity (So)	Conformance with social norms and customs	19.02	4.89	17.15	5.13	-0.38
Self-control (Sc)	Cautiousness and self-regulation	12.66	4.20	11.78	3.95	-0.21
Good Impression (Gi)	Tact and positive self-presentation	13.54	4.33	12.41	4.40	-0.26
Communality (Cm)	Conventional behavior and attitudes	16.88	2.92	15.70	3.29	-0.39
Well-being (Wb)	Overall sense of health and optimism	12.41	4.44	10.63	3.93	-0.41
Tolerance (To)	Open-mindedness and respect for others	9.44	4.50	7.63	4.40	-0.41
Achievement via Conformance (Ac)	Motivation within organized settings	19.83	4.44	18.04	4.16	-0.41
Achievement via Independence (Ai)	Motivation within unstructured settings	12.69	4.05	11.41	3.75	-0.32
Conceptual Fluency (Cf)	Comfort with intellectual and conceptual matters	18.69	4.75	15.96	4.79	-0.57
Insightfulness (Is)	Analytical insight into the motivations of others	12.36	3.00	10.70	3.47	-0.52
Flexibility (Fx)	Adaptability and comfort with change	4.85	2.10	5.96	3.09	0.46
Sensitivity (Sn)	Tough- versus tender-mindedness	12.31	2.93	12.89	3.40	0.19
Managerial Potential (Mp)	Inclination for supervisory responsibilities	13.58	4.10	11.30	3.91	-0.56
Work Orientation (Wo)	Sense of dedication to work	13.17	4.48	12.15	4.00	-0.24
Creative Temperament (Ct)	Individualization and capacity for innovativeness	11.90	3.66	11.67	3.75	-0.06
Leadership (Lp)	Initiative and effectiveness in leading others	24.34	7.34	20.70	7.36	-0.49
Amicability (Ami)	Cooperation and friendliness	15.15	5.39	13.63	4.69	-0.29
Law Enforcement Orientation (Leo)	Conventional and practical values	17.02	3.17	16.00	3.05	-0.32
Vector 1 (v.1)	Extraversion versus introversion	6.27	4.49	6.07	4.62	-0.04
Vector 2 (v.2)	Rule-following versus rule-questioning	16.02	2.94	15.74	2.92	-0.09
Vector 3 (v.3)	Fulfillment of personal potential	10.46	5.08	9.15	5.78	-0.25

Note: Thinking, n = 59; Feeling, n = 27.

