THE VALUE OF INTELLECTUAL STYLES

Intellectual styles are individuals' preferred ways of using their abilities. This book provides the first panoramic and systematic review of existing research on the value of different intellectual styles. By critically considering findings from hundreds of international studies undertaken over eight decades, Li-fang Zhang reveals that the creativity-generating Type I styles are generally superior to the norm-conforming Type II styles in relation to a wide range of learning processes, developmental outcomes, work performance, physical and mental health, and many other domains of people's lives. She further reveals that people explicitly and implicitly express their preference for Type I styles over Type II styles. Professor Zhang elucidates the practical value of cultivating diverse intellectual styles, especially Type I styles (i.e., successful intellectual styles), in both academic and nonacademic settings, and lays the groundwork for future research to advance the field of intellectual styles and to inform scholarly work in other academic disciplines.

Li-fang Zhang is Professor of Psychology and Education at the University of Hong Kong. She has published dozens of academic book chapters and books, and is the (co)author of more than 100 peer-reviewed journal articles and encyclopedic entries. Two of her award-winning monographs are entitled *The Malleability of Intellectual Styles* (2013) and *The Nature of Intellectual Styles* (with Sternberg, 2006). Professor Zhang serves as the Editor-in-Chief of *The [Oxford] Encyclopedia of Educational Psychology* and Associate Editor of both the *Journal of Educational Psychology* and *Educational Psychology*. She is also an editorial board member of several other psychology and education journals.

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To my beloved daughter, Ashley, whose achievements exemplify the importance of having successful intellectual styles – among other valuable attributes.

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PREFACE

In June 2015, a group of German ornithologists (Bartsch, Weiss, & Kipper) discovered that male nightingales[1] whose songs were more complex displayed better parenting skills than those whose songs were less complex. Such an intriguing finding immediately drew my attention, for it appeared halfway through the writing of this book – a book that abounds with research evidence demonstrating a highly similar phenomenon: Complexity in thinking and behaving is intimately associated with superior outcomes.

This book shows that intellectual styles that denote higher levels of complexity and are creativity generating (known as "Type I intellectual styles") are generally more conducive to better outcomes among human beings, whereas styles that suggest lower levels of complexity and communicate a norm-conforming tendency (known as "Type II intellectual styles") are usually detrimental to positive outcomes. Intellectual styles – an encompassing term for such constructs as cognitive styles, learning styles, personality styles, teaching styles, and thinking styles – refer to people's preferred ways of processing information and handling tasks. In the past eight decades, a tremendous amount of research evidence has been accumulated, indicating that intellectual styles play a critical role in human learning and performance, as do abilities and personality. Indeed, intellectual styles have been shown to make significant contributions to human learning and performance over and above what has been accounted for by traditionally recognized individual-difference variables such as abilities, personality, and motivation. Intellectual style is undeniably a real psychological phenomenon.

For several reasons, however, the field of styles has been confronted with several major challenges. One of these challenges concerns the nature of intellectual styles, particularly their malleability and value. In 2013, in *The*

Malleability of Intellectual Styles, I presented a comprehensive review of the literature addressing the issue of style malleability, which showed that styles are changeable – through both socialization and training.

In the current volume, I continue my quest to gain a better understanding of the nature of intellectual styles through addressing the issue of style value. Readers might immediately ask: What do you mean by "style value"? Whose value? The value of intellectual styles refers to the adaptivity of intellectual styles, and the issue of style value concerns the question of whether some styles are better than others (i.e., value laden) or whether styles are simply different (i.e., value free). The value of styles is not determined by any individual or any group; rather, it is manifested in the ways in which intellectual styles are associated with human attributes and outcomes. Styles that are consistently positively related to human attributes and outcomes commonly regarded as, and empirically shown to be, desirable (e.g., openness personality trait, high levels of cognitive development, better mental and physical health, and a whole host of other desirable attributes and outcomes), across domains and across contexts, are said to have adaptive (i.e., desirable, effective, and positive) value. By contrast, styles that are routinely positively linked to human attributes and outcomes widely known and empirically shown to be undesirable (e.g., neuroticism, lower levels of cognitive development, poor mental and physical health, etc.), across domains and across contexts, are deemed to have maladaptive (i.e., undesirable, ineffective, and negative) value.

