Technical Brief for the

STRONG INTEREST INVENTORY® ASSESSMENT

Simplified Chinese

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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 a Simplified Chinese translation of the Strong assessment with a Chinese sample. (See Yang 2017 for a detailed elucidation of the translation-adaptation procedure.) The properties studied include reliability coefficients for key measures and correlations among Strong scales. Comparisons to the US general representative sample (GRS) used in the *Strong Interest Inventory*® *Manual* (Donnay, Morris, Schaubhut, & Thompson, 2005) are made and similarities and differences between samples are examined. Readers are encouraged to use this document in conjunction with the Strong manual, the *Strong Interest Inventory*® *Manual Supplement: Occupational Scales Update 2012* (Herk & Thompson, 2012), and 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

SIMPLIFIED CHINESE SAMPLE DESCRIPTION

The Simplified Chinese sample is composed of 475 individuals—333 women and 142 men—who completed the Strong assessment in Simplified Chinese. Respondents' ages ranged from 17 to 49 years (M = 23.8, SD = 6.3). In the sample, 59.2% were students, 37.3% were employed full-time or part-time, 2.9% were seeking employment, 0.2% were not working for income, and 0.4% responded "none of the above." All respondents reported their country of origin and residence as mainland China. The sample was obtained through CPP's Shanghai distributor and several universities in mainland China. Participants received the standard Strong Profile report for their participation.

INTERNATIONAL RESEARCH ON THE STRONG ASSESSMENT

A number of studies have examined the applicability of the 2004 version of the Strong assessment to individuals outside the United States. Much of this research has focused primarily on Holland's theoretical framework (1973, 1985, 1997), as operationalized by the General Occupational Themes (GOTs).

Herk and Thompson (2011) examined the measurement properties of Strong translations in samples whose native languages included European English, French, German, Latin American Spanish, and European Spanish. They evaluated normative data, internal consistency reliability, and correlations between Strong scales. Results suggested that the assessment functioned well in translated languages with results similar to those in the US GRS (N = 2,250). The consistency of results shows that the Strong can be used as an interest measure in many cultures.

Other research examined the measurement properties of the Strong assessment for a sample of English speakers born and residing in Australia (Johnson, Weber, & Thompson, 2013a) and Singapore (Johnson, Weber, & Thompson,

2013b), respectively. Data collected from these two countries were analyzed for norms, internal consistency reliability, and intercorrelations between Strong scales. Analyses yielded results comparable to those found in US GRS results and demonstrated the consistency of the Strong in measuring interest in these two countries.

A more recent study conducted by Morgan and de Bruin (2017) examined the construct (structural) validity of Holland's circular order and circumplex models on individuals from 28 African countries. They used the randomization test for hypothesized relations and circumplex covariance structure modeling to examine the fit of Holland's models across East Africa, West Africa, and southern Africa. Preliminary evidence was found for the generalizability of Holland's model in the African context using the Strong assessment.

Interested readers can also refer to Einarsdóttir & Rounds (2009); Einarsdóttir, Rounds, Egisdóttir, & Gerstein (2002); Goh & Yu (2001); Goh, Lee, & Yu (2004); Tang (2001); and Tak (2004) for the cross-cultural research on the 1994 version of 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 & Campbell (1985), Gottfredson & 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 co-workers 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 the *Strong Interest Inventory® Manual* 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. Investment managers, life insurance agents, and realtors tend to score high on the E Theme, reflecting that they have a strong 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.

RELIABILITY OF THE GOT SCALES

Cronbach's alpha was used to examine the internal consistency reliability of the GOTs. Results are presented in Table 1. GOT alphas ranged from .89 (Conventional) to .93 (Artistic), with a median of .90. This is similar to the median GOT alpha of .92 reported in the Strong manual.

TABLE 1. GOT RELIABILITY STATISTICS IN THE SIMPLIFIED CHINESE SAMPLE

Theme	Cronbach's Alpha
Realistic	.90
Investigative	.91
Artistic	.93
Social	.90
Enterprising	.90
Conventional	.89

Note: N = 475.

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

Table 2 shows the intercorrelations between each of the six GOT separated by gender. An additional analysis, summarized in appendix A, indicated that the structure of the RIASEC model in the Simplified Chinese sample is similar to that found in the United States.

TABLE 2. INTERCORRELATIONS BETWEEN THE GOTs IN THE SIMPLIFIED CHINESE SAMPLE

Theme	Realistic	Investigative	Artistic	Social	Enterprising	Conventional
Realistic	—	.67	.41	.48	.39	.57
Investigative	.53	—	.46	.48	.35	.51
Artistic	.43	.35	—	.49	.26	.18
Social	.33	.28	.48	—	.56	.45
Enterprising	.45	.12	.40	.61	—	.51
Conventional	.52	.35	.25	.53	.66	—

Note: N = 475. For correlations above the diagonal, women n = 333; below the diagonal, men n = 142.

While intercorrelations between the GOTs tended to be larger for women and men in the Simplified Chinese sample than in the US GRS, the pattern of relationships and trends are similar. For example, the strongest relationship for women in both samples was between the Realistic and Investigative scales. The largest difference between the Simplified Chinese sample and the US GRS for women was the relationship between the Realistic and Social 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 3–8 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 Simplified Chinese sample as well. For example, women in both the Simplified Chinese sample and US GRS who scored high on the Realistic Theme scored high on the Firefighter OS (r = .87 for the Simplified Chinese sample). This was also true for men (r = .74 for the Simplified Chinese sample).

TABLE 3. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN REALISTIC THEME AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Firefighter	.87	Firefighter	.74
Engineering Technician	.84	Engineer	.70
Chiropractor	.77	Computer & IS Manager	.70
Technical Support Specialist	.74	Production Worker	.67
Network Administrator	.70	Software Developer	.66
Recreation Therapist	.70	Computer Mathematics Manager	.66
Engineer	.70	Network Administrator	.65
Automobile Mechanic	.68	Technical Support Specialist	.64
Dentist	.68	Military Officer	.63
Urban & Regional Planner	.67	Physical Therapist	.61
Broadcast Journalist	–.21	Social Worker	–.20
Florist	–.22	ESL Instructor	–.20
Production Worker	–.22	Biologist	–.22
Mental Health Counselor	–.24	Artist	–.24
Photographer	–.24	Mental Health Counselor	–.24
Farmer/Rancher	–.25	Musician	–.24
Financial Analyst	–.26	Librarian	–.25
Advertising Account Manager	–.40	Advertising Account Manager	–.25
Artist	–.48	Interior Designer	–.30
Buyer	–.51	Translator	–.37

Note: N = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 4. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN INVESTIGATIVE THEME AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Engineer	.88	Engineer	.81
Engineering Technician	.86	R&D Manager	.80
Science Teacher	.86	Science Teacher	.80
Network Administrator	.85	Medical Technologist	.80
Optometrist	.84	Software Developer	.77
Computer Scientist	.84	Computer Programmer	.76
Chiropractor	.83	Physicist	.76
Software Developer	.83	Optometrist	.75
Computer Programmer	.82	Chemist	.74
Physicist	.78	Network Administrator	.73
Speech Pathologist	–.27	Mental Health Counselor	–.25
Business Education Teacher	–.30	Parks & Recreation Manager	–.31
Paralegal	–.30	Law Enforcement Officer	–.33
Broadcast Journalist	–.33	Life Insurance Agent	–.35
Artist	–.40	Business Education Teacher	–.35
Production Worker	–.45	Advertising Account Manager	–.41
Florist	–.47	Interior Designer	–.49
Farmer/Rancher	–.54	Restaurant Manager	–.50
Advertising Account Manager	–.57	Florist	–.50
Buyer	–.69	Buyer	–.57

Note: *N* = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 5. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN ARTISTIC THEME AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Editor	.90	Arts/Entertainment Manager	.90
ESL Instructor	.85	Editor	.89
Arts/Entertainment Manager	.84	English Teacher	.81
Technical Writer	.81	Urban & Regional Planner	.74
English Teacher	.79	Art Teacher	.73
Graphic Designer	.79	Technical Writer	.72
Art Teacher	.68	Reporter	.71
Urban & Regional Planner	.67	Instructional Coordinator	.68
Translator	.67	Bartender	.68
Instructional Coordinator	.62	Medical Illustrator	.64
Food Service Manager	–.11	Optician	–.34
Health Information Specialist	–.13	Electrician	–.41
Computer & IS Manager	–.15	Law Enforcement Officer	–.42
Radiologic Technologist	–.16	Athletic Trainer	–.43
Medical Technician	–.24	Vocational Agriculture Teacher	–.49
Business Education Teacher	–.24	Radiologic Technologist	–.50
Buyer	–.24	Military Enlisted	–.52
Financial Analyst	–.67	Emergency Medical Technician	–.60
Farmer/Rancher	–.68	Automobile Mechanic	–.61
Production Worker	–.81	Farmer/Rancher	–.84

Note: *N* = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 6. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN SOCIAL THEME AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Rehabilitation Counselor	.88	Elementary School Teacher	.87
Elementary School Teacher	.87	Rehabilitation Counselor	.86
Secondary School Teacher	.85	Community Service Director	.86
School Counselor	.84	Secondary School Teacher	.85
Religious/Spiritual Leader	.82	Middle School Teacher	.85
Social Worker	.82	Religious/Spiritual Leader	.82
Special Education Teacher	.80	Instructional Coordinator	.82
Recreation Therapist	.79	School Counselor	.80
Instructional Coordinator	.79	Customer Service Representative	.80
University Administrator	.78	University Administrator	.78
R&D Manager	–.13	Military Enlisted	–.25
Advertising Account Manager	–.16	Mathematician	–.30
Buyer	–.20	Electrician	–.31
Medical Technician	–.20	Radiologic Technologist	–.33
Photographer	–.21	Biologist	–.39
Financial Analyst	–.23	Carpenter	–.39
Production Worker	–.25	Artist	–.43
Farmer/Rancher	–.31	Farmer/Rancher	–.44
Medical Illustrator	–.37	Automobile Mechanic	–.45
Artist	–.59	Geologist	–.45

