Technical Brief for the STRONG INTEREST INVENTORY® ASSESSMENT

Singapore

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With text incorporated from the *Strong Interest Inventory® Manual,* by David A. C. Donnay, Michael L. Morris, Nancy A. Schaubhut, and Richard C. Thompson

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INTRODUCTION

The *Strong Interest Inventory*® (Strong) assessment is one of the most widely used career planning tools, helping high school and college students, as well as people in transition, make fulfilling career choices. Because the instrument is so widely used, the publisher, CPP, Inc., continues to develop translations for use in specific regions as well as to evaluate the use of North American English versions in countries or cultures where such use may be successful. This technical brief summarizes the measurement properties of the Strong assessment for a sample of English speakers in Singapore, including reliability coefficients for key measures, and correlations among Strong scales. Comparisons to the U.S. General Representative Sample (GRS) are made and similarities and differences between samples are examined. Readers are encouraged to use this document in conjunction with the *Strong Interest Inventory*® *Manual* (Donnay, Morris, Schaubhut, & Thompson, 2005) as well as the *International Technical Brief for the Strong Interest Inventory*® *Assessment* (Herk & Thompson, 2011).

The Strong assessment helps individuals match their interests with different occupational, educational, and leisure pursuits. It compares clients' level of interest on a wide range of familiar items with the interests of people who are successfully employed in different occupations. The information provided by the Strong can be used to help clients make sound educational and career decisions.

The five main types of information provided by the Strong assessment are

- General Occupational Theme (GOT) scores
- Basic Interest Scale (BIS) scores
- Occupational Scale (OS) scores
- Personal Style Scale (PSS) scores
- Administrative indexes

SINGAPORE SAMPLE DESCRIPTION

The Singapore sample is composed of 264 individuals—134 women and 130 men—who completed the Strong assessment in North American English. Respondents' ages ranged from 18 to 63 years (M = 31.80, SD = 10.89). In the sample, 59.5% were employed full-time, 7.2% were employed part-time, 32.2% were students, and 1.1% did not provide their current employment status. The organizational levels of those who were employed and reported organizational level (n = 157) were as follows: 30.6% entry level, 17.2% non-supervisory, 24.8% supervisory, 22.9% management, and 4.5% executive. All respondents reported their country of origin or residence as Singapore. The sample was obtained through the use of a third-party market research firm, sampling individuals who met CPP's criteria for inclusion. Participants were compensated for their participation.

INTERNATIONAL RESEARCH ON THE STRONG ASSESSMENT

A number of studies have examined the "cultural validity" of the Strong assessment. Essentially, these studies have assessed whether the underlying theories of the instrument adequately explain the results for racial/ethnic groups (Fouad & Mohler, 2004). Much of this research has focused primarily on Holland's (1959) typology, as measured by the GOTs. Studies have revealed mixed results. For example, in a literature review conducted by Carter and Swanson (1990), it was found that African Americans scored lower than Caucasians on the Realistic and Investigative Themes and higher on the Social, Enterprising, and Conventional Themes. Researchers (Park & Harrison, 1995; Sue & Kirk, 1972, 1973) have also found that Asian Americans scored higher on Realistic, Investigative, and Conventional Themes when compared to Caucasians. Studies by Goh, Lee, and Yu (2004) and Goh and Yu (2001) found slight differences on Holland's typology when looking at Chinese samples as well.

In contrast, however, Fouad, Harmon, and Borgen (1997) found that RIASEC Themes were similar across Asian American, African American, Hispanic American, and Caucasian samples. Other studies by Fouad also support the notion that minimal differences exist on Strong assessment scales; specifically, Fouad (2002) found minimal differences on the GOTs, and Fouad and Mohler (2004) found minimal differences on both the GOTs and BISs across various ethnic groups. Davison Aviles and Spokane (1999) also determined that significant differences did not exist on Holland

Themes across Hispanic, African American, and Caucasian middle school students; although they did find differences in the manner in which students expressed their interests. Evidence supporting Holland's model, as measured by the Strong assessment, has also been found in Icelandic (Einarsdóttir, Rounds, Ægisdóttir, & Gerstein, 2002), Native Hawaiian (Oliver & Waehler, 2005), and Korean (Tak, 2004) samples. Finally, in examining the criterion-related validity of the RIASEC Themes, Lattimore and Borgen (1999) found that the Strong assessment predicted occupational membership relatively similar for African American, Asian American, Caucasian American, Hispanic American, and Native American adults.

A 2011 research initiative by Herk and Thompson, the *International Technical Brief for the Strong Interest Inventory® Assessment,* examined the measurement properties of Strong translations in samples whose native languages included European English, French, German, Latin American Spanish, and European Spanish. Normative data, internal reliability, and correlations between Strong scales were evaluated. Results suggested that the assessment functioned well in translated languages with results similar to those in the GRS from the United States. As reported in the brief, the consistency of results shows that the Strong can be used as a cross-cultural measure.

This technical brief provides the results of analyses examining potential differences for a sample of English speakers born or living in Singapore. Results have been arranged according to scale or type of information provided by the Strong assessment.

GENERAL OCCUPATIONAL THEMES

The General Occupational Themes (GOTs)—developed from the work of the Strong assessment author, E. K. Strong, Jr., and vocational theorist John L. Holland—are scales that reflect an individual's overall orientation to work. Using Holland's classification system, the GOTs describe an individual's interests, work activities, potential skills, and personal values in six broad areas: Realistic (R), Investigative (I), Artistic (A), Social (S), Enterprising (E), and Conventional (C). Generally speaking, a person's interests are reflected by two or three of these Themes, combined to form a cluster of interests.

INTERPRETATION OF THE GOTs

The definitions of the GOTs, presented below, were derived in part from the work of several authors, including Holland (1973), Hansen and Campbell (1985), Gottfredson and Holland (1989), and Hansen (1992). Please refer to the *Strong Interest Inventory® Manual* (Donnay et al., 2005) for more detail on the theoretical foundation of the GOTs.

Realistic (R) Theme: Building, Repairing, Working Outdoors

People who score high on the Realistic Theme like activities, jobs, and coworkers who represent interest areas such as mechanical, construction, and repair activities; nature and the outdoors; and adventurous, physical activities. They enjoy working with tools, machines, and equipment, including computers and computer networks. They are interested in action rather than thought and prefer concrete problems to ambiguous, abstract problems. On the five Strong Personal Style Scales (PSSs), they tend to score toward the "Takes chances" pole of the Risk Taking scale and toward the "Works with ideas/data/things" pole of the Work Style scale (see pp. 50–51 for descriptions of these and the other PSSs).

Investigative (I) Theme: Researching, Analyzing, Inquiring

People who score high on the Investigative Theme have a strong scientific, inquiring orientation. They enjoy gathering information, uncovering new facts or theories, and analyzing and interpreting data. They tend to be most comfortable in academic or research environments and often pursue advanced degrees. They dislike selling and repetitive activities. They tend to score toward the "Works with ideas/data/things" pole of the Work Style scale and toward the "Academic" pole of the Learning Environment scale. The I theme is weakly related to the "Directs others" pole of the Leadership Style scale and toward the "Accomplishes tasks as a team" pole of the Team Orientation scale, indicating that Investigative people will work with others on group projects.

Artistic (A) Theme: Creating or Enjoying Art, Drama, Music, Writing

People who score high on the Artistic Theme value aesthetic qualities and have a need for self-expression. This Theme can be expressed by those who enjoy creating art or engaging in or viewing the arts. Artistic types frequently express their artistic interests in leisure or recreational activities as well as in vocational activities or environments. With their typical verbal-linguistic bent, they tend to be comfortable in academic or intellectual environments, as reflected in their Learning Environment scores. The spectrum of the A Theme spans the visual arts, the performing arts (e.g., music and drama), the culinary arts, and writing.

Social (S) Theme: Helping, Instructing, Caregiving

People who score high on the Social Theme, unlike the first three Themes in the RIASEC hexagon, like to work with people: they enjoy working in groups, sharing responsibilities, and being the center of attention. Central characteristics are helping, nurturing, and caring for others, plus teaching and instructing, especially of young people. Social types like to solve problems through discussions of feelings and interactions with others. They may also enjoy working with people through leading, directing, and persuading. People with high Social Theme scores tend to score toward the "Works with people" pole of the Work Style scale, the "Directs others" pole of the Leadership Style scale, and the "Accomplishes tasks as a team" pole of the Team Orientation scale.

Enterprising (E) Theme: Selling, Managing, Persuading

People who score high on the Enterprising Theme are verbally facile in selling and leading. They seek positions of leadership, power, and status. They enjoy working with other people and leading them toward organizational goals and economic success. The E Theme is clearly linked with a Work Style of working with people, a Team Orientation of preferring team-based activities, and a Leadership Style of directing others. Enterprising people like to take financial and interpersonal risks and to participate in competitive activities. They are quite different from I types (opposite on the RIASEC hexagon) and tend to dislike scientific activities and long periods of intellectual effort. Scientists (e.g., physicists, biologists, mathematicians, geologists, and chemists) score low on the E Theme, reflecting that they have little interest in selling, leading, or working with people.

Conventional (C) Theme: Accounting, Organizing, Processing Data

People who score high on the Conventional Theme especially like activities that require attention to organization, data systems, detail, and accuracy. They often enjoy mathematics and data management activities, such as accounting and investment management. Like those who score high on Enterprising, they work well in large organizations, but unlike Enterprising people they do not show a distinct preference for working with people over working with ideas or data.

SINGAPORE SAMPLE NORMS OF THE GOT SCALES

The standardized scores for each of the six Themes are presented in Table 1. Means, standard deviations, and interpretive categories are listed for women and men. Standardized scores and interpretive categories were derived using the 2004 GRS. Refer to the *Strong Interest Inventory® Manual* (Donnay et al., 2005) for a description of this sample.

Means and standard deviations for the Singapore sample were relatively similar to those reported for the GRS. Individuals in the Singapore sample scored slightly higher than those included in the GRS. Women and men in the Singapore sample tended to have higher scores on the Conventional scale than did those in the GRS.

TABLE 1. GOT MEANS, STANDARD DEVIATIONS, AND INTERPRETIVE BOUNDARIES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

				Standard Score Boundaries				
				Very Little	Little	Average	High	Very High
Theme	Gender	*M*	*SD*	(0–10)	(11–25)	(26–75)	(76–90)	(91–100)
Realistic	Women	49.37	8.37	30–34	35–38	39–51	52–56	57–87
	Men	56.76	8.15	30–43	44–50	51–61	62–66	67–87
Investigative	Women	50.75	8.87	26–35	36–41	42–56	57–62	63–78
	Men	53.84	8.54	26–38	39–45	46–58	59–64	65–78
Artistic	Women	52.39	7.42	26–37	38–44	45–59	60–64	65–76
	Men	52.25	8.58	26–36	37–42	43–56	57–62	63–76
Social	Women	54.77	9.30	23–39	40–46	47–59	60–65	66–83
	Men	55.17	9.21	23–35	36–41	42–55	56–60	61–83
Enterprising	Women	52.27	9.13	21–37	38–42	43–56	57–62	63–80
	Men	53.71	9.18	21–37	38–43	44–58	59–64	65–80
Conventional	Women	55.09	9.81	27–35	36–42	43–57	58–64	65–90
	Men	58.98	9.67	27–38	39–44	45–57	58–63	64–90

Note: N = 264 (134 women and 130 men). Numbers in parentheses under categories are percentiles.

RELIABILITY OF THE GOT SCALES

Cronbach's alpha was used to examine the reliability of the GOTs. Results are presented in Table 2. GOT alphas ranged from .92 to .94, with a median of .93. This is similar to the median GOT alpha of .92 reported in the Strong manual.

TABLE 2. GOT RELIABILITY STATISTICS IN THE SINGAPORE SAMPLE

Theme	Cronbach's Alpha
Realistic	.93
Investigative	.92
Artistic	.94
Social	.93
Enterprising	.92
Conventional	.93

Note: $N = 264$.

VALIDITY OF THE GOT SCALES

The convergent validity of the GOTs was examined by assessing the relationships between the GOT scales (i.e., the intercorrelations between the six scales), as well as the relationships between the GOT scales and the other scales of the Strong assessment (e.g., the correlations between the GOTs and the OSs). The following sections present these findings.

Intercorrelations Between the GOTs

Tables 3 and 4 show the intercorrelations between each of the six GOTs. These correlations are shown for all individuals in Table 3 and separately by gender in Table 4. As shown, the largest correlations are between the Artistic and Social scales and the Social and Enterprising scales for the overall sample. In looking at the samples by gender, we see that these scales also had the largest correlations for both women and men.

TABLE 3. INTERCORRELATIONS BETWEEN THE GOTs IN THE SINGAPORE SAMPLE

Theme	Realistic	Investigative	Artistic	Social	Enterprising	Conventional
Realistic	—	.65	.57	.51	.48	.62
Investigative	.65	—	.57	.57	.41	.60
Artistic	.57	.57	—	.73	.67	.52
Social	.51	.57	.73	—	.76	.63
Enterprising	.48	.41	.67	.76	—	.62
Conventional	.62	.60	.52	.63	.62	—

Note: $N = 264$.

TABLE 4. INTERCORRELATIONS BETWEEN THE GOTs FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Theme	Realistic	Investigative	Artistic	Social	Enterprising	Conventional
Realistic	—	.60	.54	.51	.44	.60
Investigative	.69	—	.43	.51	.34	.48
Artistic	.72	.73	—	.68	.63	.40
Social	.59	.66	.78	—	.73	.60
Enterprising	.55	.47	.70	.79	—	.59
Conventional	.61	.70	.65	.68	.65	—

Note: $N = 264$. For correlations above the diagonal, women $n = 134$; below the diagonal, men $n = 130$.

While intercorrelations between GOTs tended to be larger for women and men in the Singapore sample than in the GRS, the pattern of relationships and trends was similar. For example, the strongest relationships for both women and men in both samples were between the Social and Artistic scales. The largest difference between the Singapore sample and the GRS for women was the relationship between the Conventional and Artistic scales, and for men it was between the Realistic and Artistic scales.

Relationship Between the GOTs and the OSs

The GOTs can provide a global view of an individual's occupational orientation. It is expected that people with common interests and preferences for similar work environments might subsequently choose similar jobs. Thus, when correlating the GOTs with the Occupational Scales (OSs), certain relationships are expected. Tables 5–10 illustrate the relationship between the GOTs and the OSs for each of the six Themes. The 10 OSs with the strongest relationship, as well as the 10 OSs with the weakest relationship, are presented for women and men.

Results indicate that the patterns of relationships commonly found between the GOTs and OSs were found in the Singapore sample as well. For instance, women in both the GRS and Singapore sample who scored high on the Investigative Theme scored highest on the Science Teacher OS. Additionally, men in the GRS and in the Singapore sample who scored high on the Realistic Theme scored high on the Firefighter OS.

TABLE 5. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN REALISTIC THEME AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Engineering Technician	.88	Firefighter	.87
Firefighter	.88	Computer & IS Manager	.83
Technical Support Specialist	.82	Engineer	.83
Military Officer	.81	Network Administrator	.82
Network Administrator	.80	Software Developer	.81
Computer Programmer	.78	Technical Support Specialist	.80
Engineer	.77	Computer Systems Analyst	.79
Law Enforcement Officer	.76	Computer/Mathematics Manager	.79
Military Enlisted	.75	Respiratory Therapist	.76
Chiropractor	.75	Military Officer	.76
Mental Health Counselor	–.17	Advertising Account Manager	–.17
Medical Illustrator	–.20	Automobile Mechanic	–.19
Musician	–.21	Landscape/Grounds Manager	–.19
Farmer/Rancher	–.26	Restaurant Manager	–.28
Production Worker	–.27	Musician	–.28
Photographer	–.30	Graphic Designer	–.31
Advertising Account Manager	–.41	Interior Designer	–.36
Financial Analyst	–.43	Biologist	–.44
Buyer	–.55	Artist	–.49
Artist	–.58	Farmer/Rancher	–.58

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 6. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN INVESTIGATIVE THEME AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Science Teacher	.88	Optometrist	.87
Chiropractor	.85	Science Teacher	.85
Optometrist	.84	Respiratory Therapist	.84
Pharmacist	.84	Psychologist	.84
Registered Nurse	.83	Engineer	.84
Dentist	.82	Medical Technologist	.82
University Faculty Member	.82	Pharmacist	.82
Geographer	.81	Dentist	.82
Engineer	.80	University Faculty Member	.79
Engineering Technician	.76	Chiropractor	.79
Interior Designer	–.25	Buyer	–.30
Financial Analyst	–.31	Optician	–.32
Paralegal	–.34	Florist	–.39
Production Worker	–.38	Interior Designer	–.43
Florist	–.40	Automobile Mechanic	–.43
Photographer	–.42	Landscape/Grounds Manager	–.44
Farmer/Rancher	–.50	Artist	–.45
Artist	–.58	Law Enforcement Officer	–.50
Advertising Account Manager	–.61	Restaurant Manager	–.53
Buyer	–.63	Farmer/Rancher	–.62

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 7. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN ARTISTIC THEME AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Editor	.93	Arts/Entertainment Manager	.94
ESL Instructor	.89	Editor	.92
English Teacher	.88	English Teacher	.89
Arts/Entertainment Manager	.88	Urban & Regional Planner	.86
Technical Writer	.83	Secondary School Teacher	.85
Graphic Designer	.80	Instructional Coordinator	.85
Instructional Coordinator	.80	Attorney	.83
Technical Sales Representative	.76	Public Administrator	.83
Religious/Spiritual Leader	.75	Chiropractor	.82
Urban & Regional Planner	.75	Rehabilitation Counselor	.82
Medical Illustrator	–.08	Law Enforcement Officer	–.42
Mathematician	–.12	Optician	–.43
Buyer	–.12	Military Enlisted	–.44
Physician	–.20	Electrician	–.45
Radiologic Technologist	–.23	Landscape/Grounds Manager	–.47
Artist	–.42	Emergency Medical Technician	–.47
Medical Technician	–.47	Radiologic Technologist	–.50
Farmer/Rancher	–.58	Biologist	–.55
Financial Analyst	–.62	Automobile Mechanic	–.72
Production Worker	–.78	Farmer/Rancher	–.90

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 8. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN SOCIAL THEME AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Elementary School Teacher	.90	Community Service Director	.92
Rehabilitation Counselor	.90	Secondary School Teacher	.92
Secondary School Teacher	.89	Middle School Teacher	.92
Religious/Spiritual Leader	.88	Elementary School Teacher	.92
School Counselor	.87	Religious/Spiritual Leader	.91
Middle School Teacher	.86	Rehabilitation Counselor	.90
Social Worker	.85	Instructional Coordinator	.89
Special Education Teacher	.84	Recreation Therapist	.87
Instructional Coordinator	.84	School Counselor	.86
University Administrator	.82	University Administrator	.86
Physician	–.13	Military Enlisted	–.36
Advertising Account Manager	–.15	Radiologic Technologist	–.38
R&D Manager	–.19	Electrician	–.39
Photographer	–.22	Law Enforcement Officer	–.41
Medical Technician	–.34	Landscape/Grounds Manager	–.47
Farmer/Rancher	–.35	Geologist	–.55
Financial Analyst	–.38	Biologist	–.59
Production Worker	–.42	Automobile Mechanic	–.63
Medical Illustrator	–.48	Artist	–.64
Artist	–.72	Farmer/Rancher	–.75

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 9. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN ENTERPRISING THEME AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Wholesale Sales Representative	.92	Wholesale Sales Representative	.92
Realtor	.92	Technical Sales Representative	.91
Securities Sales Agent	.90	Securities Sales Agent	.91
Sales Manager	.90	Sales Manager	.90
Restaurant Manager	.88	Operations Manager	.89
Personal Financial Advisor	.88	Purchasing Agent	.88
Technical Sales Representative	.88	Marketing Manager	.88
Operations Manager	.87	Top Executive, Business/Finance	.88
Top Executive, Business/Finance	.86	Loan Officer/Counselor	.88
Marketing Manager	.86	Personal Financial Advisor	.87
Mathematician	–.27	Electrician	–.38
Geologist	–.27	Landscape/Grounds Manager	–.38
Biologist	–.28	Forester	–.41
Farmer/Rancher	–.36	Radiologic Technologist	–.42
Radiologic Technologist	–.40	Automobile Mechanic	–.55
Production Worker	–.41	Mathematician	–.63
Physician	–.48	Farmer/Rancher	–.68
Medical Illustrator	–.52	Artist	–.70
Medical Technician	–.57	Geologist	–.75
Artist	–.69	Biologist	–.83

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 10. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN CONVENTIONAL THEME AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Auditor	.83	Auditor	.88
Accountant	.83	Accountant	.87
Credit Manager	.79	Financial Manager	.84
Administrative Assistant	.79	Customer Service Representative	.84
Financial Manager	.77	Business/Finance Supervisor	.82
Customer Service Representative	.77	Health Information Specialist	.81
Business/Finance Supervisor	.75	Financial Analyst	.80
Software Developer	.74	Administrative Assistant	.80
Technical Support Specialist	.74	Credit Manager	.80
Computer/Mathematics Manager	.72	Management Analyst	.79
Physician	–.13	Interior Designer	–.28
Speech Pathologist	–.16	Musician	–.28
Medical Technician	–.19	Geologist	–.34
Buyer	–.24	Law Enforcement Officer	–.35
Mental Health Counselor	–.28	Landscape/Grounds Manager	–.38
Musician	–.34	Automobile Mechanic	–.40
Advertising Account Manager	–.40	Graphic Designer	–.52
Photographer	–.57	Biologist	–.57
Medical Illustrator	–.61	Farmer/Rancher	–.57
Artist	–.81	Artist	–.71

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Relationship Between the GOTs and the CPI 260® Scales

Another way to provide evidence in support of the validity of an instrument is to compare it to other measures. Identifying relationships between the Strong assessment and other tools, such as the CPI 260® instrument, helps establish the validity of the separate scales of the Strong (e.g., GOTs, BISs, etc.).

The CPI 260 instrument is a 260-item omnibus assessment of normal personality. It is a shortened form of the *California Psychological Inventory*™ (CPI™) instrument (Gough, 1957, 1987; Gough & Bradley, 1996), which has been available for more than 50 years and has an established research base of nearly 2,000 citations (Gough, 2002). The CPI 260 and the CPI 434 instruments are based on the same basic normative sample of 6,000 women and men (see Gough & Bradley, 1996). The CPI 260 instrument delivers 29 CPI scales, including the 20 folk scales, the 6 work-related measures, and the 3 vector scales. Table 11 presents the CPI 260 scale names and descriptions.

Table 12 shows all correlations found for the Singapore sample. Please note that the correlations were computed for a subsample of individuals (n = 81) who took the CPI 260 assessment in addition to the Strong assessment. Individuals who scored high on the Realistic GOT tend to be described by the scores on the CPI assessment as tough-minded (low Sensitivity), confident, assertive, and task oriented (high Dominance). Individuals who scored high on the Investigative GOT tended to be described on the CPI assessment as responsible (high Responsibility) but also as headstrong and impatient (low Amicability). Individuals who scored high on the Artistic GOT tended to be described on the CPI assessment as ambitious and self-confident (high Capacity for Status) as well as adventurous and uninhibited (low Self-control). Individuals who scored high on the Social GOT tended to be described on the CPI assessment as responsible (high Responsibility) and willing to accept help and support in achieving goals (low Achievement via Independence). Those who scored high on the Enterprising GOT tended to be described on the CPI assessment as sociable, active, and socially competent (high Sociability) but have strong feelings and emotions and speak out when angry or annoyed (low Self-control). Finally, those who scored high on the Conventional GOT tended to be described on the CPI assessment as rule-accepting and norm-favoring (high Orientation Toward Societal Values).

