

Technical Brief for the

MBTI[®] FORM M and FORM Q ASSESSMENTS

Hebrew

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INTRODUCTION

The *Myers-Briggs Type Indicator*[®] (MBTI[®]) instrument is one of the most commonly used personality assessments in the world. Because administration of the assessment outside the United States is growing rapidly, new translations are continually being developed for use in specific regions. This technical brief summarizes the measurement properties of the MBTI Form M and Form Q assessments with a sample of Israelis who read Hebrew. To that end, it examines the reliability of the MBTI Form M and Form Q assessments, reports on type distribution in the sample, and provides comparisons with the U.S. National Representative Sample (NRS) to examine similarities and differences between the groups.

THE MBTI® ASSESSMENT

The MBTI assessment uses a typology composed of four pairs of opposite preferences, called *dichotomies*:

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

The MBTI assessment combines an individual's four preferences—one preference from each dichotomy, denoted by its letter—to yield one of the 16 possible personality types (e.g., ESTJ, INFP, etc.). Each type is equally valuable, and an individual inherently belongs to one of the 16 types. This model differentiates the MBTI assessment from most other personality instruments, which typically assess personality traits. Traitbased instruments measure how much of a certain characteristic people possess. Unlike the MBTI assessment, those instruments usually consider one "end" of a trait to be more positive and the other to be more negative.

HEBREW SAMPLE

The Hebrew translation of the MBTI assessments was completed following CPP's standard translation process based on industry-standard methods for assessment translation (International Test Commission, 2005). The 230-item research version of the MBTI assessment was first translated into Hebrew using a double forward process, in which two independent professional translators each developed a translation of the assessment separately. Next, the two translations were evaluated by in-country MBTI experts who also are literate in Hebrew. The translations were combined and then reviewed by a translation professional and the in-country experts. All translated content was reviewed by the linguist as well as in-country expert reviewers, iteratively, until an agreed-upon translation was developed.

Sample Description

The Hebrew translation was used to collect data in Israel, with the help of the in-country distributor. The sample is composed of 465 individuals who each completed the adapted 230-item global research version of the MBTI assessment, which includes all the current commercial versions of the MBTI assessment (the Form M, Form Q, and European Step I^{M} and Step II^{M} assessments), in Hebrew. The sample includes 60% women and 39% men (1% did not report gender). Respondents' ages ranged from 16 to 77 years (mean = 38.0, SD = 11.0). Of the sample, 85% were employed full-time or part-time, 5% were students, 2% were retired, 1% were not working for income, and 7% responded "none of the above" or did not provide their current employment status. Of those who were employed and reported organizational level, 29% were management, 29% entry level, 26% supervisory, 14% executive, and 2% nonsupervisory. Of those who were employed and reported their general line of work, 21% were working in business and financial operations; 16% in life, physical, and social sciences; 15% in education, training, and library occupations; 8% in computer and mathematical occupations; 6% in architecture and engineering; and the remainder in various fields. A demographic summary of this sample is presented in Table 1.

TABLE 1. DEMOGRAPHIC SUMMARY OF THE HEBREW SAMPLE

Demographic	Sample %	Demographic	Sample %	
Age		General Line of Work		
Mean age	38 yrs	Business and financial operations	19	
Gender		Life, physical, and social sciences	14	
Female	60	Education, training, and library	13	
Male	39	Computer and mathematical	7	
No response	1	Architecture and engineering	6	
Employment Status		Community and social services	6	
Working full-time	76	Transportation and materials moving	5	
Working part-time	9	Office and administrative support	4	
Retired	2	Personal care and personal service	4	
Enrolled as full-time student	5	Legal	3	
None of the above	5	Sales and related	3	
No response	2	Healthcare support	2	
	2	Food preparation and food service	1	
	22	Healthcare practitioner and technical	1	
Entry level	23	No response	13	
Nonsupervisory	2	Country of Residence		
Supervisory	21	Israel	100	
Management	23		100	
Executive	11			
Top executive	0			
No response	20			

Note: N = 465. Percentages in a given category may not total 100% due to rounding of decimals.