Note: N = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 7. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN ENTERPRISING THEME AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Accountant	.83	Accountant	.78
Auditor	.79	Financial Manager	.75
Financial Manager	.74	Auditor	.75
Technical Support Specialist	.74	Business/Finance Supervisor	.74
Credit Manager	.73	Customer Service Representative	.72
Administrative Assistant	.72	Financial Analyst	.71
Customer Service Representative	.71	Health Information Specialist	.71
Software Developer	.70	Credit Manager	.71
Business/Finance Supervisor	.68	Computer Mathematics Manager	.69
Computer Programmer	.68	Securities Sales Agent	.68
Interior Designer	–.22	Advertising Account Manager	–.18
Broadcast Journalist	–.23	Photographer	–.19
Speech Pathologist	–.23	Mental Health Counselor	–.21
Art Teacher	–.29	Social Worker	–.23
Musician	–.37	Mathematician	–.24
Medical Illustrator	–.45	Geologist	–.33
Mental Health Counselor	–.52	Musician	–.36
Advertising Account Manager	–.53	Biologist	–.45
Photographer	–.58	Graphic Designer	–.46
Artist	–.77	Artist	–.61

Note: N = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 8. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN CONVENTIONAL THEME AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Elementary School Teacher	.89	Community Service Director	.91
Secondary School Teacher	.88	Elementary School Teacher	.91
Rehabilitation Counselor	.87	Middle School Teacher	.90
Religious/Spiritual Leader	.85	Rehabilitation Counselor	.90
School Counselor	.85	Secondary School Teacher	.89
Social Worker	.84	Instructional Coordinator	.89
Special Education Teacher	.83	Religious/Spiritual Leader	.88
Middle School Teacher	.82	School Counselor	.86
Recreation Therapist	.80	Recreation Therapist	.83
Instructional Coordinator	.79	Special Education Teacher	.82
Buyer	–.16	Landscape/Grounds Manager	–.25
Computer Systems Analyst	–.17	Biologist	–.28
Medical Technician	–.18	Radiologic Technologist	–.29
Farmer/Rancher	–.23	Restaurant Manager	–.30
R&D Manager	–.26	Electrician	–.32
Computer & IS Manager	–.28	Artist	–.32
Production Worker	–.29	Optician	–.34
Medical Illustrator	–.31	Geologist	–.39
Financial Analyst	–.41	Automobile Mechanic	–.50
Artist	–.55	Farmer/Rancher	–.62

Note: N = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

BASIC INTEREST SCALES

The Basic Interest Scales (BISs) measure interest in 30 specific areas, such as performing arts, 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. The 30 BISs, listed in order of the six GOT scales, are described below.

INTERPRETATION OF THE BISs

Realistic BISs

The six 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 scale, one of the Strong Personal Style Scales (PSSs; see chapter 4 of the *Strong Interest Inventory® Manual* (Donnay et al., 2005) for a discussion of these and other PSSs).

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 farm or ranch 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, 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.

RELIABILITY OF THE BISs

Cronbach's alpha was used to examine the reliability of the BISs. Results are presented in Table 9. Cronbach's alphas ranged from .75 for the Office Management scale to .91 for the Mathematics scale, with a median of .84 across the 30 scales. The internal consistency of the BISs in the

TABLE 9. BIS RELIABILITY STATISTICS IN THE SIMPLIFIED CHINESE SAMPLE

Basic Interest Scale	Cronbach's Alpha
Realistic Theme	
Mechanics & Construction	.85
Computer Hardware & Electronics	.90
Military	.86
Protective Services	.80
Nature & Agriculture	.87
Athletics	.89
Investigative Theme	
Science	.84
Research	.85
Medical Science	.81
Mathematics	.91
Artistic Theme	
Visual Arts & Design	.86
Performing Arts	.86
Writing & Mass Communication	.84
Culinary Arts	.85
Social Theme	
Counseling & Helping	.78
Teaching & Education	.84
Human Resources & Training	.82
Social Sciences	.78
Religion & Spirituality	.83
Healthcare Services	.83
Enterprising Theme	
Marketing & Advertising	.82
Sales	.84
Management	.77
Entrepreneurship	.80
Conventional Theme	
Politics & Public Speaking	.84
Law	.88
Office Management	.75
Taxes & Accounting	.81
Programming & Information Systems	.87
Finance & Investing	.85

Note: N = 475.

Simplified Chinese sample was similar to that reported for the US GRS in the Strong manual, with a median of .87 and a range of .80 to .92. 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

TABLE 10. INTERCORRELATIONS BETWEEN THE BISs IN THE SIMPLIFIED CHINESE SAMPLE

Basic Interest Scale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Mechanics & Construction	—	.73	.42	.42	.49	.38	.67	.56	.45	.52	.42	.09	.14	.19	.20
2. Computer Hardware & Electronics		—	.41	.40	.39	.31	.58	.59	.44	.50	.18	–.03	.03	.14	.19
3. Military			—	.69	.43	.49	.35	.30	.37	.24	.08	.09	.06	.27	.23
4. Protective Services				—	.61	.48	.41	.35	.59	.27	.29	.29	.20	.44	.42
5. Nature & Agriculture					—	.43	.46	.46	.47	.33	.45	.37	.31	.49	.49
6. Athletics						—	.29	.23	.33	.21	.17	.24	.12	.27	.25
7. Science							—	.67	.56	.58	.33	.19	.18	.15	.30
8. Research								—	.39	.65	.37	.27	.42	.18	.48
9. Medical Science									—	.32	.28	.23	.14	.25	.34
10. Mathematics										—	.21	.07	.12	.10	.24
11. Visual Arts & Design											—	.60	.53	.40	.37
12. Performing Arts												—	.55	.40	.42
13. Writing & Mass Communication													—	.27	.43
14. Culinary Arts														—	.41
15. Counseling & Helping															—
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															

(cont'd)

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 10 shows the intercorrelations between each of the 30 BISs for all individuals in the Simplified Chinese sample. These correlations are shown separately for both women and men in Table 11.

TABLE 10. INTERCORRELATIONS BETWEEN THE BISs IN THE SIMPLIFIED CHINESE SAMPLE (CONT'D)

Basic Interest Scale	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1. Mechanics & Construction	.19	.14	.31	.22	.34	.24	.39	.24	.23	.24	.27	.24	.41	.58	.34
2. Computer Hardware & Electronics	.18	.18	.24	.12	.33	.21	.35	.24	.24	.21	.27	.28	.50	**.83**	.35
3. Military	.23	.19	.30	.13	.39	.25	.42	.39	.26	.40	.37	.36	.31	.34	.28
4. Protective Services	.31	.21	.36	.21	.65	.35	.47	.37	.26	.37	.51	.47	.34	.40	.30
5. Nature & Agriculture	.33	.24	.48	.36	.51	.34	.37	.22	.26	.26	.34	.33	.32	.34	.19
6. Athletics	.35	.21	.24	.12	.34	.26	.37	.27	.14	.27	.20	.32	.25	.26	.13
7. Science	.29	.19	.41	.27	.36	.21	.28	.17	.22	.27	.28	.14	.39	.57	.30
8. Research	.32	.43	.61	.36	.26	.47	.34	.31	.44	.48	.43	.28	.51	.65	.50
9. Medical Science	.33	.16	.33	.26	**.74**	.25	.37	.31	.16	.26	.44	.29	.35	.40	.29
10. Mathematics	.16	.21	.35	.18	.20	.24	.26	.18	.23	.27	.34	.21	.75	.55	.44
11. Visual Arts & Design	.22	.23	.38	.28	.25	.32	.12	.07	.24	.14	.17	.15	.09	.29	.14
12. Performing Arts	.36	.32	.38	.32	.23	.36	.19	.15	.23	.24	.23	.22	.06	.10	.14
13. Writing & Mass Communication	.36	.32	.50	.32	.21	.38	.19	.18	.23	.37	.32	.33	.08	.19	.17
14. Culinary Arts	.28	.27	.28	.09	.34	.40	.28	.23	.27	.27	.29	.31	.18	.21	.17
15. Counseling & Helping	.55	.63	.56	.41	.40	.53	.33	.41	.40	.42	.41	.33	.23	.26	.25
16. Teaching & Education	—	.52	.38	.27	.46	.34	.33	.42	.14	.33	.34	.42	.21	.22	.12
17. Human Resources & Training		—	.44	.23	.23	.67	.50	.69	.49	.50	.41	.37	.27	.25	.40
18. Social Sciences			—	.47	.30	.43	.32	.39	.36	.58	.48	.33	.28	.32	.40
19. Religion & Spirituality				—	.25	.23	.19	.15	.13	.27	.27	.15	.12	.14	.19
20. Healthcare Services					—	.32	.41	.36	.11	.24	.46	.47	.30	.33	.18
21. Marketing & Advertising						—	.69	.64	.69	.56	.48	.47	.34	.29	.56
22. Sales							—	.67	.49	.51	.45	.50	.37	.31	.56
23. Management								—	.46	.57	.51	.58	.39	.24	.53
24. Entrepreneurship									—	.48	.32	.24	.28	.28	.57
25. Politics & Public Speaking										—	.61	.34	.34	.22	.55
26. Law											—	.43	.46	.31	.50
27. Office Management												—	.52	.38	.36
28. Taxes & Accounting													—	.52	.57
29. Programming & Information Systems														—	.40
30. Finance & Investing															—

Note: $N = 475$. Strongest correlation coefficient is in boldface type.