TABLE 11. CPI 260® SCALE NAMES AND DESCRIPTIONS

CPI 260® Scales	Description (measure of)
Dominance (Do)	Prosocial interpersonal power and influence
Capacity for Status (Cs)	Ambition for challenge and social status
Sociability (Sy)	Social participation
Social Presence (Sp)	Poise and comfort with attention and recognition
Self-acceptance (Sa)	Sense of personal worth and self-confidence
Independence (In)	Self-sufficiency and self-directedness
Empathy (Em)	Capacity to understand and respond to others' needs
Responsibility (Re)	Conscientiousness and follow-through
Social Conformity (So)	Conformance with social norms and customs
Self-control (Sc)	Cautiousness and self-regulation
Good Impression (Gi)	Tact and positive self-presentation
Communality (Cm)	Conventionality of behavior and attitudes
Well-being (Wb)	Overall sense of health and optimism
Tolerance (To)	Open-mindedness and respect for others
Achievement via Conformance (Ac)	Motivation within organized settings
Achievement via Independence (Ai)	Motivation within unstructured settings
Conceptual Fluency (Cf)	Comfort with intellectual and conceptual matters
Insightfulness (Is)	Analytical insight into the motivations of others
Flexibility (Fx)	Adaptability and comfort with change
Sensitivity (Sn)	Tough- versus tender-mindedness
Managerial Potential (Mp)	Inclination for supervisory responsibilities
Work Orientation (Wo)	Sense of dedication to work
Creative Temperament (Ct)	Individualization and capacity for innovativeness
Leadership (Lp)	Initiative and effectiveness in leading others
Amicability (Ami)	Cooperation and friendliness
Law Enforcement Orientation (Leo)	Conventional and practical values
vector 1: Orientation Toward Others (v.1)	Extraversion versus introversion
vector 2: Orientation Toward Societal Values (v.2)	Rule-following versus rule-questioning
vector 3: Orientation Toward Self (v.3)	Fulfillment of personal potential

Source: Adapted with permission from the *Technical Brief for the CPI® 260 Instrument* (CPP Research Department, 2002).

TABLE 12. CORRELATIONS BETWEEN THE GOTs AND THE CPI 260® SCALES IN THE SINGAPORE SAMPLE

	General Occupational Theme					
CPI 260® Scale	Realistic	Investigative	Artistic	Social	Enterprising	Conventional
Dominance	.18	.06	.25	.16	.45	.11
Capacity for Status	.13	.13	.39	.13	.36	.00
Sociability	.13	.02	.26	.16	.51	.13
Social Presence	.12	–.05	.28	.03	.35	–.02
Self-acceptance	.14	.04	.36	.17	.44	.03
Independence	.04	–.01	.19	.08	.35	.01
Empathy	.05	.02	.23	.09	.11	–.08
Responsibility	–.01	.21	.17	.18	–.01	.12
Social Conformity	–.11	–.09	.08	.00	–.03	.00
Self-control	–.30	–.16	–.14	–.06	–.35	–.17
Good Impression	–.20	–.12	–.05	–.01	–.11	–.06
Communality	–.17	–.04	.18	.10	.04	–.09
Well-being	.00	–.10	.12	.07	.13	.05
Tolerance	–.17	–.13	.09	–.05	–.10	–.07
Achievement via Conformance	–.17	–.02	.07	.08	.01	–.03
Achievement via Independence	–.11	–.06	.03	–.13	–.11	–.02
Conceptual Fluency	.05	.12	.20	.05	.10	.02
Insightfulness	–.01	.04	.11	–.12	–.01	–.04
Flexibility	–.05	–.11	–.02	–.12	–.11	–.13
Sensitivity	–.34	–.18	–.03	.06	–.26	–.15
Managerial Potential	–.06	–.05	.20	.05	.23	.04
Work Orientation	–.23	–.08	.10	–.04	.01	–.10
Creative Temperament	–.05	–.10	.13	.03	.15	–.14
Leadership	.10	.03	.28	.12	.40	.06
Amicability	–.17	–.19	.03	–.05	–.10	–.04
Law Enforcement Orientation	–.04	–.01	.07	.03	.07	–.07
vector 1: Orientation Toward Others	–.36	–.15	–.31	–.19	–.48	–.22
vector 2: Orientation Toward Societal Values	.20	.19	.09	.15	.15	.29
vector 3: Orientation Toward Self	–.22	–.24	–.08	–.09	–.09	–.10

Note: $n = 81$.

BASIC INTEREST SCALES

The Basic Interest Scales (BISs) measure interest in 30 specific areas, such as art, science, sales, and athletics. Scores on Basic Interest Scales indicate interests and activities individuals find personally motivating and rewarding. The BISs are often referred to as subthemes of the GOTs, as they focus on specific interest domains grouped under the broader, more diverse General Occupational Themes—five for each Theme. The 30 BISs, listed in order of the six GOT scales, are described below.

INTERPRETATION OF THE BISs

Realistic BISs

The five BISs in the Realistic Theme are Mechanics & Construction, Computer Hardware & Electronics, Military, Protective Services, Nature & Agriculture, and Athletics.

Mechanics & Construction. The Mechanics & Construction scale measures interest in activities that require working with large equipment and machinery as well as small precision instruments. High scorers like designing, building, repairing, tinkering, and generally using a wide range of tools and materials. The scale represents a preference for working with things rather than people and thus is associated with scores toward the "Works with ideas/data/things" pole of the Work Style PSS (see pp. 50–51 for descriptions of this and other Personal Style Scales).

Computer Hardware & Electronics. The Computer Hardware & Electronics scale measures interest in activities such as installing and repairing computer and peripheral hardware and network systems. People with scores of "High Interest" or "Very High Interest" on this scale typically include engineering technicians, computer scientists, technical support specialists, network administrators, engineers, and computer and information systems managers. Usually, they score toward the "Works with ideas/data/things" pole of the Work Style scale and the "Accomplishes tasks independently" pole of the Team Orientation PSS. This interest in tangibly repairing and building is also often associated with high scores on the Mechanics & Construction scale.

Military. Interest in a structured environment that has a well-ordered, clearly defined chain of command is characteristic of people with high scores on the Military scale. Such people also like to be in a position of authority, having power or control over others. People with scores of "High Interest" or "Very High Interest" on the Military scale are likely to include military officers, military enlisted, engineers, firefighters, law enforcement officers, and others in law enforcement and protection occupations. High scores on this scale sometimes correspond with scoring toward the "Takes chances" pole of the Risk Taking PSS and the "Works with ideas/data/things" pole of the Work Style scale.

Protective Services. The Protective Services scale measures interest in non-military-related aspects of providing public safety and policing. People with high scores on this BIS typically include law enforcement officers, firefighters, military officers, physical therapists, and registered nurses. Often high scores are associated with a preference for risk taking. These people enjoy protecting and aiding the public, responding to emergencies, and participating in activities related to criminal justice. High scores on this scale and the Law BIS may indicate a specific interest in law enforcement professions. There appears to be a relationship between the Military and Protective Services BISs, suggesting interest in well-structured environments and physical activities.

Nature & Agriculture. The core content of the Nature & Agriculture scale is typified by working in farming or ranching settings, as well as an appreciation for the beauty of nature. Also measured is an interest in physically active work or recreational activities outdoors. People with scores of "High Interest" or "Very High Interest" on the Nature & Agriculture scale are likely to include vocational agriculture teachers, horticulturists, foresters, landscape/grounds managers, science teachers, firefighters, and veterinarians. Reflecting the outdoor and physical activity bent of the scale, athletic trainers may also have high scores on the Nature & Agriculture scale. People with high scores often prefer to live in rural areas or small communities; they may choose to stay at a weekend retreat beside a lake, in the mountains, or on a river. Interest in more vigorous and dangerous activities, such as skydiving, might be expected as scores on the Athletics BIS move higher and scores on the Risk Taking scale move toward the "Takes chances" pole.

Athletics. This scale measures an interest in sports. People who score high on the Athletics scale are often avid fans who may not even participate in sports, although they probably have some past athletic experience, especially in team sports. They tend to enjoy attending a variety of sporting events—such as boxing matches, football games, golf tournaments, gymnastics meets, and wrestling tournaments—as spectators. People who participate only in solitary sports, such as running, or who are interested in only one sport to the exclusion of all others probably will not score high on this scale. People who score high on this scale are likely to include athletic trainers, parks and recreation managers, recreation therapists, and community service managers.

Investigative BISs

The four BISs in the Investigative Theme are Science, Research, Medical Science, and Mathematics.

Science. The Science scale is a measure of interest in the natural sciences, especially the physical sciences. People likely to have scores of "High Interest" or "Very High Interest" on this scale, such as chemists and physicists, emphasize scientific theory, the search for basic truths, and an experimental approach to solving problems and understanding the universe. Other groups that may not be seen as traditional, prototypic natural scientists—such as medical technologists, science teachers, pharmacists, dentists, physicians, and optometrists—also often score high on the Science scale and consider science integral to their work.

Research. The Research scale measures interest in designing and conducting studies to identify underlying relationships and establish facts. Although a wide range of areas may be researched, people who score high on this scale usually enjoy collecting data, working with numbers, summarizing research results, writing reports, and applying findings to solve problems, improve processes, or answer questions. People with scores of "High Interest" or "Very High Interest" are likely to include computer scientists, geographers, sociologists, science teachers, research and development managers, and network administrators. Similar to those who score high on the Science scale, they tend to prefer working with ideas, data, and things rather than people. However, they sometimes score slightly higher on the Team Orientation scale, meaning that they may have preferences for accomplishing tasks collectively and problem solving with others. This is likely due to the increasingly collaborative nature of many research projects.

Medical Science. While the Science scale measures interest primarily in the physical sciences, the Medical Science scale measures interest in the biological sciences and medical fields. The main differences between this scale and the Healthcare Services BIS are the education-intensive occupations and focus on technical scientific (rather than people-oriented) aspects that dominate Medical Science. Occupations on the Medical Science scale typically require a strong educational background in the biological as well as physical sciences. The list of specialized medical occupations is extensive and includes dentists, pharmacists, optometrists, physical therapists, respiratory therapists, chiropractors, and veterinarians. Also scoring high are science teachers and registered nurses. Although many of these people provide medical service and treatment to the public, this is typically not a preference, as they tend to score toward the "Works with ideas/data/things" pole of the Work Style scale.

Mathematics. The Mathematics scale measures interest in working with numbers and performing statistical analyses. The majority of people with high Mathematics scores tend to score toward the "Works with ideas/data/things" pole of the Work Style scale. Most people who score high on the Mathematics scale are of the Investigative type, such as chemists, mathematicians, optometrists, computer scientists, and physicists. People in occupations represented by other primary Holland codes also have mathematics as one of their clusters of interests.

Artistic BISs

The four BISs in the Artistic Theme are Visual Arts & Design, Performing Arts, Writing & Mass Communication, and Culinary Arts.

Visual Arts & Design. The Visual Arts & Design scale emphasizes visual creativity and spatial visualization. The scale includes some appreciation for fine art such as sculpture and photography but overall leans toward creative activities with applied or commercial purposes. People with scores of "High Interest" or "Very High Interest" on the Visual Arts & Design scale are likely to include medical illustrators, architects, photographers, art teachers, technical writers, graphic designers, and interior designers. These people often prefer academic learning environments.

Performing Arts. People who score high on the Performing Arts scale enjoy participating in a wide range of performance activities or being part of the audience that enjoys watching others perform. Performing Arts is a central feature of the Artistic Theme, along with the expected content of Visual Art & Design, Culinary Arts, and Writing & Mass Communication. Although the verbal-linguistic content of the Writing & Mass Communication scale might not be expected within the A Theme, in fact all these areas are correlated. Thus, it is not unusual to have either all high or all low scores across

all these areas. People with high or very high scores typically include art teachers, editors, English teachers, broadcast journalists, ESL instructors, and musicians.

Writing & Mass Communication. The Writing & Mass Communication scale measures interest in literature, reading, and language from the perspectives of appreciation and creation. High scorers often are comfortable in academic learning environments. People with scores of "High Interest" or "Very High Interest" on the scale are often in occupations with a verbal-linguistic orientation, such as English teachers, reporters, public relations directors, technical writers, sociologists, religious/spiritual leaders, translators, editors, and ESL instructors.

Culinary Arts. The Culinary Arts scale measures interest in cooking and entertaining. People with scores of "High Interest" or "Very High Interest" on the Culinary Arts scale are likely to include chefs, dietitians, food service managers, and restaurant managers. These people may enjoy demonstrating new cooking techniques, preparing decorative food displays, and planning menus.

Social BISs

The six BISs in the Social Theme are Counseling & Helping, Teaching & Education, Human Resources & Training, Social Sciences, Religion & Spirituality, and Healthcare Services.

Counseling & Helping. The Counseling & Helping scale reflects an interest in helping others. A high score on this scale indicates a humanistic, altruistic interest in working with and helping people. High scorers are likely to score toward the "Works with people" pole of the Work Style scale and toward the "Directs others" pole of the Leadership Style PSS. Counseling & Helping is correlated highly with most of the other Social BISs. Therefore, people with high scores on this BIS may be expected to also score high on BISs such as Teaching & Education, Human Resources & Training, Social Sciences, and Religion & Spirituality. People with scores of "High Interest" or "Very High Interest" on this scale typically include school counselors, religious/spiritual leaders, special education teachers, community service directors, rehabilitation counselors, nursing home administrators, recreation therapists, and registered nurses.

Teaching & Education. Educators representing a wide range of disciplines score high on the Teaching & Education scale, including elementary school teachers, school counselors, school administrators, and special education teachers. People with high scores on the Teaching & Education scale often score high on several of the PSSs, indicating preferences for working with people, academic learning environments, and directing others, as would be expected.

Human Resources & Training. The Human Resources & Training scale measures interest in developing and training people, as well as managing and directing the employment activities of an organization. High scores on this scale are usually accompanied by high scores on the Management BIS. People with scores of "High Interest" or "Very High Interest" on the Human Resources & Training scale typically include human resources managers, school administrators, nursing home administrators, rehabilitation counselors, school counselors, and operations managers. They often show a preference for the "Directs others" pole of the Leadership Style scale and the "Accomplishes tasks as part of a team" pole of the Team Orientation scale.

Social Sciences. The Social Sciences scale measures interest in the study of people, groups, society, and cultures. Interests typically include research and teaching. People with high scores on the Social Sciences BIS are likely to include sociologists, ESL instructors, school counselors, urban and regional planners, public administrators, rehabilitation counselors, religious/spiritual leaders, elected public officials, and attorneys. These people tend to prefer academic learning environments and score toward the "Directs others" pole of the Leadership Style scale.

Religion & Spirituality. The Religion & Spirituality scale reflects an interest in spiritual or religious concerns, especially through organized activities. This BIS involves attending to people's spiritual, personal, and emotional needs. People with scores of "High Interest" or "Very High Interest" on the Religion & Spirituality scale in past samples have been directly involved with the clergy. Interestingly, rehabilitation counselors and school counselors may also have "High Interest" scores on this scale. Additionally, some teachers, including English teachers, may also have high scores.

Healthcare Services. The Healthcare Services scale focuses on providing service and aid to sick people in medical settings. Usually respondents who score high on the I Theme will not score high on Healthcare Services if they also score low on the S Theme. People with scores of "High Interest" or "Very High Interest" on this scale are likely to include emergency medical technicians, athletic trainers, registered nurses, respiratory therapists, physical therapists, radiologic technologists, occupational therapists, and chiropractors. While people who score high on the Healthcare Services scale generally want to have close contact with patients, those who score high only on the Science and Medical Science scales typically are more research and laboratory oriented and have less direct interest in patients.

Enterprising BISs

The six BISs in the Enterprising Theme are Marketing & Advertising, Sales, Management, Entrepreneurship, Politics & Public Speaking, and Law.

Marketing & Advertising. The Marketing & Advertising scale measures interest in marketing activities, including research and the development of advertising campaigns for products or services. High scorers are typically employed as marketing managers, purchasing agents, technical sales representatives, sales managers, realtors, operations managers, and restaurant managers. These people also commonly score high on the Sales, Management, and Entrepreneurship BISs. Often, they prefer working with people and accomplishing tasks as part of a team.

Sales. The Sales scale measures interest in selling products or services, or working with salespeople. People with high scores on this scale like to take their product to others without prior invitation. They can handle the rejection that often occurs in these situations and will keep calling on new customers until they make a sale. Those who score high on the Sales scale and also score high on the Counseling & Helping or Religion & Spirituality scale typically cannot sell simply for the sake of selling; rather, they have high ideals and need to believe that the product they are selling will benefit the buyer. People with scores of "High Interest" or "Very High Interest" on the Sales scale typically score toward the "Practical" pole of the Learning Environment scale and prefer practical learning settings. People with high scores on the Sales scale are commonly employed in the prototypic sales occupations of realtor, sales manager, and life insurance agent.

Management. The Management scale measures interest in authority and power and in supervising, organizing, leading, or directing others. High scorers typically score toward the "Directs others" pole of the Leadership Style scale and toward the "Accomplishes tasks as a team" pole of the Team Orientation scale. Although these activities most frequently occur in traditional enterprising environments such as business, industrial, and manufacturing settings, managers who score high on this scale may also be found in schools, colleges, hospitals, social service agencies, government offices, and research laboratories. People with scores of "High Interest" or "Very High Interest" on the Management scale are likely to include operations managers, nursing home administrators, school administrators, human resources managers, realtors, purchasing agents, restaurant managers, elected public officials, and facilities managers.

Entrepreneurship. The Entrepreneurship scale measures interest in developing and managing new business opportunities. People who typically have scores of "High Interest" or "Very High Interest" include operations managers, technical sales representatives, realtors, purchasing agents, sales managers, and human resources managers. These people often enjoy being self-employed, taking chances, and making decisions, and they typically score toward the "Directs others" pole of the Leadership Style scale.

Politics & Public Speaking. The Politics & Public Speaking scale measures interest in public affairs, persuading others through verbal activities, being in the limelight, influencing people's thoughts and viewpoints, and a preference for oral communication. People who often score highest on the scale are those involved in persuading others and making public presentations: elected public officials, public administrators, and public relations directors. Also scoring high are attorneys, corporate trainers, and people in high school occupations, such as school counselors, school administrators, and English teachers.

Law. The Law scale measures interest in debating, persuading, and arguing points of view, but it focuses on legal activities. High scorers on the Law BIS are likely to score toward the "Directs others" pole of the Leadership Style scale, the "Works with ideas/data/things" pole of the Work Style scale, and the "Takes chances" pole of the Risk Taking scale. People with scores of "High Interest" or "Very High Interest" on the Law scale typically include elected public officials, attorneys, public administrators, school administrators, and human resources managers. These people may enjoy debating public policy, applying the law, and studying legal proceedings.

Conventional BISs

The four BISs in the Conventional Theme are Office Management, Taxes & Accounting, Programming & Information Systems, and Finance & Investing.

Office Management. This scale measures interest in office coordination activities and supervision. Such activities typically include organizing office records and files, operating office machinery, managing and ordering inventory, reconciling bills, preparing agendas and schedules, and overseeing office staff. People with scores of "High Interest" or "Very High Interest" are likely to include administrative assistants, business education teachers, facilities managers, health information specialists, nursing home administrators, purchasing agents, food service managers, and credit managers. Often high scores on the Office Management scale are associated with low scores on the Risk Taking and Learning Environment scales, indicating preferences for playing it safe and learning in practical, hands-on situations.

Taxes & Accounting. The Taxes & Accounting scale measures interest in financial accounting and tax preparation.

People with scores of "High Interest" or "Very High Interest" on this scale are likely to include accountants, actuaries, mathematics teachers, network administrators, financial managers, credit managers, and computer scientists. Those with high scores on this BIS enjoy analyzing accounting records and financial statements, maintaining budgets, working with numbers and spreadsheets, computing taxes, and preparing forms. Therefore, they can be expected to score high on the Mathematics BIS and toward the "Works with ideas/data/things" pole of the Work Style scale.

Programming & Information Systems. This BIS measures interest in the use of computers, managing information, and developing software and includes activities such as programming websites, developing computer programs to store data and information, updating computer software, and producing coding language from project specifications, problems, and procedures. People who score high on the Programming & Information Systems scale typically include technical support specialists, network administrators, computer scientists, software developers, computer systems analysts, engineers, physicists, and actuaries. Usually, these people tend to prefer leading by example and working with ideas, data, or things. High scorers will likely also score high on the Computer Hardware & Electronics BIS.

Finance & Investing. The Finance & Investing scale measures interest in managing money and investments. It emphasizes things such as analysis of financial data, interpretation of factors affecting investment programs, financial planning and budgeting, and buying and selling securities. People who score high on this scale typically include financial managers, purchasing agents, realtors, financial analysts, credit managers, and operations managers. Most often high scorers have a preference for taking chances and working with ideas, data, or things. They may also score high on the Taxes & Accounting and Mathematics scales, as well as some of the Enterprising BISs.