The present literature review has firmly substantiated my long-held view that intellectual styles are essentially value laden. Moreover, some styles (specifically, Type III styles) are value differentiated in that they appear to be adaptive in some situations but maladaptive in others.

Like *The Malleability of Intellectual Styles*, this book is intended for higher-degree research students, taught postgraduate students, upper-division undergraduate students, as well as academics who wish to do research in the field of intellectual styles and allied academic fields. These allied fields of inquiry include, among others, applied psychology, clinical psychology, cognitive psychology, consulting psychology, cross-cultural psychology, developmental psychology, differential psychology, educational psychology, industrial/organizational psychology, educational administration and policy making, educational neuroscience, neurocognitive science, higher education, the academic profession, general education, special education, teacher education, institutional administration and management, curriculum design and instruction, business management, health sciences, sports sciences, student development, career guidance and coun-

seling, school guidance and counseling, marriage counseling, anthropology, cultural and ethnic studies, sociology, computing and information technology, and liberal studies.

Although aimed at the aforementioned audiences, this book should also be of interest and relevance to practitioners (both educational and noneducational) not only because the research findings concerning the issue of style value are compelling but also because the practical implications of the research findings for education and beyond will be of great value to them. Without a doubt, individuals who are keen to understand the functions of intellectual styles in various domains of their lives should consider this book beneficial.

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ACRONYMS

ACER	Australian Council of Educational Research Higher Test PL-PQ
ACL	Adjective Check List
ACL-Cr	Adjective Check List-Cr
AGL	Artificial Grammar Learning
Ai	Achievement-via-Independence
AMI	Achievement Motivation Inventory
APM	Raven's Advanced Progressive Matrices
ASES	Academic Self-Efficacy Scale
ASI	Approaches to Studying Inventory
ASSIST	Approaches and Study Skills Inventory for Students
ATI	Approaches to Teaching Inventory
BAT	Body Adjustment Test
BWAS	Barron-Welsh Art Scale
CASES	Coping Analysis Schedule for Educational Settings
CCSF	conceptual-change/student-focused
CCSFI	CCSF/intention
CCSFS	CCSF/strategy
CCTDI	California Critical Thinking Disposition Inventory
CDQ	Creative Domains Questionnaire
CEI	Classroom Environment Index
CHEF	Children's Embedded Figures Test
CIT	computing and information technology
CPI	California Psychological Inventory
CSI	Cognitive Style Index
CTBS	Comprehensive Tests of Basic Skills
CTMM	California Test of Mental Maturity

CTY	Center for Talented Youth
DBT	Digit Span Backwards Test
DHH	deaf or hard-of-hearing
DMI	Defense Mechanism Inventory
DMI-AF	Defense Mechanisms Inventory – Alternative Form
DPI	Developing Purposes Inventory
DTI	Diagnostic Thinking Inventory
EFT	Embedded Figures Test
EIS-III	Erwin Identity Scale – III
EQI	Emotional Quotient Inventory
ERP	event-related potentials
FD	Field dependent
FDI	field dependence/independence
FI	Field independent
FIT	Figural Intersection Test
FLACCS	Florida Climate and Control System
FSIQ	Full Scale IQ
GEFT	Group Embedded Figures Test
GMA:A	Graduate and Management Assessment: Abstract
GRT2	General Reasoning Test Battery
HBDI	Herrmann Brain Dominance Instrument
IMEI	Iowa Managing Emotions Inventory
ISPLE	Inventory of Students' Perceived Learning Environment
ITTA	information-transmission teaching approach
ITTF	information-transmission/teacher-focused
ITTFI	ITTF/intention
ITTFS	ITTF/strategy
JSB	Job Satisfaction Blank
JTI	Jung Type Indicator
K-A	Kuhlmann-Anderson
KAI	Kirton Adaption–Innovation Inventory
KAIT	Kaufman Adolescent and Adult Intelligence Test
LBDQ	Leader Behavior Description Questionnaire
LGE	Looking Glass Experience
LHINS	location-based hierarchical navigation support
LPC	least preferred co-worker
LPI	Leadership Practices Inventory
LPQ	Learning Process Questionnaire
L-T	Lorge-Thorndike
MBTI	Myers-Briggs Type Indicator