TABLE 11. INTERCORRELATIONS BETWEEN THE BISs FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Basic Interest Scale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Mechanics & Construction	—	.72	.42	.49	.54	.42	.68	.58	.49	.54	.50	.22	.23	.24	.24
2. Computer Hardware & Electronics	.67	—	.42	.51	.49	.39	.59	.63	.54	.59	.28	.14	.13	.21	.28
3. Military	.33	.25	—	.71	.43	.49	.37	.32	.43	.25	.10	.18	.12	.25	.26
4. Protective Services	.32	.23	.69	—	.63	.53	.43	.38	.63	.30	.29	.32	.22	.44	.41
5. Nature & Agriculture	.49	.32	.50	.58	—	.48	.49	.48	.50	.35	.43	.40	.30	.49	.49
6. Athletics	.25	.05	.45	.38	.35	—	.34	.24	.40	.21	.24	.31	.18	.33	.29
7. Science	.57	.48	.21	.36	.47	.12	—	.68	.60	.59	.39	.35	.24	.20	.36
8. Research	.46	.48	.17	.30	.42	.15	.62	—	.44	.67	.40	.38	.44	.19	.51
9. Medical Science	.44	.34	.24	.45	.40	.18	.52	.28	—	.39	.29	.27	.15	.32	.35
10. Mathematics	.40	.23	.15	.18	.30	.15	.53	.56	.15	—	.24	.15	.14	.10	.28
11. Visual Arts & Design	.55	.36	.21	.32	.51	.14	.40	.46	.24	.31	—	.58	.52	.36	.33
12. Performing Arts	.17	.03	.13	.25	.35	.28	.11	.26	.16	.08	.55	—	.53	.36	.43
13. Writing & Mass Communication	.17	.13	.07	.16	.33	.09	.21	.54	.11	.19	.46	.50	—	.22	.44
14. Culinary Arts	.26	.23	.43	.47	.47	.24	.14	.24	.07	.17	.43	.41	.30	—	.37
15. Counseling & Helping	.28	.28	.30	.48	.50	.23	.27	.50	.30	.23	.39	.32	.35	.46	—
16. Teaching & Education	.14	.04	.14	.23	.21	.24	.20	.29	.25	.19	.27	.33	.28	.20	.46
17. Human Resources & Training	.17	.20	.24	.20	.21	.24	.05	.44	.07	.08	.36	.39	.42	.36	.58
18. Social Sciences	.23	.16	.21	.25	.45	.15	.30	.62	.24	.33	.34	.28	.46	.16	.47
19. Religion & Spirituality	.16	.05	.03	.14	.28	.07	.18	.34	.32	.08	.17	.35	.38	.04	.24
20. Healthcare Services	.38	.22	.30	.53	.51	.25	.35	.23	.68	.17	.30	.20	.23	.24	.38
21. Marketing & Advertising	.33	.28	.38	.39	.36	.35	.12	.53	.21	.18	.43	.34	.46	.46	.55
22. Sales	.42	.32	.42	.48	.43	.33	.16	.37	.35	.07	.33	.22	.36	.36	.44
23. Management	.27	.20	.38	.31	.24	.22	.02	.31	.25	.06	.20	.15	.27	.25	.39
24. Entrepreneurship	.33	.33	.33	.29	.32	.26	.14	.48	.17	.19	.37	.27	.38	.36	.50
25. Politics & Public Speaking	.17	.07	.36	.31	.29	.31	.13	.53	.16	.23	.18	.35	.43	.30	.38
26. Law	.18	.17	.27	.41	.28	.19	.17	.42	.32	.28	.24	.20	.35	.20	.43
27. Office Management	.23	.22	.39	.43	.35	.20	.03	.33	.21	.15	.20	.13	.36	.31	.43
28. Taxes & Accounting	.32	.23	.25	.29	.33	.23	.33	.47	.21	.72	.17	.08	.21	.21	.24
29. Programming & Information Systems	.54	**.83**	.23	.24	.30	.01	.51	.57	.27	.33	.44	.11	.26	.32	.31
30. Finance & Investing	.26	.21	.20	.24	.13	.11	.12	.47	.18	.28	.21	.14	.34	.19	.28

(cont'd)

TABLE 11. INTERCORRELATIONS BETWEEN THE BISs FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE (CONT'D)

Basic Interest Scale	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1. Mechanics & Construction	.26	.18	.38	.28	.42	.28	.39	.25	.18	.26	.38	.30	.44	.55	.38
2. Computer Hardware & Electronics	.30	.25	.34	.20	.49	.29	.39	.31	.20	.26	.41	.40	.62	**.81**	.42
3. Military	.29	.20	.36	.18	.47	.24	.42	.41	.23	.41	.45	.38	.32	.35	.31
4. Protective Services	.34	.21	.41	.23	.70	.34	.46	.40	.25	.39	.55	.49	.36	.48	.33
5. Nature & Agriculture	.38	.25	.50	.38	.52	.33	.34	.21	.24	.25	.36	.32	.32	.40	.22
6. Athletics	.41	.22	.30	.15	.42	.25	.39	.30	.08	.25	.23	.39	.25	.34	.13
7. Science	.35	.28	.49	.33	.42	.30	.32	.25	.25	.31	.37	.21	.40	.57	.37
8. Research	.35	.45	.64	.39	.30	.49	.33	.32	.42	.45	.46	.29	.52	.67	.51
9. Medical Science	.35	.20	.37	.24	.77	.27	.38	.33	.17	.30	.49	.31	.40	.49	.34
10. Mathematics	.17	.28	.37	.23	.24	.30	.33	.24	.25	.27	.39	.26	.77	.61	.51
11. Visual Arts & Design	.18	.16	.40	.32	.20	.24	.05	.01	.21	.14	.12	.10	.09	.35	.13
12. Performing Arts	.37	.28	.43	.30	.19	.33	.22	.15	.25	.24	.20	.23	.09	.26	.18
13. Writing & Mass Communication	.38	.27	.52	.29	.17	.31	.14	.13	.19	.37	.29	.29	.06	.27	.12
14. Culinary Arts	.30	.22	.33	.10	.36	.35	.26	.21	.25	.27	.31	.30	.18	.24	.18
15. Counseling & Helping	.58	.64	.61	.46	.40	.50	.30	.42	.38	.45	.39	.27	.24	.32	.25
16. Teaching & Education	—	.53	.44	.28	.46	.34	.38	.45	.13	.34	.33	.43	.21	.30	.09
17. Human Resources & Training	.47	—	.43	.22	.23	.64	.47	.69	.48	.47	.38	.31	.29	.31	.37
18. Social Sciences	.26	.47	—	.52	.34	.40	.28	.38	.34	.56	.47	.32	.27	.42	.35
19. Religion & Spirituality	.24	.24	.35	—	.23	.22	.17	.14	.14	.25	.24	.15	.14	.20	.19
20. Healthcare Services	.46	.19	.21	.30	—	.30	.41	.37	.08	.26	.47	.49	.32	.45	.21
21. Marketing & Advertising	.31	.73	.47	.23	.32	—	.66	.61	.69	.55	.45	.40	.34	.37	.55
22. Sales	.24	.57	.41	.25	.44	.78	—	.64	.45	.51	.45	.48	.39	.33	.53
23. Management	.34	.69	.41	.17	.31	.73	.73	—	.41	.55	.50	.55	.41	.32	.49
24. Entrepreneurship	.20	.55	.41	.11	.21	.73	.56	.57	—	.49	.33	.17	.28	.26	.58
25. Politics & Public Speaking	.34	.59	.63	.33	.25	.64	.50	.63	.44	—	.62	.32	.30	.28	.50
26. Law	.34	.44	.49	.34	.39	.52	.47	.54	.32	.65	—	.41	.46	.42	.49
27. Office Management	.40	.50	.34	.14	.40	.61	.59	.65	.42	.41	.43	—	.55	.49	.33
28. Taxes & Accounting	.24	.23	.34	.10	.29	.39	.33	.36	.28	.43	.51	.48	—	.61	.60
29. Programming & Information Systems	.13	.25	.18	.06	.21	.31	.26	.15	.33	.07	.20	.28	.27	—	.48
30. Finance & Investing	.20	.52	.53	.20	.17	.63	.61	.63	.55	.63	.58	.47	.52	.25	—

Note: $N = 475$. For correlations above the diagonal, women $n = 333$; below the diagonal, men $n = 142$. Strongest correlation coefficients for each sample are in boldface type.

Again, while the correlations are somewhat larger for the Chinese sample, the patterns of relationships are very similar to those reported for the US GRS (Donnay et al., 2005). For example, correlations are relatively low between Computer Hardware & Electronics scale and Performing Arts scale for both the Simplified Chinese sample (r = –.03) and US GRS (r = –.01). The strongest relationship for the combined Simplified Chinese sample were found between the Computer Hardware & Electronics scale and the Programming & Information Systems scale (r = .83), which is similar to that for the US GRS (r = .81).

As indicated in boldface type in Table 11, the strongest relationship between BISs for women in the Simplified Chinese sample were between the Computer Hardware & Electronics scale and the Programming & Information Systems scale (r = .81), similar to women in the US GRS (r = .77). For men in the Chinese sample, the strongest relationship between BISs were also found between Computer Hardware & Electronics scale and Programming & Information Systems scale (r = .83), similar to men in the US GRS (r = .84).

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 12 shows the intercorrelations between BISs and GOTs in the Simplified Chinese sample presented in RIASEC order. Results are shown for each gender as well as combined, which includes all individuals in the Simplified Chinese sample. The correlations found between BISs and GOTs in the Simplified Chinese sample are mostly equivalent to or higher than correlations found in the US GRS (Donnay et al., 2005). For instance, strong relationships were found between the Science BIS and the Investigative GOT (r = .92 for women, .93 for men, .93 for combined in the Simplified Chinese sample; r = .93 for women, .93 for men, .93 for combined in the US GRS), and weak relationships were found between the Culinary Arts BIS and the Investigative GOT (r = .25 for women, .19 for men, .20 for combined in the Simplified Chinese sample; r = .15 for women, .17 for men, .13 for combined in the US GRS).

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 13–42 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 in the Simplified Chinese sample.