SINGAPORE SAMPLE NORMS OF THE BISs

The standardized scores for each of the 30 BISs are presented in Table 13. Means, standard deviations, and interpretive

TABLE 13. BIS MEANS, STANDARD DEVIATIONS, AND INTERPRETIVE BOUNDARIES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

				Standard Score Boundaries				
				Very Little	Little	Average	High	Very High
Basic Interest Scale	Gender	*M*	*SD*	(0–10)	(11–25)	(26–75)	(76–90)	(91–100)
Realistic								
Mechanics & Construction	Women	49.41	7.61	32–34	35–39	40–51	52–57	58–79
	Men	56.27	8.48	32–42	43–48	49–61	62–66	67–79
Computer Hardware & Electronics	Women	48.55	8.16	34–34	35–38	39–53	54–59	60–75
	Men	55.97	8.12	34–41	42–46	47–60	61–65	66–75
Military	Women	51.47	8.24	36–36	37–40	41–52	53–57	58–79
	Men	57.42	9.30	36–41	42–47	48–61	62–68	69–79
Protective Services	Women	52.11	8.06	31–34	35–40	41–55	56–61	62–79
	Men	55.48	8.31	31–40	41–46	47–59	60–65	66–79
Nature & Agriculture	Women	50.78	8.79	29–34	35–41	42–56	57–63	64–74
	Men	52.41	7.93	29–39	40–45	46–59	60–64	65–74
Athletics	Women	50.11	7.57	31–35	36–40	41–54	55–60	61–73
	Men	55.25	7.02	31–38	39–46	47–61	62–66	67–73
Investigative								
Science	Women	51.05	8.65	31–35	36–40	41–56	57–61	62–76
	Men	54.78	7.72	31–38	39–45	46–60	61–64	65–76
Research	Women	49.81	9.34	24–35	36–41	42–56	57–61	62–80
	Men	53.89	9.46	24–40	41–45	46–58	59–63	64–80
Medical Science	Women	53.38	9.27	32–36	37–42	43–57	58–64	65–79
	Men	55.02	8.82	32–36	37–43	44–57	58–63	64–79
Mathematics	Women	51.17	8.57	34–35	36–40	41–55	56–62	63–74
	Men	54.27	8.29	34–38	39–45	46–59	60–65	66–74

TABLE 13. BIS MEANS, STANDARD DEVIATIONS, AND INTERPRETIVE BOUNDARIES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE (CONT'D)

				Standard Score Boundaries				
				Very Little	Little	Average	High	Very High
Basic Interest Scale	Gender	*M*	*SD*	(0–10)	(11–25)	(26–75)	(76–90)	(91–100)
Artistic								
Visual Arts & Design	Women	51.66	7.45	28–36	37–43	44–59	60–64	65–72
	Men	52.32	8.19	28–36	37–42	43–57	58–61	62–72
Performing Arts	Women	52.29	8.05	25–38	39–45	46–60	61–65	66–74
	Men	51.55	8.38	25–36	37–42	43–55	56–61	62–74
Writing & Mass Communication	Women	50.70	7.37	28–35	36–43	44–60	61–64	65–72
	Men	50.29	8.39	28–36	37–42	43–56	57–62	63–72
Culinary Arts	Women	50.97	7.73	22–38	39–45	46–59	60–64	65–67
	Men	49.52	7.73	22–35	36–41	42–56	57–61	62–67
Social								
Counseling & Helping	Women	52.71	8.80	23–39	40–45	46–59	60–65	66–77
	Men	52.84	8.37	23–34	35–41	42–55	56–60	61–77
Teaching & Education	Women	55.30	9.52	28–37	38–43	44–58	59–65	66–78
	Men	55.68	8.29	28–36	37–42	43–56	57–61	62–78
Human Resources & Training	Women	49.19	9.97	21–37	38–43	44–58	59–64	65–72
	Men	50.19	8.61	21–37	38–43	44–56	57–61	62–72
Social Sciences	Women	49.68	8.32	25–37	38–44	45–57	58–64	65–75
	Men	51.50	8.92	25–37	38–43	44–57	58–62	63–75
Religion & Spirituality	Women	51.64	8.21	34–37	38–43	44–57	58–64	65–75
	Men	54.02	8.68	34–36	37–41	42–58	59–64	65–75
Healthcare Services	Women	53.55	8.74	33–37	38–42	43–59	60–65	66–83
	Men	56.31	8.71	33–37	38–42	43–55	56–61	62–83
Enterprising								
Marketing & Advertising	Women	51.81	8.63	24–36	37–44	45–59	60–64	65–75
	Men	51.74	8.42	24–36	37–43	44–56	57–61	62–75
Sales	Women	55.47	9.73	34–37	38–41	42–55	56–62	63–87
	Men	59.49	9.81	34–37	38–42	43–59	60–66	67–87
Management	Women	51.64	8.28	25–36	37–42	43–56	57–61	62–78
	Men	54.31	8.03	25–38	39–45	46–58	59–63	64–78
Entrepreneurship	Women	49.78	9.81	17–35	36–43	44–56	57–61	62–76
	Men	49.91	9.57	17–37	38–45	46–58	59–63	64–76
Politics & Public Speaking	Women	47.82	7.88	31–35	36–41	42–54	55–61	62–75
	Men	51.97	8.27	31–40	41–46	47–59	60–65	66–75
Law	Women	50.37	8.47	33–35	36–41	42–57	58–63	64–71
	Men	51.58	7.77	33–37	38–42	43–58	59–63	64–71
Conventional								
Office Management	Women	56.58	9.09	31–38	39–44	45–60	61–68	69–84
	Men	57.33	8.84	31–37	38–41	42–53	54–59	60–84
Taxes & Accounting	Women	52.12	8.73	34–35	36–40	41–57	58–64	65–78
	Men	54.99	9.14	34–38	39–44	45–57	58–64	65–78
Programming & Information Systems	Women	48.67	8.86	28–34	35–41	42–56	57–63	64–75
	Men	53.72	8.44	28–39	40–46	47–59	60–64	65–75
Finance & Investing	Women	50.95	8.99	28–36	37–41	42–55	56–60	61–75
	Men	54.01	8.59	28–38	39–46	47–60	61–65	66–75

Note: N = 264 (134 women and 130 men). Numbers in parentheses under categories are percentiles.

categories are listed for women and men. Standardized scores and interpretive categories were derived using the 2004 GRS. Refer to the *Strong Interest Inventory® Manual* (Donnay et al., 2005) for sample information.

Singapore sample results were generally similar to those reported for the GRS, but scores tended to be slightly higher. Women in the Singapore sample tended to score higher on Office Management and Sales than did those in the GRS; men in the Singapore sample tended to score higher on Military and Sales than did those in the GRS.

RELIABILITY OF THE BISs

Cronbach's alpha was used to examine the reliability of the BISs. Results are presented in Table 14. Cronbach's alphas ranged from .75 for the Management scale to .91 for Computer Hardware & Electronics, with a median of .86. The internal consistency of the BISs in the Singapore sample was similar to that reported for the GRS in the Strong manual, with a median of .87 and a range of .75 to .91. Thus, the samples are internally consistent as they reach moderate to high levels of reliability (Murphy & Davidshofer, 2005).

VALIDITY OF THE BISs

The relationships between the 30 BISs (i.e., the intercorrelations between the scales) were examined, as were the relationships between the BISs and other scales of the Strong assessment (i.e., the correlations between the BISs and the GOTs and between the BISs and the OSs). The following sections present these findings.

Intercorrelations Between the BISs

Table 15 shows the intercorrelations between each of the six BISs for all individuals in the Singapore sample. These correlations are shown for both women and men in Table 16. Again, while the correlations are somewhat larger for the Singapore sample, the pattern of relationships is very similar to that reported for the GRS (Donnay et al., 2005). As shown in Table 16, the strongest relationship between BISs for women and men in the Singapore sample was between the Healthcare Services and Medical Science scales.

TABLE 14. BIS RELIABILITY STATISTICS IN THE SINGAPORE SAMPLE

Basic Interest Scale	Cronbach's Alpha
Mechanics & Construction	.90
Computer Hardware & Electronics	.91
Military	.89
Protective Services	.81
Nature & Agriculture	.90
Athletics	.88
Science	.85
Research	.85
Medical Science	.87
Mathematics	.90
Visual Arts & Design	.86
Performing Arts	.85
Writing & Mass Communication	.86
Culinary Arts	.82
Counseling & Helping	.84
Teaching & Education	.89
Human Resources & Training	.84
Social Sciences	.82
Religion & Spirituality	.90
Healthcare Services	.86
Marketing & Advertising	.84
Sales	.89
Management	.75
Entrepreneurship	.88
Politics & Public Speaking	.89
Law	.89
Office Management	.83
Taxes & Accounting	.84
Programming & Information Systems	.88
Finance & Investing	.81

Note: N = 264.

TABLE 15. INTERCORRELATIONS BETWEEN THE BISs IN THE SINGAPORE SAMPLE

Basic Interest Scale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Mechanics & Construction	—	.82	.59	.62	.60	.59	.64	.56	.55	.47	.53	.26	.33	.28	.32
2. Computer Hardware & Electronics	.82	—	.58	.56	.50	.55	.56	.59	.48	.48	.41	.21	.31	.21	.26
3. Military	.59	.58	—	.72	.47	.60	.51	.54	.56	.35	.42	.40	.44	.32	.41
4. Protective Services	.62	.56	.72	—	.65	.63	.62	.62	.73	.40	.61	.53	.54	.49	.59
5. Nature & Agriculture	.60	.50	.47	.65	—	.61	.55	.56	.57	.38	.66	.47	.51	.51	.53
6. Athletics	.59	.55	.60	.63	.61	—	.51	.52	.49	.34	.58	.53	.48	.49	.55
7. Science	.64	.56	.51	.62	.55	.51	—	.73	.79	.55	.56	.31	.50	.29	.45
8. Research	.56	.59	.54	.62	.56	.52	.73	—	.66	.71	.58	.44	.62	.34	.55
9. Medical Science	.55	.48	.56	.73	.57	.49	.79	.66	—	.46	.55	.41	.54	.34	.54
10. Mathematics	.47	.48	.35	.40	.38	.34	.55	.71	.46	—	.35	.25	.39	.16	.35
11. Visual Arts & Design	.53	.41	.42	.61	.66	.58	.56	.58	.55	.35	—	.65	.66	.55	.57
12. Performing Arts	.26	.21	.40	.53	.47	.53	.31	.44	.41	.25	.65	—	.66	.55	.57
13. Writing & Mass Communication	.33	.31	.44	.54	.51	.48	.50	.62	.54	.39	.66	.66	—	.49	.64
14. Culinary Arts	.28	.21	.32	.49	.51	.49	.29	.34	.34	.16	.55	.55	.49	—	.53
15. Counseling & Helping	.32	.26	.41	.59	.53	.55	.45	.55	.54	.35	.57	.57	.64	.53	—
16. Teaching & Education	.39	.36	.39	.49	.53	.52	.43	.55	.53	.45	.53	.57	.61	.47	.68
17. Human Resources & Training	.31	.30	.28	.46	.45	.50	.29	.55	.34	.35	.51	.53	.55	.49	.69
18. Social Sciences	.46	.38	.52	.63	.59	.56	.58	.67	.60	.49	.65	.59	.75	.47	.77
19. Religion & Spirituality	.39	.39	.45	.48	.44	.40	.34	.42	.45	.29	.38	.44	.47	.38	.62
20. Healthcare Services	.61	.51	.59	.73	.62	.53	.72	.62	.85	.46	.54	.43	.51	.33	.59
21. Marketing & Advertising	.30	.24	.36	.53	.50	.47	.28	.52	.37	.29	.61	.58	.57	.50	.59
22. Sales	.55	.45	.43	.55	.49	.55	.41	.48	.47	.41	.52	.43	.46	.36	.52
23. Management	.50	.45	.40	.55	.52	.54	.39	.58	.47	.37	.55	.47	.54	.50	.56
24. Entrepreneurship	.14	.18	.24	.36	.37	.38	.15	.42	.22	.21	.44	.47	.45	.49	.56
25. Politics & Public Speaking	.52	.40	.59	.63	.50	.58	.44	.61	.47	.44	.55	.54	.62	.40	.55
26. Law	.43	.33	.50	.69	.47	.44	.42	.46	.56	.31	.51	.44	.56	.45	.50
27. Office Management	.43	.42	.34	.48	.42	.35	.36	.53	.47	.55	.41	.43	.50	.27	.46
28. Taxes & Accounting	.44	.42	.30	.43	.37	.31	.43	.55	.45	.77	.33	.24	.34	.20	.38
29. Programming & Information Systems	.64	.81	.54	.53	.48	.51	.60	.67	.51	.56	.45	.35	.46	.28	.39
30. Finance & Investing	.36	.36	.32	.48	.43	.46	.37	.55	.38	.51	.48	.38	.42	.32	.47

Note: $N = 264$.

(cont'd)

TABLE 15. INTERCORRELATIONS BETWEEN THE BISs IN THE SINGAPORE SAMPLE (CONT'D)

Basic Interest Scale	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1. Mechanics & Construction	.39	.31	.46	.39	.61	.30	.55	.50	.14	.52	.43	.43	.44	.64	.36
2. Computer Hardware & Electronics	.36	.30	.38	.39	.51	.24	.45	.45	.18	.40	.33	.42	.42	.81	.36
3. Military	.39	.28	.52	.45	.59	.36	.43	.40	.24	.59	.50	.34	.30	.54	.32
4. Protective Services	.49	.46	.63	.48	.73	.53	.55	.55	.36	.63	.69	.48	.43	.53	.48
5. Nature & Agriculture	.53	.45	.59	.44	.62	.50	.49	.52	.37	.50	.47	.42	.37	.48	.43
6. Athletics	.52	.50	.56	.40	.53	.47	.55	.54	.38	.58	.44	.35	.31	.51	.46
7. Science	.43	.29	.58	.34	.72	.28	.41	.39	.15	.44	.42	.36	.43	.60	.37
8. Research	.55	.55	.67	.42	.62	.52	.48	.58	.42	.61	.46	.53	.55	.67	.55
9. Medical Science	.53	.34	.60	.45	.85	.37	.47	.47	.22	.47	.56	.47	.45	.51	.38
10. Mathematics	.45	.35	.49	.29	.46	.29	.41	.37	.21	.44	.31	.55	.77	.56	.51
11. Visual Arts & Design	.53	.51	.65	.38	.54	.61	.52	.55	.44	.55	.51	.41	.33	.45	.48
12. Performing Arts	.57	.53	.59	.44	.43	.58	.43	.47	.47	.54	.44	.43	.24	.35	.38
13. Writing & Mass Communication	.61	.55	.75	.47	.51	.57	.46	.54	.45	.62	.56	.50	.34	.46	.42
14. Culinary Arts	.47	.49	.47	.38	.33	.50	.36	.50	.49	.40	.45	.27	.20	.28	.32
15. Counseling & Helping	.68	.69	.77	.62	.59	.59	.52	.56	.56	.55	.50	.46	.38	.39	.47
16. Teaching & Education	—	.66	.69	.49	.60	.54	.57	.64	.43	.55	.41	.59	.44	.49	.42
17. Human Resources & Training	.66	—	.64	.36	.35	.72	.58	.81	.65	.63	.52	.53	.40	.42	.58
18. Social Sciences	.69	.64	—	.56	.61	.62	.61	.60	.51	.71	.59	.54	.47	.50	.55
19. Religion & Spirituality	.49	.36	.56	—	.56	.33	.51	.35	.29	.41	.32	.44	.29	.46	.27
20. Healthcare Services	.60	.35	.61	.56	—	.42	.60	.48	.17	.50	.49	.59	.45	.53	.35
21. Marketing & Advertising	.54	.72	.62	.33	.42	—	.66	.69	.67	.63	.58	.53	.35	.36	.57
22. Sales	.57	.58	.61	.51	.60	.66	—	.60	.38	.62	.49	.67	.50	.50	.55
23. Management	.64	.81	.60	.35	.48	.69	.60	—	.55	.66	.57	.59	.47	.47	.59
24. Entrepreneurship	.43	.65	.51	.29	.17	.67	.38	.55	—	.43	.43	.31	.18	.28	.51
25. Politics & Public Speaking	.55	.63	.71	.41	.50	.63	.62	.66	.43	—	.66	.52	.46	.46	.59
26. Law	.41	.52	.59	.32	.49	.58	.49	.57	.43	.66	—	.43	.45	.35	.55
27. Office Management	.59	.53	.54	.44	.59	.53	.67	.59	.31	.52	.43	—	.65	.55	.48
28. Taxes & Accounting	.44	.40	.47	.29	.45	.35	.50	.47	.18	.46	.45	.65	—	.46	.65
29. Programming & Information Systems	.49	.42	.50	.46	.53	.36	.50	.47	.28	.46	.35	.55	.46	—	.46
30. Finance & Investing	.42	.58	.55	.27	.35	.57	.55	.59	.51	.59	.55	.48	.65	.46	—

Note: $N = 264$.

TABLE 16. INTERCORRELATIONS BETWEEN THE BISs FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Basic Interest Scale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Mechanics & Construction	—	.81	.64	.64	.54	.58	.56	.45	.56	.32	.44	.12	.32	.24	.27
2. Computer Hardware & Electronics	.76	—	.62	.54	.47	.52	.51	.49	.49	.32	.31	.16	.29	.22	.21
3. Military	.43	.43	—	.72	.46	.62	.54	.52	.59	.32	.30	.32	.37	.26	.37
4. Protective Services	.58	.53	.71	—	.62	.66	.59	.54	.70	.31	.48	.40	.48	.47	.58
5. Nature & Agriculture	.70	.54	.47	.68	—	.64	.45	.45	.49	.27	.60	.33	.44	.51	.44
6. Athletics	.48	.43	.49	.56	.58	—	.52	.48	.52	.25	.58	.52	.57	.53	.57
7. Science	.67	.55	.42	.62	.67	.42	—	.70	.79	.44	.41	.17	.45	.33	.40
8. Research	.61	.64	.51	.66	.67	.51	.75	—	.63	.66	.44	.34	.60	.37	.44
9. Medical Science	.56	.48	.54	.76	.65	.46	.79	.70	—	.40	.38	.25	.45	.31	.51
10. Mathematics	.55	.59	.31	.43	.49	.37	.63	.74	.51	—	.17	.17	.32	.15	.29
11. Visual Arts & Design	.66	.54	.55	.73	.73	.63	.73	.72	.72	.52	—	.53	.59	.52	.49
12. Performing Arts	.46	.33	.54	.70	.63	.64	.50	.58	.60	.37	.77	—	.45	.42	.42
13. Writing & Mass Communication	.42	.40	.56	.63	.59	.48	.60	.69	.65	.47	.72	.71	—	.51	.56
14. Culinary Arts	.44	.33	.47	.58	.53	.59	.32	.37	.40	.21	.59	.65	.47	—	.47
15. Counseling & Helping	.42	.36	.49	.63	.64	.59	.52	.69	.58	.42	.65	.72	.71	.60	—
16. Teaching & Education	.51	.41	.43	.53	.63	.57	.55	.64	.62	.48	.63	.63	.69	.52	.77
17. Human Resources & Training	.35	.28	.32	.53	.56	.58	.38	.59	.46	.36	.55	.61	.57	.59	.78
18. Social Sciences	.47	.41	.54	.66	.66	.51	.65	.74	.69	.52	.72	.69	.81	.47	.80
19. Religion & Spirituality	.35	.31	.36	.45	.53	.36	.32	.46	.41	.33	.49	.56	.54	.49	.74
20. Healthcare Services	.63	.50	.53	.74	.71	.49	.73	.70	.85	.54	.74	.65	.65	.42	.69
21. Marketing & Advertising	.36	.29	.49	.68	.56	.53	.42	.60	.57	.33	.66	.67	.55	.52	.69
22. Sales	.46	.36	.34	.59	.56	.53	.42	.50	.53	.43	.59	.59	.53	.44	.63
23. Management	.44	.34	.44	.58	.56	.59	.41	.55	.58	.35	.59	.55	.59	.59	.71
24. Entrepreneurship	.21	.28	.39	.49	.42	.55	.29	.48	.36	.17	.48	.52	.45	.62	.63
25. Politics & Public Speaking	.41	.30	.60	.64	.59	.52	.48	.62	.57	.44	.65	.72	.75	.52	.68
26. Law	.38	.32	.60	.72	.53	.47	.57	.56	.70	.38	.63	.58	.62	.48	.57
27. Office Management	.53	.50	.34	.60	.54	.37	.56	.64	.63	.67	.62	.56	.61	.32	.62
28. Taxes & Accounting	.44	.44	.23	.47	.46	.30	.55	.62	.55	.78	.46	.35	.46	.26	.50
29. Programming & Information Systems	.62	.82	.41	.54	.55	.37	.57	.68	.52	.62	.56	.40	.51	.31	.44
30. Finance & Investing	.27	.25	.34	.53	.44	.42	.40	.62	.48	.49	.52	.50	.50	.39	.61

Note: $N = 264$. For correlations above the diagonal, women $n = 134$; below the diagonal, men $n = 130$.

(cont'd)

TABLE 16. INTERCORRELATIONS BETWEEN THE BISs FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE (CONT'D)

Basic Interest Scale	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1. Mechanics & Construction	.33	.30	.43	.38	.59	.30	.59	.52	.10	.55	.49	.37	.39	.58	.37
2. Computer Hardware & Electronics	.36	.32	.34	.42	.48	.23	.46	.50	.12	.39	.35	.40	.35	.77	.39
3. Military	.39	.24	.49	.51	.63	.26	.45	.30	.10	.50	.42	.36	.30	.60	.24
4. Protective Services	.48	.40	.58	.47	.70	.40	.46	.50	.25	.59	.67	.37	.35	.47	.39
5. Nature & Agriculture	.46	.37	.52	.35	.54	.45	.42	.47	.33	.40	.41	.32	.28	.42	.41
6. Athletics	.52	.45	.62	.39	.52	.46	.51	.47	.27	.57	.42	.34	.26	.53	.44
7. Science	.35	.21	.50	.33	.70	.18	.35	.33	.04	.36	.29	.20	.28	.58	.29
8. Research	.49	.52	.59	.34	.51	.47	.40	.57	.38	.56	.36	.44	.44	.63	.45
9. Medical Science	.46	.24	.50	.48	.84	.20	.40	.36	.09	.36	.43	.33	.33	.50	.27
10. Mathematics	.43	.33	.45	.21	.36	.26	.35	.35	.25	.38	.24	.45	.75	.47	.49
11. Visual Arts & Design	.45	.48	.58	.26	.32	.56	.44	.52	.41	.45	.38	.18	.18	.37	.45
12. Performing Arts	.53	.48	.49	.33	.23	.49	.31	.42	.42	.40	.32	.31	.15	.35	.30
13. Writing & Mass Communication	.55	.55	.69	.40	.38	.59	.42	.51	.45	.53	.52	.38	.21	.46	.37
14. Culinary Arts	.45	.43	.50	.30	.28	.49	.33	.46	.38	.36	.44	.24	.17	.32	.30
15. Counseling & Helping	.61	.63	.75	.52	.51	.50	.45	.44	.49	.46	.45	.31	.27	.36	.36
16. Teaching & Education	—	.63	.67	.42	.52	.54	.59	.60	.42	.49	.36	.61	.42	.54	.40
17. Human Resources & Training	.70	—	.66	.29	.22	.72	.51	.82	.64	.62	.48	.52	.33	.47	.52
18. Social Sciences	.72	.62	—	.49	.48	.61	.56	.58	.51	.68	.52	.41	.37	.52	.50
19. Religion & Spirituality	.57	.45	.61	—	.54	.26	.44	.23	.21	.32	.29	.35	.16	.49	.15
20. Healthcare Services	.71	.51	.72	.55	—	.23	.54	.34	.04	.36	.38	.45	.32	.48	.21
21. Marketing & Advertising	.54	.74	.64	.42	.62	—	.59	.68	.68	.60	.52	.50	.29	.36	.51
22. Sales	.56	.66	.64	.55	.63	.75	—	.57	.32	.60	.38	.63	.43	.53	.48
23. Management	.71	.80	.61	.44	.60	.72	.61	—	.52	.64	.55	.61	.46	.51	.57
24. Entrepreneurship	.45	.66	.51	.38	.32	.66	.45	.60	—	.44	.42	.31	.19	.24	.48
25. Politics & Public Speaking	.65	.66	.74	.47	.61	.70	.60	.67	.45	—	.61	.46	.41	.43	.53
26. Law	.47	.57	.65	.34	.60	.66	.60	.58	.45	.72	—	.32	.35	.33	.45
27. Office Management	.58	.54	.68	.54	.74	.56	.72	.57	.30	.58	.55	—	.56	.52	.43
28. Taxes & Accounting	.47	.48	.54	.39	.54	.42	.54	.45	.17	.47	.54	.74	—	.39	.65
29. Programming & Information Systems	.44	.37	.48	.38	.54	.39	.41	.39	.34	.41	.35	.60	.49	—	.49
30. Finance & Investing	.44	.66	.60	.36	.47	.66	.60	.59	.56	.62	.66	.54	.63	.37	—

Note: $N = 264$. For correlations above the diagonal, women $n = 134$; below the diagonal, men $n = 130$.

