Technical Report on the

Personal Intelligence Lifespace Inventory (PILSI)

Versions 1 through 3R (PILSI-1.0, 1.1., 2, 3, 3R)

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Parts 1 through 5 of this Technical Supplement (about 124 pages) provide a detailed review of our approach to the project and the key statistical analyses. The remaining pages include further details regarding factor analyses and copies of the versions of the PILSI employed in these studies.

Note regarding technical supplements

Adapted from Mayer and Caruso (2024)

Journals increasingly encourage authors to develop technical supplements to accompany their published articles (Fricke et al., 2021; Pop & Salzberg, 2015; Price et al., 2018). Supplements represent additional materials that are a part of the same research project as the focal article.

This technical supplement represents an ancillary report by the same author team as the article to which it refers: Mayer, J. D., Caruso, D. R., & Panter, A. T. (2024). Lifespace Patterns of College Students High and Low in Personal Intelligence. *Collabra: Psychology*. https://doi.org/10.1525/collabra.90222.

Although its status is open-source and it can be cited as such, it is considered supplementary rather than a publication in its own right.

The distinction, at present, is along these lines: Journal articles are publications that communicate key ideas of general professional interest. The present technical supplement, and many similar technical supplements, contain some of the same information but with a focus on additional ancillary information, technical matters, and analyses.

Material from the technical supplement may have served as "developmental drafts" for the main paper (Moskovitz, 2021); alternatively, the main paper may touch on a topic that served as an idea for development in the technical supplement. Readers who consult both works will note that some text may be recycled from one document to the other (*Best Practices for Researchers – Text Recycling Research Project*, n.d.; COPE: Committee on Publication Ethics, 2024). That is, they may share similar or recycled narrative passages, tabular data, and figures in the context of providing additional technical details or in a developmental form.

The authors hope that you find the information in the supplement of use.

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PART 1.

INTRODUCTION TO THE EMPIRICAL WORK

Chapter 1. Theoretical Considerations

The present technical supplement describes a study of the relationship between an individual's personal intelligence and their surrounding life characteristics. Chapter 1 examines two issues that arose during the review process concerning the study: (a) The relationship between the relatively new construct of personal intelligence and regularly studied emotional intelligence, and (b) the nature of the lifespace.

A Brief Comparison of Personal and Emotional Intelligences

The Cattell-Horn-Carroll (CHC) three-stratum model of intelligence (Carroll, 1993; McGrew, 2009) divides general intelligence into a set of broad intelligences including the visuo-spatial, quantitative, verbal-propositional and others. Within this model, personal intelligence fits the classification of a "broad" intelligence. On the whole, the broad intelligences correlate *r* = .60 on average (Bryan & Mayer, 2020).

Personal and emotional intelligence are distinct but related areas of mental ability. Personal intelligence involves understanding personality and the likely behaviors associated with it. Emotional intelligence involves perceiving and understanding emotions and their development. The two intelligences also involve the manipulation of different symbols, different operations on those symbols, and different content. Personal intelligence, for example, manipulates representations of a broad group of inner states including motives and emotions, traits, and goals, compared to emotional intelligence, which focusses more exclusively on emotions and their interrelations. The mental operations on those symbols also are distinct involving, in the case of PI, the translation of traits to behaviors, and as outlined in more detail elsewhere (Mayer et al., 2016, p. 8). Commensurate with the theoretical division, ability-based measures of the two constructs possess distinct content. PI test items ask about motives and emotions, plans, goals, traits, self-control, and behaviors, whereas EI test items ask about emotions and emotional states. This conceptual distinction is key to describing the actual problem-solving taking place.

New evidence suggests that the broad intelligences of the CHC model contain the subgroups of people-centered and thing-centered intelligences (Bryan & Mayer, 2021, Table 5; Mayer, 2018). The thing-centered intelligences concern reasoning about objects and include visuo-spatial and quantitative intelligences and correlate among themselves about *r* = .75. The people-centered intelligences concern reasoning about people and include personal, emotional, and social intelligences. Within the people-centered intelligences, PI and EI correlate about *r* = .70; SI correlations are far lower, indicating its potential overlap with reading and writing ability (see Bryan & Mayer, 2021, Table 5).

Compared to the within group correlations of *r* = .70 and .75 for people- and thing-centered intelligences (minus social intelligence), the average cross-correlation is far lower at around *r* = .40. Table 5 (copied here) and Figure 3 (not shown) from Bryan & Mayer (2020) indicates the relative relationships below. Note that that although PI and EI correlate *r* = .70, ability-measured social intelligence exhibits a much lower relationship with EI and draws down

the overall relations among people-centered intelligences owing to the relatively large number of studies that include social intelligence.

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Supplemental Table 1-1

A Comparison of Emotional and Personal Intelligence Abilities

Reproduction of Table 3 from the "The Ability Model of Emotional Intelligence: Principles and Updates" reproduced with permission of the authors (Mayer et al., 2016)

Table 3. Examples of problem analysis in the realms of emotional and personal intelligences.

	Emotional intelligence		Personal intelligence	
	Key members of the sets	Example of a specific problem	Key members of the sets	Example of a specific problem
To-be-solved problem	Perceive a person's emotion	Does a friend feel sad?	Understand a person's likely behavior	Is a colleague at work vengeful toward a coworker?
Units involved	Emotional facial expressions	The friend's mouth is downturned	Relationship status; situations	The coworker insulted the colleague in public
	Postural changes	The friend's movements are slowed down	Behaviors	The colleague fails to pass on potentially helpful information to the coworker
	Mood-congruent judgment	The friend is critical and pessimistic about the future	Traits	The colleague is generally helpful to other coworkers
	Situational appraisals	The friend just lost a relationship with a loved one	Principles of success	In an office, knowledge can be empowering
Operators employed	Translating facial expressions into emotions	The friend has a sad facial expression	Translating a trait into a likely behavior	The colleague would normally have remembered to share the information
	Recognizing a loss can lead to sadness	The friend's lost love is likely to make him feel sad	Identifying possible alternative traits and goals	The colleague could be careless, vengeful, or forgetful
	Knowing how an emotion will change with time	He will likely cheer up with time	Evaluating two goals for the conflicts between them	The colleague often likes to be helpful but the pattern of events and actions fits a goal of vengeance
Possible solutions	Converging information leads to a "best guess" solution/prediction	Yes, the situation and the facial expression converge on the idea the friend is sad	Converging information leads to a "best guess" solution/ prediction	Yes, the colleague acted vengefully against the coworker because of the insult

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Supplement Table 1.2

Average Estimated Correlations Among People-Centered, Mixed, and Thing-Centered Intelligences

Reproduction of Figure 5 from the open-source article, "Are People-Centered Intelligences Psychometrically Distinct from Thing-Centered Intelligences? A Meta-Analysis" (Bryan & Mayer, 2021)

Table 5. Average estimated correlations [a] among people-centered, mixed, and thing-centered intelligences organized by type of people-centered ability.

	Social Intelligence				Emotional Intelligence [b,c]				Personal Intelligence			
Class and Subclass of Intelligence	***k***	***N***	***r***	**95% CI**	***k***	***N***	***r***	**95% CI**	***k***	***N***	***r***	**95% CI**
People-centered intelligences												
Social intelligence (Gsi)	621	1894	0.33	[0.28, 0.38]	21	468	0.23	[0.07, 0.37]	–	–	–	–
Emotional intelligence (Gei) [b,c]	21	468	0.23	[0.07, 0.37]	440	13693	0.50	[0.45, 0.54]	3	352	0.70	[0.40, 0.87]
Personal intelligence (Gpi)	–	–	–	–	3	352	0.70	[0.40, 0.87]	–	–	–	–
Mixed intelligences												
Comprehension knowledge (Gc)	169	2209	0.38	[0.32, 0.44]	173	9015	0.35	[0.29, 0.41]	6	3218	0.41	[0.14, 0.62]
Long-term retrieval (Glr)	8	225	0.10	[−0.13, 0.32]	32	1307	0.14	[0.02, 0.25]	–	–	–	–
Reading and writing ability (Grw)	1	646	0.78	[0.35, 0.94]	42	2453	0.32	[0.22, 0.42]	2	1825	0.35	[−0.06, 0.66]
Thing-centered intelligences												
Fluid intelligence (Gf)	98	1314	0.30	[0.23, 0.38]	168	9179	0.29	[0.22, 0.35]	–	–	–	–
Visuospatial processing (Gv)	73	980	0.29	[0.21, 0.37]	31	1345	0.17	[0.05, 0.28]	2	2099	0.26	[−0.15, 0.60]
Quantitative knowledge (Gq)	35	848	0.22	[0.11, 0.33]	63	2837	0.24	[0.14, 0.32]	2	1825	0.18	[−0.24, 0.54]
Other mental abilities [d]												
Processing speed (Gs)	41	391	0.29	[0.18, 0.39]	2	201	0.09	[−0.37, 0.51]	–	–	–	–
Short-term memory (Gsm)	41	391	0.38	[0.28, 0.47]	4	164	-0.03	[−0.37, 0.32]	1	394	−0.02	[−0.56, 0.53]

[a] All average correlation estimates are taken from the unweighted random effects models. Values are presented as Pearson r's corrected for disattenuation due to reliability [b] The estimated correlations for emotional with social intelligence and emotional with personal intelligence have been duplicated in other columns. [c] Includes both measures labeled as emotional intelligence and emotion recognition ability. [d] The "other" abilities were regarded as process-based or "utility" intelligences and, although included here, were otherwise excluded from the people-to-thing intelligence analyses.

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Contemporary neuropsychological models of intelligence such as the parieto-frontal integration theory (P-FIT) suggest there exists a central circuit for intelligent processing that emphasizes the parieto-frontal area, perhaps analogous in some ways to *g,* with offshoots into other brain areas to account for the partial independence of the broad intelligences (Jung & Haier, 2007). Our present-day knowledge of neural circuits suggest that these may be different for PI and EI as well, with PI relying on both episodic and semantic memory areas responsible for perception of personality (Klein et al., 2002, 2004a, 2004b), and including the medial temporal lobes (Garland et al., 2021), whereas EI, according to the somatic marker hypothesis, for example, may have neural connections to the limbic system especially because of the system's involvement in emotional experience (Bechara et al., 2000).