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 United States 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 Simplified Chinese sample, technology-dependent jobs such as Engineering Technician and Engineer appear in the list of top 10 correlations with the Mechanics & Construction BIS; Technical Support Specialist and Network Administrator appear in the list of top 10 correlations with the Computer Hardware & Electronics BIS. Furthermore, although OS results from the Simplified Chinese sample are generally congruent with those from the US 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 12. CORRELATIONS BETWEEN THE BISs AND THE GOTs FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE 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	.81	.78	.82	.71	.58	.68	.37	.36	.25	.35	.23	.26	.30	.33	.29	.50	.45	.49
Computer Hardware & Electronics	.74	.62	.73	.67	.49	.62	.20	.18	.06	.38	.15	.23	.32	.27	.26	.70	.53	.63
Military	.70	.68	.70	.39	.23	.37	.17	.20	.12	.36	.26	.30	.36	.39	.36	.46	.39	.45
Protective Services	.77	.63	.71	.49	.37	.46	.36	.37	.35	.46	.39	.44	.41	.38	.40	.55	.43	.52
Nature & Agriculture	.77	.76	.73	.57	.51	.54	.51	.52	.50	.51	.41	.48	.32	.32	.32	.40	.39	.39
Athletics	.67	.53	.63	.35	.17	.31	.33	.21	.24	.44	.28	.37	.32	.35	.32	.37	.20	.33
Science	.62	.51	.61	.92	.93	.93	.38	.29	.28	.44	.22	.34	.30	.05	.21	.42	.28	.39
Research	.54	.43	.53	.81	.75	.80	.45	.47	.39	.51	.47	.47	.42	.45	.41	.52	.54	.53
Medical Science	.59	.44	.52	.66	.56	.62	.30	.21	.27	.45	.36	.43	.31	.21	.28	.50	.35	.46
Mathematics	.47	.32	.45	.75	.67	.74	.19	.19	.14	.29	.19	.24	.32	.11	.24	.56	.35	.51
Visual Arts & Design	.40	.51	.34	.46	.43	.40	.82	.82	.83	.28	.37	.32	.15	.34	.21	.15	.29	.16
Performing Arts	.32	.27	.18	.39	.18	.26	.83	.84	.85	.43	.40	.44	.29	.30	.29	.20	.11	.14
Writing & Mass Communication	.23	.19	.15	.31	.29	.26	.76	.71	.76	.41	.42	.43	.24	.43	.30	.19	.35	.21
Culinary Arts	.38	.45	.34	.25	.19	.20	.46	.52	.50	.37	.31	.37	.35	.39	.37	.27	.32	.27
Counseling & Helping	.37	.43	.33	.44	.36	.39	.51	.45	.51	.82	.73	.80	.46	.50	.48	.28	.40	.30
Teaching & Education	.36	.17	.28	.35	.21	.29	.43	.38	.42	.87	.84	.86	.39	.30	.36	.35	.33	.33
Human Resources & Training	.39	.43	.37	.32	.36	.34	.47	.48	.47	.77	.78	.77	.67	.63	.64	.45	.46	.44
Social Sciences	.44	.48	.41	.43	.49	.46	.61	.69	.65	.63	.70	.66	.47	.52	.48	.39	.37	.36

(cont'd)

TABLE 12. CORRELATIONS BETWEEN THE BISs AND THE GOTs FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE 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	.32	.18	.25	.38	.28	.33	.37	.35	.37	.48	.43	.47	.18	.24	.20	.19	.17	.18
Healthcare Services	.58	.46	.48	.44	.36	.39	.26	.30	.30	.57	.58	.58	.32	.32	.32	.53	.42	.49
Marketing & Advertising	.34	.45	.31	.37	.21	.29	.32	.48	.39	.53	.61	.56	.88	.92	.89	.44	.65	.48
Sales	.47	.56	.49	.34	.18	.30	.17	.38	.21	.48	.54	.49	.84	.87	.85	.54	.67	.58
Management	.33	.35	.31	.26	.06	.20	.10	.22	.14	.61	.59	.60	.75	.82	.77	.56	.66	.58
Entrepreneurship	.24	.43	.30	.31	.22	.29	.24	.37	.25	.30	.43	.33	.73	.77	.74	.29	.49	.35
Politics & Public Speaking	.36	.32	.35	.35	.23	.32	.29	.38	.28	.47	.55	.48	.64	.66	.64	.38	.50	.42
Law	.47	.30	.37	.43	.27	.36	.24	.32	.28	.47	.55	.50	.50	.52	.51	.55	.57	.54
Office Management	.41	.34	.34	.25	.09	.18	.22	.22	.24	.48	.59	.52	.45	.62	.50	.81	.81	.79
Taxes & Accounting	.44	.36	.42	.55	.44	.53	.06	.14	.06	.32	.32	.30	.40	.36	.38	.82	.70	.79
Programming & Information Systems	.57	.52	.59	.66	.54	.64	.31	.30	.20	.40	.21	.29	.35	.24	.29	.75	.57	.69
Finance & Investing	.36	.28	.34	.45	.20	.38	.13	.25	.14	.26	.40	.29	.62	.67	.63	.67	.74	.69

Note: N = 475 (333 women and 142 men).

TABLE 13. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN MECHANICS & CONSTRUCTION BIS AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Engineering Technician	.84	Engineer	.80
Engineer	.79	Computer & IS Manager	.73
Network Administrator	.77	Engineering Technician	.73
Electrician	.76	Network Administrator	.71
Computer Programmer	.75	Software Developer	.70
Software Developer	.73	Medical Technologist	.69
Technical Support Specialist	.73	Computer Programmer	.69
Computer Scientist	.72	Computer Systems Analyst	.67
Urban & Regional Planner	.69	Technical Support Specialist	.67
Dentist	.68	Production Worker	.66
Photographer	–.20	Artist	–.13
Speech Pathologist	–.25	Special Education Teacher	–.14
Florist	–.28	Graphic Designer	–.18
Mental Health Counselor	–.29	Broadcast Journalist	–.21
Production Worker	–.31	Speech Pathologist	–.23
Farmer/Rancher	–.31	Buyer	–.29
Broadcast Journalist	–.37	Social Worker	–.31
Artist	–.38	Interior Designer	–.33
Advertising Account Manager	–.49	Advertising Account Manager	–.36
Buyer	–.60	Mental Health Counselor	–.36

Note: *N* = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 14. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN COMPUTER HARDWARE & ELECTRONICS BIS AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Computer Programmer	.86	Computer Systems Analyst	.88
Technical Support Specialist	.86	Technical Support Specialist	.88
Network Administrator	.86	Network Administrator	.87
Software Developer	.84	Computer & IS Manager	.85
Computer Scientist	.83	Software Developer	.80
Engineer	.77	Computer Programmer	.77
Engineering Technician	.75	Computer Mathematics Manager	.75
Actuary	.69	Computer Scientist	.70
Computer Mathematics Manager	.68	Engineer	.68
Physicist	.66	Medical Technologist	.64
Farmer/Rancher	–.19	Life Insurance Agent	–.17
Bartender	–.21	Broadcast Journalist	–.18
Speech Pathologist	–.23	Graphic Designer	–.20
Florist	–.32	Public Relations Director	–.21
Broadcast Journalist	–.39	Speech Pathologist	–.21
Photographer	–.41	Buyer	–.25
Artist	–.49	Interior Designer	–.34
Buyer	–.51	Advertising Account Manager	–.45
Mental Health Counselor	–.56	Social Worker	–.58
Advertising Account Manager	–.61	Mental Health Counselor	–.58

Note: *N* = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 15. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN MILITARY BIS AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Military Officer	.83	Firefighter	.71
Law Enforcement Officer	.73	Military Officer	.65
Firefighter	.70	Law Enforcement Officer	.51
Military Enlisted	.68	Production Worker	.48
Facilities Manager	.58	Military Enlisted	.48
Engineering Technician	.49	Facilities Manager	.47
Chiropractor	.48	Physical Therapist	.46
Physical Therapist	.48	Wholesale Sales Representative	.44
Customer Service Representative	.46	Chiropractor	.43
Technical Support Specialist	.46	Technical Sales Representative	.43
Mental Health Counselor	–.14	Geologist	–.18
Florist	–.15	Geographer	–.18
Interior Designer	–.17	Graphic Designer	–.20
Librarian	–.21	Biologist	–.26
Buyer	–.27	Librarian	–.28
Advertising Account Manager	–.30	Mathematician	–.32
Medical Illustrator	–.31	ESL Instructor	–.32
Photographer	–.33	Artist	–.36
Musician	–.38	Translator	–.39
Artist	–.50	Musician	–.50

Note: N = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 16. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN PROTECTIVE SERVICES BIS AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Firefighter	.83	Firefighter	.74
Law Enforcement Officer	.74	Chiropractor	.58
Military Officer	.70	Physical Therapist	.55
Physical Therapist	.67	Registered Nurse	.53
Chiropractor	.66	Respiratory Therapist	.49
Military Enlisted	.65	Pharmacist	.49
Recreation Therapist	.61	Customer Service Representative	.48
Engineering Technician	.60	Bartender	.48
Facilities Manager	.59	Occupational Therapist	.46
Emergency Medical Technician	.58	Administrative Assistant	.46
Mental Health Counselor	–.15	Librarian	–.11
Musician	–.16	Graphic Designer	–.12
Farmer/Rancher	–.18	Farmer/Rancher	–.14
Medical Illustrator	–.18	ESL Instructor	–.14
Librarian	–.22	Geologist	–.15
Financial Analyst	–.23	Biologist	–.20
Photographer	–.24	Mathematician	–.21
Buyer	–.29	Translator	–.24
Advertising Account Manager	–.30	Musician	–.25
Artist	–.51	Artist	–.30

Note: N = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 17. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN NATURE & AGRICULTURE BIS AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Chiropractor	.75	Chiropractor	.71
Recreation Therapist	.75	Firefighter	.62
Firefighter	.74	Occupational Therapist	.60
Engineering Technician	.71	Registered Nurse	.57
Urban & Regional Planner	.67	Respiratory Therapist	.57
Registered Nurse	.64	Physical Therapist	.53
Landscape/Grounds Manager	.63	Veterinarian	.51
Geographer	.59	Arts/Entertainment Manager	.50
Physical Therapist	.58	Recreation Therapist	.49
Technical Support Specialist	.56	Engineer	.49
Paralegal	–.04	Life Insurance Agent	–.05
Photographer	–.08	Musician	–.07
Business Education Teacher	–.11	Biologist	–.08
Florist	–.13	Automobile Mechanic	–.09
Advertising Account Manager	–.21	Artist	–.10
Farmer/Rancher	–.23	Translator	–.16
Production Worker	–.31	Restaurant Manager	–.16
Artist	–.33	Interior Designer	–.16
Buyer	–.40	Farmer/Rancher	–.18
Financial Analyst	–.47	Buyer	–.20