Relationship Between the BISs and the GOTs

As previously mentioned, the BISs focus on specific interest domains grouped under the General Occupational Themes. In most cases, BISs in the same categories correlate at least moderately with each other. Table 17 shows the intercorrelations between BISs and GOTs presented in RIASEC order for the overall group and separately by gender. The correlations found between BISs and GOTs in the Singapore sample are consistent with those found in the GRS (Donnay et al., 2005). For instance, strong relationships were found between the Science BIS and the Investigative GOT, and between the Visual Arts & Design BIS and the Artistic GOT.

Relationship Between the BISs and the OSs

As detailed in the 2005 Strong manual, one of the main purposes of developing the BISs was to improve upon the understanding of the OSs. Thus, it is expected that certain BISs will be related to certain OSs. For instance, one would expect people who score high on Computer Hardware & Electronics to also score high on OSs such as Computer Scientist, Network Administrator, Technical Support Specialist, and so on. Tables 18–47 illustrate the correlations between these two sets of scales. The 10 OSs with the strongest positive relationships with the BISs, as well as the 10 OSs with the strongest negative relationships with the BISs, are presented for women and men.

It is important to note that the OSs were built using occupational samples of employed adults obtained in the United States. While occupations in different countries may share the same job titles, different sets of knowledge, skills, abilities, and other attributes may be required to successfully perform them. For example, farming in the U.S. may be more technologically sophisticated than in another country, drawing different types of individuals to that occupation. These differences may show up in results: in the Singapore sample, technology-dependent jobs such as Network Administrator and Software Developer appear in the list of top 10 correlations with the Mechanics & Construction BIS, and Arts/Entertainment Manager and School Administrator appear in the list of top 10 correlations with the Military BIS. Furthermore, although OS results from the Singapore sample are generally congruent with those from the U.S. GRS, caution should be taken when interpreting those results, as differences in work tasks as well as organizational, national, and cultural differences between the two countries may be an influencing factor.

TABLE 17. CORRELATIONS BETWEEN THE BISs AND THE GOTs FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

	Realistic			Investigative			Artistic			Social			Enterprising			Conventional		
Basic Interest Scale	Women	Men	Combined	Women	Men	Combined	Women	Men	Combined	Women	Men	Combined	Women	Men	Combined	Women	Men	Combined
Mechanics & Construction	.87	.89	.90	.52	.66	.60	.38	.59	.45	.39	.51	.42	.40	.40	.39	.59	.58	.60
Computer Hardware & Electronics	.81	.78	.83	.50	.60	.56	.33	.45	.35	.39	.41	.37	.30	.31	.31	.64	.60	.64
Military	.78	.66	.75	.58	.52	.57	.41	.61	.49	.45	.47	.44	.31	.45	.38	.48	.36	.45
Protective Services	.77	.76	.77	.63	.70	.68	.56	.76	.65	.60	.64	.61	.48	.65	.57	.52	.65	.60
Nature & Agriculture	.75	.81	.74	.50	.72	.61	.59	.72	.65	.54	.70	.61	.48	.59	.53	.47	.59	.53
Athletics	.77	.65	.75	.53	.48	.53	.66	.65	.61	.61	.62	.59	.52	.63	.57	.50	.42	.49
Science	.61	.66	.65	.93	.93	.93	.39	.67	.51	.40	.57	.47	.24	.39	.32	.42	.62	.53
Research	.53	.66	.62	.81	.87	.84	.49	.70	.59	.53	.70	.61	.50	.56	.53	.55	.73	.65
Medical Science	.61	.65	.61	.85	.85	.85	.41	.73	.57	.53	.65	.59	.29	.55	.42	.45	.67	.56
Mathematics	.33	.51	.45	.63	.75	.70	.22	.48	.35	.38	.47	.42	.32	.36	.35	.58	.73	.67
Visual Arts & Design	.51	.74	.59	.42	.76	.59	.83	.93	.88	.53	.70	.62	.57	.63	.60	.34	.66	.50
Performing Arts	.31	.63	.41	.26	.59	.41	.80	.89	.85	.54	.73	.63	.48	.69	.58	.30	.54	.40
Writing & Mass Communication	.43	.56	.44	.51	.67	.58	.81	.85	.83	.63	.74	.68	.58	.61	.59	.40	.61	.49
Culinary Arts	.40	.60	.41	.36	.37	.34	.59	.65	.62	.51	.61	.56	.52	.65	.57	.32	.37	.32
Counseling & Helping	.39	.54	.42	.50	.61	.55	.57	.73	.65	.83	.93	.88	.57	.76	.66	.36	.64	.49
Teaching & Education	.45	.56	.46	.45	.64	.53	.62	.72	.66	.89	.91	.90	.63	.64	.64	.60	.58	.58
Human Resources & Training	.34	.45	.38	.32	.48	.39	.56	.62	.58	.78	.82	.80	.76	.82	.79	.53	.60	.56
Social Sciences	.51	.60	.55	.59	.73	.66	.69	.77	.73	.80	.81	.80	.68	.68	.68	.51	.69	.60

TABLE 17. CORRELATIONS BETWEEN THE BISs AND THE GOTs FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE (CONT'D)

	Realistic			Investigative			Artistic			Social			Enterprising			Conventional		
Basic Interest Scale	Women	Men	Combined	Women	Men	Combined	Women	Men	Combined	Women	Men	Combined	Women	Men	Combined	Women	Men	Combined
Religion & Spirituality	.45	.45	.46	.38	.40	.40	.45	.57	.51	.58	.73	.65	.33	.54	.44	.36	.51	.45
Healthcare Services	.65	.68	.66	.72	.77	.75	.40	.77	.58	.62	.78	.69	.33	.59	.47	.50	.73	.62
Marketing & Advertising	.38	.51	.40	.26	.51	.37	.64	.69	.67	.64	.71	.67	.90	.90	.90	.49	.61	.54
Sales	.56	.55	.57	.38	.47	.44	.50	.64	.56	.64	.70	.66	.79	.86	.82	.68	.73	.72
Management	.51	.53	.54	.39	.48	.45	.54	.64	.58	.68	.77	.71	.75	.81	.78	.68	.59	.65
Entrepreneurship	.18	.42	.27	.16	.36	.26	.47	.50	.49	.52	.58	.55	.71	.76	.73	.29	.35	.31
Politics & Public Speaking	.56	.56	.59	.43	.57	.52	.54	.76	.63	.57	.71	.63	.70	.72	.70	.55	.62	.60
Law	.50	.57	.51	.36	.61	.48	.47	.68	.57	.49	.58	.53	.53	.65	.59	.47	.64	.55
Office Management	.38	.56	.44	.30	.63	.46	.33	.64	.49	.60	.67	.63	.61	.61	.61	.82	.93	.86
Taxes & Accounting	.35	.43	.42	.41	.65	.54	.18	.47	.33	.37	.52	.45	.37	.45	.41	.78	.85	.82
Programming & Information Systems	.63	.65	.68	.60	.63	.63	.46	.50	.45	.56	.48	.51	.44	.39	.42	.72	.70	.73
Finance & Investing	.40	.37	.42	.37	.49	.45	.41	.53	.47	.44	.57	.50	.57	.70	.63	.77	.72	.75

Note: N = 264 (134 women and 130 men).

TABLE 18. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN MECHANICS & CONSTRUCTION BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Engineering Technician	.80	Engineer	.85
Technical Support Specialist	.77	Network Administrator	.80
Network Administrator	.77	Computer & IS Manager	.79
Military Officer	.76	Engineering Technician	.78
Computer Programmer	.75	Computer Programmer	.78
Engineer	.73	Firefighter	.78
Electrician	.72	Software Developer	.77
Automobile Mechanic	.72	Computer Systems Analyst	.77
Software Developer	.72	Technical Support Specialist	.76
Computer Scientist	.71	Medical Technologist	.76
Speech Pathologist	–.21	Mental Health Counselor	–.25
Financial Analyst	–.22	Law Enforcement Officer	–.27
Broadcast Journalist	–.23	Buyer	–.27
Medical Illustrator	–.23	Advertising Account Manager	–.32
Mental Health Counselor	–.27	Biologist	–.32
Musician	–.36	Restaurant Manager	–.33
Photographer	–.41	Graphic Designer	–.35
Advertising Account Manager	–.46	Artist	–.42
Buyer	–.51	Farmer/Rancher	–.43
Artist	–.61	Interior Designer	–.47

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 19. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN COMPUTER HARDWARE & ELECTRONICS BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Technical Support Specialist	.86	Computer Systems Analyst	.90
Network Administrator	.83	Technical Support Specialist	.89
Computer Programmer	.81	Network Administrator	.89
Computer Scientist	.80	Computer & IS Manager	.87
Software Developer	.79	Software Developer	.87
Engineering Technician	.72	Computer Programmer	.85
Engineer	.69	Computer/Mathematics Manager	.80
Automobile Mechanic	.67	Engineer	.80
Military Officer	.67	Computer Scientist	.80
Electrician	.62	R&D Manager	.73
Interior Designer	–.18	Landscape/Grounds Manager	–.27
Speech Pathologist	–.22	Buyer	–.28
Broadcast Journalist	–.24	Restaurant Manager	–.30
Medical Illustrator	–.27	Social Worker	–.35
Musician	–.31	Farmer/Rancher	–.37
Photographer	–.40	Artist	–.43
Mental Health Counselor	–.49	Graphic Designer	–.44
Advertising Account Manager	–.51	Advertising Account Manager	–.45
Buyer	–.51	Mental Health Counselor	–.49
Artist	–.55	Interior Designer	–.51

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 20. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN MILITARY BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Firefighter	.76	Firefighter	.65
Military Officer	.75	Military Officer	.64
Military Enlisted	.72	School Administrator	.60
Technical Support Specialist	.70	Public Administrator	.59
Engineering Technician	.68	Arts/Entertainment Manager	.58
Network Administrator	.68	Physical Therapist	.58
Law Enforcement Officer	.67	Editor	.57
Chiropractor	.66	Elected Public Official	.56
Computer Programmer	.65	English Teacher	.55
Software Developer	.63	Dietitian	.55
Medical Illustrator	–.17	Horticulturist	–.22
Florist	–.18	Forester	–.25
Production Worker	–.18	Radiologic Technologist	–.27
Musician	–.21	Biologist	–.31
Farmer/Rancher	–.23	Landscape/Grounds Manager	–.34
Photographer	–.34	Artist	–.34
Financial Analyst	–.37	Optician	–.35
Advertising Account Manager	–.42	Automobile Mechanic	–.39
Buyer	–.47	Musician	–.40
Artist	–.53	Farmer/Rancher	–.58

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 21. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN PROTECTIVE SERVICES BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Firefighter	.86	Firefighter	.79
Law Enforcement Officer	.79	Arts/Entertainment Manager	.76
Military Officer	.79	Physical Therapist	.73
Chiropractor	.79	Chiropractor	.72
Engineering Technician	.77	Pharmacist	.71
Recreation Therapist	.74	Customer Service Representative	.70
Urban & Regional Planner	.71	Instructional Coordinator	.69
Physical Therapist	.70	Secondary School Teacher	.68
Registered Nurse	.69	Wholesale Sales Representative	.68
Engineer	.69	Health Information Specialist	.68
Cosmetologist	–.08	Electrician	–.19
Florist	–.19	Musician	–.20
Medical Illustrator	–.22	Forester	–.21
Photographer	–.24	Landscape/Grounds Manager	–.26
Advertising Account Manager	–.37	Geologist	–.31
Production Worker	–.39	Mathematician	–.32
Farmer/Rancher	–.41	Automobile Mechanic	–.41
Buyer	–.45	Biologist	–.50
Financial Analyst	–.50	Artist	–.50
Artist	–.61	Farmer/Rancher	–.65

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 22. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN NATURE & AGRICULTURE BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Recreation Therapist	.78	Chiropractor	.79
Engineering Technician	.74	Firefighter	.74
Firefighter	.73	Physical Therapist	.73
Urban & Regional Planner	.72	Respiratory Therapist	.71
Chiropractor	.70	Instructional Coordinator	.71
Vocational Agriculture Teacher	.69	Recreation Therapist	.71
Geographer	.63	Secondary School Teacher	.70
Graphic Designer	.63	Engineer	.70
Technical Sales Representative	.62	Middle School Teacher	.70
Landscape/Grounds Manager	.62	Community Service Director	.70
Photographer	–.08	Optician	–.20
Medical Technician	–.09	Graphic Designer	–.21
Business Education Teacher	–.10	Interior Designer	–.22
Medical Illustrator	–.11	Geologist	–.24
Advertising Account Manager	–.16	Law Enforcement Officer	–.30
Farmer/Rancher	–.22	Restaurant Manager	–.31
Buyer	–.33	Automobile Mechanic	–.36
Production Worker	–.39	Biologist	–.40
Artist	–.42	Artist	–.44
Financial Analyst	–.53	Farmer/Rancher	–.55

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 23. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN ATHLETICS BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Firefighter	.79	Recreation Therapist	.73
Parks & Recreation Manager	.79	Technical Sales Representative	.71
Recreation Therapist	.78	Middle School Teacher	.70
Law Enforcement Officer	.72	Physical Therapist	.70
Physical Therapist	.70	Wholesale Sales Representative	.67
Chiropractor	.69	Parks & Recreation Manager	.65
Urban & Regional Planner	.69	Secondary School Teacher	.65
Technical Sales Representative	.68	Personal Financial Advisor	.64
Engineering Technician	.67	Bartender	.63
ESL Instructor	.66	Arts/Entertainment Manager	.63
Photographer	–.08	Emergency Medical Technician	–.22
Florist	–.09	Radiologic Technologist	–.24
Advertising Account Manager	–.18	Translator	–.24
Medical Technician	–.21	Mathematician	–.28
Medical Illustrator	–.22	Landscape/Grounds Manager	–.30
Buyer	–.34	Geologist	–.35
Farmer/Rancher	–.41	Automobile Mechanic	–.36
Production Worker	–.45	Artist	–.43
Financial Analyst	–.48	Biologist	–.50
Artist	–.49	Farmer/Rancher	–.59

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 24. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN SCIENCE BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Chiropractor	.81	Science Teacher	.84
Dentist	.81	Dentist	.84
Pharmacist	.80	Optometrist	.84
Science Teacher	.80	Respiratory Therapist	.83
Optometrist	.79	Medical Technologist	.83
Medical Technologist	.77	Engineer	.81
Registered Nurse	.76	Veterinarian	.81
Geographer	.74	Pharmacist	.80
University Faculty Member	.74	Chiropractor	.77
Veterinarian	.74	Psychologist	.77
Business Education Teacher	–.27	Graphic Designer	–.26
Interior Designer	–.28	Landscape/Grounds Manager	–.32
Production Worker	–.32	Buyer	–.34
Financial Analyst	–.33	Automobile Mechanic	–.35
Photographer	–.35	Artist	–.38
Florist	–.36	Florist	–.39
Farmer/Rancher	–.45	Law Enforcement Officer	–.46
Artist	–.50	Interior Designer	–.47
Advertising Account Manager	–.60	Restaurant Manager	–.52
Buyer	–.69	Farmer/Rancher	–.55

Note: N = 264 ((134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 25. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN RESEARCH BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Sociologist	.82	Psychologist	.84
University Faculty Member	.80	University Faculty Member	.83
Engineer	.79	Sociologist	.80
Management Analyst	.77	Engineer	.79
Geographer	.74	Management Analyst	.79
Science Teacher	.74	Computer/Mathematics Manager	.78
Software Developer	.73	Software Developer	.78
Urban & Regional Planner	.72	Auditor	.76
Computer/Mathematics Manager	.72	Health Information Specialist	.76
Computer Programmer	.72	Computer Programmer	.75
Radiologic Technologist	–.21	Graphic Designer	–.32
Medical Illustrator	–.22	Florist	–.33
Cosmetologist	–.29	Optician	–.33
Florist	–.37	Radiologic Technologist	–.33
Photographer	–.37	Restaurant Manager	–.42
Advertising Account Manager	–.38	Law Enforcement Officer	–.49
Buyer	–.41	Automobile Mechanic	–.49
Production Worker	–.44	Landscape/Grounds Manager	–.49
Farmer/Rancher	–.51	Artist	–.52
Artist	–.63	Farmer/Rancher	–.65

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 26. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN MEDICAL SCIENCE BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Registered Nurse	.86	Pharmacist	.87
Chiropractor	.84	Respiratory Therapist	.85
Dentist	.84	Chiropractor	.84
Pharmacist	.84	Physical Therapist	.83
Science Teacher	.82	Registered Nurse	.81
Optometrist	.78	Dentist	.81
Physical Therapist	.77	Health Information Specialist	.80
Veterinarian	.74	Veterinarian	.78
Athletic Trainer	.74	Science Teacher	.78
Firefighter	.74	Optometrist	.75
Production Worker	–.27	Law Enforcement Officer	–.27
Interior Designer	–.27	Florist	–.27
Paralegal	–.30	Landscape/Grounds Manager	–.31
Florist	–.32	Graphic Designer	–.33
Photographer	–.37	Interior Designer	–.33
Farmer/Rancher	–.38	Biologist	–.36
Financial Analyst	–.41	Restaurant Manager	–.37
Advertising Account Manager	–.56	Automobile Mechanic	–.44
Buyer	–.59	Artist	–.51
Artist	–.60	Farmer/Rancher	–.61

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 27. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN MATHEMATICS BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Accountant	.81	Actuary	.87
Financial Manager	.74	Computer Programmer	.77
Actuary	.73	Engineer	.76
Auditor	.70	Optometrist	.75
Mathematics Teacher	.68	R&D Manager	.74
Engineer	.68	Software Developer	.71
Software Developer	.66	Auditor	.71
Management Analyst	.63	Computer Scientist	.70
Computer Programmer	.61	Military Officer	.69
Optometrist	.60	Accountant	.68
Flight Attendant	–.24	Musician	–.24
Paralegal	–.25	Restaurant Manager	–.32
Buyer	–.28	Mental Health Counselor	–.35
Medical Illustrator	–.32	Advertising Account Manager	–.38
Broadcast Journalist	–.33	Farmer/Rancher	–.39
Speech Pathologist	–.39	Interior Designer	–.41
Florist	–.42	Landscape/Grounds Manager	–.46
Advertising Account Manager	–.48	Graphic Designer	–.47
Artist	–.57	Artist	–.55
Photographer	–.60	Law Enforcement Officer	–.58

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 28. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN VISUAL ARTS & DESIGN BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Graphic Designer	.85	Arts/Entertainment Manager	.89
Arts/Entertainment Manager	.85	Editor	.83
Editor	.77	Urban & Regional Planner	.78
Technical Writer	.73	Chiropractor	.78
Urban & Regional Planner	.72	Physical Therapist	.76
ESL Instructor	.71	English Teacher	.76
Technical Sales Representative	.69	Secondary School Teacher	.75
Instructional Coordinator	.67	Instructional Coordinator	.75
Wholesale Sales Representative	.66	Registered Nurse	.73
English Teacher	.64	Sociologist	.73
Health Information Specialist	–.10	Military Enlisted	–.32
Business Education Teacher	–.13	Radiologic Technologist	–.34
Buyer	–.17	Vocational Agriculture Teacher	–.34
Physician	–.17	Emergency Medical Technician	–.36
Radiologic Technologist	–.21	Artist	–.37
Artist	–.33	Landscape/Grounds Manager	–.38
Medical Technician	–.34	Law Enforcement Officer	–.45
Financial Analyst	–.52	Biologist	–.47
Farmer/Rancher	–.57	Automobile Mechanic	–.55
Production Worker	–.72	Farmer/Rancher	–.78

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 29. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN PERFORMING ARTS BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
English Teacher	.71	Arts/Entertainment Manager	.85
Editor	.70	Bartender	.82
ESL Instructor	.68	English Teacher	.81
Arts/Entertainment Manager	.65	Editor	.79
Instructional Coordinator	.64	Instructional Coordinator	.78
School Counselor	.64	Secondary School Teacher	.78
Flight Attendant	.61	Flight Attendant	.77
Religious/Spiritual Leader	.60	Religious/Spiritual Leader	.75
Broadcast Journalist	.60	Urban & Regional Planner	.75
Rehabilitation Counselor	.58	Training & Development Specialist	.75
Geologist	–.15	Landscape/Grounds Manager	–.38
Mathematician	–.17	Military Enlisted	–.38
R&D Manager	–.18	Vocational Agriculture Teacher	–.39
Physician	–.20	Emergency Medical Technician	–.41
Radiologic Technologist	–.27	Geologist	–.46
Artist	–.29	Radiologic Technologist	–.46
Financial Analyst	–.41	Electrician	–.47
Medical Technician	–.44	Biologist	–.54
Farmer/Rancher	–.53	Automobile Mechanic	–.66
Production Worker	–.63	Farmer/Rancher	–.81

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 30. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN WRITING & MASS COMMUNICATION BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
English Teacher	.85	Editor	.90
Editor	.83	Reporter	.88
Technical Writer	.82	Urban & Regional Planner	.87
ESL Instructor	.78	Attorney	.87
Attorney	.76	Public Administrator	.87
Instructional Coordinator	.75	English Teacher	.86
Arts/Entertainment Manager	.72	Sociologist	.85
Rehabilitation Counselor	.71	Psychologist	.84
Reporter	.71	University Faculty Member	.83
Urban & Regional Planner	.70	ESL Instructor	.82
Automobile Mechanic	–.06	Vocational Agriculture Teacher	–.45
Physician	–.11	Artist	–.45
Buyer	–.13	Emergency Medical Technician	–.50
Medical Illustrator	–.15	Military Enlisted	–.53
Radiologic Technologist	–.28	Electrician	–.59
Medical Technician	–.43	Optician	–.60
Artist	–.49	Landscape/Grounds Manager	–.60
Financial Analyst	–.52	Radiologic Technologist	–.64
Farmer/Rancher	–.59	Automobile Mechanic	–.78
Production Worker	–.70	Farmer/Rancher	–.85

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 31. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN CULINARY ARTS BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Chef	.70	Food Service Manager	.76
Dietitian	.58	Chef	.75
Instructional Coordinator	.58	Bartender	.70
Recreation Therapist	.57	Flight Attendant	.69
Technical Sales Representative	.55	Dietitian	.69
Wholesale Sales Representative	.55	Technical Sales Representative	.66
Urban & Regional Planner	.55	Arts/Entertainment Manager	.63
Arts/Entertainment Manager	.54	Secondary School Teacher	.63
Religious/Spiritual Leader	.53	Instructional Coordinator	.63
School Counselor	.53	Middle School Teacher	.62
Advertising Account Manager	–.07	Electrician	–.21
Mathematician	–.07	Forester	–.22
Physician	–.08	Landscape/Grounds Manager	–.23
Radiologic Technologist	–.16	Radiologic Technologist	–.26
Medical Illustrator	–.21	Automobile Mechanic	–.36
Medical Technician	–.26	Artist	–.36
Artist	–.38	Mathematician	–.41
Farmer/Rancher	–.38	Geologist	–.44
Financial Analyst	–.44	Biologist	–.56
Production Worker	–.46	Farmer/Rancher	–.60