Because personal and emotional intelligence are conceptually distinct but share a relatively high correlational overlap, a long-term means for distinguishing them may involve the identification of the lifespace signatures of each. The efforts involved in this process are far from trivial, and it may be advantageous to study each individually at first, with later comparisons across these intelligences, acknowledging that such overlap is likely to exist. Here, we start with personal intelligence

Rational versus Factor-Based Construction of Lifespace Scales

Lifespace items often have been characterized as heterogeneous in both their content and response formats (Cucina et al., 2012, p. 386); their nature has encouraged researchers to try three general approaches to analyzing their data: The first is a "rational-scale" approach in which all survey items that are theoretically identified as reflecting a given construct (e.g., persistence) are summed on a scale (Reiter-Palmon & Connelly, 2000; Stokes & Searcy, 1999). The second, "empirical" approach uses empirical keying, in which lifespace items are individually correlated with the criterion of interest and those that are predictive are retained (Sherman & Serfass, 2015). The third approach involves the development of factor-based scales from empirical analyses (Cucina et al., 2012).

One issue that arises when employing factor analytic approaches with lifespace scales are that such scales often contain high numbers of unrelated items, and as a result, they are likely to exhibit low inter-item correlates, undermining traditional attempts at reducing the scales to a few factors. Such techniques often result in factors that "are difficult to interpret" or "lack face validity" (Stokes & Searcy, 1999, p. 72) In addition, the heterogeneity of the resulting factor scales may mean that only a subset of items correlate with a given criterion.

This has been our experience with our data—and appears to have been borne out by others: Stokes and Searcy remark that, actually, empirical-keying "has been the most popular scoring strategy" used with biodata (lifespace scales). Indeed, rational biodata scales often are "multifaceted." Quoting from them:

> "Rational and internal procedures, however, may lead to both construct under-representation and construct irrelevance. An example from the development of a rational biodata form may be useful for clarifying this point. In a biodata form to predict the performance of customer service representatives in a large power company (Snell 1994), Oral Communication Skills was identified as a critical job performance dimension. Using a rational approach, 15 items measuring various experiences with oral communication were developed. The global oral communication biodata scale was not very predictive of job performance, but specific facets of the construct were. For example, speaking in front of groups was not very predictive, whereas individual-level communication was. Because the construct was multi-faceted, developing a global oral communication skills measure introduced construct-irrelevant information, at least for the purpose of predicting the skills required by customer service representatives. Such findings suggest that constructs for biodata scale development are being defined too globally, producing multi-faceted bio data constructs that vary in predictive utility" (quoted from Stokes & Searcy, 1999, p. 73)

The blending of rational and factor analytic approaches, which we use here, has been referred to as the rational approach by some (Goldberg, 1972) or a "hybrid" approach by others (Karas & West, 1999, p. 87). The general level which such scales predict is modest, in the r = .15 to .20 range, and yet such rational (or hybrid) scale validities appear to have good replicability over samples compared to items selected on a more fully empirical atheoretical basis (Reiter-

Palmon & Connelly, 2000, p.) and they provide incremental validity over other kinds of items (Mount et al., 2000).

Revelle, Dworak & Condon (Revelle et al., 2020) noted that some researchers are—as they colorfully put it—"conscientious objectors"—in relation to factor analysis. We are not conscientious objectors, per se. In this instance our experience with lifespace data and its factors suggested that the best approach likely was to analyze data at the level of small factors (factors with few items) and/or individual items.

In a careful analysis, Stokes and Searcy (Stokes & Searcy, 1999) compared global to more specific scales. Like Revelle et al. after them, they found better results from specific scales, and particularly from rational-based scales (formed by expert judges) when compared to small factors, although each of the two had advantages. They then combined the scales in multiple regressions to further increment prediction.

The same authors note that "PCA may be a viable technique for identifying the various facets of a multi-faceted biodata construct" (Stokes & Searcy, 1999, p. 84). Reiter-Palmon and Connelly (2000) found that rational keying—i.e., theoretically related—outperformed items with no theoretical relation. Recognizing that "biodata inventories are often heterogeneous in nature (both in content and item type), it is common to select and weight items based on theoretical, empirical, and other criteria simultaneously" (Cucina et al., 2012, p. 386). Cucina and colleagues (Cucina et al., 2012) argued for a hybrid approach that combines theory and focusing on approaches that integrate theory, empirical keying and factor analysis. This is similar to the approach we use here.

Finally, another approach—though not pursued here—is to examine matters at the level of individual items, as suggested in a technique developed by Sherman and Serfass (2015). As noted already, one drawback of this method is that it is challenging to assess the reliabilities of individual items.

Chapter 2. Basics of the Studies

This technical supplement reports on five studies. The first two concern the PILSI 1.0 and 1.1—these were pilot studies for the "main events"—the PILSI 2.0, PILSI 3, and 3R versions that came after.

The five studies share a focus on lifespace items. Lifespace items represent a class of self-report that concern the external, observable aspects of one's life. Types of lifespace data include act-frequency, behavior checklists, and biodata. Although the content of the lifespace scales is similar across the five studies here, the PILSI 2, 3 and 3r represent substantially expanded lists of items relative to the 1.0 and 1.1. The study characteristics and their times of data collection are indicated below:

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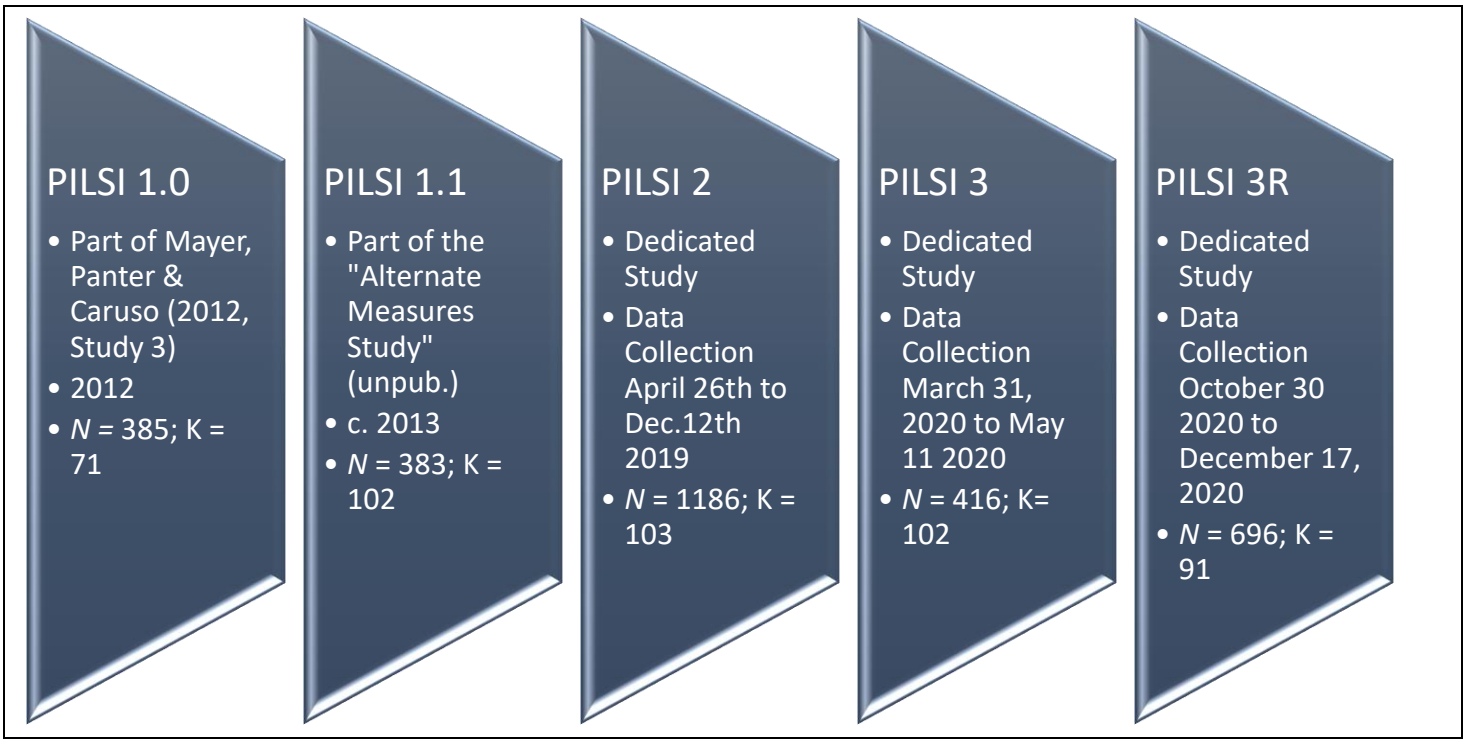

Supplement Figure 1.1. The Research Flow Across PILSI Versions. *Note that the number of items, K,* is for number of items initially analyzed for each scale (some items concerned questions that were not analyzed, that concerned general control items for the researchers to review.

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Note that the PILSI 2 data were collected before the COVID pandemic. The PILSI 3 data were during remote learning in the Spring semester of 2020. The PILSI 3R data were collected in the Fall of 2020, when many students had returned to campus and hybrid options remained

available. (See for example, Haas, K. (2020, Nov. 11). “As COVID-19 cases rise, UNH students were hopeful to make it to Nov. 20”. *Union Leader,* Manchester, NH.

Evolution of the PILSI Versions

Item Development Across Test Forms

The PILSI 1.0 and 1.1 were notable in that the PILSI 1.0 contained a first set of 70 items about lifespace that we imagined might be related to personal intelligence and the 1.1 enlarged that group to 100 survey items.

The PILSI 2, 3, and 3R, by comparison, all approximately 100 items in length, built on those earlier scales and added many items that now were consistently carried forward from version to version, although some items were edited in an attempt to improve them, and a number of items were added in Study 3 and additional groups added in Study 3R. Other items that appeared increasingly either (a) theoretically tangential or (b) unrelated to personal intelligence in one or more studies were dropped, which was how the survey length stayed approximately the same.