MFFT	Matching Familiar Figures Test
MFFT-20	Matching Familiar Figures Test-20
MLQ	Multifactor Leadership Questionnaire
NEO	Neuroticism-Extraversion-Openness
NEO-PI	NEO Personality Inventory
NEO-PI-R	NEO Personality Inventory-Revised
NFC	need for cognition
NKBS	normal keyword-based search
OAT	Object Assembly Task
O-L	Otis-Lennon
PANAS	Positive and Negative Affect Schedule
PEFT	Preschool Embedded Figures Test
PL-PQ	Parallel (test)-Linguistic (verbal) – Parallel (test)-Quantitative (numeric)
PLSI	Preferred Leadership Styles Inventory
PMA	primary mental abilities
PPVT	Peabody Picture Vocabulary Test
PRN	principalization
PRO	projection
PSI	Parenting Styles Index
PSI	Preschool Inventory
PTAI	Preferred Teaching Approach Inventory
PTSLI	Preferred Thinking Styles in Learning Inventory
QULM	Quality of University Life Measure
RAT	Remote Associates Test
RAT	Room-Adjustment Test
RCPM	Raven's Colored Progressive Matrices
REV	reversal
RFT	Rod-and-Frame Test
R-LPQ-2F	Revised Learning Process Questionnaire
R-SPQ-2F	Revised Two Factor Version of Study Process Questionnaire
R-SPQ-2F	Revised Two-Factor Study Process Questionnaire
SAT	Scholastic Aptitude Test
SAT-V	Scholastic Aptitude Test – Verbal
S-B	Stanford-Binet
SCAB	Scale of Creative Attributes and Behaviors
SCAT	Schools and College Abilities Tests
SCEI	Stern Classroom Environment Index
SCL-90	Symptom Checklist-90

SDS	Self-Directed Search
SGI	Scientific Giftedness Inventory
SII	Strong Interest Inventories
SOLAT	Style of Learning and Thinking
SPQ	Study Process Questionnaire
SRAS	Self-Rated Ability Scale
SRT	simple reaction time
SSHA	Survey of Study Habits and Attitudes
SSRI	Schutte Self-Report Inventory
STAT	Sternberg Triarchic Abilities Test
SVSDS	Short Version Self-Directed Search
TAO	Turning Against Object
TAS	Turning Against Self
TIE	typical intellectual engagement
TIES	Typical Intellectual Engagement Scale
TJ	thinking-judging
TL	transformational leadership
TOSFQ	Teacher Occupational Stress Factor Questionnaire
ToY	Teacher of the Year
TRTC	Tilting-Room-Tilting-Chair Tests
TSC	Teacher Structure Checklist
TSI	Thinking Styles Inventory
TSI-R	Thinking Styles Inventory – Revised
TSI-R2	Thinking Styles Inventory – Revised II
TSTI	Thinking Styles in Teaching Inventory
TTCT	Torrance Tests of Creative Thinking
TVASES	Turkish Version of Academic Self-Efficacy Scale
USES	University Self-Efficacy Scale
VARSFR	Vocational Adjustment Rating Scale for the Retarded
VIA-IS	Values in Action Inventory of Strengths
VPI	Vocational Preference Inventory
WAIS-R	Wechsler Adult Intelligence Scale-R
WCRT	warned choice reaction time
WGCTA	Watson-Glaser Critical Thinking Appraisal
WISC	Wechsler Intelligence Scale for Children
WISC-FS	Wechsler Intelligence Scale for Children-Full Scale
WISC-R	Wechsler Intelligence Scale for Children – Revised
WISC-V	Wechsler Intelligence Scale for Children-Verbal
WPBD2007	West Point Bridge Designer 2007
WPPSI	Wechsler Preschool and Primary Scale of Intelligence
ZCDI	Zhang Cognitive Development Inventory