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 32. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN COUNSELING & HELPING BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Rehabilitation Counselor	.84	Religious/Spiritual Leader	.90
Social Worker	.83	Rehabilitation Counselor	.89
Secondary School Teacher	.82	Community Service Director	.88
Religious/Spiritual Leader	.81	Secondary School Teacher	.86
Special Education Teacher	.78	Instructional Coordinator	.85
Elementary School Teacher	.77	University Administrator	.84
Career Counselor	.77	Middle School Teacher	.84
School Counselor	.74	Career Counselor	.84
Middle School Teacher	.74	Elementary School Teacher	.84
Recreation Therapist	.73	School Counselor	.83
R&D Manager	–.10	Law Enforcement Officer	–.34
Photographer	–.10	Optician	–.35
Buyer	–.15	Radiologic Technologist	–.39
Advertising Account Manager	–.16	Electrician	–.42
Medical Technician	–.19	Landscape/Grounds Manager	–.44
Medical Illustrator	–.31	Geologist	–.53
Production Worker	–.45	Biologist	–.55
Farmer/Rancher	–.46	Artist	–.57
Financial Analyst	–.49	Automobile Mechanic	–.63
Artist	–.52	Farmer/Rancher	–.72

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 33. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN TEACHING & EDUCATION BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Elementary School Teacher	.88	Middle School Teacher	.87
Middle School Teacher	.84	Elementary School Teacher	.85
Special Education Teacher	.80	Secondary School Teacher	.85
Secondary School Teacher	.79	Community Service Director	.83
School Counselor	.79	Recreation Therapist	.82
Religious/Spiritual Leader	.77	Instructional Coordinator	.81
Rehabilitation Counselor	.77	School Counselor	.80
Social Worker	.74	Rehabilitation Counselor	.80
Instructional Coordinator	.74	Religious/Spiritual Leader	.79
University Administrator	.74	Special Education Teacher	.79
R&D Manager	–.14	Graphic Designer	–.35
Advertising Account Manager	–.16	Radiologic Technologist	–.36
Radiologic Technologist	–.17	Optician	–.40
Photographer	–.24	Geologist	–.40
Financial Analyst	–.26	Law Enforcement Officer	–.45
Farmer/Rancher	–.31	Biologist	–.48
Medical Technician	–.35	Landscape/Grounds Manager	–.50
Production Worker	–.38	Artist	–.55
Medical Illustrator	–.43	Automobile Mechanic	–.58
Artist	–.67	Farmer/Rancher	–.69

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 34. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN HUMAN RESOURCES & TRAINING BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Human Resources Specialist	.87	Operations Manager	.85
Human Resources Manager	.85	Human Resources Manager	.83
Training & Development Specialist	.85	Training & Development Specialist	.83
Operations Manager	.83	Top Executive, Business/Finance	.82
Instructional Coordinator	.81	Human Resources Specialist	.82
University Administrator	.81	Community Service Director	.81
Personal Financial Advisor	.80	Career Counselor	.81
Securities Sales Agent	.79	University Administrator	.80
Business/Finance Supervisor	.79	Instructional Coordinator	.80
Rehabilitation Counselor	.77	Business/Finance Supervisor	.80
Musician	–.20	Military Enlisted	–.33
Respiratory Therapist	–.20	Landscape/Grounds Manager	–.39
Forester	–.22	Electrician	–.39
Physician	–.37	Radiologic Technologist	–.45
Farmer/Rancher	–.40	Mathematician	–.48
Radiologic Technologist	–.44	Automobile Mechanic	–.56
Production Worker	–.45	Artist	–.60
Medical Technician	–.57	Geologist	–.61
Medical Illustrator	–.58	Farmer/Rancher	–.63
Artist	–.58	Biologist	–.65

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 35. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN SOCIAL SCIENCES BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Rehabilitation Counselor	.82	Rehabilitation Counselor	.85
University Administrator	.82	Community Service Director	.84
Religious/Spiritual Leader	.79	Urban & Regional Planner	.83
Instructional Coordinator	.79	Secondary School Teacher	.83
Secondary School Teacher	.79	Psychologist	.82
Elected Public Official	.76	Sociologist	.81
ESL Instructor	.76	University Faculty Member	.81
Human Resources Manager	.76	University Administrator	.81
Social Worker	.76	Management Analyst	.81
School Counselor	.75	Religious/Spiritual Leader	.81
Advertising Account Manager	–.12	Geologist	–.38
Photographer	–.16	Optician	–.38
Buyer	–.18	Law Enforcement Officer	–.39
Radiologic Technologist	–.26	Electrician	–.40
Medical Illustrator	–.33	Biologist	–.46
Financial Analyst	–.37	Radiologic Technologist	–.46
Medical Technician	–.40	Landscape/Grounds Manager	–.52
Farmer/Rancher	–.51	Artist	–.53
Production Worker	–.55	Automobile Mechanic	–.64
Artist	–.61	Farmer/Rancher	–.71

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 36. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN RELIGION & SPIRITUALITY BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Facilities Manager	.70	Religious/Spiritual Leader	.77
Religious/Spiritual Leader	.69	Elementary School Teacher	.73
Administrative Assistant	.60	Dietitian	.72
Customer Service Representative	.57	Nursing Home Administrator	.72
Nursing Home Administrator	.56	Administrative Assistant	.67
Registered Nurse	.55	Secondary School Teacher	.66
Occupational Therapist	.55	School Counselor	.65
Special Education Teacher	.54	Rehabilitation Counselor	.65
Recreation Therapist	.53	Community Service Director	.65
English Teacher	.53	Customer Service Representative	.64
Farmer/Rancher	–.05	Radiologic Technologist	–.21
Production Worker	–.07	Military Enlisted	–.26
R&D Manager	–.08	Landscape/Grounds Manager	–.27
Computer & IS Manager	–.11	Electrician	–.28
Medical Illustrator	–.16	Law Enforcement Officer	–.35
Buyer	–.18	Geologist	–.41
Photographer	–.20	Artist	–.42
Advertising Account Manager	–.22	Biologist	–.43
Financial Analyst	–.37	Automobile Mechanic	–.43
Artist	–.45	Farmer/Rancher	–.56

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 37. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN HEALTHCARE SERVICES BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Physical Therapist	.81	Pharmacist	.86
Registered Nurse	.81	Chiropractor	.86
Dentist	.81	Health Information Specialist	.85
Pharmacist	.80	Registered Nurse	.84
Chiropractor	.79	Respiratory Therapist	.84
Athletic Trainer	.75	Administrative Assistant	.82
Science Teacher	.74	Physical Therapist	.81
Firefighter	.74	Elementary School Teacher	.79
Optometrist	.74	Occupational Therapist	.78
Emergency Medical Technician	.74	Dentist	.78
Farmer/Rancher	–.16	Interior Designer	–.27
Florist	–.20	Landscape/Grounds Manager	–.29
Paralegal	–.24	Restaurant Manager	–.30
Librarian	–.26	Graphic Designer	–.31
Interior Designer	–.27	Geologist	–.31
Financial Analyst	–.40	Law Enforcement Officer	–.34
Photographer	–.43	Biologist	–.44
Advertising Account Manager	–.52	Automobile Mechanic	–.46
Buyer	–.54	Artist	–.54
Artist	–.65	Farmer/Rancher	–.64

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 38. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN MARKETING & ADVERTISING BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Realtor	.83	Wholesale Sales Representative	.85
Wholesale Sales Representative	.83	Securities Sales Agent	.85
Purchasing Agent	.83	Technical Sales Representative	.85
Sales Manager	.82	Marketing Manager	.85
Marketing Manager	.81	Sales Manager	.85
Securities Sales Agent	.80	Top Executive, Business/Finance	.83
Restaurant Manager	.80	Operations Manager	.83
Operations Manager	.80	Purchasing Agent	.82
Human Resources Specialist	.80	Personal Financial Advisor	.81
Technical Sales Representative	.79	Loan Officer/Counselor	.81
Geologist	–.31	Landscape/Grounds Manager	–.34
Biologist	–.32	Electrician	–.38
Mathematician	–.33	Radiologic Technologist	–.41
Farmer/Rancher	–.38	Forester	–.45
Radiologic Technologist	–.40	Automobile Mechanic	–.55
Medical Illustrator	–.42	Artist	–.57
Production Worker	–.47	Mathematician	–.62
Physician	–.50	Farmer/Rancher	–.64
Artist	–.56	Geologist	–.69
Medical Technician	–.57	Biologist	–.72

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 39. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN SALES BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Realtor	.79	Wholesale Sales Representative	.87
Securities Sales Agent	.78	Realtor	.86
Technical Sales Representative	.77	Technical Sales Representative	.86
Wholesale Sales Representative	.76	Personal Financial Advisor	.85
Restaurant Manager	.75	Securities Sales Agent	.83
Customer Service Representative	.74	Loan Officer/Counselor	.83
Personal Financial Advisor	.74	Sales Manager	.82
Sales Manager	.73	Credit Manager	.82
Facilities Manager	.73	Customer Service Representative	.81
Administrative Assistant	.72	Business/Finance Supervisor	.78
Financial Analyst	–.11	Forester	–.23
Production Worker	–.14	Radiologic Technologist	–.26
R&D Manager	–.14	Landscape/Grounds Manager	–.29
Advertising Account Manager	–.16	Graphic Designer	–.37
Musician	–.27	Automobile Mechanic	–.41
Medical Technician	–.31	Mathematician	–.53
Physician	–.33	Farmer/Rancher	–.58
Photographer	–.37	Geologist	–.66
Medical Illustrator	–.50	Artist	–.70
Artist	–.74	Biologist	–.77

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 40. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN MANAGEMENT BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Business/Finance Supervisor	.82	Operations Manager	.83
Operations Manager	.82	Purchasing Agent	.82
Top Executive, Business/Finance	.77	Business/Finance Supervisor	.80
Securities Sales Agent	.77	School Administrator	.80
Management Analyst	.77	Food Service Manager	.78
Human Resources Specialist	.76	Facilities Manager	.78
Auditor	.75	Human Resources Manager	.77
Human Resources Manager	.75	Top Executive, Business/Finance	.77
Personal Financial Advisor	.75	Sales Manager	.77
Sales Manager	.74	Community Service Director	.77
Respiratory Therapist	–.12	Electrician	–.31
Photographer	–.28	Landscape/Grounds Manager	–.36
Musician	–.28	Radiologic Technologist	–.38
Physician	–.32	Graphic Designer	–.41
Radiologic Technologist	–.33	Mathematician	–.46
Farmer/Rancher	–.36	Automobile Mechanic	–.52
Production Worker	–.36	Geologist	–.59
Medical Technician	–.48	Farmer/Rancher	–.61
Medical Illustrator	–.57	Artist	–.68
Artist	–.71	Biologist	–.69

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 41. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN ENTREPRENEURSHIP BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Operations Manager	.67	Operations Manager	.67
Sales Manager	.66	Top Executive, Business/Finance	.65
Securities Sales Agent	.65	Securities Sales Agent	.65
Human Resources Manager	.65	Marketing Manager	.64
Top Executive, Business/Finance	.64	Wholesale Sales Representative	.63
Human Resources Specialist	.64	Training & Development Specialist	.62
Marketing Manager	.64	Sales Manager	.62
Training & Development Specialist	.63	Purchasing Agent	.62
Realtor	.62	Technical Sales Representative	.62
Wholesale Sales Representative	.62	Human Resources Manager	.62
Biologist	–.22	Electrician	–.29
Respiratory Therapist	–.25	Landscape/Grounds Manager	–.33
Medical Illustrator	–.26	Radiologic Technologist	–.35
Physician	–.27	Automobile Mechanic	–.38
Forester	–.28	Mathematician	–.38
Artist	–.34	Artist	–.39
Radiologic Technologist	–.39	Forester	–.39
Farmer/Rancher	–.40	Geologist	–.40
Production Worker	–.42	Biologist	–.51
Medical Technician	–.49	Farmer/Rancher	–.51

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 42. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN POLITICS & PUBLIC SPEAKING BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
School Administrator	.84	Elected Public Official	.89
Elected Public Official	.84	Public Administrator	.88
Top Executive, Business/Finance	.80	School Administrator	.84
Attorney	.78	Attorney	.82
Sales Manager	.76	Marketing Manager	.81
Operations Manager	.75	Training & Development Specialist	.80
Personal Financial Advisor	.75	Instructional Coordinator	.79
Public Administrator	.74	Urban & Regional Planner	.79
Human Resources Manager	.74	University Administrator	.79
Securities Sales Agent	.73	Sales Manager	.78
Respiratory Therapist	–.24	Emergency Medical Technician	–.42
Photographer	–.25	Optician	–.47
Musician	–.28	Landscape/Grounds Manager	–.47
Horticulturist	–.33	Geologist	–.48
Radiologic Technologist	–.38	Electrician	–.50
Farmer/Rancher	–.40	Artist	–.52
Production Worker	–.42	Radiologic Technologist	–.61
Medical Illustrator	–.44	Biologist	–.61
Medical Technician	–.56	Automobile Mechanic	–.72
Artist	–.64	Farmer/Rancher	–.75

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 43. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN LAW BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Attorney	.69	Attorney	.77
Law Enforcement Officer	.68	Sales Manager	.75
Elected Public Official	.66	Personal Financial Advisor	.75
Top Executive, Business/Finance	.62	Financial Analyst	.74
School Administrator	.61	Auditor	.74
Military Officer	.61	School Administrator	.73
Urban & Regional Planner	.61	Public Administrator	.73
Sales Manager	.59	Marketing Manager	.72
Technical Sales Representative	.58	Business/Finance Supervisor	.72
Human Resources Manager	.57	Credit Manager	.72
Musician	–.17	Electrician	–.31
Advertising Account Manager	–.19	Geologist	–.35
Photographer	–.20	Landscape/Grounds Manager	–.35
Horticulturist	–.28	Mathematician	–.37
Financial Analyst	–.30	Radiologic Technologist	–.38
Medical Illustrator	–.31	Horticulturist	–.38
Medical Technician	–.36	Automobile Mechanic	–.53
Production Worker	–.36	Biologist	–.54
Farmer/Rancher	–.42	Artist	–.57
Artist	–.57	Farmer/Rancher	–.60

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 44. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN OFFICE MANAGEMENT BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Administrative Assistant	.81	Administrative Assistant	.85
Customer Service Representative	.79	Customer Service Representative	.83
Credit Manager	.75	Health Information Specialist	.80
Facilities Manager	.70	Accountant	.77
Business Education Teacher	.65	Auditor	.77
Auditor	.65	Business/Finance Supervisor	.74
Accountant	.63	Financial Manager	.71
Business/Finance Supervisor	.63	Credit Manager	.71
Securities Sales Agent	.62	Management Analyst	.71
Nursing Home Administrator	.62	Financial Analyst	.70
Biologist	–.11	Musician	–.23
Advertising Account Manager	–.17	Interior Designer	–.25
R&D Manager	–.20	Law Enforcement Officer	–.35
Medical Technician	–.26	Landscape/Grounds Manager	–.36
Carpenter	–.29	Geologist	–.38
Musician	–.29	Automobile Mechanic	–.42
Physician	–.29	Graphic Designer	–.48
Photographer	–.46	Biologist	–.54
Medical Illustrator	–.64	Farmer/Rancher	–.56
Artist	–.75	Artist	–.65

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 45. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN TAXES & ACCOUNTING BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Accountant	.87	Auditor	.81
Financial Manager	.85	Financial Manager	.81
Auditor	.79	Accountant	.79
Actuary	.70	Actuary	.77
Business/Finance Supervisor	.64	Financial Analyst	.72
Credit Manager	.61	Business/Finance Supervisor	.71
Mathematics Teacher	.61	Credit Manager	.68
Loan Officer/Counselor	.60	Management Analyst	.67
Software Developer	.58	Customer Service Representative	.66
Engineer	.58	Engineer	.63
Mental Health Counselor	–.20	Advertising Account Manager	–.24
Chef	–.22	Musician	–.30
Musician	–.22	Automobile Mechanic	–.30
Broadcast Journalist	–.22	Interior Designer	–.33
Florist	–.28	Landscape/Grounds Manager	–.35
Speech Pathologist	–.31	Biologist	–.36
Advertising Account Manager	–.41	Farmer/Rancher	–.39
Medical Illustrator	–.48	Law Enforcement Officer	–.39
Photographer	–.59	Graphic Designer	–.54
Artist	–.63	Artist	–.63

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 46. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN PROGRAMMING & INFORMATION SYSTEMS BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Technical Support Specialist	.86	Computer Systems Analyst	.87
Software Developer	.84	Software Developer	.85
Computer Programmer	.83	Network Administrator	.85
Network Administrator	.82	Computer Programmer	.84
Computer Scientist	.81	Technical Support Specialist	.84
Computer/Mathematics Manager	.73	Computer & IS Manager	.84
Engineer	.69	Computer/Mathematics Manager	.82
Administrative Assistant	.65	Computer Scientist	.78
Engineering Technician	.63	Engineer	.76
Facilities Manager	.62	R&D Manager	.68
Production Worker	–.17	Restaurant Manager	–.29
Florist	–.22	Social Worker	–.29
Farmer/Rancher	–.24	Interior Designer	–.30
Musician	–.24	Law Enforcement Officer	–.33
Mental Health Counselor	–.34	Advertising Account Manager	–.33
Medical Illustrator	–.35	Graphic Designer	–.35
Photographer	–.42	Landscape/Grounds Manager	–.38
Buyer	–.44	Artist	–.43
Advertising Account Manager	–.47	Mental Health Counselor	–.44
Artist	–.64	Farmer/Rancher	–.46

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 47. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN FINANCE & INVESTING BIS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Financial Manager	.75	Financial Manager	.83
Auditor	.74	Financial Analyst	.82
Accountant	.72	Business/Finance Supervisor	.79
Business/Finance Supervisor	.71	Sales Manager	.79
Sales Manager	.69	Management Analyst	.79
Personal Financial Advisor	.68	Auditor	.79
Securities Sales Agent	.68	Operations Manager	.79
Loan Officer/Counselor	.66	Loan Officer/Counselor	.78
Computer/Mathematics Manager	.64	Securities Sales Agent	.78
Management Analyst	.64	Personal Financial Advisor	.78
Advertising Account Manager	–.17	Graphic Designer	–.32
Florist	–.18	Electrician	–.32
Speech Pathologist	–.19	Mathematician	–.34
Musician	–.26	Landscape/Grounds Manager	–.36
Photographer	–.29	Radiologic Technologist	–.38
Medical Technician	–.30	Geologist	–.40
Farmer/Rancher	–.30	Automobile Mechanic	–.48
Production Worker	–.31	Farmer/Rancher	–.49
Medical Illustrator	–.37	Biologist	–.59
Artist	–.53	Artist	–.60

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Relationship Between the BISs and the CPI 260® Scales

The validity of the BISs was also examined by correlating the BISs with the CPI 260 scales for 81 individuals. Some of the strongest relationships between individual BISs and the CPI 260 scales are presented in Table 48. All correlations between the BISs and CPI 260 scales are presented in Table 49. Table 49 shows that patterns of correlations are consistent with expectations for the Basic Interest Scales and the personality measures from the CPI 260 assessment. For example, the CPI scale Dominance correlates with the BISs Human Resources & Training, Marketing & Advertising, and Politics & Public Speaking, meaning individuals who score higher on Dominance also score higher on these BISs. These patterns, generally in the direction of and among measures expected to show some degree of relationship, demonstrate the validity of the BISs in the Singapore sample.

TABLE 48. STRONG RELATIONSHIPS BETWEEN THE BISs AND THE CPI 260® SCALES IN THE SINGAPORE SAMPLE

Basic Interest Scale	CPI 260® Scale
Mechanics & Construction	vector 2
Computer Hardware & Electronics	vector 2
Military	Capacity for Status
Protective Services	Dominance
Nature & Agriculture	Tolerance
Athletics	Social Presence
Science	vector 2
Research	Capacity for Status
Medical Science	Self-acceptance
Mathematics	Responsibility
Visual Arts & Design	Capacity for Status
Performing Arts	Capacity for Status
Writing & Mass Communication	Conceptual Fluency
Culinary Arts	Capacity for Status
Counseling & Helping	Sociability
Teaching & Education	Responsibility
Human Resources & Training	Sociability
Social Sciences	Capacity for Status
Religion & Spirituality	Sensitivity
Healthcare Services	Sensitivity
Marketing & Advertising	Sociability
Sales	Sociability
Management	Sociability
Entrepreneurship	Self-acceptance
Politics & Public Speaking	Dominance
Law	Dominance
Office Management	vector 2
Taxes & Accounting	vector 2
Programming & Information Systems	vector 2
Finance & Investing	Sociability

Note: n = 81.

TABLE 49. CORRELATIONS BETWEEN THE BISs AND THE CPI 260® SCALES IN THE SINGAPORE SAMPLE

	Basic Interest Scales														
CPI 260® Scale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Do	.11	.08	.18	.30	.04	.21	.01	.38	.04	–.12	.22	.28	.30	.23	.24
Cs	.08	.02	.23	.22	–.03	.28	.06	.38	.05	–.04	.31	.42	.36	.37	.19
Sy	.04	.00	.17	.25	.02	.26	–.05	.35	–.03	–.09	.18	.33	.23	.26	.26
Sp	.05	.01	.20	.13	–.09	.30	–.04	.17	–.07	–.15	.24	.33	.25	.19	.16
Sa	.05	.02	.19	.27	.04	.21	–.01	.31	.11	–.12	.23	.40	.32	.31	.21
In	–.01	–.03	.06	.15	–.02	.18	–.04	.27	–.07	–.16	.20	.17	.24	.24	.23
Em	.05	.01	.11	.07	–.09	.11	.00	.26	.02	–.07	.16	.24	.27	.02	.11
Re	.05	.09	–.05	.11	.01	.06	.11	.32	–.02	.26	.17	.13	.22	.19	.26
So	–.09	–.03	–.06	–.01	–.18	–.01	–.07	.14	–.18	.01	.07	.02	.18	.05	.11
Sc	–.29	–.17	–.20	–.23	–.10	–.20	–.14	–.16	–.14	–.07	–.12	–.27	.00	–.17	–.02
Gi	–.22	–.10	–.11	–.10	–.05	–.09	–.15	.00	–.11	–.06	–.02	–.16	.07	–.03	.11
Cm	–.17	–.14	–.11	.01	–.04	–.07	.05	–.08	–.04	–.17	.18	.07	.27	.15	.18
Wb	–.04	.03	.10	.07	–.09	.14	–.11	.13	–.16	–.11	.10	.08	.21	.09	.17
To	–.17	–.06	–.04	–.09	–.27	–.01	–.12	.12	–.20	–.03	.03	.04	.18	.05	.04
Ac	–.17	–.04	–.12	–.07	–.15	–.06	–.06	.26	–.07	.02	.09	.03	.26	.09	.15
Ai	–.05	.04	–.05	–.11	–.20	–.06	–.11	.23	–.22	.06	.06	–.02	.16	.02	.00
Cf	.05	.09	.10	.16	–.06	.12	.09	.34	.00	–.05	.21	.07	.37	.22	.18
Is	.07	.11	.06	–.07	–.22	.08	.03	.31	–.11	.04	.11	.01	.22	.13	–.04
Fx	–.08	–.01	.02	–.19	–.12	–.04	–.19	.03	–.17	.09	–.09	.11	–.05	–.20	–.18
Sn	–.27	–.30	–.21	–.20	–.13	–.30	–.14	–.37	–.06	–.05	–.12	–.02	–.11	–.09	–.01
Mp	–.08	–.02	.07	.09	–.15	.03	–.11	.35	–.07	–.06	.17	.22	.31	.11	.15
Wo	–.24	–.16	–.07	–.03	–.21	–.01	–.06	.07	–.08	–.11	.09	.01	.20	.12	.06
Ct	–.07	–.14	.02	–.07	–.09	.14	–.08	.12	–.12	–.15	.03	.23	.06	–.02	.06
Lp	.04	.02	.13	.22	.01	.20	–.02	.38	–.04	–.12	.22	.27	.32	.29	.24
Ami	–.17	–.07	–.06	–.14	–.15	–.02	–.18	.02	–.24	–.03	–.01	.00	.08	–.06	.03
Leo	–.01	–.03	–.08	.10	.03	–.03	–.02	.14	.02	–.11	.14	–.06	.22	.17	.12
v.1	–.28	–.24	–.32	–.34	–.09	–.29	–.10	–.39	–.14	.00	–.23	–.40	–.26	–.23	–.16
v.2	.23	.27	.12	.21	.02	.18	.14	.34	.06	.15	.11	.06	.19	.22	.14
v.3	–.25	–.13	–.09	–.17	–.19	–.04	–.26	–.01	–.26	–.04	–.08	–.11	.04	–.05	.00

Note: n = 81. Basic Interest Scales: 1 = Mechanics & Construction; 2 = Computer Hardware & Electronics; 3 = Military; 4 = Protective Services; 5 = Nature & Agriculture; 6 = Athletics; 7 = Science; 8 = Research; 9 = Medical Science; 10 = Mathematics; 11 = Visual Arts & Design; 12 = Performing Arts; 13 = Writing & Mass Communication; 14 = Culinary Arts; 15 = Counseling & Helping.