Table 20 | CPI 260° scale means, standard deviations, and Cohen's *d* for Global Step I<sup>™</sup> J−P preferences: **Simplified Chinese 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	21.39	7.11	17.73	6.40	-0.54
Capacity for Status (Cs)	Ambition for challenge and social status	14.65	4.62	11.95	3.45	-0.65
Sociability (Sy)	Social participation	16.10	5.26	12.57	3.99	-0.74
Social Presence (Sp)	Poise and comfort with attention and recognition	18.12	4.18	15.84	3.18	-0.60
Self-acceptance (Sa)	Sense of personal worth and self-confidence	13.92	3.84	12.30	3.21	-0.45
Independence (In)	Self-sufficiency and self-directedness	14.33	3.99	10.92	4.18	-0.84
Empathy (Em)	Capacity to understand and respond to others' needs	14.18	3.69	13.11	2.56	-0.33
Responsibility (Re)	Conscientiousness and follow-through	15.65	2.94	11.95	3.13	-1.23
Social Conformity (So)	Conformance with social norms and customs	20.53	4.43	15.65	4.38	-1.11
Self-control (Sc)	Cautiousness and self-regulation	13.94	3.48	10.32	4.03	-0.97
Good Impression (Gi)	Tact and positive self-presentation	14.98	3.93	10.81	3.76	-1.08
Communality (Cm)	Conventional behavior and attitudes	17.43	2.77	15.30	3.07	-0.73
Well-being (Wb)	Overall sense of health and optimism	13.96	3.74	9.05	3.43	-1.36
Tolerance (To)	Open-mindedness and respect for others	10.59	4.34	6.59	3.71	-0.98
Achievement via Conformance (Ac)	Motivation within organized settings	21.24	3.87	16.65	3.69	-1.21
Achievement via Independence (Ai)	Motivation within unstructured settings	13.94	3.69	10.11	3.27	-1.09
Conceptual Fluency (Cf)	Comfort with intellectual and conceptual matters	19.94	4.41	15.05	4.10	-1.14
Insightfulness (Is)	Analytical insight into the motivations of others	13.24	2.88	9.97	2.70	-1.17
Flexibility (Fx)	Adaptability and comfort with change	5.02	2.32	5.43	2.71	0.16
Sensitivity (Sn)	Tough- versus tender-mindedness	12.06	3.20	13.05	2.85	0.32
Managerial Potential (Mp)	Inclination for supervisory responsibilities	14.61	4.19	10.54	2.77	-1.12
Work Orientation (Wo)	Sense of dedication to work	15.00	3.43	10.00	3.76	-1.40
Creative Temperament (Ct)	Individualization and capacity for innovativeness	12.65	3.70	10.73	3.36	-0.54
Leadership (Lp)	Initiative and effectiveness in leading others	25.98	7.29	19.51	6.12	-0.95
Amicability (Ami)	Cooperation and friendliness	16.96	4.86	11.65	3.98	-1.18
Law Enforcement Orientation (Leo)	Conventional and practical values	17.94	2.74	15.05	2.92	-1.02
Vector 1 (v.1)	Extraversion versus introversion	6.69	4.74	5.57	4.15	-0.25
Vector 2 (v.2)	Rule-following versus rule-questioning	16.67	2.52	14.95	3.14	-0.62
Vector 3 (v.3)	Fulfillment of personal potential	12.02	4.65	7.43	5.04	-0.95

Note: Judging, n = 49; Perceiving, n = 37.

# MBTI® GLOBAL STEP II™ ASSESSMENT RESULTS FOR THE SIMPLIFIED CHINESE 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<sup>™</sup> facet results: Simplified Chinese sample

	Correlation betw	een continuous score
Global Step II" facet	Global Step II <sup>™</sup> and Form Q facet results	Global Step II" and European Step II" facet results
E-I facets		
Initiating-Receiving	.95	.94
Expressive-Contained	.98	.92
Gregarious-Intimate	.97	.98
Active-Reflective	.87	.85
Enthusiastic-Quiet	.98	.97
S-N facets		
Concrete-Abstract	.91	.88
Realistic-Imaginative	.99	.99
Practical-Conceptual	.81	.83
Experiential-Theoretical	.87	.95
Traditional-Original	.94	.92
T–F facets		
Logical-Empathetic	.90	.90
Reasonable – Compassionate	.87	.95
Questioning – Accommodating	.45	.71
Critical-Accepting	.74	.74
Tough-Tender	.95	.93
J-P facets		
Systematic-Casual	.88	.96
Planful-Open-Ended	.94	.95
Early Starting – Pressure-Prompted	.89	.90
Scheduled- Spontaneous	.91	.87
Methodical–Emergent	.94	.78

Note: N = 521.

# 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 Simplified Chinese sample.

### 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 Simplified Chinese translation 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<sup>™</sup> Assessments (Myers et al., 2018).