Table 2 includes the number and percentage of respondents of each type in the sample. As shown, the most frequently occurring type for this sample is ESTJ (17.0%), followed by ISTJ (16.8%). The least common types are ISFP (1.7%) and ESFP (2.6%). Self-selection ratios (SSRs) were computed by comparing the percentage of each type in the Hebrew sample to that in the U.S. National Representative Sample (Myers, McCaulley, Quenk, & Hammer, 1998). In this sample, ENTJs are more than four times more prevalent than in the U.S. population, whereas ISFPs are less common in the Hebrew sample than in the U.S. sample.



Note: N = 465.

Type distributions for women and men in the Hebrew sample are presented in Tables 3 and 4. The tables show that the most common types for both women and men are ISTJ and ESTJ. The least common types for women are ISFP and ISTP, while for men they are ISFP, ESFP, INFJ, and ENFJ.



Note: n = 277.

Table 5 shows the number and percentage of respondents for each preference in the Hebrew sample as a whole and separately for each gender. Also included for reference are the number and percentage of respondents for each preference in the U.S. National Representative Sample (Myers et al., 1998).



Note: n = 183.

RELIABILITY OF THE FORM M PREFERENCES

The internal consistency reliabilities (Cronbach's alphas) for the Hebrew sample and the U.S. National

Representative Sample (NRS) are reported in Table 6. The reliabilities of the four dichotomies are good for the Hebrew sample and are very similar to those reported in the *MBTI*[®] *Manual* (Myers et al., 1998).

TABLE 5. MBTI® PREFERENCE DISTRIBUTIONS FOR THE HEBREW SAMPLE AND THE U.S. NATIONAL REPRESENTATIVE SAMPLE (NRS)								THE	
	Hebrew (<i>N</i> =	Hebrew Sample (N = 465)		U.S. NRS* (<i>N</i> = 3,009)		Hebrew Sample: Women (<i>n</i> = 277)		Hebrew Sample: Men (<i>n</i> = 183)	
Preference	n	%	n	%	n	%	n	%	
Extraversion (E)	264	56.8	1,483	49.3	162	58.5	98	53.6	
Introversion (I)	201	43.2	1,526	50.7	115	41.5	85	46.4	
Sensing (S)	289	62.2	2,206	73.3	167	60.3	119	65.0	
Intuition (N)	176	37.8	803	26.7	110	39.7	64	35.0	
Thinking (T)	304	65.4	1,210	40.2	149	53.8	153	83.6	
Feeling (F)	161	34.6	1,799	59.8	128	46.2	30	16.4	
Judging (J)	315	67.7	1,629	54.1	188	67.9	123	67.2	
Perceiving (P)	150	32.3	1,380	45.9	89	32.1	60	32.8	

*Source: Myers, McCaulley, Quenk, & Hammer (1998).

FACTOR ANALYSIS

Several studies have conducted confirmatory factor analyses of the MBTI assessment to assess the validity of the factors of the MBTI assessment. They have indicated that a four-factor model, such as the one theorized and developed by Myers, is the most appropriate and offers the best fit (Harvey, Murry, & Stamoulis, 1995; Johnson & Saunders, 1990). A principal components exploratory factor analysis with varimax rotation was conducted using the item responses from the Hebrew sample. The results are presented in Table 7. The shaded cells indicate that factor 1 is S–N, factor 2 is E–I, factor 3 is T–F, and factor 4 is J–P. The four-factor structure produced by this analysis shows that the Hebrew MBTI Form M items are measuring their intended constructs, the four dichotomies.

RELIABILITY OF THE FORM Q FACETS

The MBTI Form Q assessment includes the 93 items that make up the MBTI Form M assessment (measuring the four dichotomies, E–I, S–N, T–F, and J–P) plus another 51 items that are used only to measure

the Form Q facets. For each of the four dichotomies there are five facets (see Table 8), yielding a total of 20 facets. These facets help describe some of the ways in which each preference can be different for each individual to create a richer and more detailed description of an individual's behavior. The remaining analyses focus on the evaluation of the Form Q facets.