TABLE 49. CORRELATIONS BETWEEN THE BISs AND THE CPI 260® SCALES IN THE SINGAPORE SAMPLE (CONT'D)

	Basic Interest Scales														
CPI 260® Scale	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Do	.03	.49	.24	.01	–.05	.44	.26	.38	.37	.47	.36	.08	–.02	.07	.27
Cs	.11	.31	.25	–.04	–.03	.37	.18	.27	.33	.40	.21	–.03	–.09	.03	.17
Sy	.04	.49	.23	–.07	–.07	.52	.32	.41	.41	.47	.35	.09	.01	.02	.32
Sp	–.03	.28	.18	–.14	–.12	.34	.22	.33	.30	.39	.26	–.06	–.11	–.02	.19
Sa	.10	.44	.20	.00	–.04	.44	.25	.34	.42	.40	.31	.04	–.06	.01	.24
In	–.05	.40	.18	–.09	–.16	.37	.17	.30	.24	.30	.18	–.06	–.07	–.01	.23
Em	.11	.24	.12	–.11	–.06	.10	.01	.18	.19	.31	.19	.03	–.20	–.03	–.02
Re	.13	.17	.14	.16	–.02	–.04	–.07	–.07	.02	.11	–.05	.05	.07	.21	.11
So	–.06	.08	.05	.07	–.14	–.06	–.04	–.08	–.07	.01	–.08	–.05	–.05	.04	.16
Sc	–.05	–.16	–.14	–.02	–.14	–.36	–.34	–.32	–.26	–.37	–.32	–.13	–.16	–.13	–.09
Gi	–.06	.01	–.03	.02	–.16	–.12	–.16	–.15	–.14	–.15	–.13	–.10	–.09	–.08	.06
Cm	.02	.03	.09	.06	–.08	.00	–.05	–.01	.02	–.04	–.02	–.22	–.21	–.01	.17
Wb	–.03	.21	.09	.04	–.09	.06	.06	.07	.09	.16	.09	–.03	–.11	.02	.26
To	–.04	.02	.03	–.02	–.17	–.11	–.14	–.06	.04	–.05	–.14	–.12	–.10	–.03	.14
Ac	.04	.16	.02	.05	–.21	–.01	–.14	–.03	.10	.01	–.06	–.06	–.07	.07	.10
Ai	–.09	.12	.04	–.15	–.28	–.18	–.15	–.03	–.03	.03	–.15	–.13	–.01	.07	.13
Cf	–.01	.23	.18	–.03	–.11	.05	–.07	.13	.20	.25	.16	–.06	–.07	.13	.19
Is	–.08	.10	.07	–.12	–.24	–.06	–.10	.09	.07	.16	.03	–.19	–.01	.05	.17
Fx	–.02	.01	–.11	–.23	–.14	–.11	–.12	.09	.06	–.04	–.17	–.04	–.09	–.06	–.13
Sn	.12	–.32	–.17	.17	.11	–.23	–.16	–.32	–.40	–.27	–.33	–.03	–.06	–.20	–.27
Mp	.00	.31	.21	–.05	–.21	.21	.04	.23	.25	.25	.14	.04	–.07	.04	.19
Wo	–.09	.04	.00	–.07	–.13	–.04	–.07	–.09	.04	–.09	–.10	–.13	–.22	–.07	.16
Ct	.03	.18	.10	–.14	–.11	.15	.05	.23	.21	.23	.01	–.09	–.14	–.21	.06
Lp	.00	.46	.20	–.05	–.12	.38	.21	.31	.35	.40	.26	.04	–.06	.03	.28
Ami	–.06	.00	–.04	–.04	–.16	–.13	–.11	–.12	–.11	–.07	–.18	.00	–.11	–.07	.07
Leo	–.07	.24	–.02	–.06	–.12	.05	–.13	.01	.14	.09	.14	–.05	–.13	–.02	.03
v.1	–.13	–.45	–.29	–.07	–.05	–.49	–.39	–.46	–.41	–.56	–.48	–.20	–.11	–.19	–.23
v.2	.08	.17	.17	.20	.03	.14	.19	.09	.03	.19	.10	.13	.16	.37	.25
v.3	–.10	.01	–.07	–.08	–.21	–.11	–.16	–.06	.00	–.12	–.19	–.11	–.05	–.10	.03

Note: n = 81. Basic Interest Scales: 16 = Teaching & Education; 17 = Human Resources & Training; 18 = Social Sciences; 19 = Religion & Spirituality; 20 = Healthcare Services; 21 = Marketing & Advertising; 22 = Sales; 23 = Management; 24 = Entrepreneurship; 25 = Politics & Public Speaking; 26 = Law; 27 = Office Management; 28 = Taxes & Accounting; 29 = Programming & Information Systems; 30 = Finance & Investing.

OCCUPATIONAL SCALES

The Occupational Scales (OSs) provide information about how individuals' responses compare with those of people actually employed in and satisfied with a particular occupation. The results of each of the OSs answer the basic question, "Does the respondent have likes and dislikes similar to those of women or men in this occupation?" Thus, the OSs enable respondents to compare their interests with those of people from a diverse representation of occupations, including accountants, graphic designers, engineering technicians, and financial managers, to name just a few. These scales generate a large amount of specific information about and for each respondent. For an in-depth discussion of the interpretation of the OSs, as well as the construction and norming of the scales, please refer to the *Strong Interest Inventory® Manual* (Donnay et al., 2005) and the *Strong Interest Inventory® Manual Supplement* (Herk & Thompson, 2012).

In order to maintain the psychometric soundness of the Strong, the assessment is frequently revised to reflect the changes in the occupational world and in society. In 2010, the Strong was again updated; however, this update focused solely on the OSs. Specifically, new OSs were added, some older OSs were deleted, some OSs were updated by developing a scale for a newer sample, and in other cases samples were updated with additional members of the occupation. This resulted in 260 OSs—130 separate scales each for women and men. The following analyses were run using this list of 260 scales, along with all above-mentioned analyses, illustrating the relationships between the GOTs and the OSs, and between the BISs and the OSs.

As stated earlier, the OSs were built using occupational samples obtained in the United States. Although occupations in different countries may share the same job titles, different sets of knowledge, skills, abilities, and other attributes may be required to successfully perform these jobs. Despite generally congruent results between the Singapore sample and the GRS, caution should be taken when interpreting OS results, as cultural differences may be a factor.

SINGAPORE SAMPLE NORMS OF THE OSs

The standardized scores for each of the 260 OSs are presented in Table 50. Means, standard deviations, and interpretive categories are listed for women and men. Means and standard deviations were set at 50 and 10, respectively, for individuals composing an occupational group. Thus, when OSs are interpreted, occupations receiving a score of 40 or above are deemed to be those for which a client has a "Similar" interest. Since the interests of women and men are somewhat different, separate OSs have been constructed for each occupation. Table 50 provides the mean scores on female and male scales for the same occupations in the Singapore sample. For women in the Singapore sample, 80 of the 130 female OSs show a mean score that is within 5 points of the mean score of the corresponding male OS. For men, 90 of the 130 male OSs show a mean score that is within 5 points of the corresponding female OS. These findings suggest that the female and male OS scores are similar for well over half of the scales.

In the Singapore sample, scales with the largest mean score differences were the Special Education Teacher scale for women and the Health Information Specialist scale for men.

TABLE 50. COMPARISONS OF THE OS MEAN SCORES BY GENDER IN THE SINGAPORE SAMPLE

	Women			Men		
Occupational Scale	Mean Score on Female Scale	Mean Score on Male Scale	Mean Difference	Mean Score on Male Scale	Mean Score on Female Scale	Mean Difference
Accountant	41.05	37.82	3.23	44.24	46.16	–1.92
Actuary	33.23	25.82	7.41	36.23	42.34	–6.11
Administrative Assistant	47.14	53.62	–6.48	52.15	48.53	3.62
Advertising Account Manager	33.79	37.55	–3.76	29.05	24.63	4.42
Architect	17.53	20.58	–3.05	21.57	22.58	–1.01
Art Teacher	8.33	19.90	–11.57	13.97	4.92	9.05
Artist	38.94	43.41	–4.48	43.47	40.85	2.62
Arts/Entertainment Manager	23.09	20.36	2.73	13.64	17.72	–4.09
Athletic Trainer	10.47	16.84	–6.37	22.42	17.80	4.63
Attorney	26.85	25.05	1.80	25.48	28.96	–3.47
Auditor	41.42	35.36	6.06	42.71	46.56	–3.86
Automobile Mechanic	27.99	28.49	–0.50	32.72	38.09	–5.37
Bartender	40.54	35.49	5.05	33.04	40.00	–6.96
Biologist	21.99	26.61	–4.62	26.23	28.92	–2.68
Broadcast Journalist	32.39	30.23	2.16	26.69	27.47	–0.77
Business Education Teacher	34.72	42.01	–7.30	41.05	34.92	6.13
Business/Finance Supervisor	40.43	39.73	0.70	44.72	44.87	–0.15
Buyer	34.82	35.32	–0.50	28.66	27.43	1.23
Career Counselor	30.44	37.78	–7.35	34.19	28.05	6.13
Carpenter	18.73	28.27	–9.54	34.55	26.95	7.59
Chef	31.20	31.91	–0.71	29.03	25.56	3.47
Chemist	24.52	16.95	7.57	28.02	34.14	–6.12
Chiropractor	32.94	33.05	–0.11	36.00	39.85	–3.85
Community Service Director	39.01	38.14	0.87	39.62	39.15	0.47
Computer & IS Manager	34.93	33.53	1.40	43.69	41.93	1.76
Computer Programmer	39.67	32.56	7.11	42.69	49.05	–6.36
Computer Scientist	25.57	16.82	8.75	26.75	38.84	–12.09
Computer Systems Analyst	34.69	34.74	–0.06	45.45	38.52	6.93
Computer/Mathematics Manager	29.95	29.99	–0.05	40.06	40.37	–0.31
Cosmetologist	42.13	42.15	–0.01	36.78	35.51	1.26
Credit Manager	45.86	40.38	5.48	46.17	47.56	–1.39
Customer Service Representative	46.67	49.00	–2.33	50.01	48.73	1.27

(cont'd)

TABLE 50. COMPARISONS OF THE OS MEAN SCORES BY GENDER IN THE SINGAPORE SAMPLE (CONT'D)

	Women			Men		
Occupational Scale	Mean Score on Female Scale	Mean Score on Male Scale	Mean Difference	Mean Score on Male Scale	Mean Score on Female Scale	Mean Difference
Dentist	27.91	27.92	–0.01	35.94	36.74	–0.80
Dietitian	31.67	40.15	–8.48	38.93	31.48	7.46
Editor	27.15	28.97	–1.82	28.59	28.29	0.31
Elected Public Official	23.24	20.70	2.54	24.42	27.78	–3.35
Electrician	23.24	28.48	–5.25	36.36	32.53	3.83
Elementary School Teacher	36.34	42.68	–6.33	43.02	36.10	6.92
Emergency Medical Technician	34.08	32.07	2.00	36.08	37.87	–1.78
Engineer	36.82	30.25	6.57	41.51	46.48	–4.97
Engineering Technician	37.41	24.40	13.01	34.81	46.51	–11.70
English Teacher	14.19	18.61	–4.42	18.50	14.96	3.54
ESL Instructor	30.03	33.13	–3.09	28.08	31.65	–3.57
Facilities Manager	33.65	34.01	–0.36	34.43	31.82	2.61
Farmer/Rancher	48.46	44.45	4.01	46.48	50.75	–4.27
Financial Analyst	37.78	33.65	4.13	34.10	36.68	–2.58
Financial Manager	40.48	34.81	5.67	41.26	41.90	–0.64
Firefighter	36.67	30.23	6.44	38.12	41.84	–3.72
Flight Attendant	25.09	25.77	–0.68	33.76	36.50	–2.74
Florist	41.16	47.19	–6.03	43.85	40.31	3.54
Food Service Manager	33.84	41.61	–7.77	37.44	29.06	8.38
Forester	44.03	40.85	3.18	40.34	41.75	–1.41
Geographer	28.30	27.26	1.04	30.08	35.68	–5.60
Geologist	19.42	21.06	–1.65	22.36	25.38	–3.02
Graphic Designer	19.60	22.35	–2.75	25.52	29.11	–3.59
Health Information Specialist	33.24	27.04	6.21	20.12	35.13	–15.01
Horticulturist	43.70	41.54	2.16	46.48	43.73	2.75
Human Resources Manager	31.05	34.47	–3.42	34.46	33.83	0.64
Human Resources Specialist	39.60	38.38	1.22	37.82	42.35	–4.52
Instructional Coordinator	39.03	42.56	–3.53	43.90	40.83	3.07
Interior Designer	20.98	35.47	–14.49	25.89	17.37	8.52
Landscape/Grounds Manager	34.86	36.88	–2.02	37.00	40.51	–3.52
Law Enforcement Officer	35.69	34.82	0.86	37.93	43.31	–5.39
Librarian	34.96	39.81	–4.85	34.59	31.12	3.47
Life Insurance Agent	35.93	37.29	–1.36	37.54	37.40	0.14
Loan Officer/Counselor	41.44	33.64	7.80	37.32	42.81	–5.49

TABLE 50. COMPARISONS OF THE OS MEAN SCORES BY GENDER IN THE SINGAPORE SAMPLE (CONT'D)

	Women			Men		
Occupational Scale	Mean Score on Female Scale	Mean Score on Male Scale	Mean Difference	Mean Score on Male Scale	Mean Score on Female Scale	Mean Difference
Management Analyst	37.79	37.38	0.41	41.57	44.08	–2.52
Marketing Manager	30.95	33.54	–2.59	36.49	32.90	3.59
Mathematician	12.77	15.28	–2.51	15.89	22.43	–6.54
Mathematics Teacher	25.67	23.35	2.32	29.50	33.20	–3.70
Medical Illustrator	10.31	12.21	–1.90	7.67	7.65	0.02
Medical Technician	33.72	23.71	10.00	30.91	34.61	–3.70
Medical Technologist	29.42	26.28	3.14	34.78	36.07	–1.29
Mental Health Counselor	23.68	31.91	–8.23	24.95	16.11	8.85
Middle School Teacher	33.82	37.37	–3.55	40.12	33.26	6.87
Military Enlisted	42.55	35.54	7.01	42.43	47.24	–4.81
Military Officer	37.66	28.98	8.68	40.00	46.44	–6.44
Musician	29.25	35.95	–6.70	29.77	24.11	5.66
Network Administrator	38.00	26.90	11.10	40.41	48.13	–7.71
Nursing Home Administrator	44.21	45.15	–0.94	47.88	46.85	1.03
Occupational Therapist	34.34	37.52	–3.19	37.76	33.26	4.50
Operations Manager	37.98	34.34	3.65	39.71	42.54	–2.83
Optician	44.16	40.86	3.30	42.84	43.40	–0.56
Optometrist	33.40	27.21	6.19	34.24	40.79	–6.54
Paralegal	44.16	38.77	5.40	39.05	42.61	–3.56
Parks & Recreation Manager	37.56	37.48	0.07	40.63	42.58	–1.95
Personal Financial Advisor	34.62	24.90	9.71	32.08	39.30	–7.21
Pharmacist	35.87	40.14	–4.27	45.24	42.26	2.97
Photographer	30.98	29.07	1.91	27.61	26.82	0.80
Physical Therapist	30.59	29.55	1.04	38.32	36.29	2.03
Physician	23.01	17.34	5.67	22.48	26.39	–3.91
Physicist	10.49	5.22	5.27	18.33	25.85	–7.52
Production Worker	41.79	39.28	2.52	47.85	42.15	5.71
Psychologist	24.07	24.63	–0.55	26.79	26.17	0.62
Public Administrator	21.37	25.77	–4.40	30.07	27.07	2.99
Public Relations Director	20.69	26.68	–5.99	23.58	20.19	3.39
Purchasing Agent	38.51	32.63	5.87	37.95	40.44	–2.49
R&D Manager	19.77	19.13	0.64	30.64	28.31	2.32
Radiologic Technologist	41.84	40.72	1.12	41.79	40.69	1.10
Realtor	39.14	31.78	7.36	36.99	43.37	–6.38

(cont'd)

TABLE 50. COMPARISONS OF THE OS MEAN SCORES BY GENDER IN THE SINGAPORE SAMPLE (CONT'D)

	Women			Men		
Occupational Scale	Mean Score on Female Scale	Mean Score on Male Scale	Mean Difference	Mean Score on Male Scale	Mean Score on Female Scale	Mean Difference
Recreation Therapist	37.93	34.22	3.71	35.55	41.74	–6.19
Registered Nurse	32.55	36.00	–3.44	38.47	36.28	2.18
Rehabilitation Counselor	32.82	39.27	–6.46	38.84	34.56	4.28
Religious/Spiritual Leader	11.02	23.74	–12.72	27.10	16.09	11.01
Reporter	19.00	20.25	–1.25	17.48	17.84	–0.36
Respiratory Therapist	34.83	29.19	5.64	36.33	33.71	2.62
Restaurant Manager	37.58	38.09	–0.51	36.01	39.53	–3.52
Sales Manager	32.29	24.79	7.50	32.16	38.45	–6.29
School Administrator	33.84	30.49	3.35	37.48	38.90	–1.42
School Counselor	32.13	32.19	–0.06	32.80	33.59	–0.79
Science Teacher	21.67	22.65	–0.99	29.63	29.89	–0.26
Secondary School Teacher	33.98	35.93	–1.95	38.61	33.27	5.34
Securities Sales Agent	32.43	20.92	11.52	28.07	36.79	–8.73
Social Worker	34.24	37.51	–3.27	31.68	31.11	0.58
Sociologist	12.52	18.88	–6.36	23.04	20.62	2.42
Software Developer	37.41	28.85	8.56	40.05	47.00	–6.95
Special Education Teacher	31.39	46.34	–14.94	42.74	29.24	13.50
Speech Pathologist	41.90	43.84	–1.94	38.60	34.37	4.23
Technical Sales Representative	39.21	37.55	1.66	40.73	43.88	–3.14
Technical Support Specialist	40.11	32.44	7.67	42.56	49.89	–7.33
Technical Writer	28.69	34.74	–6.05	29.83	28.17	1.67
Top Executive, Business/Finance	33.75	26.35	7.40	31.81	39.53	–7.73
Training & Development Specialist	32.59	35.79	–3.19	36.55	35.68	0.88
Translator	31.57	40.23	–8.66	34.94	27.22	7.72
University Administrator	31.64	36.06	–4.42	34.91	34.23	0.68
University Faculty Member	31.60	27.45	4.15	28.28	35.00	–6.72
Urban & Regional Planner	28.76	35.90	–7.14	34.86	37.07	–2.21
Veterinarian	23.59	22.51	1.08	30.49	31.30	–0.81
Vocational Agriculture Teacher	25.20	24.97	0.23	28.77	28.91	–0.14
Wholesale Sales Representative	35.34	36.06	–0.72	40.13	39.86	0.27

Note: N = 264 (134 women and 130 men).

VALIDITY OF THE OSs

The validity of the OSs was also evaluated by examining the relationships among the OSs within each of the six RIASEC Themes. Finding stronger relationships among scales with the same Theme, rather than among all OSs together, provides evidence of discriminate validity for the OSs. Results of this analysis are presented in the following section.

Correlations Among the OSs

Table 51 presents the correlations among the OSs by RIASEC Theme for women and men in the Singapore sample. The median correlations among the female OSs ranged from .41 for Conventional to .50 for Social. This is comparable to the numbers reported for the GRS, where the medians ranged from .39 (Realistic, Social, and Conventional) to .57 (Artistic) for women. Median correlations for men in the Singapore sample ranged from .52 for Enterprising to .63 for Artistic and Social, while the median correlations found for men in the GRS ranged from .27 (Conventional) to .58 (Investigative). Finally, the overall median correlations across all OSs for the Singapore sample were .45 and .57 for women and men, respectively. These are higher than average correlations reported for the GRS, which were .05 for women and .07 for men. Taken together, the results found for the Singapore sample suggest that OSs within the same Theme are related to a greater extent than OSs overall.

TABLE 51. OS CORRELATIONS WITHIN THEME AND OVERALL FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

	OS Correlation	
Theme	**Women *r***	**Men *r***
Realistic	.44	.53
Investigative	.43	.55
Artistic	.52	.63
Social	.50	.63
Enterprising	.42	.52
Conventional	.41	.59
Overall	.45	.57

Note: N = 264 (134 women and 130 men).

PERSONAL STYLE SCALES

The Personal Style Scales (PSSs), first introduced in the 1994 *Strong Interest Inventory* assessment and further revised in 2004, measure preferences for and comfort with broad styles of living and working. Each scale includes a style description at both ends of a continuum, with scores indicating an individual's preference for one style over the other. The PSSs complement the traditional vocation scales by enabling individuals to more effectively narrow choices and examine opportunities.

INTERPRETATION OF THE PSSs

The five PSSs—Work Style, Learning Environment, Leadership Style, Risk Taking, and Team Orientation—are described below. Please refer to the *Strong Interest Inventory®* *Manual* (Donnay et al., 2005, pp. 135–141) for more detailed descriptions.

Work Style Scale

The Work Style scale distinguishes individuals who prefer to work with people (favoring the "Works with people" pole) from those who prefer working with ideas, data, or things (favoring the "Works with ideas/data/things" pole). Those who prefer people-focused work endorse Strong assessment items that represent people-oriented occupations and activities, including some items that refer to relating to others as helpers. The item "Can smooth out disagreements between people" clearly differentiates those who prefer to work with people from those who prefer to work alone. However, items that imply contact with others without directly involving a helping function (e.g., "Planning a large party") also identify the "Works with people" pole of the scale. Those who prefer working alone (favoring the "Works with ideas/data/things" pole), in contrast, endorse items in those particular domains. They tend to like scientific and technical activities, see themselves as having mechanical ingenuity, and endorse items such as "Author of technical books."