### RELIABILITY

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

### VALIDITY

Reported here as evidence of the validity of the Simplified Chinese 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. 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 Simplified Chinese 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

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

Global Step II <sup>™</sup> facet	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	<b>17</b> .	18.	19.	20.
E-I facets																				
1. Initiating-Receiving	_																			
2. Expressive-Contained	.63	_																		
3. Gregarious-Intimate	.68	.61	_																	
4. Active-Reflective	.70	.61	.62	_																
5. Enthusiastic-Quiet	.59	.55	.58	.56	_															
S-N facets																				
6. Concrete-Abstract	12	.00	08	07	09	_														
7. Realistic-Imaginative	18	07	14	14	17	.52	_													
8. Practical-Conceptual	20	06	19	08	25	.43	.53	_												
9. Experiential–Theoretical	.12	.11	.11	.08	.18	.18	.21	01	_											
10. Traditional-Original	16	01	17	10	24	.47	.42	.57	.02	_										
T–F facets																				
11. Logical–Empathetic	08	13	10	14	09	.15	.27	.03	.04	.01	_									
12. Reasonable–Compassionate	12	15	14	17	05	.13	.21	03	.12	02	.64	_								
13. Questioning-Accommodating	04	14	05	06	01	06	.09	07	.05	29	.33	.33	_							
14. Critical–Accepting	28	30	29	25	34	.08	.20	.15	06	.07	.37	.37	.59	_						
15. Tough–Tender	07	12	03	.01	06	.06	.13	.08	07	02	.37	.41	.54	.52	_					
J–P facets																				
16. Systematic–Casual	.10	.11	.11	05	.02	.28	.31	.08	.14	.24	.43	.33	.03	.14	.10	_				
17. Planful-Open-Ended	.11	.12	.14	.04	.13	.13	.18	03	.14	.03	.31	.22	.09	.07	.05	.53	_			
18. Early Starting-Pressure-Prompted	.08	.08	.05	04	.09	.13	.14	06	.19	03	.12	.14	.05	01	02	.30	.44	_		
19. Scheduled-Spontaneous	.11	.10	.13	06	.09	.22	.29	.03	.27	.11	.34	.31	.07	.07	.02	.67	.61	.41	_	
20. Methodical–Emergent	.14	.10	.16	.01	.13	.08	.07	10	.11	09	.25	.20	.14	.06	.09	.48	.51	.41	.55	_

Note: N = 521.

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

Global Step II" facet	Cronbach's alpha	Test-retest correlation
E-I facets		
Initiating-Receiving	.71	.65
Expressive-Contained	.66	.63
Gregarious-Intimate	.66	.64
Active-Reflective	.69	.66
Enthusiastic-Quiet	.66	.60
S-N facets		
Concrete-Abstract	.45	.47
Realistic-Imaginative	.57	.58
Practical-Conceptual	.69	.57
Experiential-Theoretical	.51	.41
Traditional-Original	.65	.51
T–F facets		
Logical-Empathetic	.67	.53
Reasonable-Compassionate	.62	.46
Questioning-Accommodating	.48	.33
Critical-Accepting	.39	.43
Tough-Tender	.51	.29
J-P facets		
Systematic-Casual	.67	.53
Planful-Open-Ended	.55	.46
Early Starting-Pressure-Prompted	.49	.48
Scheduled-Spontaneous	.67	.57
Methodical-Emergent	.54	.41

Note: N = 521; test-retest, n = 96.

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

Preference	Number of out-of-preference facet scores (%)													
pair	0	1	2	3	4	5								
E-I	70	25	5	<1	0	0								
S-N	50	38	11	1	0	0								
T-F	63	26	9	2	0	0								
J-P	61	29	9	1	<1	0								

Note: N = 521.

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, 2001, p. 104). The Simplified Chinese sample correlations are comparable to those reported in the MBTI® Step II™ Manual (Quenk et al., 2001) and the MBTI® Step II®