TABLE 6. MBTI[®] DICHOTOMY INTERNAL CONSISTENCY RELIABILITIES FOR THE HEBREW SAMPLE AND THE U.S. NRS

	Cronbach's Alpha			
Dichotomy	Hebrew Sample	U.S. NRS*		
Extraversion–Introversion	.90	.91		
Sensing–Intuition	.89	.92		
Thinking–Feeling	.88	.91		
Judging–Perceiving	.88	.92		

*Source: Myers, McCaulley, Quenk, & Hammer (1998).

TABLE 7. FACTOR ANALYSIS ROTATED COMPONENT MATRIX FOR THE HEBREW SAMPLE									
ltem Code	Factor 1 (S–N)	Factor 2 (E–I)	Factor 3 (T–F)	Factor 4 (J–P)	ltem Code	Factor 1 (S–N)	Factor 2 (E–I)	Factor 3 (T–F)	Factor 4 (J–P)
EI1	05	.54	05	07	SN16	.46	17	.16	.14
EI2	.00	.59	.01	.07	SN17	.42	.01	.23	.04
EI3	07	.43	05	.05	SN18	.46	.02	.12	.07
EI4	.07	.65	.03	.10	SN19	.51	02	07	.13
EI5	03	.57	.05	.08	SN20	.64	07	.13	.20
EI6	05	.65	.06	02	SN21	.58	.05	.14	.08
EI7	08	.59	03	.04	SN22	.41	17	.05	.19
EI8	11	.65	02	07	SN23	.40	19	11	.04
E19	17	.47	18	.06	SN24	.62	15	12	.17
EI10	06	.42	.04	06	SN25	.54	.04	.12	01
EI11	14	.61	05	01	SN26	.22	.06	26	.15
EI12	07	.60	.04	.00	TF1	.06	17	.43	.13
EI13	10	.45	14	.00	TF2	.17	.00	.55	.10
EI14	.00	.53	01	.01	TF3	.14	12	.65	.10
EI15	01	.63	.04	.02	TF4	12	.18	.52	02
EI16	.03	.47	.03	.05	TF5	.04	01	.42	.21
EI17	05	.68	02	06	TF6	.16	.03	.60	.01
EI18	.12	.57	14	.11	TF7	01	02	.53	.07
EI19	04	.62	.06	02	TF8	.24	04	.54	.06
EI20	03	.59	.04	03	TF9	09	.08	.47	05
EI21	01	.71	.10	.04	TF10	.03	.06	.34	.13
SN1	.49	.04	.13	.10	TF11	07	.02	.51	11
SN2	.50	03	.18	.20	TF12	05	.06	.44	.11
SN3	.56	04	01	.19	TF13	.45	22	.20	.22
SN4	.39	01	05	.12	TF14	.29	12	.52	.11
SN5	.54	07	05	.25	TF15	.14	.02	.64	.08
SN6	.41	05	06	.12	TF16	.13	13	.32	09
SN7	.30	05	27	.18	TF17	.01	18	.60	03
SN8	.48	.09	.22	.09	TF18	.21	08	.57	.07
SN9	.67	12	.05	.04	TF19	02	02	.62	02
SN10	.29	08	.02	.02	TF20	.12	07	.57	06
SN11	.47	.13	.07	.13	TF21	.01	.06	.60	01
SN12	.56	.07	.08	.12	TF22	.15	.01	.45	12
SN13	.67	07	.05	.06	TF23	01	.10	.50	.08
SN14	.60	11	.18	.15	TF24	.05	.07	.40	.01
SN15	.49	10	.01	.02					(cont'd)