Learning Environment Scale

The Learning Environment scale differentiates people who prefer academic learning environments (favoring the "Academic" pole) from those who prefer more practical-oriented, tactile learning situations (favoring the "Practical" pole). People who prefer to learn in academic settings tend to express cultural, verbal, and research interests as well as an interest in teaching itself. People who prefer to learn in more practical settings tend to express interest in healthcare service, technical, protective service, and office-related activities. The Learning Environment scale reflects whether an individual is more comfortable in a practical or an academic learning setting. However, it is not an indicator of whether the person will be successful in one setting or the other.

Leadership Style Scale

One pole of the Leadership Style scale reflects a preference for meeting, directing, persuading, and leading other people (favoring the "Directs others" pole). People who score toward this pole tend to enjoy moving readily and gregariously into interpersonal settings and like to take the initiative and take charge in an organizational setting. People who score toward the opposite pole—"Leads by example"—tend not to be comfortable taking charge of others directly. They prefer to do a task themselves rather than direct others to do it. They may lead by example rather than by giving directions. There are no substantial gender differences on the Leadership Style scale. The means for women and men are virtually identical.

Risk Taking Scale

The content of the Risk Taking scale is a mix of physically risky activities, such as auto racing, and other more general items about risk taking, such as investing money in the stock market. This scale was first developed by Campbell, Borgen, Eastes, Johansson, and Peterson in 1968, so considerable experience and knowledge have developed about its implications and counseling use (Campbell, 1971; Douce & Hansen, 1988; Hansen, 1992; Hansen & Campbell, 1985).

Team Orientation Scale

The Team Orientation scale reflects a preference for engaging in team-based activities (favoring the "Accomplishes tasks as a team" pole) versus individual activities (favoring

TABLE 52. PSS MEANS AND STANDARD DEVIATIONS BY GENDER IN THE SINGAPORE SAMPLE

	Women		Men	
Personal Style Scale	*M*	*SD*	*M*	*SD*
Work Style	53.94	7.32	50.43	6.73
Learning Environment	45.46	6.63	46.01	6.68
Leadership Style	45.14	9.22	48.37	8.87
Risk Taking	50.43	8.22	55.53	8.48
Team Orientation	46.13	9.99	48.50	9.91

Note: N = 264 (134 women and 130 men).

the "Accomplishes tasks independently" pole). Those who score toward the "Accomplishes tasks as a team" pole enjoy working with others and collaborating on team goals. High scores on the Team Orientation scale are often associated with high scores on the Social and Enterprising GOTs, and on BISs such as Human Resources & Training, Management, and Marketing & Advertising.

SINGAPORE SAMPLE NORMS OF THE PSSs

The mean score for the PSSs is 50 (*SD* is 10) for people in general. A score of 45 or below identifies one pole of a PSS, while a score of 55 or above identifies the other pole of the scale. Midrange scores (46–54) occur for individuals with no predominate preference for one pole or the other. Table 52 presents the standardized scores for each of the five PSSs. Means, standard deviations, and interpretive categories are listed for women and men. Standardized scores and interpretive categories were derived using the 2004 GRS. Results from the Singapore sample were similar to those reported for the GRS. Women in both the Singapore sample and the GRS scored highest on the Work Style scale, while men in both samples scored highest on the Risk Taking scale.

RELIABILITY OF THE PSSs

Internal consistency was examined for the PSSs. Internal consistency reliabilities (Cronbach's alphas) are shown in Table 53. These alphas are high for each of the five scales. Alphas range from .79 for the Team Orientation scale to .93 for the Learning Environment scale. Cronbach's alphas reported for the GRS in the Strong manual (Donnay et al., 2005) range from .82 for the Risk Taking scale to .87 for the Leadership Style scale.

VALIDITY OF THE PSSs

The validity of the PSSs was also examined through the intercorrelations between the five PSSs and through the correlations between the PSSs and the other scales of the Strong assessment (i.e., the GOTs, the BISs, and the OSs). Results of these analyses are presented in the following sections.

Intercorrelations Between the PSSs

The intercorrelations of the five PSSs are shown in Table 54 for the overall Singapore sample and by gender in Table 55. The largest correlation is between the Leadership Style and Risk Taking scales for the overall sample. In the GRS, the largest correlation was between the Leadership Style and Team Orientation scales.

TABLE 53. INTERNAL CONSISTENCY RELIABILITIES FOR THE PSSs IN THE SINGAPORE SAMPLE

Personal Style Scale	Cronbach's Alpha
Work Style	.89
Learning Environment	.93
Leadership Style	.86
Risk Taking	.81
Team Orientation	.79

Note: N = 264.

Correlations for the Singapore sample generally revealed patterns of relationships similar to those in the GRS. In the Singapore sample, the largest difference overall was between the Work Style and Risk Taking scales.

Relationships Between the PSSs, the GOTs, and the BISs

The relationships between the PSSs and both the GOTs and BISs are shown in Table 56. The correlations illustrate how the PSSs fit into the theoretical structure established for the six Holland Themes and how they link to the BISs as well. Some parallels between correlations within this table are expected, as the BISs often measure specific content that is more broadly measured by the GOTs.

As shown, clear patterns exist between scales. For instance, Risk Taking has a strong relationship with the Realistic GOT and all of the BISs grouped under that Theme as well. Additionally, Leadership Style is related to the Enterprising Theme and the BISs grouped under that Theme.

Relationship Between the PSSs and the OSs

To further examine the validity of the PSSs in the Singapore sample, they were also correlated with the OSs. Relationships found between scales were as expected and similar to those reported in the Strong manual. Results, shown in Tables 57–61, support the validity of the PSSs. For example, for women the Work Style pole "Works with people" is strongly related to the female School Counselor and Career Counselor OSs. For men it is strongly related to the male Special Education Teacher and Career Counselor OSs. At the other end of the Work Style scale, the "Working with ideas/data/things" pole, for women the strongest relationship is with the female R&D Manager and Geologist OSs, while for men it is with the male Geologist and Mathematician OSs.

TABLE 54. INTERCORRELATIONS BETWEEN THE PSSs IN THE SINGAPORE SAMPLE

Personal Style Scale	Work Style	Learning Environment	Leadership Style	Risk Taking	Team Orientation
Work Style	—	.24	.47	.17	.41
Learning Environment	.24	—	.57	.36	.50
Leadership Style	.47	.57	—	.65	.62
Risk Taking	.17	.36	.65	—	.54
Team Orientation	.41	.50	.62	.54	—

Note: $N = 264$.

TABLE 55. INTERCORRELATIONS BETWEEN THE PSSs FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Personal Style Scale	Work Style	Learning Environment	Leadership Style	Risk Taking	Team Orientation
Work Style	—	.26	.49	.21	.44
Learning Environment	.25	—	.54	.32	.50
Leadership Style	.59	.60	—	.62	.63
Risk Taking	.32	.40	.66	—	.50
Team Orientation	.48	.50	.60	.57	—

Note: $N = 264$. For correlations above the diagonal, women $n = 134$; below the diagonal, men $n = 130$.

TABLE 56. CORRELATIONS BETWEEN THE PSSs, THE GOTs, AND THE BISs FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

	Personal Style Scale by Gender									
	Work Style		Learning Environment		Leadership Style		Risk Taking		Team Orientation	
Basic Interest Scale by Theme	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
Realistic	–.03	.04	.18	.27	.42	.48	.72	.74	.40	.40
Mechanics & Construction	–.13	–.13	.07	.07	.36	.36	.58	.58	.32	.32
Computer Hardware & Electronics	–.13	–.13	.09	.09	.24	.24	.45	.45	.38	.38
Military	–.03	–.03	.15	.15	.42	.42	.58	.58	.27	.27
Protective Services	.14	.14	.23	.23	.54	.54	.78	.78	.40	.40
Nature & Agriculture	.19	.19	.26	.26	.35	.35	.53	.53	.44	.44
Athletics	.24	.24	.40	.40	.51	.51	.69	.69	.55	.55
Investigative	–.06	.06	.42	.41	.41	.52	.46	.58	.47	.40
Science	–.17	–.17	.33	.33	.31	.31	.45	.45	.37	.37
Research	.07	.07	.51	.51	.56	.56	.48	.48	.55	.55
Medical Science	–.04	–.04	.23	.23	.33	.33	.44	.44	.37	.37
Mathematics	.07	.07	.30	.30	.30	.30	.29	.29	.38	.38
Artistic	.41	.39	.62	.55	.54	.69	.58	.75	.48	.45
Visual Arts & Design	.28	.28	.51	.51	.44	.44	.56	.56	.46	.46
Performing Arts	.44	.44	.56	.56	.46	.46	.41	.41	.40	.40
Writing & Mass Communication	.31	.31	.70	.70	.56	.56	.50	.50	.46	.46
Culinary Arts	.43	.43	.42	.42	.49	.49	.49	.49	.47	.47
Social	.70	.65	.47	.50	.63	.73	.53	.60	.61	.59
Counseling & Helping	.53	.53	.46	.46	.57	.57	.50	.50	.59	.59
Teaching & Education	.67	.67	.48	.48	.49	.49	.42	.42	.52	.52
Human Resources & Training	.66	.66	.53	.53	.72	.72	.49	.49	.68	.68
Social Sciences	.47	.47	.62	.62	.72	.72	.61	.61	.60	.60
Religion & Spirituality	.19	.19	.18	.18	.35	.35	.27	.27	.31	.31
Healthcare Services	.10	.10	.04	.04	.30	.30	.43	.43	.27	.27
Enterprising	.63	.68	.39	.37	.75	.78	.59	.69	.61	.61
Marketing & Advertising	.60	.60	.37	.37	.70	.70	.58	.58	.57	.57
Sales	.41	.41	.13	.13	.51	.51	.47	.47	.44	.44
Management	.49	.49	.40	.40	.65	.65	.55	.55	.61	.61
Entrepreneurship	.51	.51	.44	.44	.57	.57	.44	.44	.48	.48
Politics & Public Speaking	.34	.34	.48	.48	.81	.81	.69	.69	.56	.56
Law	.26	.26	.26	.26	.58	.58	.66	.66	.36	.36
Conventional	.32	.29	.09	.17	.41	.58	.51	.56	.52	.38
Office Management	.45	.45	.03	.03	.41	.41	.30	.30	.40	.40
Taxes & Accounting	.23	.23	.09	.09	.30	.30	.36	.36	.42	.42
Programming & Information Systems	.09	.09	.28	.28	.32	.32	.41	.41	.49	.49
Finance & Investing	.30	.30	.28	.28	.44	.44	.56	.56	.55	.55

Note: N = 264 (134 women and 130 men).

TABLE 57. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN WORK STYLE PSS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Work Style PSS	Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
"Works with people" pole	School Counselor	.75	Special Education Teacher	.75
	Career Counselor	.72	Career Counselor	.73
	Community Service Director	.72	Human Resources Specialist	.73
	Secondary School Teacher	.71	Human Resources Manager	.69
	Elementary School Teacher	.70	Speech Pathologist	.68
	Social Worker	.69	University Administrator	.68
	Middle School Teacher	.65	School Counselor	.67
	University Administrator	.65	Flight Attendant	.66
	Human Resources Manager	.64	Business Education Teacher	.66
	Human Resources Specialist	.64	Marketing Manager	.65
"Works with ideas/data/ things" pole	Artist	–.40	Farmer/Rancher	–.43
	Forester	–.42	Forester	–.44
	Physician	–.46	Artist	–.44
	Mathematician	–.48	Physicist	–.49
	Biologist	–.49	Chemist	–.53
	Medical Technician	–.50	Electrician	–.54
	Chemist	–.53	Automobile Mechanic	–.56
	Medical Illustrator	–.54	Biologist	–.63
	Geologist	–.58	Mathematician	–.63
	R&D Manager	–.60	Geologist	–.77

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 58. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN LEARNING ENVIRONMENT PSS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Learning Environment PSS	Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
"Academic" pole	Psychologist	.71	Urban & Regional Planner	.71
	University Administrator	.68	Public Administrator	.66
	Attorney	.67	Geographer	.65
	Instructional Coordinator	.67	Editor	.65
	Editor	.66	University Administrator	.64
	Arts/Entertainment Manager	.66	University Faculty Member	.64
	English Teacher	.64	Psychologist	.64
	ESL Instructor	.64	Training & Development Specialist	.63
	Public Administrator	.64	English Teacher	.63
	Rehabilitation Counselor	.62	Librarian	.63
"Practical" pole	Health Information Specialist	–.21	Carpenter	–.41
	Landscape/Grounds Manager	–.27	Vocational Agriculture Teacher	–.42
	Automobile Mechanic	–.28	Emergency Medical Technician	–.58
	Emergency Medical Technician	–.29	Landscape/Grounds Manager	–.60
	Financial Analyst	–.32	Military Enlisted	–.61
	Optician	–.36	Electrician	–.62
	Medical Technician	–.49	Farmer/Rancher	–.65
	Radiologic Technologist	–.56	Optician	–.70
	Farmer/Rancher	–.73	Automobile Mechanic	–.71
	Production Worker	–.77	Radiologic Technologist	–.73

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 59. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN LEADERSHIP STYLE PSS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Leadership Style PSS	Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
"Directs others" pole	Human Resources Manager	.85	Elected Public Official	.86
	Top Executive, Business/Finance	.84	Marketing Manager	.86
	Elected Public Official	.84	Top Executive, Business/Finance	.86
	Operations Manager	.83	Public Administrator	.85
	Marketing Manager	.82	Human Resources Manager	.84
	Training & Development Specialist	.80	Operations Manager	.84
	Sales Manager	.80	Sales Manager	.83
	University Administrator	.79	Training & Development Specialist	.83
	Human Resources Specialist	.78	School Administrator	.82
	School Administrator	.77	Human Resources Specialist	.82
"Leads by example" pole	Financial Analyst	–.18	Optician	–.44
	Horticulturist	–.20	Landscape/Grounds Manager	–.44
	Respiratory Therapist	–.21	Mathematician	–.46
	Musician	–.24	Artist	–.51
	Medical Illustrator	–.39	Geologist	–.53
	Production Worker	–.48	Electrician	–.55
	Radiologic Technologist	–.49	Radiologic Technologist	–.61
	Farmer/Rancher	–.49	Biologist	–.63
	Artist	–.54	Automobile Mechanic	–.70
	Medical Technician	–.58	Farmer/Rancher	–.73

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 60. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN RISK TAKING PSS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Risk Taking PSS	Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
"Takes chances" pole	Law Enforcement Officer	.81	Arts/Entertainment Manager	.75
	Firefighter	.72	Bartender	.72
	Military Officer	.71	Technical Sales Representative	.71
	Urban & Regional Planner	.67	Instructional Coordinator	.70
	Engineering Technician	.66	Public Administrator	.70
	Technical Sales Representative	.65	Sales Manager	.70
	Elected Public Official	.64	Physical Therapist	.70
	Attorney	.63	Secondary School Teacher	.69
	Sales Manager	.63	Securities Sales Agent	.69
	School Administrator	.62	Personal Financial Advisor	.69
"Plays it safe" pole	Photographer	–.14	Vocational Agriculture Teacher	–.27
	Musician	–.17	Forester	–.29
	Advertising Account Manager	–.17	Radiologic Technologist	–.33
	Buyer	–.26	Geologist	–.34
	Medical Illustrator	–.27	Mathematician	–.36
	Medical Technician	–.30	Landscape/Grounds Manager	–.36
	Financial Analyst	–.35	Automobile Mechanic	–.47
	Farmer/Rancher	–.44	Artist	–.48
	Production Worker	–.46	Biologist	–.56
	Artist	–.52	Farmer/Rancher	–.69

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 61. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN TEAM ORIENTATION PSS AND OS SCORES FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

Team Orientation PSS	Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
"Accomplishes tasks as a team" pole	Business/Finance Supervisor	.77	Top Executive, Business/Finance	.64
	Human Resources Specialist	.77	Operations Manager	.63
	Operations Manager	.74	Religious/Spiritual Leader	.62
	Computer/Mathematics Manager	.73	Human Resources Manager	.61
	Management Analyst	.72	Community Service Director	.61
	Top Executive, Business/Finance	.72	Training & Development Specialist	.61
	Human Resources Manager	.71	Management Analyst	.60
	Personal Financial Advisor	.70	Human Resources Specialist	.59
	Training & Development Specialist	.70	Marketing Manager	.58
	University Administrator	.70	Securities Sales Agent	.58
"Accomplishes tasks independently" pole	Advertising Account Manager	–.12	Mathematician	–.26
	Financial Analyst	–.12	Electrician	–.30
	Photographer	–.19	Optician	–.31
	Musician	–.24	Geologist	–.32
	Radiologic Technologist	–.33	Radiologic Technologist	–.36
	Medical Technician	–.34	Artist	–.36
	Farmer/Rancher	–.38	Biologist	–.40
	Production Worker	–.38	Landscape/Grounds Manager	–.40
	Medical Illustrator	–.39	Automobile Mechanic	–.41
	Artist	–.50	Farmer/Rancher	–.50

Note: N = 264 (134 women and 130 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Relationships Between the PSSs and the CPI 260® Scales

The validity of the PSSs was also examined by correlating them with the CPI 260 scales (see Table 62). Results showed that people who scored high on the Work Style PSS tended to be described by the CPI 260 assessment as sociable (high Sociability) and optimistic with high self-esteem (high Self-acceptance). Those who scored high on the Learning Environment PSS tended to be described by the CPI assessment as clear thinking with good judgment (high Managerial Potential), ambitious (high Capacity for Status), and having a strong drive to do well, especially in situations in which conformance is rewarded (high Achievement via Conformance). Those who scored high on the Leadership Style PSS tended to be described by the CPI assessment as confident and assertive (high Dominance), social (high Sociability), and being nominated to roles of leadership (high Leadership). Those who scored high on the Risk Taking PSS tended to be described by the CPI assessment as confident and assertive (high Dominance). Finally, those with high Team Orientation scores tended to be described as being nominated to leadership positions (high Leadership) and sociable (high Sociability).

TABLE 62. CORRELATIONS BETWEEN THE PSSs AND THE CPI 260® SCALES IN THE SINGAPORE SAMPLE

	Personal Style Scales				
CPI 260® Scale	Work Style	Learning Environment	Leadership	Risk Taking	Team Orientation
Dominance	.17	.34	.62	.42	.45
Capacity for Status	.15	.44	.53	.36	.46
Sociability	.27	.29	.63	.38	.51
Social Presence	.15	.31	.49	.40	.42
Self-acceptance	.22	.33	.56	.40	.42
Independence	.16	.37	.49	.29	.48
Empathy	.10	.29	.40	.20	.22
Responsibility	.00	.30	.14	.03	.12
Social Conformity	–.07	.32	.06	.02	.20
Self-control	–.04	.08	–.36	–.33	–.11
Good Impression	.04	.20	–.12	–.17	.15
Communality	.16	.30	–.06	.03	.21
Well-being	.06	.33	.21	.18	.35
Tolerance	–.01	.33	.01	–.02	.17
Achievement via Conformance	.03	.44	.14	.06	.29
Achievement via Independence	–.12	.37	.12	–.03	.22
Conceptual Fluency	–.03	.44	.31	.28	.33
Insightfulness	–.16	.44	.25	.09	.23
Flexibility	–.07	.01	.02	–.15	–.11
Sensitivity	.16	–.19	–.38	–.43	–.32
Managerial Potential	.12	.45	.40	.20	.46
Work Orientation	.04	.25	.00	.01	.22
Creative Temperament	.16	.22	.34	.04	.14
Leadership	.18	.40	.58	.36	.50
Amicability	.01	.21	–.03	–.14	.13
Law Enforcement Orientation	.01	.28	.23	.11	.21
vector 1: Orientation Toward Others	–.13	–.24	–.62	–.52	–.36
vector 2: Orientation Toward Societal Values	–.06	.22	.28	.29	.30
vector 3: Orientation Toward Self	.05	.13	–.08	–.16	.10

Note: $n = 81$.

ADMINISTRATIVE INDEXES

The administrative indexes provide a summary of an individual's responses to the different sections of the Strong assessment. This information can aid career professionals in interpretation of a client's Strong results. The current version of the Strong has three types of administrative indexes that are reported on the Strong Profile. These include item response percentages, a total responses index, and a typicality index. Each type of index is described below.

ITEM RESPONSE PERCENTAGES

The item response percentages index comprises five measures, one for each of the response options on the *Strong* assessment (see chapter 4 of the Strong manual [Donnay et al., 2005] for further discussion of the response options used on the 2004 Strong assessment). Each of the measures shows the percentage of responses made using the various response options. For example, the "Strongly Like" component of the index reflects the percentage of responses on the inventory that were either "Strongly Like" (used in sections 1 through 5) or "Strongly Like Me" (used in section 6). These values reflect the respondent's response style when completing the inventory. In addition to the item response percentages for the entire inventory, similar measures are also computed for each of the six sections that make up the Strong assessment. These are reported for the career professional to aid in interpretation but are not used for additional analyses or identification of unusual or irregular response profiles.

Normal Response Ranges

Table 63 shows the means and standard deviations for the entire inventory (total percentage) as well as the response percentages for each of the six sections of the Strong assessment. Mean scores for the GRS are reported in the Strong manual. A range of 2 standard deviations above and below the GRS mean score reflects normal responding. For additional interpretive guidance, Table 64 shows the upper and lower bounds of normal ranges of possible response percentages. The interpretive categories are again based on the 2004 U.S. General Representative Sample (GRS). Figures 1–5 also show the distribution of response percentages of the entire inventory for women and men in the Singapore sample. These figures are very similar to those reported for the GRS in the Strong manual. As shown, respondents made the most use of the "Indifferent," "Like," and "Dislike" response options.

TOTAL RESPONSES INDEX

One indicator of response problems that has been used historically on the Strong assessment, and is continued here, is the total responses index. "Total Responses" represents the number of item responses on the answer sheet recognized by the scanning software, or entered and recorded on the Internet site. Since the Strong assessment has 291 items, if every item were answered, the response total would be 291. A few answers may be omitted without appreciably affecting the scoring, but if the total responses index drops below 276, reports will not be generated. The average total responses index for the overall Singapore sample was 289.

TYPICALITY INDEX

The typicality index is the result of a multipart computation that provides the career professional with a quick check for potentially invalid or unusual responses. It identifies response profiles that appear to be random and those that appear to be outside the normal range of responses, or both. Potential concerns along with suggestions regarding the apparent issue are provided on the last page of the Profile. A detailed description of the computation process and use of the typicality index is provided in the Strong manual. In short, however, a score of 17 or greater indicates that the combination of item responses appears consistent, while a score of less than 17 indicates that the combination of item responses appears inconsistent. The average typicality index for the Singapore sample was 22, thus suggesting that responses were consistent across participants.