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

		Prefere	nce pair	
Global Step II" facet	E-I	S-N	T-F	J-P
E-I facets				
Initiating-Receiving	.85	15	12	.15
Expressive-Contained	.79	01	17	.14
Gregarious-Intimate	.80	14	12	.16
Active-Reflective	.84	11	15	01
Enthusiastic-Quiet	.76	21	10	.11
S-N facets				
Concrete-Abstract	08	.76	.17	.21
Realistic-Imaginative	16	.78	.27	.27
Practical-Conceptual	16	.70	.03	.02
Experiential-Theoretical	.11	.32	.09	.22
Traditional-Original	14	.71	01	.12
T–F facets				
Logical-Empathetic	12	.19	.85	.38
Reasonable – Compassionate	16	.15	.83	.31
Questioning – Accommodating	05	05	.50	.07
Critical – Accepting	32	.15	.53	.09
Tough-Tender	04	.08	.62	.06
J-P facets				
Systematic-Casual	.05	.34	.40	.79
Planful-Open-Ended	.11	.17	.26	.79
Early Starting –	.04	.12	.11	.53
Pressure-Prompted				
Scheduled-Spontaneous	.05	.29	.33	.90
Methodical-Emergent	.11	.05	.22	.64

Note: N = 521.

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 Simplified Chinese 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.

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\*

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

							ACL sca	ıle					
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	.00	34	.01	.11	06	05	40	21	.16	.18	25	14	10
Expressive-Contained	.01	44	08	.02	15	17	54	22	.24	.31	36	23	25
Gregarious-Intimate	02	38	07	.10	10	11	45	26	.25	.30	31	20	20
Active-Reflective	.01	39	03	.07	07	12	50	20	.21	.27	32	14	18
Enthusiastic-Quiet	11	50	17	06	24	20	39	14	.08	.10	39	32	21
S-N facet scales													
Concrete-Abstract	11	10	08	08	07	11	.02	.12	13	14	11	15	.06
Realistic-Imaginative	.12	04	.12	.13	.21	.17	09	.11	.05	.13	.07	.09	.14
Practical-Conceptual	.16	.02	.23	.19	.23	.21	07	.05	.12	.09	.18	.21	.25
Experiential-Theoretical	21	24	16	09	14	11	.07	06	12	13	19	17	07
Traditional-Original	.27	.28	.24	.17	.22	.20	.17	.26	.01	03	.35	.23	.28
T–F facet scales													
Logical–Empathetic	26	36	27	26	15	20	13	07	.02	.04	31	28	18
Reasonable-Compassionate	26	26	31	25	16	19	05	07	.01	06	24	24	15
Questioning-Accommodating	15	23	18	11	05	13	17	22	.11	.07	19	14	25
Critical-Accepting	05	.03	07	08	.06	02	.04	15	.13	.02	04	.05	14
Tough-Tender	13	19	18	18	02	05	09	11	.05	.03	14	09	02
J-P facet scales													
Systematic-Casual	20	15	26	24	17	17	.02	.07	08	19	14	23	08
Planful-Open-Ended	26	12	20	26	20	21	04	.03	11	14	12	28	01
Early Starting-Pressure-Prompted	30	.05	28	30	25	17	.35	.21	36	38	02	18	05
Scheduled-Spontaneous	31	16	36	32	26	23	.07	.13	25	27	20	30	09
Methodical-Emergent	22	11	25	28	28	20	.04	.12	24	21	14	25	11

Note: n = 92.

Manual (Quenk et al., 2001) and the MBTI<sup>®</sup> Step II<sup>®</sup> Manual, European Edition (Quenk et al., 2004).

**CPI 260° assessment.** Correlations between the Global Step II facets and CPI 260 scales for the Simplified Chinese 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<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 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 Simplified Chinese 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

Table 27 | Correlations between Global Step II" facets and CPI 260° scales: Simplified Chinese sample