Organization of the Scale Items Across Test Forms

As the PILSI versions evolved, we also shifted the organization of the items such that the organization of versions 1.0 and 1.1 differed from the item organization of Versions 2, 3, and 3R. On the two early forms 1.0 and 1.1, items were organized in four groups around the areas of reasoning about personal intelligence: recognizing personality attributes, forming models of personality, guiding choices, and systematizing plans and goals. Those four areas were suitable for designing ability-based measures of personal intelligence but proved less useful for categorizing PILSI items. For that reasons, the later versions, the PILSI 2, 3, and 3R, were organized according to the lifespace as defined in the Personality Systems Framework (Mayer, 2015, 2019)—a more effective and comprehensive organization of life materials.

Response Alternatives Across Test Forms

The PILSI versions 1.0 and 1.1 asked participants to select responses to most items such as “How many times did you seek feedback for a project last week?” Response alternatives in that instance were “0 times” to “5 times.” On the 2nd-generation PILSI-2, for the first time, participants responded to each item with a number of their choice with no restriction as to magnitude. After the responses were made, they were binned for each item tailored to the distribution of results the item elicited and following one of nine binning templates. For example, the template for low-frequency weekly events (e.g., received medical treatment), contained four bins with responses of “0”, “1”, “2” or “3 times or more”, whereas potentially high-frequency responses (e.g., checked a social media site) used a template with eight bins ranging from “0” to “More than 15 times a day most or all days.” This allowed us to create choices better tailored to the participants’ responses in this and the subsequent PILSI versions which provided the alternatives from which to choose based on the PILSI-2 templates. It also reduced the effect of potential outliers. (One respondent claimed to possess 10,000,000 beer cans—which was one ninth of those sold annually in the United States according to www.mordorintelligence.com/industry-reports/beer-cans-market). In subsequent studies with

the PILSI-3 and 3R, the bins were converted into menu choices. Details are reported in a Technical Supplement (Mayer et al., 2023, Chapter 8).

Note also that only about 30 items of 100 were carried forward from the PILSI 1.0 and 1.1 to the later versions. Because of this disjunctive nature, we only briefly report item-level results from the 1.0 and 1.1. (See the Item Alignment in Appendix C*).*

Scales Discussed in This Technical Supplement

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Supplement Table 2.1

Key Variables Included in the Archival and New Studies

PILSI Version	**Number of items**	**Sample size**	**Description of Additional Scales Included**
PILSI 1.0	71	385	This was Mayer, Caruso, and Panter (2012) and included the TOPI 1.2, PILSI 1.0, scales of the BFI 44 measure of the Big Five and numerous other measures
PILSI 1.1	102	383	This was the unpublished Alternate Uses study and included PILSI 1.1, TOPI MINI-12,the 120 item SEPI and the BFI 44
PILSI 2.0	103	1186	This had the PILSI, TOPI, SEPI-24, and BIDR (Balanced Inventory of Desirable Responding)
PILSI 3	102	416	PILSI, TOPI, SEPI (and demographics) only
PILSI 3R	91	696	PILSI, TOPI, SEPI (and demographics) only

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Demographics of the Samples Collected for Studies of the PILSI-2, 3, and 3R

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Supplement Table 2-2

Demographics (Fully Corrected) 7/17/2021; overall added 8/27/2023

	PILSI-2 Study		PILSI-3 Study		PILSI-3R Study		Overall	
	n	Percent	*n*	Percent	*n*	Percent	N	
Age								
18-22	1174	99	408	98.1	688	98.9	2270	
23-30	9	.8	8	1.9	6	.9	23	
31-40	1	.1	0	0	2	.3	3	
41 and over	0	0	0	0	0	0		
Missing	2	.1					2	
Mean (Std. Dev.)	*19.1 (.10)*	--	*19.3 (.14)*	--	*19.07 (.141)*	--		
Gender								
Male	300	25.3	99	23.8	126	18.1	525	
Female	882	74.4	314	75.5	562	80.7	1758	
Other	2	.1	3	.7	8	1.1		
Missing	0	0	0	0	0	0		
Race/ethnicity								
Asian	39	3.3	21	5.0	29	4.2	89	
Black/African Am.	25	2.1	7	1.7	11	1.6	43	
Hawaiian/Pacific Islander	1	0.1	3	.7	3	.4	7	
Hispanic/Latino	45	3.8	14	3.4	21	3.0	80	
Multiracial/Two or more	11	.9	4	1.0	6	.9	21	
Native Am.	10	.8	3	.7	2	.3	15	
White/Caucasian	1098	92.6	379	91.1	642	92.2	2119	
Other	5	.4	2	.5			7	
Missing								
Total N	1186	--	416	--	696	--	2298	--

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Corrections to the Data and Precision of the Analyses

Two issues affected the specific results of the analyses in very slight ways worth noting. One was a mid-stage removal of nine underage participants, i.e., 17-year-olds from the PILSI 2 and 3R datasets. The second was a slight difference in precision between the exploratory factor analyses conducted in 2021 and 2023. These are discussed next, along with the impact the two changes had and our mitigations, where implemented.

Mid-Stage Removal of Under-Age Participants

Approximately a year after beginning the data analyses, we discovered the presence of nine underage participants (17-year-olds) and reported this issue to our IRB on July 7th, 2021 as our cutoff age was 18. Under advice of the IRB, these participants were removed for all analyses reported in the main paper and the key analyses in the technical supplement.

The before and after *Ns* were:

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Supplement Table 2.3

Effects of Discovering and Removing 17-year-old Participants

Scale	***N* Before**	***N* After**
PILSI 2	1193	1186
PILSI 3	416	416 (no change)
PILSI 3R	698	696
Total Participants in the 2nd - Generation PILSI scales	2307	2298

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All reported Ms, Ss, reliabilities, hierarchical factor analyses, parallel analyses, and correlations for the studies used the "*N* After" data (e.g., *N* = 2298).

The several exceptions to the above concern mentions of the earliest factor analytic work that was carried out before the discovery of the underage participants. That was because early decisions based on the factor analyses were made before the discovery of underage participants, and decisions concerning the content of the PILSI scales thereafter were based on the factor analyses as conducted at earlier times. All that said, we nonetheless reran the key factor analyses with and without the *N* = 9 participants and could see no meaningful difference in the two sets of the results in their item loadings or fit statistics, which made sense given that the deletion affected just .004% of the data.

In the interest of transparency, we note differences between the pre- and post-17-year-old data deletion in two sections. The first concerned the removal of "troublesome" scale items

from the PILSI forms; the second concerned side-by-side comparisons of scale results to identify the final group of small factors. These are found in Chapter 3 and 4.

Differences in the Precision of Results in 2021 and 2023

As we approached publication of the manuscript, we reran exploratory factor analyses for the PILSI 3R to check them and conducted further related analyses on all three scales including the parallel analyses and exploratory analyses of the 15 PILSI subscales. We noted slight differences in the factor loadings of the PILSI 3R across the 2021 and 2023 factor analyses we conducted. For example, the first three items loading on the 20th factor of the 20-factor solution were -.020, .376, and .628 in Mplus 8.1 in 2021, and -.012, .377, and .638 in Mplus 8.8 in 2023.

We therefore requested an evaluation of the cause of the discrepancies from the Mplus team in December 2023. In a December 22, 2023 communication they reported their ability to obtain very similar results to ours after reanalyzing the data on their systems, i.e., they could reproduce the slight differences in the factor loadings by specifying a stricter convergence criterion (conv = .500D-07) to improve their precision of the final solutions. They could do this regardless of whether they used versions Mplus 8.1 or 8.8 and suggested that a possible culprit might be due to a 32 v. 64-bit implementation of the software. That is certainly possible. We believe the most likely culprit was a switch from an older laboratory laptop (c. 2016) to a new one (Jan. 2023) with commensurate changes in the chips and disk access speed. This might have allowed the newer model to converge to a more precise solution in the same amount of iterations as the older one.

Whatever the specific reason, the overall takeaway is that the two sets of results were very close, but that the 2023 analyses converged to a more precise solution. Because the older laboratory laptop was recycled, we could not verify any installation differences.

Because the changes were due to precision level, both results could be viewed as correct, albeit the 2023 analysis of the PILSI 3R was “more correct” in the sense of being more precise. To provide a sense of the scope of the differences, we provide side-by-side results for the first three items loadings on the 1-, 5-, 10-, and 20-factor solutions of the PILSI 3R in Supplement Table 2.4.

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Supplement Table 2.4

Examples of Improved Precision in 2023 Data Analyses for the 20-Factor Exploratory Factor Analysis of the PILSI 3R

Example Factor	**Item**	**Loading in 2021**	**Loading in 2023**
Factor 1	Lbp3	.492	.495
	Lbp4	.694	.697
	Lbp5	.478	.482
Factor 10	Lsnb1	.755	.769
	Lsnb2	.734	.722
	Lsnd9	.413	.404
Factor 15	Lsnd10	.658	.651
	Lsne1	.693	.695
	Lsne2	.489	.490
Factor 20	Lgc25	.633	.621
	Lgc30	.376	.337
	Lgc31	.628	.638

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No further mitigation seemed needed other than to document this issue. More precise estimates were used for the PILSI 3R. The earlier, original EFAs of the PILSI 2 and 3 were left as is.

PART 2.

CREATION OF THE 15 SMALL FACTOR SCALES

Chapter 3.

Factor Analyses of the Three Studies

A Failure of the Standard "Low Dimensional" Factor Approach

In our initial analyses of the PILSI scales we expected that we could successfully extract a few large factors from the scales and use those to create several meaningful lifespace scales. That approached failed in two respects, however. First, the fit of factor models with between 4 and 8 factors was well below standard criteria. Second, and equally troubling, those large factors had PILSI items that correlated both positively and negatively within the PILSI. We present one short example here although the full details are included in the second set of appendices toward the end of this document.

In Supplement Table 3.1 we show just the first factor of a four-factor model of the PILSI-2. The factor seemed generally interpretable as a "personal relationship" factor, and yet the kinds of personal relationships varied in their small but potentially meaningful relationships with the Test of Personal Intelligence (correlations to the far right for the sample of $N = 1186$). Whereas having possessions related to other people had a low positive correlation with the TOPI, for example, at $r = .06$, $p < .05$, selecting a friend and feeling it was a good decision had a negative correlation at $r = -.10$, $p < .001$. These contradictory compounds of items appeared regularly, suggesting that smaller more cohesive factors might be a better approach.