TABLE 63. AVERAGE ITEM RESPONSE PERCENTAGES FOR THE ENTIRE INVENTORY AND EACH SECTION FOR WOMEN AND MEN IN THE SINGAPORE SAMPLE

		Strongly Like		Like		Indifferent		Dislike		Strongly Dislike	
Section	Gender	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Entire Inventory	Women	7.65	9.81	23.89	14.45	36.85	21.95	21.10	18.35	10.51	16.38
	Men	7.89	12.29	30.68	23.61	38.56	24.38	16.19	16.46	6.68	13.68
	Combined	7.77	11.08	27.24	19.76	37.69	23.15	18.68	17.58	8.62	15.20
Occupations	Women	6.81	11.18	20.16	14.83	36.81	25.59	23.35	22.10	12.88	20.03
	Men	7.09	12.11	27.21	25.18	39.92	27.87	18.16	20.41	7.61	15.52
	Combined	6.95	11.62	23.63	20.84	38.34	26.73	20.79	21.40	10.29	18.11
Subject Areas	Women	7.39	10.25	24.67	16.32	37.08	25.38	20.24	21.42	10.63	18.23
	Men	8.35	13.43	31.66	26.38	36.60	27.68	15.75	20.52	7.65	18.35
	Combined	7.86	11.91	28.11	22.10	36.84	26.49	18.03	21.07	9.16	18.31
Activities	Women	8.27	11.38	26.16	17.37	35.48	23.95	20.49	19.65	9.60	16.91
	Men	8.19	13.19	32.46	26.05	37.98	27.20	15.23	18.10	6.14	15.34
	Combined	8.23	12.28	29.27	22.25	36.71	25.59	17.90	19.05	7.89	16.22
Leisure Activities	Women	10.54	17.33	27.62	19.00	33.88	23.40	19.96	18.71	8.01	13.77
	Men	9.00	17.10	34.53	26.36	36.07	26.83	15.25	18.55	5.14	12.65
	Combined	9.78	17.20	31.02	23.14	34.96	25.12	17.64	18.75	6.60	13.28
People	Women	5.95	11.25	20.52	21.21	50.57	29.35	16.39	19.68	6.56	14.85
	Men	8.34	18.96	28.49	27.79	47.25	30.65	11.49	16.61	4.42	10.46
	Combined	7.13	15.55	24.45	24.94	48.94	29.99	13.98	18.37	5.51	12.90
Your Characteristics[a]	Women	7.12	15.58	37.12	24.21	33.92	24.62	16.99	16.50	4.85	9.90
	Men	8.11	16.01	41.66	26.79	30.48	27.38	15.15	17.34	4.60	12.93
	Combined	7.61	15.77	39.36	25.56	32.23	26.03	16.09	16.91	4.72	11.47

Note: N = 264 (134 women and 130 men).

[a]Response options in section 6 (the "Your Characteristics" section)—"Strongly Like Me," "Like Me," "Don't Know," " Unlike Me," "Strongly Unlike Me"—differ from response options in others sections of the Strong items.

TABLE 64. NORMAL RANGES OF POSSIBLE RESPONSE PERCENTAGES FOR WOMEN AND MEN IN THE GRS

		Strongly Like		Like		Indifferent		Dislike		Strongly Dislike	
Section	Gender	Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound	Upper Bound
Entire Inventory	Women	0.00	27.21	4.78	41.46	4.22	42.83	0.00	37.55	0.00	60.27
	Men	0.00	27.31	5.64	44.54	6.78	46.23	0.00	39.99	0.00	49.96
	Combined	0.00	27.26	5.10	43.10	5.28	44.75	0.00	38.88	0.00	55.81
Occupations	Women	0.00	20.02	0.00	35.07	0.00	43.70	0.00	48.96	0.00	83.69
	Men	0.00	19.95	0.00	37.84	0.00	47.81	0.00	51.45	0.00	72.98
	Combined	0.00	19.98	0.00	36.52	0.00	45.95	0.00	50.39	0.00	78.98
Subject Areas	Women	0.00	35.27	0.00	50.35	0.00	49.81	0.00	42.67	0.00	65.75
	Men	0.00	33.99	0.00	53.00	0.02	56.45	0.00	46.56	0.00	54.15
	Combined	0.00	34.66	0.00	51.72	0.00	53.46	0.00	44.73	0.00	60.58
Activities	Women	0.00	35.83	3.13	51.21	1.97	48.39	0.00	37.13	0.00	50.75
	Men	0.00	36.14	4.43	54.88	3.99	52.19	0.00	39.90	0.00	39.97
	Combined	0.00	35.99	3.65	53.17	2.80	50.47	0.00	38.58	0.00	46.10
Leisure Activities	Women	0.00	44.77	0.00	52.85	0.00	45.55	0.00	39.36	0.00	54.79
	Men	0.00	40.27	0.91	56.55	0.00	50.97	0.00	42.22	0.00	44.87
	Combined	0.00	42.64	0.34	54.80	0.00	48.60	0.00	40.89	0.00	50.45
People	Women	0.00	36.16	0.00	62.50	0.00	75.22	0.00	45.23	0.00	43.43
	Men	0.00	38.07	0.00	63.64	0.00	71.24	0.00	43.78	0.00	31.88
	Combined	0.00	37.14	0.00	63.15	0.00	73.28	0.00	44.50	0.00	38.18
Your Characteristics[a]	Women	0.00	56.81	0.00	75.55	0.00	58.94	0.00	44.58	0.00	28.74
	Men	0.00	62.46	0.00	79.81	0.00	57.61	0.00	41.57	0.00	20.24
	Combined	0.00	59.75	0.00	77.81	0.00	58.29	0.00	43.15	0.00	24.88

Note: N = 2,250 (1,125 women and 1,125 men);

[a]Response options in section 6 (the "Your Characteristics" section)—"Strongly Like Me," "Like Me," "Don't Know," " Unlike Me," "Strongly Unlike Me"—differ from response options in others sections of the Strong items.

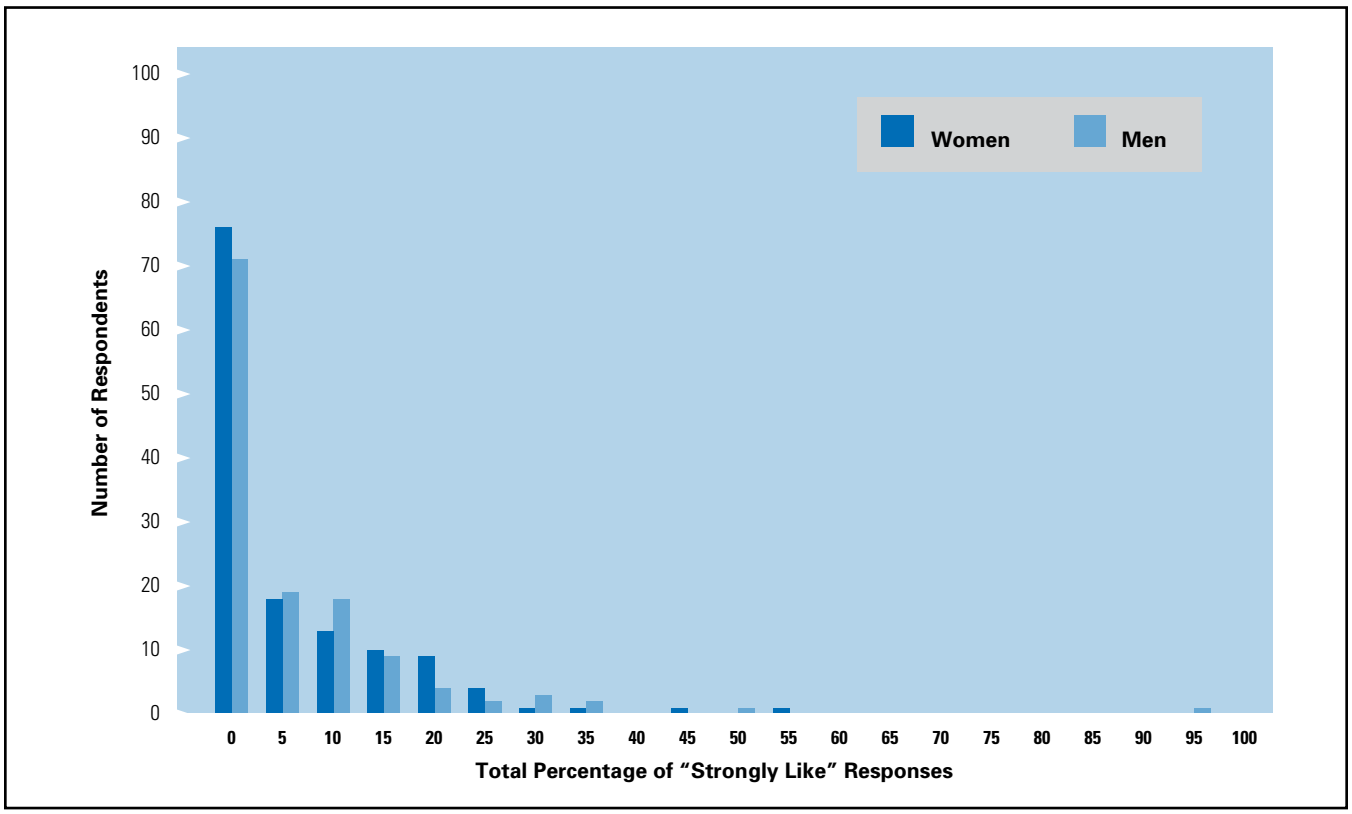

Figure 1. Distribution of "Strongly Like" Responses for Women and Men in the Singapore Sample

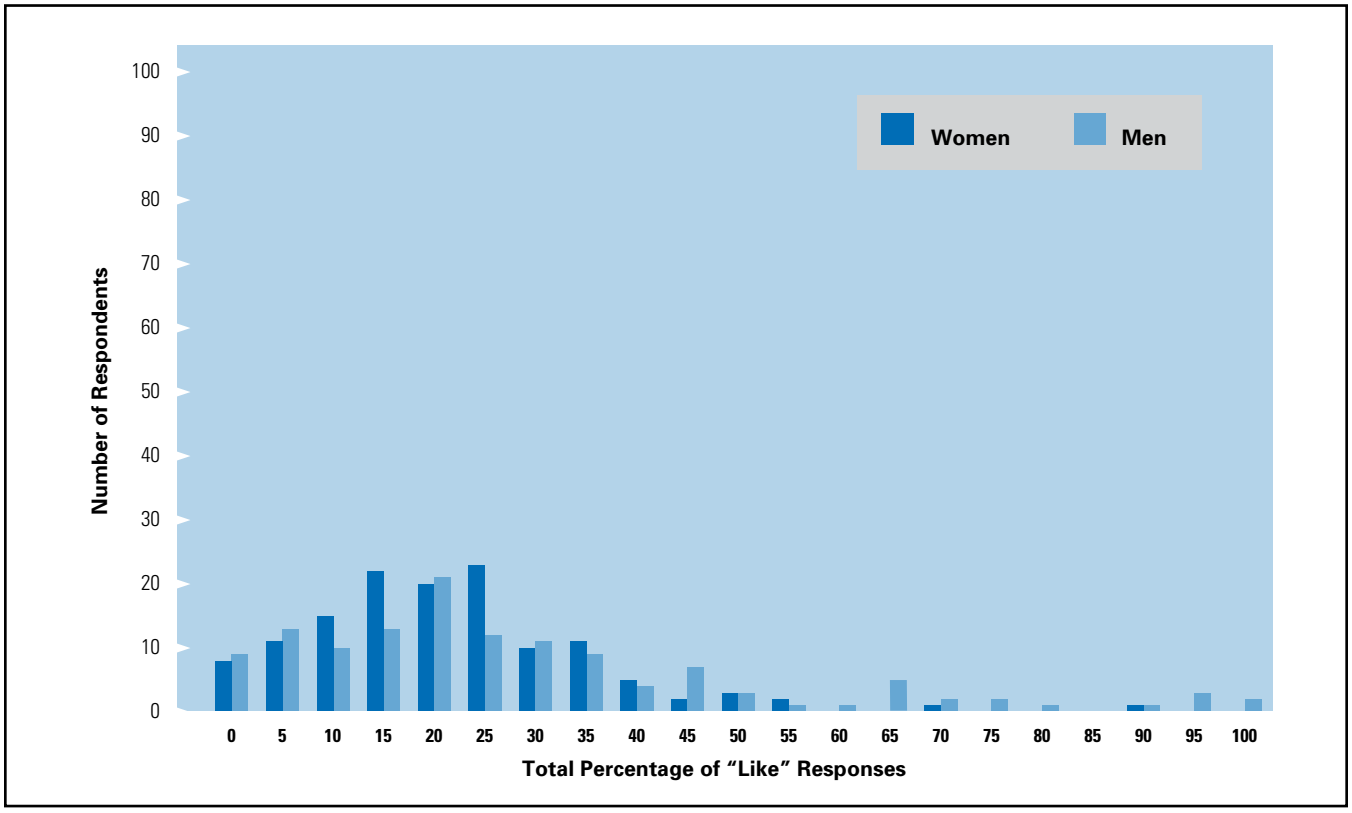

Figure 2. Distribution of "Like" Responses for Women and Men in the Singapore Sample

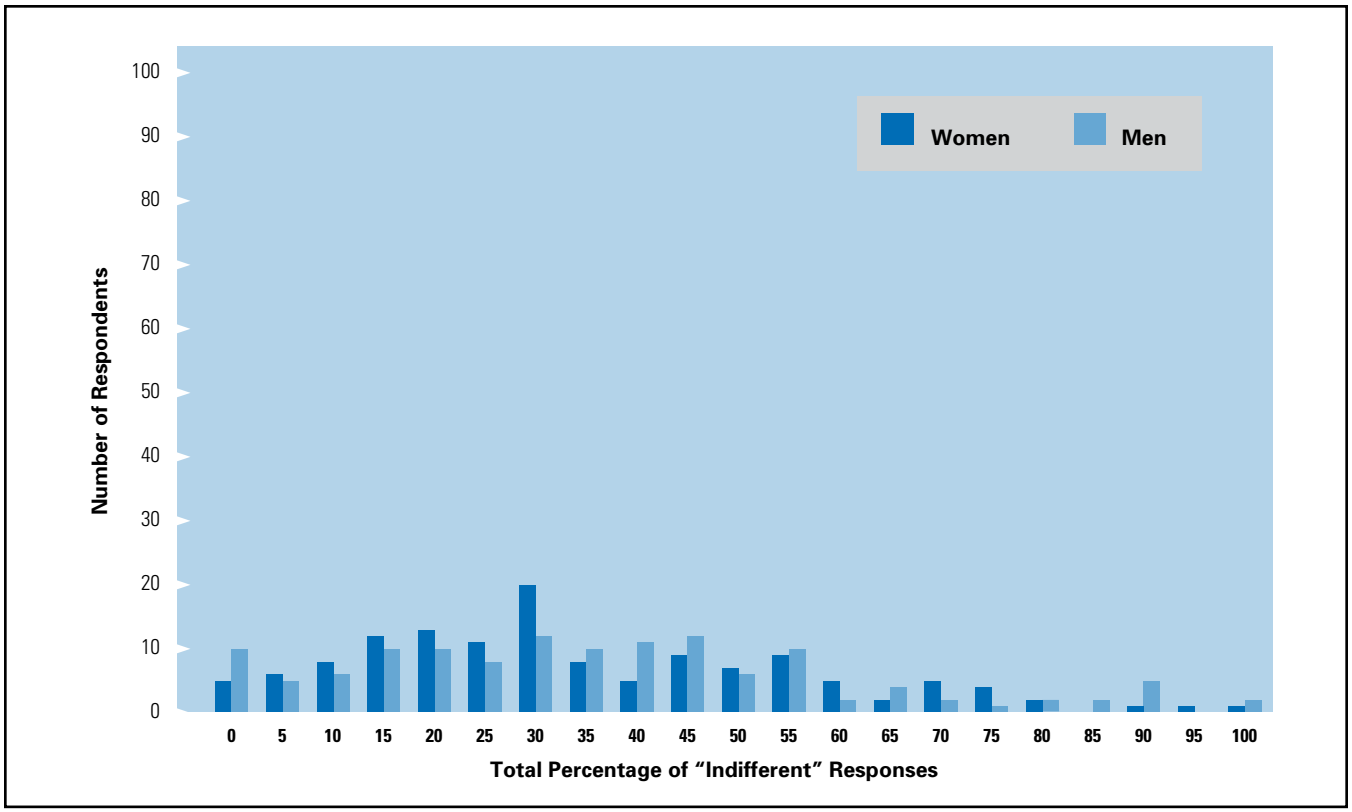

Figure 3. Distribution of "Indifferent" Responses for Women and Men in the Singapore Sample

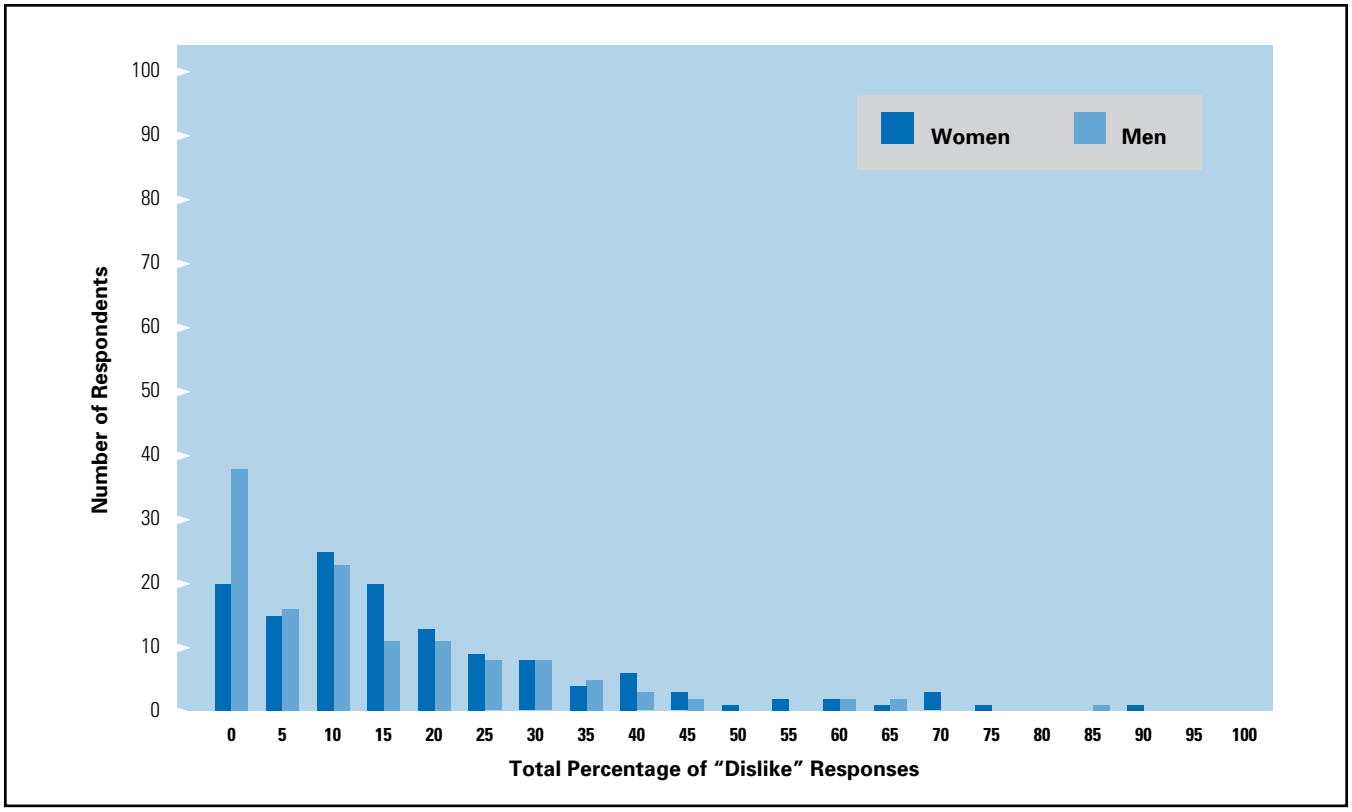

Figure 4. Distribution of "Dislike" Responses for Women and Men in the Singapore Sample

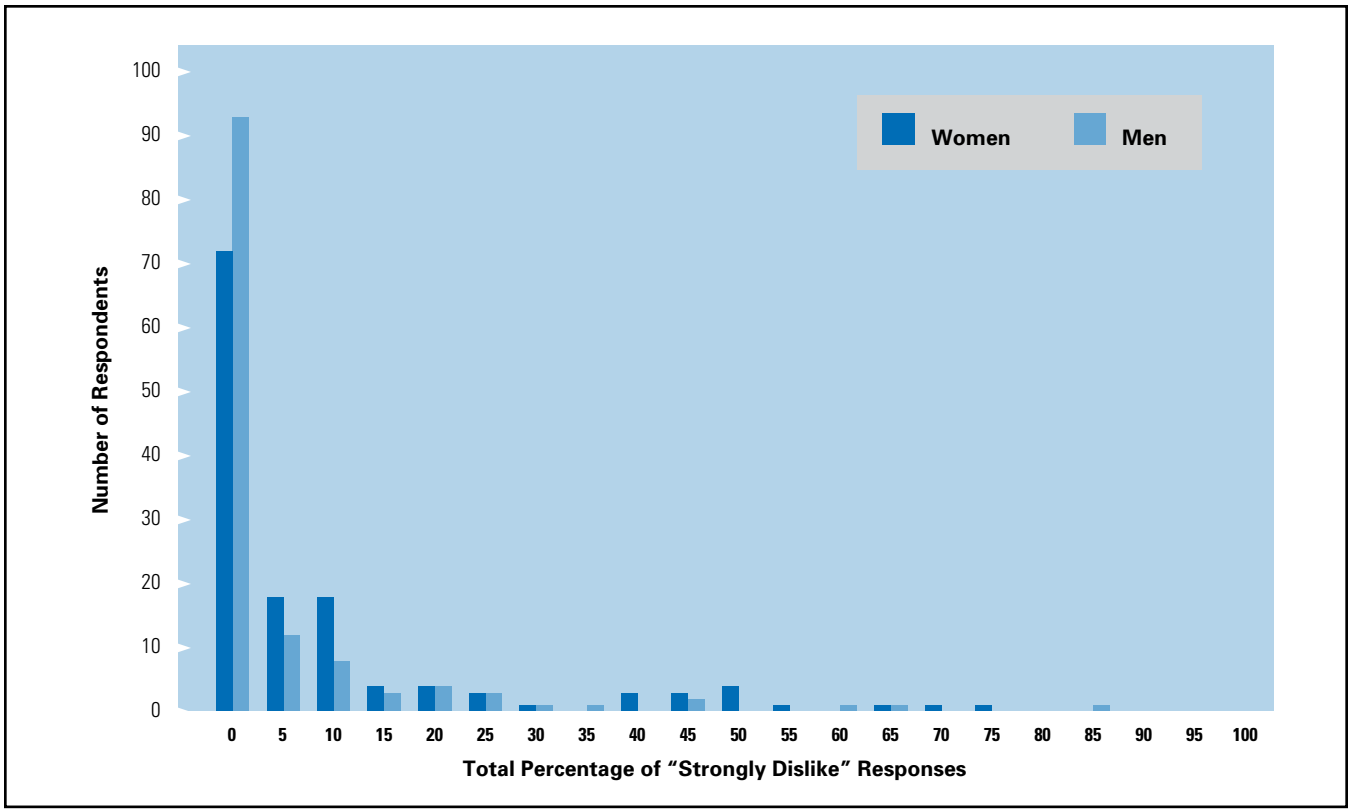

Figure 5. Distribution of "Strongly Dislike" Responses for Women and Men in the Singapore Sample

CONCLUSION

This technical brief summarizes the measurement properties of the *Strong Interest Inventory* assessment in the Singapore sample. Results presented in this document suggest that the Strong assessment functions with people in Singapore similarly to how it functions with the U.S. General Representative Sample and other international samples. The consistency of these results speaks to the ability of the Strong to be used as a cross-cultural measure of an individual's career and leisure interests and preferences for various occupations and styles of learning, working, playing, and living. As the Strong assessment continues to grow, larger and more diverse samples will become available to the publisher, and the measurement properties of the Strong assessment will continue to be evaluated.

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