Note: N = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 18. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN ATHLETICS BIS AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Parks & Recreation Manager	.77	Parks & Recreation Manager	.69
Firefighter	.71	Physical Therapist	.66
Recreation Therapist	.70	Recreation Therapist	.63
Law Enforcement Officer	.64	Technical Sales Representative	.57
Physical Therapist	.62	Middle School Teacher	.57
Military Enlisted	.60	Bartender	.53
Bartender	.59	Personal Financial Advisor	.53
Athletic Trainer	.59	Wholesale Sales Representative	.49
Chiropractor	.53	Chiropractor	.48
Technical Sales Representative	.52	Financial Analyst	.48
Production Worker	–.12	ESL Instructor	–.15
Advertising Account Manager	–.12	Geologist	–.19
Translator	–.15	Interior Designer	–.22
Musician	–.15	Technical Writer	–.26
Photographer	–.17	Artist	–.26
Buyer	–.19	Musician	–.26
Financial Analyst	–.19	Biologist	–.27
Medical Illustrator	–.22	Mathematician	–.31
Librarian	–.34	Librarian	–.48
Artist	–.41	Translator	–.64

Note: N = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 19. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN SCIENCE BIS AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Science Teacher	.83	Science Teacher	.81
Engineering Technician	.80	Medical Technologist	.80
Chiropractor	.80	R&D Manager	.77
Optometrist	.79	Respiratory Therapist	.74
Engineer	.79	Engineer	.74
Network Administrator	.77	Physician	.73
Dentist	.77	Dentist	.73
Computer Scientist	.76	Chemist	.73
Pharmacist	.74	Optometrist	.72
Software Developer	.74	Physicist	.72
Cosmetologist	–.24	Law Enforcement Officer	–.26
Paralegal	–.25	Mental Health Counselor	–.28
Business Education Teacher	–.28	Parks & Recreation Manager	–.33
Broadcast Journalist	–.35	Life Insurance Agent	–.37
Artist	–.37	Business Education Teacher	–.39
Production Worker	–.38	Advertising Account Manager	–.42
Florist	–.43	Florist	–.49
Farmer/Rancher	–.49	Restaurant Manager	–.50
Advertising Account Manager	–.56	Interior Designer	–.53
Buyer	–.73	Buyer	–.59

Note: N = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 20. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN RESEARCH BIS AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Sociologist	.83	Psychologist	.81
Engineer	.81	University Faculty Member	.77
University Faculty Member	.80	Sociologist	.75
Management Analyst	.77	Engineer	.70
Computer Programmer	.77	Software Developer	.70
Network Administrator	.76	Computer Mathematics Manager	.70
Software Developer	.76	Computer Programmer	.69
Urban & Regional Planner	.76	Computer & IS Manager	.65
Computer Scientist	.75	Computer Systems Analyst	.65
Geographer	.73	Network Administrator	.64
Photographer	–.20	Military Enlisted	–.23
Speech Pathologist	–.24	Emergency Medical Technician	–.23
Radiologic Technologist	–.25	Buyer	–.28
Cosmetologist	–.39	Restaurant Manager	–.29
Artist	–.40	Florist	–.33
Florist	–.42	Automobile Mechanic	–.33
Advertising Account Manager	–.46	Landscape/Grounds Manager	–.36
Production Worker	–.46	Law Enforcement Officer	–.38
Buyer	–.53	Radiologic Technologist	–.39
Farmer/Rancher	–.55	Farmer/Rancher	–.44

Note: N =475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 21. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN MEDICAL SCIENCE BIS AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Dentist	.79	Respiratory Therapist	.71
Registered Nurse	.78	Pharmacist	.70
Pharmacist	.77	Registered Nurse	.69
Chiropractor	.77	Chiropractor	.66
Physical Therapist	.72	Dentist	.63
Veterinarian	.70	Physical Therapist	.63
Science Teacher	.70	Veterinarian	.62
Optometrist	.69	Science Teacher	.55
Firefighter	.68	Health Information Specialist	.55
Emergency Medical Technician	.65	Medical Technologist	.54
Mental Health Counselor	–.19	Photographer	–.08
Interior Designer	–.20	Musician	–.09
Librarian	–.21	Broadcast Journalist	–.15
Business Education Teacher	–.22	Advertising Account Manager	–.17
Farmer/Rancher	–.25	Buyer	–.20
Photographer	–.31	Restaurant Manager	–.21
Florist	–.33	Graphic Designer	–.24
Advertising Account Manager	–.41	Artist	–.25
Buyer	–.45	Florist	–.31
Artist	–.50	Interior Designer	–.31

Note: *N* = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 22. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN MATHEMATICS BIS AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Software Developer	.79	Actuary	.80
Actuary	.79	Engineer	.72
Engineer	.78	R&D Manager	.69
Computer Programmer	.78	Optometrist	.69
Computer Scientist	.76	Physicist	.66
Accountant	.75	Computer Programmer	.64
Network Administrator	.75	Software Developer	.62
Financial Manager	.73	Chemist	.61
Physicist	.71	Computer Scientist	.58
Optometrist	.68	Auditor	.56
Paralegal	–.29	Florist	–.27
Community Service Director	–.30	Broadcast Journalist	–.28
Buyer	–.39	Mental Health Counselor	–.31
Mental Health Counselor	–.42	Parks & Recreation Manager	–.31
Artist	–.43	Cosmetologist	–.32
Photographer	–.44	Buyer	–.34
Florist	–.45	Law Enforcement Officer	–.36
Broadcast Journalist	–.46	Interior Designer	–.36
Speech Pathologist	–.55	Advertising Account Manager	–.40
Advertising Account Manager	–.57	Speech Pathologist	–.40

Note: *N* = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 23. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN VISUAL ARTS & DESIGN BIS AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Graphic Designer	.89	Arts/Entertainment Manager	.79
Arts/Entertainment Manager	.78	Architect	.76
Editor	.75	Editor	.71
Architect	.71	Medical Illustrator	.68
Technical Writer	.70	Art Teacher	.64
Art Teacher	.66	Photographer	.62
ESL Instructor	.65	Technical Writer	.61
Urban & Regional Planner	.62	Urban & Regional Planner	.58
Chiropractor	.50	English Teacher	.56
Geographer	.50	Cosmetologist	.53
Health Information Specialist	–.10	Restaurant Manager	–.15
Florist	–.11	Biologist	–.15
Food Service Manager	–.11	Radiologic Technologist	–.22
Paralegal	–.13	Vocational Agriculture Teacher	–.29
Credit Manager	–.15	Automobile Mechanic	–.30
Buyer	–.30	Military Enlisted	–.30
Business Education Teacher	–.38	Athletic Trainer	–.33
Financial Analyst	–.55	Emergency Medical Technician	–.41
Farmer/Rancher	–.57	Law Enforcement Officer	–.43
Production Worker	–.73	Farmer/Rancher	–.62

Note: N = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 24. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN PERFORMING ARTS BIS AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Editor	.67	Arts Entertainment Manager	.76
Arts Entertainment Manager	.67	English Teacher	.72
ESL Instructor	.65	Editor	.70
English Teacher	.62	Bartender	.70
Technical Writer	.58	Flight Attendant	.67
Graphic Designer	.56	Art Teacher	.66
Musician	.54	Broadcast Journalist	.66
Art Teacher	.53	Instructional Coordinator	.62
Religious/Spiritual Leader	.52	Cosmetologist	.58
Translator	.51	Urban & Regional Planner	.57
Computer & IS Manager	–.09	Medical Technician	–.30
Radiologic Technologist	–.09	Law Enforcement Officer	–.35
Health Information Specialist	–.11	Optician	–.35
Buyer	–.13	Electrician	–.44
Business Education Teacher	–.16	Radiologic Technologist	–.44
Medical Technician	–.16	Military Enlisted	–.47
Food Service Manager	–.18	Emergency Medical Technician	–.51
Financial Analyst	–.46	Vocational Agriculture Teacher	–.52
Farmer Rancher	–.58	Automobile Mechanic	–.57
Production Worker	–.62	Farmer/Rancher	–.79

Note: N = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 25. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN WRITING & MASS COMMUNICATION BIS AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
English Teacher	.85	Reporter	.84
Editor	.84	Editor	.83
Technical Writer	.77	English Teacher	.77
ESL Instructor	.77	Urban & Regional Planner	.77
Reporter	.76	Sociologist	.73
Translator	.72	ESL Instructor	.71
Attorney	.70	Public Administrator	.71
Arts/Entertainment Manager	.68	Attorney	.70
Public Relations Director	.65	University Faculty Member	.69
Librarian	.65	Public Relations Director	.67
Buyer	–.17	Law Enforcement Officer	–.41
Computer & IS Manager	–.17	Optician	–.42
Automobile Mechanic	–.19	Vocational Agriculture Teacher	–.42
Emergency Medical Technician	–.20	Athletic Trainer	–.43
Optician	–.21	Military Enlisted	–.54
Radiologic Technologist	–.35	Electrician	–.57
Medical Technician	–.47	Emergency Medical Technician	–.62
Financial Analyst	–.55	Radiologic Technologist	–.69
Farmer/Rancher	–.58	Automobile Mechanic	–.70
Production Worker	–.71	Farmer/Rancher	–.71