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Supplement Table 3.1

The Four-Factor Exploratory Factor Analysis Solution for the PILSI-2 $N = 1186$—and Correlations with the TOPI

Item Paraphrase or Other Indication of Item Content	**Factor 1**	**Factor 2**	**Factor 3**	**Factor 4**	**TOPI**
Letters, lengthy e-mails or similar written or recorded messages from friends or family that are important?	**0.53**	-0.59	0.13	0.03	0.06
Shared a personal, confidential issue of your own with a friend.	**0.53**	0.07	0.11	0.08	-0.02
Discussed another person with a friend or family member so as to better understand how that person might act or react.	**0.53**	0.00	0.09	0.14	0.05
Communicate with a friend or relative to ask for advice to improve yourself?	**0.52**	-0.03	0.01	0.21	0.04
Described your interests, motives, values, feelings, or other reasons for your behavior to someone else.	**0.52**	-0.03	0.03	0.21	0.04
Selected someone to make friends with and felt it was a good decision.	**0.49**	0.33	-0.20	0.03	-0.10
Helped someone make a decision because the choice was really what they wanted to do?	**0.47**	0.07	0.06	0.20	0.01

Mementos or physical reminders of people close to you?	**0.47**	-0.60	0.14	0.05	0.08
Turned down a possible roommate for a group living situation and later found out it was the right choice.	**0.46**	0.01	0.23	0.14	-0.19
Spoke badly about someone	**0.45**	-0.02	0.27	0.06	0.06
Accepted help from someone	**0.42**	0.12	-0.10	0.08	0.00
About how many printed and digital photos of friends and family do you have readily accessible?	**0.40**	-0.36	0.10	0.02	-0.01
Accomplish a major relationship goal such as meeting a promising new partner, becoming engaged or married, or making a new friend?	**0.40**	0.21	-0.17	0.11	-0.03

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The Small Factor Approach

After completion of the three central studies with the PILSI: The PILSI 2, 3, and 3R, we wished to create factor-based scales that represented key aspects of people's lifespace related to personal intelligence. Our earlier factor analyses suggested that in order to properly fit our analyses would require higher-dimensional solutions relative to what we had employed before. Work by Condon, Goldberg, Revelle, Saucier and others suggests that using many small factor-based scales can better represent data in many cases relative to the use of larger and fewer factors (e.g., Revelle et al., 2020; Saucier & Goldberg, 1998; Saucier & Iurino, 2020). It seemed possible that the "many small factors" approach could work here.

As lifespace items are known to be heterogeneous, we believed it could make sense to sort them into small couplets, triads and quartets that went together more naturally than rather than to force them into larger structures. Therefore, we tried to extract as close to 20 factors as we could from each of the versions 2, 3, and 3R of the PILSI. We chose 20 factors to target within these approximately 100-item scales because it would allow for four or five items per factor, and we imagined that at least some of the items would be 'non-performing', neither loading on a factor or usefully predicting the TOPI so that smaller scales might be found.

Preparing the Three Data Sets

The data sets required three alterations to prepare them for high-dimensional factor analyses—some of the issues already were known to us from the "Quick-Look" procedure.

1. First, several 17-year-olds were removed for some of the later factor analyses after their discovery (see Chapter 2, Supplement Table 2.1.), although some of the analyses here report statistics from the original samples to show the actual data from which we worked at early stages of the project rather than reanalyses (the difference was in .004% of the data and appeared to result in no substantive changes).
2. Second, the newly added "LGC" items of the PILSI 3 concerning group membership were suboptimal in that there was some ambiguity in the response choices (described below)
3. Third, there were issues of Heywood cases in all three data sets, and particularly with the PILSI 3 that needed correction.

We describe the amelioration of the LGC items next, and then move on to the analyses themselves and the correction of the Heywood cases.

Amelioration of Ambiguous Responses to PILSI 3 LGC Items

All PILSI variables were given labels and the LGC variable name, for example, referred to "Lifespace Groups and Culture". In the PILSI 3, items lgc20 to 32, had been added and concerned group memberships. The first six items are illustrated in Supplement Figure 15-1. We anticipated that most participants would answer 0 to most of the lgc items; that is, they were not members of a university honors program (lgc20) or sport or outing club (lgc25). In fact, however, rather than mark their memberships as 0 in number, many participants apparently left the answer blank if it did not apply to them. This can be seen by inspecting the data set responses for the items as indicated in Supplement Figure 3.1.

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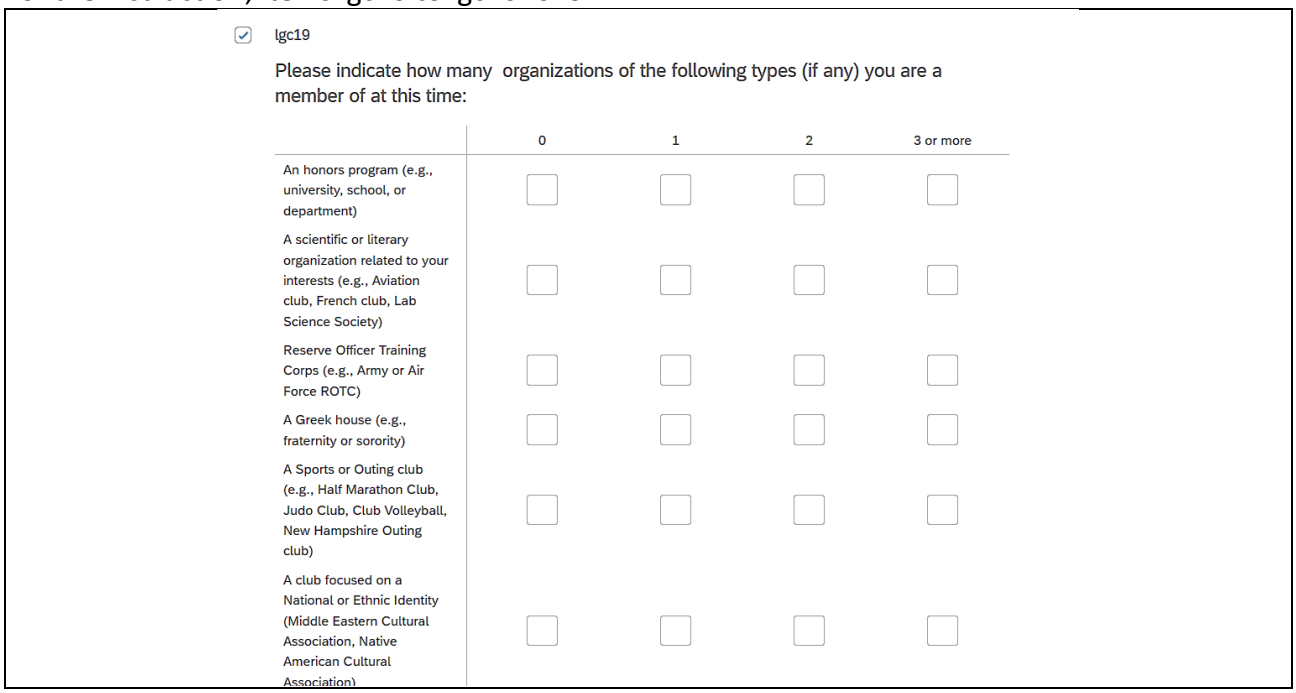
Supplement Figure 3-1

An Illustration of the LGC Items as They Appeared to Participants. Note: lgc19 contains the text of the instruction; items lgc20 to lgc26 follow.



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Within this screened group of cooperative participants, a substantial number had simply responded to groups they were a member of by indicating a "1" and made no response to the rest of the groups for which they were not members. Their likely "0" responses, therefore, showed up in the datafile initially with a missing data code. This can be seen in Supplement Figure 4-2.

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Supplement Figure 3-2

Two Screenshots of Participant Responding to the LGC Items From Early and Late in the Datafile. Note that throughout the file some participants appear to have believed that leaving the response blank would be registered as a “0” membership

Early in the Datafile

	lgc21	lgc22	lgc23	lgc24	lgc25	lgc26	lgc27	lgc28	lgc29	lgc30
61	.	.	.	.	.	.	.	.	.	.
62	.00	.00	1.00	.00	.00	.00	.00	.00	.00	.00
63	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
64	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
65	.	.	.	.	.	.	.	.	.	.
66	.00	.00	.00	2.00	1.00	.00	.00	.00	.00	.00
67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
68	.00	.00	.00	1.00	.00	.00	.00	1.00	.00	.00
69	1.00	.00	.00	2.00	.00	.00	.00	1.00	.00	1.00
70	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
71	.00	.00	.00	.00	2.00	.00	.00	.00	.00	.00
72	.	.	.	.	.	.	.	.	.	.
73	1.00	.	.	1.00	.	.	.	.	.	.
74	.00	.00	.00	.00	.00	.00	.00	2.00	.00	.00
75	.	.	.	.	.	.	.	.	.	.
76	.	.	.	.	.	.	.	.	.	.
77	.00	.00	.00	1.00	.00	.00	.00	.00	.00	.00
78	.00	.00	.00	.00	.00	.00	.00	.00	1.00	.00
79	.	.	.	2.00	.	.	.	.	.	.
80	1.00	.00	1.00	1.00	.00	.00	.00	1.00	.00	.00
81	.	.	1.00	.	.	.	.	.	.	.
82	.00	.00	.00	1.00	.00	.00	.00	.00	.00	.00

Later in the Datafile

	lgc21	lgc22	lgc23	lgc24	lgc25	lgc26	lgc27	lgc28	lgc29	lgc30
349	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
350	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
351	.00	.00	1.00	.00	.00	.00	.00	.00	.00	.00
352	.	.	.	1.00	.	.	.	.	.	.
353	.00	.00	1.00	1.00	.00	.00	1.00	.00	.00	1.00
354	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
355	.00	.00	1.00	.00	.00	.00	.00	.00	.00	1.00
356	.	.	1.00	.	.	.	.	.	.	.
357	.	.	.	1.00	.	.	.	.	.	.
358	.	.	.	.	.	.	.	.	.	.
359	.	.	.	.	.	.	.	.	.	.
360	.	.	.	.	.	.	.	.	.	.
361	.	.	.	.	.	.	.	.	.	.
362	.	.	.	.	.	.	.	.	.	.
363	.	.	.	.	.	.	.	.	.	.
364	.00	.00	.00	1.00	.00	.00	.00	.00	.00	.00
365	1.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00
366	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
367	.	.	.	.	.	.	.	.	.	.
368	.	.	.	.	.	.	.	.	.	.
369	.00	.00	.00	.00	.00	.00	.00	1.00	.00	.00
370										

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To ameliorate this issue for this data set, we recoded missing responses, appearing as -99s, as “0”. Although an imperfect procedure, this seemed the best possible approach until we could fix the response alternatives and instructions in the next version of the survey to obtain a clearer set of responses.

