

Life Expressions of People with High and Low Personal Intelligence: Initial Findings



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Introduction

Purpose

The purpose of this study was to examine a mental ability, *personal intelligence* (understanding personality), and its correlates with people's reports of their social interactions and other aspects of their outer lives (i.e., lifespaces data)

Broad Intelligences and Prediction

In the Cattell-Horn-Carroll (CHC) model of intelligences, general intelligence (*g*) is at the top of a three-stratum hierarchy, with broad intelligences in the middle level and specific skills at the bottom. Figure 1 depicts the general outline of the CHC model.

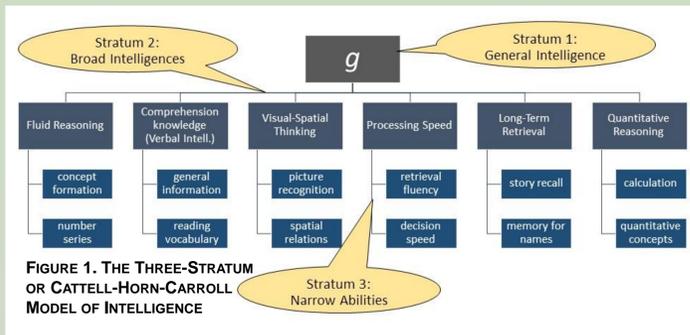


FIGURE 1. THE THREE-STRATUM OR CATTELL-HORN-CARROLL MODEL OF INTELLIGENCE

Late 20th century researchers often focused on the contribution of general intelligence to academic and occupational success (Deary, 2012). Contemporary researchers have focused on sorting out the contributions of the broad intelligences beyond that of general intelligence, focusing on examples such as verbal, visual-spatial, and quantitative intelligences of the second stratum, shown in Figure 1, row 2 (McGrew, 2009; Ackerman, 2014; Schneider & Newman, 2015). In a review, Schneider and Newman found that broad intelligences incremented predictions over *g* alone of key outcomes such as grades and work performance, at levels of 2 to 6% of the variance (*r*s = .14 to .24).

Personal Intelligence

Our focus here is on personal intelligence: the capacity to understand personality in oneself and in others (Mayer, Panter & Caruso, 2012). Personal intelligence shows partial correlations (controlling for *g*) for GPA in courses requiring understanding of people (e.g., English, psychology), and for the *lack* of counterproductive behavior at work (Mayer & Skimmyhorn, 2017; Mayer, Lortie, Panter & Caruso, 2018). These and other findings suggest people higher in personal intelligence have smoother relations with others relative to those lower in the skill set.

The Lifespace

One approach we use to studying outcomes is to assess a person's description of their lifespaces—i.e., the environment in which they function. According to our lifespaces model (Figure 2, left-hand side), personality can be viewed as situated amidst the systems with which it interacts:

- the brain from which it emerges;
- the setting which the person occupies;
- the situations the person encounters; and
- the groups and cultures to which the person belongs.

Overview of Studies

We conducted four correlational studies relating personal intelligence to lifespaces data. We focus on the first two studies here. In a second set of studies, we included a lifespaces scale of counterproductive work behavior—we also report that briefly.

Participants

College students in a large New England university completed a lifespaces survey and measure of personal intelligence in Studies 1 and 2 (*N*s = 384 and 356). Employees in organizations recruited through MTurk completed scales of personal intelligence and counterproductive work behavior (and other measures) in Studies 3 and 4 (*N*s = 394 and 482; Mayer, Lortie, Panter & Caruso, 2018).

Key Hypotheses

1. People with high personal intelligence, relative to those lower in the ability, will exhibit more positive and fewer negative interactions with other people, as reflected in their lifespaces-reported activities.
2. Lifespaces reports that covary with personal intelligence may inform us as to styles of reasoning related to different levels of personal intelligence (e.g., overconfidence with low ability level).

Methods

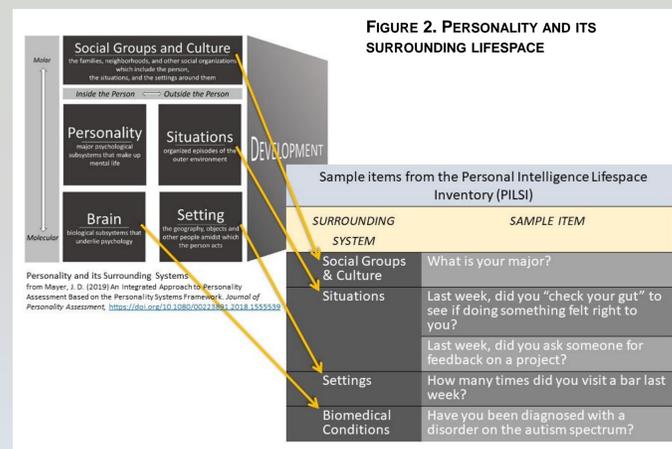
Measures

The Tests of Personal Intelligence

The TOPI 4. The Test of Personal Intelligence is an ability-based measure of reasoning about personality including inner experiences, traits, goals, and other qualities (Mayer, Panter, & Caruso, 2014).

Personal Intelligence Lifespaces Inventory (PILSI) in Studies 1 and 2

To create the Personal Intelligence Lifespaces Scale (PILSI), we copied the main areas of the lifespaces into a table using the process depicted in Figure 2. We then wrote test items for each area of the lifespaces potentially relevant to personal intelligence.



The scales used for Studies 1 and 2 were largely the same although some new items were added in Study 2.