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TABLE 7. FACTOR ANALYSIS ROTATED COMPONENT MATRIXFOR THE HEBREW SAMPLE (CONT'D)									
ltem Code	Factor 1 (S–N)	Factor 2 (E–I)	Factor 3 (T–F)	Factor 4 (J–P)	ltem Code	Factor 1 (S–N)	Factor 2 (E–I)	Factor 3 (T–F)	Factor 4 (J–P)
JP1	.13	.08	03	.53	JP12	.11	10	.27	.31
JP2	.05	.04	06	.52	JP13	.34	06	01	.53
JP3	.07	.01	.06	.67	JP14	.27	11	.13	.55
JP4	.14	.14	.20	.48	JP15	.10	.04	09	.54
JP5	.10	.08	06	.37	JP16	.07	.02	.12	.67
JP6	.06	09	05	.42	JP17	.07	.09	.00	.46
JP7	.12	.03	01	.54	JP18	.20	10	.00	.65
JP8	.10	.03	.03	.58	JP19	.03	.10	04	.60
JP9	.17	01	.10	.56	JP20	.13	.08	.10	.51
JP10	.24	12	.17	.53	JP21	.03	.01	.03	.58
JP11	.09	04	.21	.38	JP22	.14	.01	.04	.51

Note: N = 465.

Internal consistency reliabilities for each facet are reported in Table 8 for the Hebrew sample and the U.S. National Representative Sample. The Hebrew sample alphas range from .10 (Questioning–Accommodating) to .78 (Expressive-Contained, Realistic-Imaginative, and Logical-Empathetic). The alpha for Questioning-Accommodating is particularly low (.10), which could indicate that this particular facet may not work well in Hebrew populations and should therefore be interpreted with caution. Overall, some of this sample's alphas are slightly lower than those of the U.S. National Representative Sample. This is consistent with the reliabilities that have been found for international samples and translations of the MBTI Form Q (or Step II[™] for Europe) assessment (Quenk, Hammer, & Majors, 2004; Schaubhut, 2008; Schaubhut & Thompson, 2010a; Schaubhut & Thompson, 2010b; Schaubhut & Thompson, 2011a; Schaubhut & Thompson, 2011b; Schaubhut & Thompson, 2012; Schaubhut & Thompson, 2013; Schaubhut & Thompson, 2016a; Schaubhut & Thompson, 2016b). Reliabilities for nine other translations can be found in the $MBTI^{\circledast}$ Step II^{m} Manual, European edition (Quenk et al., 2004).

CONCLUSION

The analyses reported here with an initial Hebrew sample demonstrate that the translation and measurement properties of the assessment are adequate. Therefore, the MBTI Forms M and Q can be widely used with individuals in Israel who read Hebrew. As the MBTI assessment continues to grow, larger and more diverse samples will become available and the measurement properties of the MBTI Forms M and Q will continue to be evaluated.

TABLE 8. MBTI® FORM Q FACET INTERNAL CONSISTENCY RELIABILITIES FOR THE HEBREW SAMPLE AND THE U.S. NRS

	Cronbach's Alpha				
Form Q Facets	Hebrew Sample	U.S. NRS*			
E–I Facets					
Initiating–Receiving	.77	.85			
Expressive–Contained	.78	.79			
Gregarious-Intimate	.73	.60			
Active-Reflective	.56	.59			
Enthusiastic–Quiet	.62	.72			
S–N Facets					
Concrete–Abstract	.66	.81			
Realistic–Imaginative	.78	.79			
Practical–Conceptual	.39	.67			
Experiential–Theoretical	.71	.83			
Traditional–Original	.67	.76			
T–F Facets					
Logical–Empathetic	.78	.80			
Reasonable-Compassionate	.71	.77			
Questioning-Accommodating	.10	.57			
Critical–Accepting	.42	.60			
Tough–Tender	.75	.81			
J-P Facets					
Systematic–Casual	.73	.74			
Planful–Open-Ended	.73	.82			
Early Starting–Pressure-Prompte	ed .71	.70			
Scheduled–Spontaneous	.75	.82			
Methodical-Emergent	.64	.71			

*Source: Myers, McCaulley, Quenk, & Hammer (1998).

REFERENCES

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