Note: N = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 26. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN CULINARY ARTS BIS AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Chef	.68	Chef	.78
Dietitian	.50	Food Service Manager	.62
Recreation Therapist	.49	Dietitian	.60
Firefighter	.44	Flight Attendant	.58
Technical Sales Representative	.43	Bartender	.57
Chiropractor	.42	Technical Sales Representative	.50
Parks & Recreation Manager	.40	Arts/Entertainment Manager	.48
Bartender	.40	Customer Service Representative	.46
Physical Therapist	.40	Wholesale Sales Representative	.43
Wholesale Sales Representative	.39	Administrative Assistant	.42
Librarian	–.06	Athletic Trainer	–.07
Physician	–.06	Mental Health Counselor	–.08
Computer Systems Analyst	–.06	Emergency Medical Technician	–.08
Biologist	–.07	Radiologic Technologist	–.10
R&D Manager	–.12	Social Worker	–.13
Mathematician	–.13	Automobile Mechanic	–.15
Farmer/Rancher	–.19	Geologist	–.20
Production Worker	–.21	Mathematician	–.20
Artist	–.26	Biologist	–.25
Financial Analyst	–.27	Farmer/Rancher	–.33

Note: N = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 27. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN COUNSELING & HELPING BIS AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Rehabilitation Counselor	.81	Rehabilitation Counselor	.73
Religious/Spiritual Leader	.79	Community Service Director	.70
Social Worker	.77	Secondary School Teacher	.68
School Counselor	.73	Religious/Spiritual Leader	.66
Secondary School Teacher	.73	Customer Service Representative	.64
Instructional Coordinator	.72	Instructional Coordinator	.63
Career Counselor	.70	Middle School Teacher	.60
University Administrator	.69	Elementary School Teacher	.60
Elementary School Teacher	.69	University Administrator	.59
Recreation Therapist	.68	Administrative Assistant	.58
Cosmetologist	–.07	Landscape/Grounds Manager	–.13
Computer Systems Analyst	–.13	Electrician	–.15
Radiologic Technologist	–.14	Military Enlisted	–.17
Buyer	–.16	Radiologic Technologist	–.18
Medical Illustrator	–.17	Carpenter	–.19
Medical Technician	–.19	Artist	–.22
Financial Analyst	–.33	Biologist	–.24
Artist	–.35	Geologist	–.30
Production Worker	–.38	Automobile Mechanic	–.32
Farmer/Rancher	–.42	Farmer/Rancher	–.36

Note: N = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 28. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN TEACHING & EDUCATION BIS AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Elementary School Teacher	.90	Elementary School Teacher	.82
Middle School Teacher	.85	Middle School Teacher	.79
Special Education Teacher	.81	Special Education Teacher	.75
Secondary School Teacher	.78	Recreation Therapist	.72
Social Worker	.74	Secondary School Teacher	.72
School Counselor	.73	Community Service Director	.67
Recreation Therapist	.72	Instructional Coordinator	.66
Rehabilitation Counselor	.72	School Counselor	.64
Religious/Spiritual Leader	.69	Rehabilitation Counselor	.64
University Administrator	.66	School Administrator	.62
Landscape/Grounds Manager	–.16	Restaurant Manager	–.23
Computer Systems Analyst	–.17	Landscape/Grounds Manager	–.24
Photographer	–.17	Military Enlisted	–.24
Production Worker	–.19	Artist	–.27
Buyer	–.20	Radiologic Technologist	–.29
Medical Technician	–.22	Electrician	–.31
Farmer/Rancher	–.23	Carpenter	–.31
Financial Analyst	–.24	Optician	–.35
Medical Illustrator	–.34	Automobile Mechanic	–.39
Artist	–.48	Farmer/Rancher	–.39

Note: N = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 29. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN HUMAN RESOURCES & TRAINING BIS AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Human Resources Specialist	.85	Training & Development Specialist	.80
Human Resources Manager	.84	Human Resources Manager	.79
Training & Development Specialist	.83	Operations Manager	.77
Operations Manager	.80	Top Executive, Business/Finance	.76
University Administrator	.80	Human Resources Specialist	.76
Instructional Coordinator	.79	Marketing Manager	.75
Personal Financial Advisor	.76	Instructional Coordinator	.74
Rehabilitation Counselor	.74	School Counselor	.74
Top Executive, Business/Finance	.74	Business/Finance Supervisor	.74
Business/Finance Supervisor	.73	Purchasing Agent	.74
Forester	–.20	Electrician	–.35
Photographer	–.20	Artist	–.36
Production Worker	–.21	Landscape/Grounds Manager	–.39
Musician	–.24	Mathematician	–.44
Physician	–.26	Carpenter	–.46
Farmer/Rancher	–.29	Radiologic Technologist	–.47
Medical Technician	–.30	Automobile Mechanic	–.47
Radiologic Technologist	–.32	Farmer/Rancher	–.50
Medical Illustrator	–.38	Biologist	–.54
Artist	–.49	Geologist	–.55

Note: N = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 30. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN SOCIAL SCIENCES BIS AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Urban & Regional Planner	.73	Management Analyst	.72
Rehabilitation Counselor	.72	Community Service Director	.71
Religious/Spiritual Leader	.70	University Administrator	.71
ESL Instructor	.70	Public Administrator	.69
University Faculty Member	.68	Urban & Regional Planner	.69
Psychologist	.66	Psychologist	.68
Sociologist	.66	Sociologist	.67
Geographer	.65	Rehabilitation Counselor	.67
University Administrator	.64	Attorney	.66
Attorney	.63	Religious/Spiritual Leader	.66
Horticulturist	–.14	Military Enlisted	–.24
Radiologic Technologist	–.15	Carpenter	–.25
Florist	–.20	Artist	–.25
Cosmetologist	–.21	Landscape/Grounds Manager	–.25
Medical Technician	–.22	Electrician	–.26
Financial Analyst	–.27	Emergency Medical Technician	–.27
Buyer	–.33	Horticulturist	–.35
Artist	–.36	Farmer/Rancher	–.38
Production Worker	–.48	Radiologic Technologist	–.41
Farmer/Rancher	–.51	Automobile Mechanic	–.47

Note: N = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 31. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN RELIGION & SPIRITUALITY BIS AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Religious/Spiritual Leader	.65	Religious/Spiritual Leader	.55
ESL Instructor	.51	Rehabilitation Counselor	.44
School Counselor	.46	School Counselor	.44
Rehabilitation Counselor	.44	Dietitian	.43
Registered Nurse	.43	University Administrator	.40
Urban & Regional Planner	.43	Elementary School Teacher	.40
Geographer	.43	Psychologist	.40
University Faculty Member	.42	Attorney	.40
Psychologist	.42	Instructional Coordinator	.39
Social Worker	.41	Training & Development Specialist	.39
Medical Technician	–.04	Vocational Agriculture Teacher	–.19
Radiologic Technologist	–.06	Restaurant Manager	–.19
Cosmetologist	–.07	Mathematics Teacher	–.19
Business Education Teacher	–.09	Emergency Medical Technician	–.20
Florist	–.13	Carpenter	–.23
Artist	–.17	Radiologic Technologist	–.28
Production Worker	–.24	Electrician	–.30
Farmer/Rancher	–.25	Farmer/Rancher	–.33
Financial Analyst	–.26	Military Enlisted	–.34
Buyer	–.27	Automobile Mechanic	–.34

Note: N = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 32. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN HEALTHCARE SERVICES BIS AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Physical Therapist	.77	Chiropractor	.74
Emergency Medical Technician	.74	Pharmacist	.73
Firefighter	.70	Registered Nurse	.72
Registered Nurse	.70	Physical Therapist	.71
Customer Service Representative	.69	Respiratory Therapist	.61
Dentist	.67	Health Information Specialist	.61
Athletic Trainer	.67	Elementary School Teacher	.58
Chiropractor	.67	Occupational Therapist	.58
Pharmacist	.66	Dentist	.57
Facilities Manager	.65	Administrative Assistant	.57
Florist	–.13	Farmer/Rancher	–.11
Medical Illustrator	–.17	Translator	–.16
Musician	–.19	Mathematician	–.16
Interior Designer	–.21	Photographer	–.16
Financial Analyst	–.22	Geologist	–.17
Buyer	–.31	Interior Designer	–.19
Advertising Account Manager	–.31	Biologist	–.21
Librarian	–.33	Musician	–.21
Photographer	–.33	Graphic Designer	–.24
Artist	–.58	Artist	–.36

Note: N = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 33. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN MARKETING & ADVERTISING BIS AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Realtor	.83	Wholesale Sales Representative	.89
Wholesale Sales Representative	.82	Securities Sales Agent	.87
Sales Manager	.81	Technical Sales Representative	.86
Technical Sales Representative	.78	Sales Manager	.84
Marketing Manager	.77	Realtor	.82
Securities Sales Agent	.77	Top Executive, Business/Finance	.81
Restaurant Manager	.75	Marketing Manager	.81
Purchasing Agent	.75	Operations Manager	.81
Operations Manager	.74	Purchasing Agent	.80
Personal Financial Advisor	.73	Personal Financial Advisor	.80
Production Worker	–.22	Chemist	–.25
Geologist	–.23	Carpenter	–.28
Biologist	–.24	Physician	–.32
Medical Illustrator	–.27	Automobile Mechanic	–.36
Medical Technician	–.27	Radiologic Technologist	–.40
Musician	–.27	Farmer/Rancher	–.42
Forester	–.28	Artist	–.47
Farmer/Rancher	–.28	Mathematician	–.56
Physician	–.38	Geologist	–.61
Artist	–.49	Biologist	–.66

Note: N = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 34. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN SALES BIS AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Realtor	.83	Wholesale Sales Representative	.82
Technical Sales Representative	.81	Technical Sales Representative	.79
Wholesale Sales Representative	.79	Realtor	.79
Securities Sales Agent	.77	Securities Sales Agent	.79
Sales Manager	.75	Loan Officer Counselor	.76
Restaurant Manager	.75	Sales Manager	.76
Purchasing Agent	.72	Personal Financial Advisor	.75
Personal Financial Advisor	.71	Credit Manager	.73
Top Executive, Business/Finance	.66	Business Finance Supervisor	.71
Loan Officer Counselor	.66	Operations Manager	.70
Art Teacher	–.12	Translator	–.21
Librarian	–.15	Farmer/Rancher	–.22
Geologist	–.16	Geographer	–.24
Advertising Account Manager	–.17	Musician	–.27
Biologist	–.20	Physician	–.32
Photographer	–.33	Graphic Designer	–.35
Musician	–.38	Artist	–.56
Physician	–.38	Geologist	–.58
Medical Illustrator	–.46	Mathematician	–.59
Artist	–.67	Biologist	–.66