														CPI	260° s	cale													
Global Step II" 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	51	63	59	43	53	34	56	20	13	.12	27	03	32	27	20	26	31	21	.03	.44	46	20	29	47	25	24	.51	28	2
Expressive-Contained	46	54	52	36	42	32	49	28	27	01	33	09	41	34	28	29	34	26	.01	.46	47	27	27	46	36	23	.37	29	3
Gregarious-Intimate	53	64	59	42	49	36	54	24	22	.03	31	08	39	30	25	39	34	34	07	.46	47	21	37	51	29	23	.45	28	3
Active-Reflective	49	63	54	45	46	24	61	04	.02	.32	12	.11	20	21	06	21	23	18	09	.46	41	05	33	39	11	05	.65	16	2
Enthusiastic-Quiet	58	62	66	55	54	49	58	30	22	.08	27	17	39	32	32	43	43	36	07	.56	54	25	44	59	35	34	.46	25	3
S–N facet scales																													
Concrete-Abstract	06	05	05	13	04	17	.08	21	27	16	13	17	18	09	21	18	11	09	.09	.12	10	16	06	12	18	11	09	11	1
Realistic-Imaginative	04	.12	.05	.07	.04	10	.25	08	13	.03	.05	11	03	.08	04	.13	.02	.02	.30	.12	.01	.04	.20	01	.00	06	07	09	.0
Practical-Conceptual	.13	.22	.26	.18	.21	.18	.35	.15	.13	.15	.20	.09	.22	.28	.15	.32	.29	.24	.23	10	.29	.26	.37	.20	.26	.20	03	05	.2
Experiential-Theoretical	32	25	33	21	26	30	22	31	27	14	30	28	35	29	36	26	33	26	10	.18	38	30	29	38	30	40	.12	12	3
Traditional-Original	.24	.35	.31	.21	.30	.26	.41	.17	.11	.08	.20	.02	.27	.30	.18	.32	.30	.29	.15	20	.31	.21	.37	.32	.20	.20	15	02	.2
T–F facet scales																													
Logical-Empathetic	02	02	08	13	.00	11	.01	19	15	15	14	13	20	13	20	10	22	13	.29	.06	18	17	.01	11	17	07	13	12	1
Reasonable – Compassionate	09	09	10	16	06	28	.01	18	16	24	14	21	23	22	22	15	25	20	.16	.14	27	21	10	21	20	23	21	03	1
Questioning – Accommodating	29	10	21	17	30	27	16	11	02	.06	.10	10	11	04	08	13	21	06	.07	.26	14	.05	25	26	.08	20	.10	.01	.(
Critical-Accepting	.11	.25	.18	.17	.12	.10	.12	.04	.08	02	.18	.11	.16	.19	.11	.10	.06	.20	.06	11	.18	.20	.11	.15	.24	.04	15	.11	
Tough-Tender	08	.05	05	08	14	04	05	.08	.14	.07	.11	.09	.12	.07	.04	.03	04	.04	.13	.08	02	.10	02	01	.16	03	.00	.13	.0
J-P facet scales																													
Systematic-Casual	25	30	34	32	22	40	16	52	50	34	43	25	53	39	50	37	45	40	.27	.23	46	49	15	43	51	33	05	43	<b>−</b> .∠
Planful-Open-Ended	17	26	24	24	10	33	13	42	42	35	34	35	46	42	55	43	44	41	.06	.16	38	51	25	31	47	39	18	23	3
Early Starting— Pressure-Prompted	16	09	15	08	09	37	.02	53	54	52	39	56	49	39	56	33	44	43	.10	.04	32	53	23	40	44	46	29	39	3
Scheduled-Spontaneous	34	33	39	32	26	51	14	58	57	45	44	49	64	52	60	46	54	55	.21	.28	54	57	31	52	61	51	12	43	4
Methodical-Emergent	32																												

Note: n = 86.