After having fixed this issue, we were ready to move to the central analyses covered in this chapter: the factor analyses.

Factor Analytic Approach for the Individual Study Data

We used a uniform approach to the factor analytic approach for all three studies. As already mentioned, we aimed for as close to 20 factors as possible. We used exploratory analyses for each study and then examined consistencies across solutions across the three studies.

For the individual studies, the factor analyses were handled in Mplus. In each case the previously binned data responses were treated as categorical and we used a Weighted Least Squares Mean and Variance Adjusted (WLSMV) factor extraction. This was followed by a Crawford Ferguson-Facparsim oblique extraction. When items are numerous, facparsim rotations can more equally divide items across factors, especially if the data is categorical believed it might help given the near 100 items being analyzed. We did not, however, systematically study the effect of setting the iterations so high.

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Supplement Table 3.2

Analysis Section of the Mplus Code for the Small Factor Approach to the Factor Analyses*

```
analysis:
      !parameterization = delta;
      estimator = wlsmv;
      type = EFA 11 20;
      rotation = cf-facparsim (oblique)
      iterations = 500000;
output:
      tech1 standardized modindices(10);
```

*The code for 11 to 20 factors is shown, 1 to 10 factors also were analyzed, with the difference in line type = EFA 1 10;

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Where items or item pairs were leading to Heywood cases, we dropped the smallest number of offending items possible and reran the analyses until no Heywood cases were left. This required the removal of two items in the PILSI-2, 16 items for the PILSI 3, and 2 items for the PILSI 3R. The 16 item removals in the PILSI 3 were largely an issue of the uncertain response characteristics of the LGC variables for that task and, perhaps, the smaller sample size. The stepwise process we employed for removing items with Heywood cases is shown in Supplement Table 3.2.

A Reminder Concerning the Mid-Stage Removal of 9 17-Year-Olds

We noted in Chapter 2 that approximately a year after beginning the data analyses, we discovered the presence of 9 underage participants (17-year-olds) and reported this issue to our IRB on July 7th, 2021. Under advice of the IRB, these participants were removed for all ensuing analyses. Supplement Table 2.1, reprised from Chapter 2, indicated the specific changes in *N,* which affected .004% of the data.

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Supplement Table 2.1 (Reprised)

Effects of Discovering and Removing 17-year-old Participants

Scale	***N* Before**	***N* After**
PILSI 2	1193	1186
PILSI 3	416	416
PILSI 3R	698	696
Total Participants in the 2nd-Generation PILSI scales	2307	2298

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All analyses in this chapter and in the paper, i.e., all reported Ms, Ss, reliabilities, hierarchical factor analyses, parallel analyses, and correlations for the studies used the corrected *Ns* (i.e., after removal of the 17-year-olds).

Two sets of analyses had been completed by the time we discovered the 17-year-old participants: The identification of items to be removed to eliminate the issue of Heywood cases, and the creation of the 15 small factors via side-by-side comparisons. We will discuss those as we proceed.

Non-Convergence of Solutions, Troublesome Items and Item Mitigation

We used the same specifications for our factor analyses across the three scales as indicated in some detail in Supplement Table 3.3. Perhaps the only procedure specifically related to the factor analyses worth mentioning is that we used a CF-Facparsim rotation, which is part of the Crawford-Ferguson group, and tends to distribute large number of items more evenly across factors.

That said, we encountered a series of issues concerning non-convergent solutions and troublesome items. The first issue was that our first factor analyses of the data from the three PILSI scales often did not converge. We addressed this by using between half-a-million and a million iterations to fit the data. This substantially improved the number of solutions we obtained.

The second and third issues were that the Mplus outputs produced a number of warnings concerning individual items that correlated > about |.985| with one another and some items caused Heywood cases. To address this—and because, initially, we did not know how many factors we would end up with—we examined problematic items across 5, 10, 15, and other solutions looking for items that consistently misbehaved. The result of this was to remove 2 items from the PILSI 2, 16 items from the PILSI 3, and 3 items from the PILSI 3R. This process was outlined in Supplement Table 3.4.

We conducted one additional check: Because these analyses were conducted before the removal of the 17-year-olds from our sample, we checked the degree to which the removal of the participants influenced the identification of problematic items. The comparisons are in Supplement Table 3.5. The same items appeared troublesome before and after the removal of the 17-year-olds and we judged that no changes were needed to our process. Most importantly, the final analyses were free of Heywood-cases with or without the 17-year-olds. This is indicated in Supplement Table 3.3.

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Supplement Table 3.3

Final Output Information, Quality Control Check for Final Data Report 2023-12-05-1610

Scale	**PILSI-2**	**PILSI-3**	**PILSI-3R**
File Name	pilsi2-mpls-N=1186-11-20factors-lbp7-lsna24-removed-ABRIDGED-2021-06-11.out	pilsi3-efa-N=416-18-factors-heysrmvd-5thphase-ABRIDGED-2021-06-12.out	PILSI3R-1to20efa-N=696-K=91nolgc22or32orlsgb5-ABRIDGED-20FactorsOutput
Data File Used	PILSI2-N=1186.csv	PILSI3-N=416-nolabels.csv	PILSI-3R-N=696-K91-NoLabels.csv
Date of Analysis	07/11/2021 5:38 AM	06/13/2021 6:21 PM	09/08/2023 6:19 AM
N of participants	1186	416	696
Variables Removed to Mitigate Heywood Cases	Lbp7b and lsna24b (b = binned)	Lsgb10, lsna15, lsna16, lsna17, lsnd8, lgc1, lgc2, lgc21, lgc22, lgc25, lgc26, lgc27, lgc29, Lgc30, lgc31, lgc32 (16 variables) *Note that exclamation points refer to removing the entire rest of a line of variables.*	Lsgb5, lgc22, lgc32
Number of Original Variables	103	102	91
Final number of variables	101	86	88
Missing Values	-99; 35 missing data patterns	-99; 16 missing data patterns	-99; 28 missing data patterns
Defined as categorical?	Yes	Yes	Yes
Type of Factor Analysis	EFA	EFA	EFA
Extraction	Wlsmv	Wlsmv	wlsmv
Rotation	Cf-facparsim (oblique)	Cf-facparsim (oblique)	Cf-facparsim (oblique)
Number of iterations	500,000	500,000	1,000,000
Number of factors	19	18	20

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Supplement Table 3.4—Revised 07/06/2021/-Corrected Samples

Issues with "As Is" output (i.e., first EFA, no combined or re-binned items), with Further Modifications that Iteratively Remove Items with Heywood Case Loadings
Iterations set to 500,000

Scale	PILSI-2					PILSI-3					PILSI-3R				
N	*N* = 1197					*N* = 416					*N* = 698				
Modification: As Is	**Factor Analyses of Initial, Unmodified Data Sets**														
Final factor numbers	**19**					**18**					**20**				
High polychoric correlation warnings 1-10 factors	10 sample correlation warnings: Most prevalent: LPB7B, LSNA24B					150 warnings of polytomous correlations *r* > .85: Many of the LGCs, miscellaneous others as well					8 sample correlation warnings: Most prevalent: LGC22, LGC32; also LSGB5 LSND9, and others				
11-20 factors	10 sample correlation warnings: Most prevalent: LPB7B, LSNA24B										5 sample correlation warnings, LGC22 only				
Non-convergence 1-10	None					8-factor; 9-factor; 10-factor					6-factor; 10-factor				
Non-convergence 11-15	None														
Non-convergence 11-20 (default iterations)	20 factor solution NA; used 19										11-Factor; 13 factor; 17 through 20 factors				
											All present				
Number of Factors[a]	1	5	10	15	19	1	5	10	15	20	1	5	9	15	20
Heywood cases: number	0	2	2	1	0	1	7				0	1	1		
Heywood cases: item(s)	na	LBP7B LSNA24B	LBP7B LSNA24B	LBP7B	NA	Lsna17	Lsna17 Lsna15 Lsnd8 Lgc25 Lgc26 Lgc31 Lgc32 Lsgb10					LGC22	LGC22 LGC32	LGC22 LGC32	
Max (absolute) value	na	1.169	1.387	1.361	NA	1.157	1.091 1.238 1.025 -1.043 -1.437 -1.474					1.987	2.161 1.203	2.934 1.685	