Note: N = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 35. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN MANAGEMENT BIS AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Business/Finance Supervisor	.82	Purchasing Agent	.84
Operations Manager	.80	Business/Finance Supervisor	.82
Securities Sales Agent	.77	Operations Manager	.81
Top Executive, Business/Finance	.76	Realtor	.79
Nursing Home Administrator	.76	Credit Manager	.79
Human Resources Specialist	.75	Sales Manager	.77
Personal Financial Advisor	.75	Securities Sales Agent	.76
Human Resources Manager	.73	Wholesale Sales Representative	.74
Technical Sales Representative	.73	Top Executive, Business/Finance	.74
Realtor	.72	Loan Officer Counselor	.74
Horticulturist	–.20	Geographer	–.28
Medical Technician	–.22	Medical Illustrator	–.28
Biologist	–.22	Radiologic Technologist	–.29
Geologist	–.23	Physician	–.37
Carpenter	–.24	Musician	–.38
Physician	–.40	Graphic Designer	–.50
Photographer	–.45	Mathematician	–.58
Musician	–.51	Geologist	–.63
Medical Illustrator	–.63	Artist	–.69
Artist	–.74	Biologist	–.73

Note: N = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 36. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN ENTREPRENEURSHIP BIS AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Sales Manager	.69	Securities Sales Agent	.73
Top Executive, Business/Finance	.65	Wholesale Sales Representative	.72
Securities Sales Agent	.65	Operations Manager	.72
Wholesale Sales Representative	.64	Top Executive, Business/Finance	.71
Realtor	.64	Sales Manager	.69
Operations Manager	.64	Marketing Manager	.69
Marketing Manager	.63	Technical Sales Representative	.68
Personal Financial Advisor	.61	Personal Financial Advisor	.65
Technical Sales Representative	.59	Realtor	.65
Management Analyst	.57	Financial Analyst	.65
Speech Pathologist	–.11	Social Worker	–.19
Medical Illustrator	–.13	Geographer	–.21
Physician	–.18	Automobile Mechanic	–.23
Respiratory Therapist	–.19	Landscape/Grounds Manager	–.23
Musician	–.19	Radiologic Technologist	–.28
Medical Technician	–.21	Farmer/Rancher	–.34
Production Worker	–.25	Artist	–.35
Radiologic Technologist	–.26	Mathematician	–.37
Artist	–.28	Geologist	–.38
Farmer/Rancher	–.31	Biologist	–.49

Note: N = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 37. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN POLITICS & PUBLIC SPEAKING BIS AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Elected Public Official	.81	Elected Public Official	.84
Attorney	.79	Public Administrator	.83
School Administrator	.79	School Administrator	.82
Public Administrator	.74	Marketing Manager	.79
Top Executive, Business/Finance	.74	Top Executive, Business/Finance	.78
Sales Manager	.69	Sales Manager	.77
Human Resources Manager	.67	Management Analyst	.76
Operations Manager	.66	Human Resources Manager	.76
Securities Sales Agent	.65	Operations Manager	.75
Wholesale Sales Representative	.64	Human Resources Specialist	.74
Cosmetologist	–.25	Forester	–.32
Musician	–.27	Mathematician	–.33
Production Worker	–.29	Geologist	–.39
Respiratory Therapist	–.30	Farmer/Rancher	–.40
Medical Illustrator	–.30	Carpenter	–.44
Radiologic Technologist	–.31	Biologist	–.45
Farmer/Rancher	–.36	Artist	–.45
Artist	–.44	Automobile Mechanic	–.49
Medical Technician	–.45	Horticulturist	–.52
Horticulturist	–.50	Radiologic Technologist	–.55

Note: N = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 38. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN LAW BIS AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Auditor	.62	Auditor	.71
Attorney	.61	Attorney	.69
Elected Public Official	.59	Business/Finance Supervisor	.67
Law Enforcement Officer	.58	Personal Financial Advisor	.66
School Administrator	.58	School Administrator	.65
Top Executive, Business/Finance	.56	Human Resources Manager	.64
Business/Finance Supervisor	.56	Financial Manager	.64
Loan Officer Counselor	.56	Accountant	.64
Securities Sales Agent	.55	Sales Manager	.63
Urban & Regional Planner	.55	Elected Public Official	.63
Interior Designer	–.19	Forester	–.26
Florist	–.21	Farmer/Rancher	–.27
Art Teacher	–.25	Radiologic Technologist	–.28
Musician	–.26	Carpenter	–.30
Advertising Account Manager	–.29	Graphic Designer	–.30
Medical Illustrator	–.32	Geologist	–.33
Photographer	–.36	Automobile Mechanic	–.34
Farmer/Rancher	–.36	Biologist	–.40
Horticulturist	–.44	Artist	–.47
Artist	–.56	Horticulturist	–.52

Note: N = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 39. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN OFFICE MANAGEMENT BIS AND OS SCORES FOR WOMEN AND MEN IN THE INDIA SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Administrative Assistant	.81	Customer Service Representative	.76
Customer Service Representative	.80	Administrative Assistant	.74
Credit Manager	.73	Health Information Specialist	.71
Facilities Manager	.66	Business Education Teacher	.70
Health Information Specialist	.65	Credit Manager	.66
Military Enlisted	.61	Business/Finance Supervisor	.64
Nursing Home Administrator	.60	Accountant	.64
Business/Finance Supervisor	.59	Wholesale Sales Representative	.61
Auditor	.58	Nursing Home Administrator	.61
Business Education Teacher	.57	Facilities Manager	.59
Art Teacher	–.16	Architect	–.19
R&D Manager	–.17	Photographer	–.23
Mental Health Counselor	–.22	Medical Illustrator	–.26
Carpenter	–.25	Physician	–.29
Advertising Account Manager	–.27	Mathematician	–.37
Physician	–.28	Musician	–.40
Musician	–.33	Graphic Designer	–.43
Photographer	–.43	Biologist	–.51
Medical Illustrator	–.54	Geologist	–.51
Artist	–.72	Artist	–.61

Note: *N* = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 40. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN TAXES & ACCOUNTING BIS AND OS SCORES FOR WOMEN AND MEN IN THE INDIA SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Accountant	.88	Auditor	.76
Financial Manager	.86	Financial Manager	.71
Auditor	.78	Accountant	.70
Actuary	.73	Actuary	.69
Software Developer	.70	Financial Analyst	.65
Computer Programmer	.67	Engineer	.58
Engineer	.66	Business/Finance Supervisor	.55
Mathematics Teacher	.65	Management Analyst	.55
Network Administrator	.63	Computer Mathematics Manager	.53
Computer Mathematics Manager	.63	Computer Programmer	.52
Reporter	–.31	Art Teacher	–.21
Musician	–.33	Mental Health Counselor	–.21
Medical Illustrator	–.33	Medical Illustrator	–.22
Art Teacher	–.35	Speech Pathologist	–.23
Broadcast Journalist	–.39	Musician	–.27
Speech Pathologist	–.41	Interior Designer	–.27
Mental Health Counselor	–.53	Photographer	–.29
Advertising Account Manager	–.57	Advertising Account Manager	–.30
Photographer	–.59	Graphic Designer	–.45
Artist	–.60	Artist	–.49

Note: *N* = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 41. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN PROGRAMMING & INFORMATION SYSTEMS BIS AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Technical Support Specialist	.84	Computer Systems Analyst	.89
Computer Programmer	.84	Technical Support Specialist	.87
Software Developer	.83	Network Administrator	.85
Network Administrator	.82	Computer & IS Manager	.83
Computer Scientist	.81	Software Developer	.81
Computer Mathematics Manager	.71	Computer Programmer	.80
Engineer	.71	Computer Mathematics Manager	.77
Actuary	.66	Computer Scientist	.76
Engineering Technician	.63	Engineer	.64
Accountant	.63	Medical Technologist	.59
Broadcast Journalist	–.24	Farmer/Rancher	–.14
Speech Pathologist	–.25	Life Insurance Agent	–.18
Farmer/Rancher	–.27	Parks & Recreation Manager	–.19
Bartender	–.27	Law Enforcement Officer	–.20
Florist	–.32	Speech Pathologist	–.21
Photographer	–.32	Interior Designer	–.23
Buyer	–.41	Buyer	–.27
Artist	–.49	Advertising Account Manager	–.35
Advertising Account Manager	–.53	Social Worker	–.56
Mental Health Counselor	–.58	Mental Health Counselor	–.60

Note: N = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

TABLE 42. TEN HIGHEST AND LOWEST CORRELATIONS BETWEEN FINANCE & INVESTING BIS AND OS SCORES FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Female Occupational Scale	Women *r*	Male Occupational Scale	Men *r*
Sales Manager	.74	Financial Manager	.83
Financial Manager	.73	Financial Analyst	.79
Securities Sales Agent	.72	Auditor	.78
Auditor	.69	Securities Sales Agent	.78
Personal Financial Advisor	.69	Management Analyst	.77
Realtor	.68	Sales Manager	.77
Top Executive, Business/Finance	.67	Business/Finance Supervisor	.77
Accountant	.66	Operations Manager	.76
Management Analyst	.65	Personal Financial Advisor	.76
Operations Manager	.63	Accountant	.76
Art Teacher	–.22	Farmer/Rancher	–.26
Medical Illustrator	–.25	Automobile Mechanic	–.27
Advertising Account Manager	–.28	Graphic Designer	–.28
Farmer/Rancher	–.29	Landscape/Grounds Manager	–.31
Photographer	–.31	Mathematician	–.33
Mental Health Counselor	–.32	Horticulturist	–.34
Occupational Therapist	–.34	Geologist	–.38
Musician	–.34	Radiologic Technologist	–.42
Speech Pathologist	–.39	Artist	–.48
Artist	–.48	Biologist	–.52

Note: N = 475 (333 women and 142 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

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 Simplified Chinese sample and the US GRS, caution should be taken when interpreting OS results, as cultural differences may be a factor.

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.