Results

We conducted a *very* exploratory factor analysis of the lifespaces data and obtained four factors (see Table 1): (1) a first factor reflecting an interest in feedback, but not self knowledge; (2) self-motivating recall and goals; (3) confident, insensitive judgment; and (4) an "amount of reading" factor. Of those, the External Feedback and Confident Insensitivity correlated *r* = -.19 and -.43 with personal intelligence.

Table 1. Geomin-Rotated Factor Loadings for Highest-Loading Items on the Personal Intelligence Lifespaces Inventory 1.0 Scales

PILSI ITEMS	FACTORS			
	1	2	3	4
[QUESTION STEM]: OVER THE PAST WEEK, HOW MANY TIMES DID YOU:				
ask someone for feedback on a project?	.79			
ask someone for feedback as to how you were doing?	.80			
use a personal experience to motivate your behavior?		.66		
use an ideal image of yourself to motivate yourself to get something done?		.64		
use a memory from your life to motivate yourself to get something done?		.57		
use a memory from your life to help you cope with something difficult?		.48		
work on a plan involving your future?		.42	-.20	
turn down a possible team-member for a class project, and later found out information indicating it was the right choice?	.72		.40	
turn down the right roommate for a group living situation and later found out it was the right choice?	.72		.52	
select someone to make friends with and made a good decision?			.41	
tell someone that you aren't interested in understanding yourself?	.53			
ask someone for help in trying to better understand yourself?	.54			
write a poem that described someone else's personality?	.54	.51		
write an e-mail that described someone else's personality in some detail?	.56	.28		
[read books:] classics				.68
[read books:] romance				.52
[read books:] poetry				.59
Total Number of Items on the First Scales	18	13	15	8
Correlation with the MINI-12	-.19	.06	-.43	-.02

The same general pattern can be seen in the several items that replicated with the highest loadings over Studies 1 and 2. People low in personal intelligence, relative to those high in the ability, reported asking for feedback from others and engaging in confident, but insensitive judgments of others. The only item correlating positively with personal intelligence in both studies was "work on a plan involving your future."

Table 2. Best Performing Items from the Personal Intelligence Lifespaces Inventory 1.0 and 1.1

PILSI ITEMS	CRITERION CORRELATIONS	
	Study 3 TOPI 2	Study 4 TOPI MINI
[QUESTION STEM]: OVER THE PAST WEEK, HOW MANY TIMES DID YOU:		
watch yourself doing something to see if you could improve what you were doing?	-.196**	-.106*
ask someone for feedback on a project?	-.108**	-.165**
ask someone for feedback as to how you were doing?	-.100*	-.103**
read about a public figure who serves as a role model to you?	-.271**	-.178**
read about a historical figure who serves as a role model to you?	-.249**	-.254**
talk to a mentor or advisor to help better understand or improve yourself?	-.196**	-.203**
work on a plan involving your future?	.148**	.094*
turn down a possible team-member for a class project, and later found out information indicating it was the right choice?	-.352**	-.262**
turn down the right roommate for a group living situation and later found out it was the right choice?	-.378**	-.268**
tell someone that you aren't interested in understanding yourself?	-.241**	-.144**
write a poem that described someone else's personality?	-.329**	-.197**
write an e-mail that described someone else's personality in some detail?	-.250**	-.215**

Brief Report of Studies 3 and 4

Studies 3 and 4 are drawn from Mayer, Lortie, Panter & Caruso (2018). We examined similar hypotheses: That personal intelligence would predict behavioral self-report of lifespaces interactions.

Measures

Test of Personal Intelligence. Measures of the Test of Personal Intelligence were repeated: Study 3 with the TOPI-MINI, and Study 4 with a full-length version (the TOPI 4R).

Lifespaces Measures. Rather than use our own lifespaces scale, we employed two preexisting scales that consist of retrospective behavioral checklists to measure organizational behavior of employees. The 20-item *Organizational Citizenship Behavior Checklist* (OCB-C; Fox, Spector, Goh, Bruursema, & Kessler, 2012) and 32-item *Counterproductive Work Behavior Checklist* (Spector et al., 2006) ask employees to check off the frequency of their behavior. Citizenship involves acts that benefit coworkers and organizations (e.g., finishing work for a coworker). Counterproductive acts involve abuse or aggressive behavior toward coworkers, non-adherence to rules, sabotage and theft.

Results. Personal intelligence predicted counterproductive work acts across both studies (see Table 3, abstracted from Mayer, Lortie, Panter & Caruso, 2018).

Table 3. Correlations Between the Test of Personal Intelligence and Other Lifespaces Scales: The Case of Work-Behavior Checklists

WORK-BEHAVIOR CHECKLISTS	TOPI-MINI (STUDY 3)	TOPI-1.4R (STUDY 4)
Organizational Citizenship	.03	-.06
Counterproductive Workplace Behavior	-.19**	-.24**

Discussion and Conclusions

These studies provide a first examination of personal intelligence in relation to measures of the lifespaces. We had mixed success: We found a number of relations in which, as personal intelligence decreased, negative behaviors increased, but very few instances of behaviors that rise with higher personal intelligence.

In Studies 1 and 2, lower personal intelligence covaried with more confident but insensitive judgments of others, and with asking for more feedback from others (rather than charting one's own path, perhaps). In Studies 3 and 4, lower personal intelligence was related to higher counterproductive workplace behavior.

The present findings raise the question of what other relations with the lifespaces might exist, and whether we can find positive, direct relationships, as opposed to inverse relations.

We have additional studies underway at present that expand our lifespaces measures and search for more relationships.

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