							-1.602 -2.270								
	Factor Analyses of Revised, Modified Data Sets														
Nature of Modification 1	LBP7B Removed					Omitted all LGCs					LGC22 Removed				
Number of Factors[a]	**1**	**5**	**10**	**16[b]**	**19[b]**	**1**	**5**	**10**	**18**	**20**	**1**	**5**	**9**	**15**	**20**
Convergence	11-20: 11, 12, 13, 16, 17, 18, 19 (no 14, 15, 20)														
Heywood cases: Number	0	1	1	1	1				3						
	none	Lsna24b	Lsna24b	Lsna24b	Lsna24b				Lgc21 Lgc29 Lgc30						
Max (absolute) value		-1.225	1.353	2.248	3.493				1.371 1.797 1.305						
Modification 2: If Needed, a Second Modification															
Nature of Modification 2	Both LBP7B and LSNA24B removed.					Combined multiple vars into nine composite variables based on content and high correlations [not shown/abandoned because high r's were not the issue; Heywoods were]					LGC32 Only Removed				
Convergence	11-20: 11, 12, 13, 16, 17, 18, 19 (no 14, 15, 20)														
Number of Factors[a]	**1**	**5**	**10**	**16[b]**	**19[b]**										
Heywood cases: Number	0	1	1	0	0									Lgc22	Lgc31
	[fin]	**[fin]**	**[fin]**	**[fin]**	**[fin]**									3.054	1.098
Modification 3: If Needed, a Third Modification															
Nature of Modification 3						Modification "VI" Started modifications from the beginning, only removing the 8 initial Heywood Cases, i.e., Lsna17, Lsna15, Lsnd8, Lgc25, Lgc26, Lgc31, Lgc32, lsgb10					LGC22 and lgc32 removed				
Number of Factors						1	5	10	15	20	1, 5	10	15	18	19[b]
Heywood cases: number						1	3	3	3	3	Not checkd				1
Heywood cases: items						Lgc22	Lsna16 Lsnd9 Lgc23	Lgc1 Lgc2 Lgc27	Lgc21 Lgc29 Lgc30 Lsna16	Lgc29 Lgc21 Lgc30 Lsna16			Lgc31	Lgc2 Lgc31	Lsgb5

									Lgc1 Lgc2 Lgc22	Lgc22 Lgc2					
						1.340	-1.081 1.206 1.998	1.601 1.418 1.243	-1.003 1.548 -1.110 2.719 2.005 2.502 2.944	1.727 1.413 1.309 2.843 3.175 3.016			1.029	1.070 1.053	1.109
Modification 4: If Needed, a Fourth Modification															
Nature of Modification 4						A further six items were removed based on the 20-factor Heywood cases (Lgc29, Lgc21, Lgc30, Lsna16, Lgc22, Lgc2)					Lsgb5 was removed					
Number of Factors										19					20
Heywood cases: number										1					0
										Lgc1	**[fin]**	**[fin]**	**[fin]**	**[fin]**	**[fin]**
Modification 5: If Needed, a Fifth Modification															
						Also deleted LGC1 and LGC27 (which appeared in the 20-factor solution) Note that both 19 and 20-factors still exhibited Heywoods, so used 18 factors									
Number of Factors									18	19, 20					
Heywood cases: number									0	1+					
						[fin]	**[fin]**	**[fin]**	**[fin]**	**[fin]**	[fin]	[fin]	[fin]	[fin]	[fin]
						Note: All removed Heywoods are:									
						Lsna15, Lsna16, Lsna17, lsgb10, Lsnd8, Lgc2, Lgc1 Lgc21, Lgc25, Lgc26, Lgc29, Lgc22, Lgc27 Lgc30, Lgc31, and, Lgc32,									

a. Recorded as spot checks of 1, 5, 15, and 20 factor solutions only, or nearest converged number of factors, e.g., 19 if 20 is NA

b. Target NA even with 500,000 iterations

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Note that the original analyses employed a dual standard for removing items: If an item exhibited a Heywood case or if an item exhibited more than one warning concerning correlations > about $r = |.985|$ with more than one other variable we considered removing it. Because we were not sure initially which number of factors we would use, we examined Heywood cases and warnings across multiple solutions (i.e., involving different numbers of factors) to look for "repeat offenders" among the items. As Supplement Table 3.5 indicates the items that were finally

removed are applicable to both the original and reduced samples for the PILSI-2 and 3R. In addition, we checked and ensured that the items deletions removed all Heywood cases in the revised analyses. For example, for the PILSI-2, both lbp7b and lsna24b exhibited sample correlation warnings and lbp7b exhibited a Heywood case. For the PILSI 3R, lgc22, lgc32, and lsgb5 exhibited repeated correlation warnings, with a Heywood case for lgc32. Those three variables were removed and eliminated all the Heywood cases. These deletions were same as those found in the original analyses and similarly removed all the Heywood cases with a minimum of item deletions.

Pre- and Post- Removal of the 17-Year-Olds for the PILSI-2 Data Set

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Supplement Table 3.5

Warnings and Heywood Cases Across the PILSI 2

N=1192/1193 (before removal of 17-year-olds)	N=1186
Warnings	
WARNING: THE SAMPLE CORRELATION OF LSNA16B AND LBP7B IS -0.987 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE.	WARNING: THE SAMPLE CORRELATION OF LSNA16B AND LBP7B IS -0.987 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE.
WARNING: THE SAMPLE CORRELATION OF LSNA17B AND LBP7B IS -0.986 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE.	WARNING: THE SAMPLE CORRELATION OF LSNA17B AND LBP7B IS -0.987 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE.
WARNING: THE SAMPLE CORRELATION OF LSNA24B AND LSNA16B IS -0.986 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE.	WARNING: THE SAMPLE CORRELATION OF LSNA24B AND LSNA16B IS -0.986 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE.
WARNING: THE SAMPLE CORRELATION OF LSND8B AND LSNA24B IS -0.986 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE.	WARNING: THE SAMPLE CORRELATION OF LSND8B AND LSNA24B IS -0.986 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE.

INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE.	INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE.
WARNING: THE SAMPLE CORRELATION OF LGC1B AND LSNA24B IS -0.987 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE.	WARNING: THE SAMPLE CORRELATION OF LGC1B AND LSNA24B IS -0.986 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE.
WARNING: THE SAMPLE CORRELATION OF LGC2B AND LSNA24B IS -0.987 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE.	WARNING: THE SAMPLE CORRELATION OF LGC2B AND LSNA24B IS -0.987 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE.
WARNING: THE SAMPLE CORRELATION OF LGC3B AND LSNA24B IS -0.986 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE.	WARNING: THE SAMPLE CORRELATION OF LGC3B AND LSNA24B IS -0.986 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE.
WARNING: THE SAMPLE CORRELATION OF LGC6B AND LBP7B IS -0.987 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE.	WARNING: THE SAMPLE CORRELATION OF LGC6B AND LBP7B IS -0.986 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE.
WARNING: THE SAMPLE CORRELATION OF LGC7B AND LSNA24B IS -0.987 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE.	WARNING: THE SAMPLE CORRELATION OF LGC7B AND LSNA24B IS -0.987 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE.
WARNING: THE SAMPLE CORRELATION OF LGC16B AND LBP7B IS -0.987 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE.	WARNING: THE SAMPLE CORRELATION OF LGC16B AND LBP7B IS -0.987 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE.

Heywoods	
16 Factors: LBP7 (from the table)	15 Factors: LBP7 (from the output)

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Pre- and Post- Removal of the 17-Year-Olds for the PILSI-3R Data Set

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Supplement Table 3.6

Warnings and Heywood Cases Across the PILSI 3R

N=698 (before removal of 17-year-olds)	N=696
Warnings	
WARNING: THE SAMPLE CORRELATION OF LGC22 AND LBP5 IS -0.986 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE. WARNING: THE SAMPLE CORRELATION OF LGC22 AND LSGB5 IS -0.987 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE. WARNING: THE SAMPLE CORRELATION OF LGC22 AND LSGB7 IS -0.986 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE. WARNING: THE SAMPLE CORRELATION OF LGC22 AND LSND9 IS -0.987 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE. WARNING: THE SAMPLE CORRELATION OF LGC31 AND LSGB5 IS -0.987 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE.	WARNING: THE SAMPLE CORRELATION OF LGC22 AND LBP5 IS -0.987 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE. WARNING: THE SAMPLE CORRELATION OF LGC22 AND LSGB5 IS -0.987 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE. WARNING: THE SAMPLE CORRELATION OF LGC22 AND LSGB7 IS -0.986 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE. WARNING: THE SAMPLE CORRELATION OF LGC22 AND LSND9 IS -0.987 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE. WARNING: THE SAMPLE CORRELATION OF LGC31 AND LSGB5 IS -0.986 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE. WARNING: THE SAMPLE CORRELATION OF LGC32 AND LBP9 IS -0.987 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE.

WARNING: THE SAMPLE CORRELATION OF LGC32 AND LBP9 IS -0.986 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE. WARNING: THE SAMPLE CORRELATION OF LGC32 AND LSGB5 IS -0.987 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE. WARNING: THE SAMPLE CORRELATION OF LGC32 AND LSND9 IS -0.986 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE.	WARNING: THE SAMPLE CORRELATION OF LGC32 AND LSGB5 IS -0.986 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE. WARNING: THE SAMPLE CORRELATION OF LGC32 AND LSND9 IS -0.987 DUE TO ONE OR MORE ZERO CELLS IN THEIR BIVARIATE TABLE. INFORMATION FROM THESE VARIABLES CAN BE USED TO CREATE ONE NEW VARIABLE.
Heywoods	
15 Factors: LGC22, LGC32 (From tech supp)	15 Factors: LGC32 (from Mplus run)

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Number of Factors: 1. Fit Statistics

In the end, we were able to obtain Heywood-free, converged and rotated factor analyses for 19 factors, 18 factors, and 20 factors across the three studies. This was near or at our goal of 20 factors per study. By 18 or so factors, the fit statistics of the solutions all were excellent. A visualization of the improvement in fit can be seen in Supplement Figure 15.3.

For each panel of the figure, the two lines at the top represent the Conditional Fit Index (CFI; lighter grey) and Tucker Lewis Index (TLI); the lower line represents the Root Mean Square Error of Approximation. Across the studies, the RMSEA is good across all solutions, but the CFI and TLI do not approach or exceed .95 until about 15 factors and improve asymptotically thereafter up through 18 to 20 factors. As noted above, we used the 19, 18, and 20-factor solutions for the three studies, which were the maximum-numbered solution that converged and were free of Heywood cases (after dropping three and two items in Studies 1 and 3, respectively, and dropping sixteen in Study 2.