TABLE 43. OS CORRELATIONS WITHIN THEME AND OVERALL FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

	Median OS Correlation	
Theme	Women *r*	Men *r*
Realistic	.40	.39
Investigative	.61	.52
Artistic	.46	.50
Social	.51	.53
Enterprising	.44	.59
Conventional	.38	.57
Overall	.22	.18

Note: N = 475 (333 women and 142 men).

Correlations Among the OSs

Table 43 presents the correlations among the OSs by RIASEC Theme for women and men in the Simplified Chinese sample. The median correlations among the female OSs ranged from .38 for Conventional to .61 for Investigative. This is similar to the numbers reported for the US GRS, where the medians ranged from .34 (Conventional) to .61 (Investigative) for women. Median correlations for men in the Simplified Chinese sample ranged from .39 for Realistic to .59 for Enterprising, while the median correlations found for men in the US GRS ranged from .45 (Realistic) to .57 (Artistic). Finally, the overall median correlations across all OSs for the Simplified Chinese sample were .22 and .18 for women and men, respectively. These are higher than average correlations reported for the US GRS, which were .15 for women and .16 for men. Taken together, the results found for the Simplified Chinese sample suggest that OSs within the same Theme are related to a greater extent than OSs overall.

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), chapter 6, 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 move 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 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.

RELIABILITY OF THE PSSs

Internal consistency was evaluated for the PSSs. Internal consistency reliabilities (Cronbach's alphas) are shown in Table 44 for the Simplified Chinese sample. Alphas range from .76 for the Risk Taking and Team Orientation scales to .88 for the Learning Environment scale. Cronbach's alphas reported for the US 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 among the five PSSs and through the correlations between the PSSs and the other scales (i.e., the GOTs and the BISs) of the Strong assessment. Results of these analyses are presented in the following sections.

TABLE 44. INTERNAL CONSISTENCY RELIABILITIES FOR THE PSSs IN THE SIMPLIFIED CHINESE SAMPLE

Personal Style Scale	Cronbach's Alpha
Work Style	.85
Learning Environment	.88
Leadership Style	.85
Risk Taking	.76
Team Orientation	.76

Note: N = 475 (333 women and 142 men).

Intercorrelations Between the PSSs

The intercorrelations of the five PSSs separated by women and men are shown in Table 45. Correlations for the Chinese sample generally revealed a pattern of relationships similar to those in the US GRS, with minor differences. The strongest relationships between PSSs for women and men are identical. In the Simplified Chinese sample of women, the largest correlations were found between the Leadership Style scale and the Team Orientation scale (r = .55), which is similar to that for women in the US GRS (r = .54 between the Leadership Style scale and the Team Orientation scale). However, the strongest relationship in the Simplified Chinese sample of men was between the Leadership Style scale and the Learning Environment scale (r = .60), which is dissimilar to that for men in the US GRS (r = .55 between the Leadership Style scale and the Team Orientation scale).

TABLE 45. INTERCORRELATIONS BETWEEN THE PSSs FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE SAMPLE

Personal Style Scale	Work Style	Learning Environment	Leadership Style	Risk Taking	Team Orientation
Work Style	—	.04	.44	.06	.47
Learning Environment	.00	—	.49	–.02	.20
Leadership Style	.35	.60	—	.35	.55
Risk Taking	.22	–.04	.35	—	.26
Team Orientation	.20	.25	.57	.32	—

Note: N = 475. For correlations above the diagonal, women n = 333; below the diagonal, men n = 142.

Relationships Between the PSSs, the GOTs, and the BISs

The relationships between the PSSs and both the GOTs and BISs are shown in Table 46. 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 group under that Theme as well. Additionally, Leadership Style is related to the Enterprising Theme and the BISs grouped under that Theme.

TABLE 46. CORRELATIONS BETWEEN THE PSSs, THE GOTs, AND THE BISs FOR WOMEN AND MEN IN THE SIMPLIFIED CHINESE 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 Theme	–.07	–.06	.00	–.01	.25	.33	.77	.66	.27	.40
Mechanics & Construction	–.28	–.30	.10	.04	.18	.21	.54	.37	.16	.17
Computer Hardware & Electronics	–.22	–.35	–.01	.03	.20	.13	.49	.15	.25	.32
Military	.06	.21	–.07	–.14	.24	.29	.62	.64	.25	.31
Protective Services	.14	.24	–.14	–.19	.26	.17	.81	.72	.26	.31
Nature & Agriculture	.11	.12	.10	.07	.25	.22	.54	.43	.26	.31
Athletics	.23	.24	–.06	.02	.23	.36	.54	.55	.37	.37
Investigative Theme	–.21	–.33	.32	.26	.32	.18	.51	.30	.26	.15
Science	–.21	–.34	.26	.15	.27	.05	.44	.24	.23	.10
Research	–.16	–.13	.48	.52	.48	.48	.43	.28	.31	.34
Medical Science	.04	.01	–.07	–.12	.17	.03	.53	.33	.19	.03
Mathematics	–.20	–.19	.17	.22	.28	.21	.37	.30	.17	.05
Artistic Theme	.19	.18	.58	.59	.35	.45	.33	.29	.23	.31
Visual Arts & Design	–.03	–.02	.44	.37	.21	.32	.29	.26	.15	.22
Performing Arts	.22	.25	.44	.50	.33	.43	.29	.24	.27	.26
Writing & Mass Communication	.14	.15	.65	.68	.38	.42	.23	.07	.17	.27
Culinary Arts	.35	.28	.07	.14	.29	.39	.31	.35	.33	.42
Social Theme	.61	.66	.31	.32	.61	.54	.40	.33	.53	.31
Counseling & Helping	.48	.38	.42	.25	.64	.50	.38	.36	.51	.46
Teaching & Education	.58	.57	.28	.27	.42	.34	.24	.21	.45	.12
Human Resources & Training	.51	.53	.34	.48	.73	.71	.28	.26	.59	.52
Social Sciences	.15	.16	.54	.52	.46	.45	.39	.38	.32	.28
Religion & Spirituality	.06	.07	.31	.33	.24	.26	.25	.10	.06	.03
Healthcare Services	.24	.31	–.23	–.15	.18	.12	.51	.33	.23	.10
Enterprising Theme	.41	.46	.18	.24	.69	.68	.52	.49	.46	.48
Marketing & Advertising	.37	.42	.24	.29	.66	.68	.46	.47	.43	.53
Sales	.31	.39	–.04	.05	.46	.45	.53	.53	.32	.39
Management	.45	.47	.05	.16	.55	.56	.42	.43	.48	.33
Entrepreneurship	.16	.21	.29	.26	.56	.55	.43	.44	.33	.53
Politics & Public Speaking	.25	.38	.42	.51	.75	.77	.46	.45	.35	.39
Law	.16	.28	.12	.29	.43	.47	.54	.42	.29	.29
Conventional Theme	.07	.23	–.14	.06	.26	.38	.54	.47	.31	.31
Office Management	.32	.49	–.18	–.05	.22	.32	.39	.34	.31	.27
Taxes & Accounting	–.05	.06	–.05	.09	.25	.29	.39	.41	.30	.17
Programming & Information Systems	–.11	–.28	.09	.13	.25	.15	.46	.15	.28	.28
Finance & Investing	–.04	.19	.15	.34	.41	.53	.53	.50	.25	.28

Note: N = 475 (333 women and 142 men).

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. The typicality index is described below. For descriptions of other administrative indexes, see the *Strong Interest Inventory® Manual* (Donnay et al., 2005).

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 Simplified Chinese sample was 22.40, and no participants scored lower than 17, thus suggesting that responses were consistent across participants.

CONCLUSION

This technical brief summarizes the measurement properties of a Simplified Chinese translation of the *Strong Interest Inventory* assessment in a sample of Chinese participants. Results presented in this document suggest that the Strong assessment functions with people in the mainland China similarly to how it functions with the US 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 use of 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.

APPENDIX: RIASEC MODEL FIT SUMMARY

RIASEC model fit was evaluated following two confirmatory approaches: Randomization Test of Hypothesized Order Relations (RTHOR; Hubert & Arabie, 1987) and Covariance Circumplex Structure Modeling (CCSM; Browne, 1992). The RTHOR was implemented via the RANDALL program (Tracey, 1997), while the CCSM was realized through the CircE package (Grassi, Luccio, & di Blas, 2010) in *R* (R Core Group, 2016).

RTHOR results indicated the significant fit of the circular order model (p <. 05) with a correspondence index value of .81 for the Simplified Chinese sample, which was above the benchmark values of .70 for the US and .48 for the international samples (Rounds & Tracey, 1996). Model fit was very good using the RTHOR approach.

CCSM results were more complex. Four models were tested in this approach: unconstrained, equal communalities, equal spacing, and circulant (for more details, see Tracey & Rounds, 1997; Darcy & Tracey, 2007). Several fit indexes, such as chi-square (χ^2), root mean square error of approximation (RMSEA), Tucker-Lewis index (TLI), standardized root mean square residual (SRMR), comparative fit index (CFI), and goodness of fit index (GFI) were generated for each model. Fit statistics for the models are summarized in Table A1. Fit thresholds were met across all models for all fit indexes (SRMS, TLI, SRMR, CFI and GFI). Results showed that the unconstrained model fit best to the sample, followed by the equal spacing model, the equal communality model, and the circulant model.

TABLE A1. FIT STATISTICS SUMMARY FOR THE RIASEC CIRCUMPLEX MODELS

Model Type	χ^2	*df*	RMSEA (≤.10)	TLI (≥.90)	SRMR (≤.08)	CFI (≥.90)	GFI (≥.90)
Unconstrained	13.14	3	.08	.95	.02	.99	.99
Equal communality	34.09	8	.08	.95	.05	.97	.98
Equal spacing	36.58	8	.09	.95	.04	.97	.98
Circulant	78.23	13	.10	.93	.07	.94	.96

Note: χ^2 = chi-square; *df* = degree of freedom; RMSEA = root mean square error of approximation; TLI = Tucker-Lewis index; SRMR = standardized root mean square residual; CFI = comparative fit index; GFI = goodness of fit index.

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