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

	In-pre	ference	Mid	zone	Out-of-preference			
Global Step II* facet	%	Rank	%	Rank	%	Rank		
E-I facets								
Initiating-Receiving	48.75	14	48.18	4	3.07	17		
Expressive-Contained	49.71	12	43.95	8	6.33	15		
Gregarious-Intimate	60.46	2	29.94	16	9.60	7		
Active-Reflective	65.07	1	26.87	20	8.06	11		
Enthusiastic-Quiet	51.06	9	39.54	12	9.40	8		
S-N facets								
Concrete-Abstract	41.65	17	55.47	1	2.88	18		
Realistic-Imaginative	49.90	11	42.42	9	7.68	12		
Practical-Conceptual	49.14	13	27.06	19	23.80	1		
Experiential-Theoretical	40.69	18	40.12	11	19.19	3		
Traditional-Original	39.35	19	51.44	2	9.21	9		
T–F facets								
Logical-Empathetic	50.29	10	47.41	6	2.30	19		
Reasonable-Compassionate	54.51	6	40.69	10	4.80	16		
Questioning-Accommodating	30.52	20	48.18	4	21.31	2		
Critical-Accepting	46.07	15	39.35	13	14.59	5		
Tough-Tender	43.95	16	48.94	3	7.10	14		
J-P facets								
Systematic-Casual	57.39	5	33.59	14	9.02	10		
Planful-Open-Ended	58.73	4	33.59	14	7.68	12		
Early Starting-Pressure-Prompted	52.02	8	29.75	17	18.23	4		
Scheduled-Spontaneous	53.74	7	45.11	7	1.15	20		
Methodical-Emergent	59.50	3	27.26	18	13.24	6		

Note: N = 521.

out-of-preference. Here, the facet with the highest percentage of out-of-preference scores is Practical-Conceptual at 23.80%, followed by Questioning-Accommodating at 21.31%. The Scheduled–Spontaneous facet (1.15%) and the Logical-Empathetic facet (2.30%) appear least likely to elicit out-of-preference responses.

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

### **CONCLUSION**

Initial analyses of the Simplified Chinese translations of the MBTI Global Step I and Step II assessments 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 Simplified Chinese translations of the MBTI Global Step I and Step II assessments have adequate reliability and validity and are appropriate for use with individuals in China who read and understand Simplified Chinese.

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

	Total s (N =		(n =		<b>Wor</b> (n =	Gender difference	
Global Step II <sup>™</sup> facet	М	SD	М	SD	М	SD	Cohen's a
E-I facets							
Initiating-Receiving	0.09	0.69	0.12	0.69	0.05	0.70	0.10
Expressive-Contained	-0.10	0.76	-0.05	0.76	-0.16	0.74	0.14
Gregarious-Intimate	-0.27	0.80	-0.25	0.82	-0.30	0.78	0.06
Active-Reflective	-0.04	0.88	-0.01	0.87	-0.07	0.89	0.08
Enthusiastic-Quiet	0.01	0.77	0.06	0.76	-0.05	0.78	0.14
S-N facets							
Concrete-Abstract	-0.24	0.58	-0.31	0.56	-0.16	0.59	-0.26
Realistic-Imaginative	-0.05	0.71	-0.10	0.69	0.01	0.72	-0.17
Practical-Conceptual	0.16	0.83	0.06	0.85	0.27	0.79	-0.27
Experiential-Theoretical	-0.21	0.70	-0.17	0.69	-0.26	0.71	0.12
Traditional-Original	-0.12	0.73	-0.11	0.73	-0.12	0.73	0.02
T–F facets							
Logical-Empathetic	-0.18	0.69	-0.23	0.70	-0.13	0.68	-0.14
Reasonable-Compassionate	-0.44	0.68	-0.45	0.69	-0.42	0.67	-0.05
Questioning-Accommodating	0.24	0.68	0.13	0.69	0.37	0.65	-0.36
Critical-Accepting	-0.39	0.68	-0.48	0.67	-0.28	0.69	-0.31
Tough–Tender	-0.19	0.62	-0.26	0.63	-0.10	0.60	-0.26
J-P facets							
Systematic-Casual	-0.50	0.73	-0.57	0.69	-0.43	0.77	-0.20
Planful-Open-Ended	-0.38	0.58	-0.37	0.59	-0.39	0.58	0.05
Early Starting-Pressure-Prompted	-0.03	0.68	-0.03	0.64	-0.03	0.73	0.00
Scheduled-Spontaneous	-0.07	0.72	-0.10	0.72	-0.05	0.71	-0.07
Methodical-Emergent	-0.12	0.71	-0.15	0.69	-0.08	0.73	-0.10

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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