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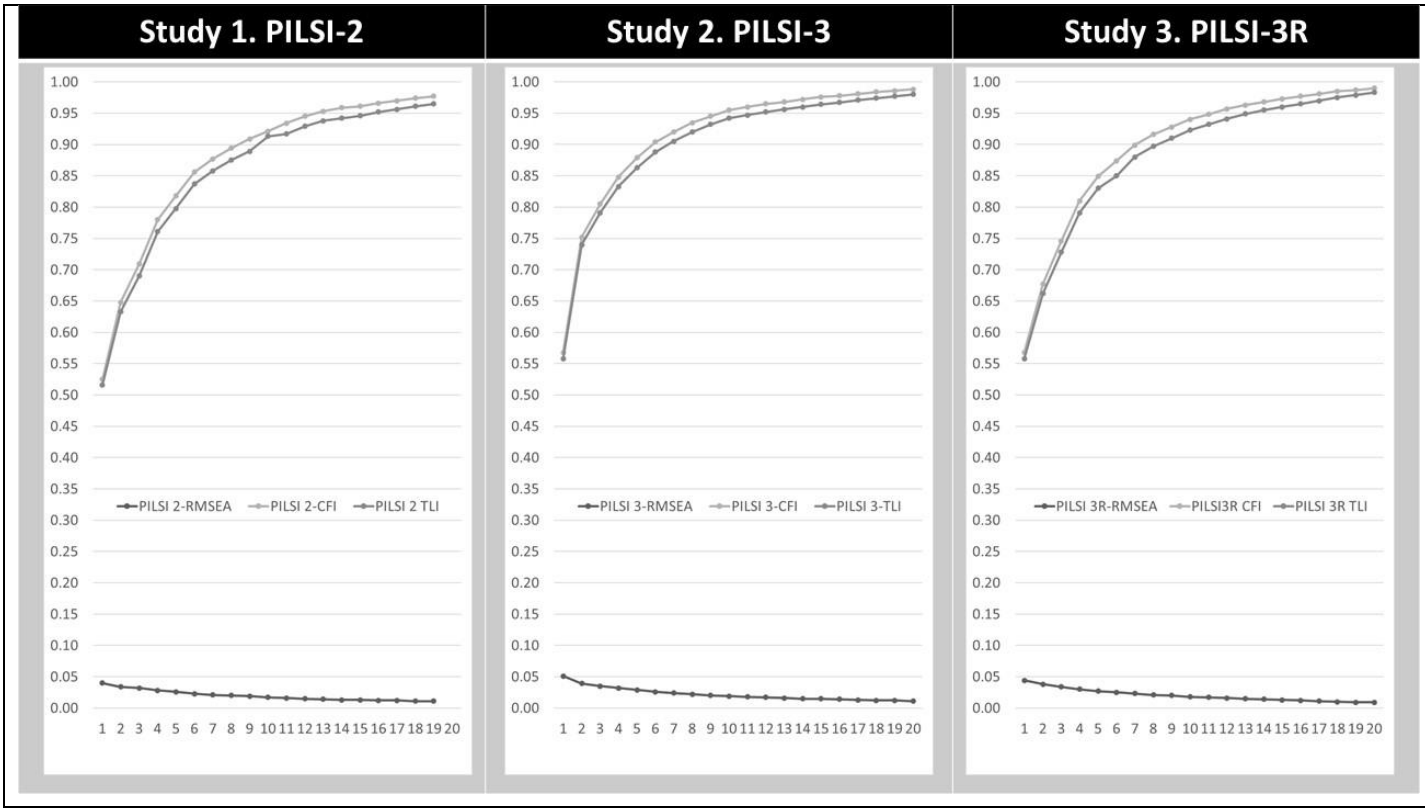
Supplement Figure 3.2

Fit Statistics. Fit CFI, TLI (on top) and RMSEA (at bottom) by Number of Factors for the PILSI 2, 3, and 3R Data Sets



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The model-by-model fit statistics are indicated in Supplement Tables 3.7 through 3.9 for the three studies.

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Supplement Table 3.7

Fit Statistics Exploratory Factor Analysis of the Variables for the PILSI-Version 2, N=1186 "Heywoods Removed"*,** **sample-corrected fully on 7/17/2021**

Model	Free Params.	Fit Indices						Correlations	Other (NA)
		χ^2	df	RMSEA	CFI	TLI	SRMR	*(Magnitude)*	
One-factor	101	14111.10	4949	.040	.529	.519	.115	NA	
Two-factor	201	11654.63	4849	.034	.650	.635	.104	.25	
Three-factor	300	10387.31	4750	.032	.710	.692	.091	.15 to .23	
Four-factor	398	8902.25	4652	.028	.781	.763	.083	.08 to .22	
Five-factor	495	8063.94	4555	.025	.819	.800	.076	.04 to .22	
Six-factor	591	7232.25	4459	.023	.857	.838	.071	-.01 to .21	
Seven-factor				~ ~ ~ ~ NA ~ ~ ~ ~					
Eight factor	780	6307.00	4270	.020	.895	.876	.062	.01 to .29	
Nine factors				~ ~ ~ ~ NA ~ ~ ~ ~					
Ten factors				~ ~ ~ ~ NA ~ ~ ~ ~					
Eleven factors	1056	5266.13	3994	.016	.935	.917	.055	-.01 to .30	
Twelve-factor	1146	4972.64	3904	.015	.945	.929	.053	-.03 to .29	
Thirteen-factor	1235	4725.07	3851	.014	.953	.938	.050	-.05 to .25	
Fourteen-factor				~ ~ ~ ~ NA ~ ~ ~ ~					
Fifteen-factor				~ ~ ~ ~ NA ~ ~ ~ ~					
Sixteen-factor	1496	4207.03	3554	.012	.966	.952	.046	-.05 to .28	
Seventeen-fact.	1581	4051.64	3469	.012	.970	.956	.044	-.10 to .27	
Eighteen-factor	1665	3891.67	3385	.011	.974	.961	.043	-.08 to .31	
Nineteen-factor	1748	3738.78	3302	.011	.978	.966	.042	-.09 to .28	
Twenty-factor				~ ~ ~ ~ NA ~ ~ ~ ~					

*Note: All FAs began with variable LBP3 and concluded with LGC32

**Corrected version (17-year-olds removed)

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Supplement Table 3.8

Fit Statistics Exploratory Factor Analysis of the Variables for the *PILSI-Version 3* "Heywoods Removed"
No sample-correction required; good as is 7/17/2021

Model	Free Params.	Fit Indices						Correlations	Other (NA)
		χ^2	df	RMSEA	CFI	TLI	SRMR	*(Magnitude)*	
One-factor	86	7484.514	3569	.051	.568	.558	.127	NA	
Two-factor	171	5731.465	3484	.039	.752	.740	.111	.194	
Three-factor	255	5168.158	3400	.035	.805	.791	.089	.11 to .15	
Four-factor	338	4694.441	3317	.032	.848	.833	.081	-.01 to .30	
Five-factor	420	4335.66	3235	.029	.879	.863	.076	-.03 to .29	
Six-factor	501	4027.381	3154	.026	.904	.888	.071	-.03 to .25	
Seven-factor	581	3801.21	3074	.024	.920	.905	.068	-.10 to .24	
Eight factor	660	3588.795	2995	.022	.935	.920	.065	-.10 to .24	
Nine factors	738	3412.176	2917	.020	.945	.932	.061	-.12 to .22	
Ten factors	815	3252.428	2840	.019	.955	.942	.059	-.15 to .27	
Eleven factors	891	3128.163	2764	.018	.960	.947	.057	-.13 to .30	
Twelve-factor	966	3006.259	2689	.017	.965	.952	.055	-.10 to .30	
Thirteen-factor	1040	2901.4	2615	.016	.968	.956	.053	-.08 to .30	
Fourteen-factor	1113	2794.062	2542	.015	.972	.960	.051	-.11 to .26	
Fifteen-factor	1185	2692.017	2470	.015	.976	.964	.050	-.15 to .37	
Sixteen-factor	1256	2597.671	2399	.014	.978	.967	.048	-.10 to .36	
Seventeen-fact.	1326	2496.888	2329	.013	.981	.971	.046	-.10 to .32	
Eighteen-factor	1395	2405.66	2260	.012	.984	.974	.045	-.08 to .32	
Nineteen-factor*	1463	2316.444	2192	.012	.986	.977	.044	-.10 to .32	
Twenty-factor*	1530	2232.248	2125	.011	.988	.980	.042	-.09 to .31	

*Note: All FAs began with variable LBP3 and concluded with LGC32

*The 19- and 20-factor solutions had Heywood cases

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Supplement Table 3.9

Fit Statistics Exploratory Factor Analysis of the Variables for the *PILSI-Version 3R* "Heywoods Removed[a]"
sample-corrected fully on 7/17/2021

Model	Free Params.	Fit Indices						Correlations *(Magnitude)*	Other (NA)
		χ^2	df	RMSEA	CFI	TLI	SRMR		
One-factor	88	8599.176	3740	.043	.572	.562	.128	NA	
Two-factor	175	7307.604	3653	.038	.678	.663	.104	.13	
Three-factor	261	6458.531	3567	.034	.745	.727	.091	.02 to .20	
Four-factor	346	5650.899	3482	.030	.809	.790	.084	-.02 to .23	
Five-factor	430	5119.229	3398	.027	.848	.829	.080	-.02 to .31	
Six-factor	513	4694.598	3315	.024	.879	.860	.072	-.06 to .26	
Seven-factor	595	4387.001	3233	.023	.898	.880	.069	-.05 to .28	
Eight factor	676	4113.612	3152	.021	.915	.897	.066	-.06 to .26	
Nine factors	756	3893.995	3072	.020	.928	.910	.064	-.07 to .27	
Ten factors	835	3680.973	2993	.018	.939	.923	.061	-.17 to .25	
Eleven factors	913	3599.183	2915	.017	.949	.932	.058	-.10 to .22	
Twelve-factor	990	3328.978	2838	.016	.957	.942	.054	-.12 to .21	
Thirteen-factor	1066	3179.290	2762	.015	.963	.949	.052	-.11 to .29	
Fourteen-factor	1141	3041.761	2687	.014	.969	.956	.051	-.11 to .29	
Fifteen-factor	1215	2917.766	2613	.013	.973	.961	.050	-.12 to .25	
Sixteen-factor	1288	2797.754	2540	.012	.977	.966	.048	-.14 to .25	
Seventeen-fact.	1360	2680.600	2468	.011	.981	.971	.047	-.13 to .23	
Eighteen-factor	1431	2566.075	2397	.010	.985	.976	.045	-.11 to .27	
Nineteen-factor	1501	2469.633	2327	.009	.987	.979	.044	-.12 to .25	
Twenty-factor	1570	2369.676	2258	.008	.990	.983	.042	-.16 to .25	

a. Heywoods are absent from at least one solution between 18 and 20 factors

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Number of Factors: 2. Parallel Analysis

Fit statistics indicate how well a given factor model fits the data. Parallel analysis arguably marks the outside limit for a reasonable number of factors to fit (comparing them against randomly selected factors). The two are somewhat different enterprises. Monte Carlo studies indicate the Fit and Parallel approaches are of approximately equal value for deciding on factor numbers when employing categorical data (Finch, 2020; Lubbe, 2019) although there might be a slight advantage of parallel analysis for continuous data.

A helpful reality check is to remember that the exact number of factors one might extract is typically indeterminant for this kind of work, particularly if the research is genuinely exploratory, as it is here (Mulaik, 1987). Our perspective, therefore, is that in the present case, where we use three key samples to find out whether we can replicate small factors, neither method is utterly determinative. Rather, they provide general guidelines as to how reasonable our models might be given our data.

One of our reviewers was curious as to the comparative performance of the fit versus parallel approaches to the factor analyses. To examine the issue, we conducted a comparison of the "fit" versus "parallel" approach for each study. Given the parallel analysis approach might exhibit a superiority only with continuous data, we treated our data for comparative "fit" and "parallel" analyses as continuous for this analysis only. We believe this approach was not too unreasonable given that our binned responses typically included more than 4 categories.

Because we calculated fits on categorical data for all other factor analyses, we first examined the changes in fit in redefining our data from categorical to continuous. Focusing on the PILSI-2 (which had the largest sample at N = 1186), the side-by-side comparison of the categorical and continuous fits is indicated in Table 3.10, with spot-checks for 1-, 6-, 12-, and 18-factor solutions (10-, 15-, and 20-factor solutions did not converge).

Unsurprisingly, given the non-normal distribution of many of our items the after the binning process, the fits were somewhat worse for the continuous data, albeit the 18-factor solution approached a marginally good fit to the data (to be generous).

The parallel analyses on the same data justified extraction of somewhere near 11-18 factors depending upon the study. The comparable parallel analyses are indicated in Figure 3.3. The analyses reflected extractions of 18 factors for the PILSI 2 and maxima of 11 and 14 factors for the PILSI 3 and 3R, respectively. Whether this was a product of chance, sample qualities, or the gradual winnowing of items relevant to personal intelligence and the PILSI more generally was not entirely clear.

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Supplement Table 3.10

Fit Statistics Exploratory Factor Analysis of the Variables for the PILSI-Version 2, N=1186 "Heywoods Removed"*,** for Categorical and Continuous Data **sample-corrected fully on 7/17/2021**

Model	Free Params.	Fit Indices-Categorical Data						Free Params.	Fit Indices-Continuous Data					
		χ^2	df	RMSEA	CFI	TLI	SRMR		χ^2	df	RMSEA	CFI	TLI	SRMR
1-factor	101	14111.10	4949	.040	.529	.519	.115	303	23476.70	4949	.056	.295	.280	.067
6-factor	591	7232.25	4459	.023	.857	.838	.071	793	13606.03	4459	.042	.652	.606	.040
12-factor	1146	4972.64	3904	.015	.945	.929	.053	1348	8457.53	3904	.031	.827	.776	.028
18-factor	1665	3891.67	3385	.011	.974	.961	.043	1867	5922.00	3385	.025	.903	.856	.021

*Note: We show values for 1-, 6-, 12-, and 18-factor solutions as the 10-, 15-, and 20-factor values were not available (e.g., did not converge).

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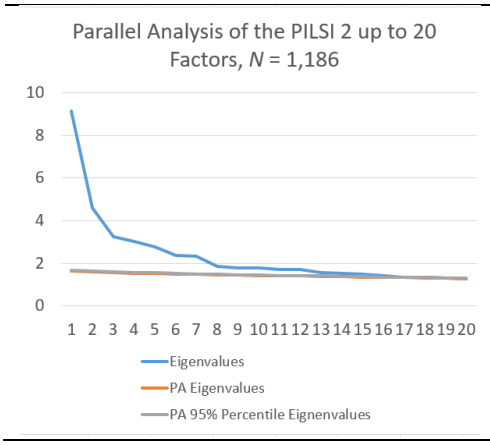
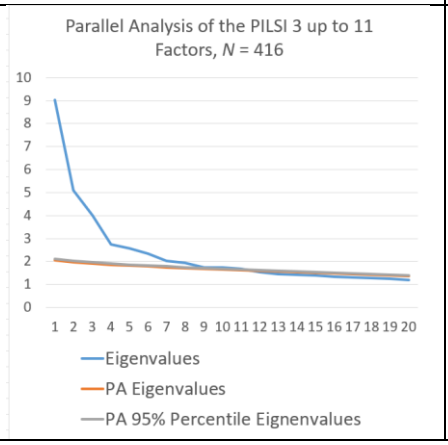
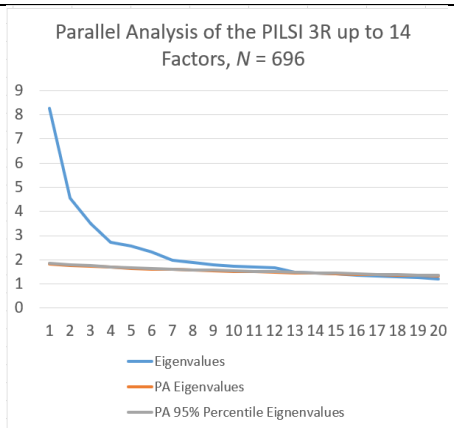
Figure 3.3 Parallel Analyses for the PILSI 2, 3, and 3R

PILSI 2	PILSI 3	PILSI 3R
		

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Our decision to extract near 20 factors was somewhat generous relative to these figures. Factoring in our choice to retain only those factors that exhibited evidence of replicating across samples, however, provided good insurance against spurious item clusters.

Estimated Correlations Among Factors

We also examined the estimated correlations among the oblique factors, and these were generally low to modest for the high-dimensional solutions for all three solutions. Supplement Table 3.11 indicates the range of estimated correlations found in the PILSI-2 19-factor solution as an example. In the chosen 19, 18, and 20 factor solutions for the three scales, the range of correlations were -.09 to .28 (PILSI-2), -.08 to .32 (PILSI-3), and -.16 to .25 (PILSI-3R), which indicates the relative independence of the scales.

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Supplement Table 3.11

An Example of the Estimated Correlations for a Solution Drawn From the PILSI-2 19-Factor Solution

CF-FACPARSIM FACTOR CORRELATIONS (* significant at 5% level)

	1	2	3	4	5
1	1.000				
2	0.106*	1.000			
3	0.108*	0.060	1.000		
4	0.045	0.136*	-0.027	1.000	
5	0.033	0.116*	0.036	0.146*	1.000
6	0.082*	0.097*	0.165*	0.011	0.035
7	-0.087*	0.083*	-0.016	0.108*	0.055
8	0.114*	0.053	0.199*	-0.075	0.053
9	0.087*	0.071*	0.087*	0.028	0.025
10	-0.038	-0.007	0.054	0.083	-0.044
11	0.052	-0.020	0.024	0.027	0.040
12	0.086*	0.057	0.022	0.078*	-0.027
13	0.025	0.179*	-0.006	0.060	0.058
14	0.069	0.130*	0.057	0.100	0.041
15	-0.013	0.052	-0.044	0.188*	0.010
16	-0.019	0.120*	-0.050	0.128*	-0.052
17	-0.005	0.134*	-0.030	-0.009	0.125*
18	-0.009	0.155*	0.026	0.027	0.078*
19	0.079*	0.123*	0.072	0.153*	0.039

CF-FACPARSIM FACTOR CORRELATIONS (* significant at 5% level)

	6	7	8	9	10
6	1.000				
7	0.104*	1.000			
8	0.277*	-0.006	1.000		
9	0.133*	0.071	0.167*	1.000	
10	0.194*	0.123*	0.176*	0.058	1.000
11	0.035	0.012	0.169*	0.023	0.121*
12	0.008	-0.040	0.050	-0.018	0.013
13	0.171*	0.097	0.193*	0.123*	0.141*
14	0.245*	0.130*	0.172*	0.165	0.246*
15	0.060	0.140*	0.005	0.001	0.209*
16	0.063	0.115*	-0.051	-0.054	0.134*
17	0.062	0.105*	0.061	-0.028	0.057
18	0.050	0.034	-0.054	0.005	-0.006
19	0.164*	0.127*	0.094	0.104*	0.054

CF-FACPARSIM FACTOR CORRELATIONS (* significant at 5% level)

	11	12	13	14	15
11	1.000				
12	0.120*	1.000			
13	0.022	0.070	1.000		
14	0.071	0.089*	0.238*	1.000	
15	0.080*	0.128*	0.099	0.283*	1.000
16	0.014	0.085*	0.154*	0.173*	0.175*
17	0.080	-0.026	0.187*	0.204*	0.084
18	-0.037	-0.030	0.081*	0.107*	0.050
19	0.030	0.074*	0.114*	0.200*	0.126*

CF-FACPARSIM FACTOR CORRELATIONS (* significant at 5% level)

	16	17	18	19
16	1.000			
17	0.112*	1.000		
18	0.082	0.234*	1.000	
19	0.128*	0.034	0.026	1.000

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Estimated Factor Loadings of the Items of the PILSI 2

The cleanness of the factors of the 19-, 18-, and 20-factor solutions varied depending upon the individual factor and the study. Some items were quite well-defined by the factor on which they loaded, and appeared to be independent from the others; other items loaded on more than one factor. The full item loadings for the PILSI-2 19-factor solution are indicated in Supplement Table 3.8 below, with loadings > .40 and < -.40 highlighted.

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Supplement Table 3.8

An Example of the Estimated Correlations for a Solution Drawn From the PILSI-2 19-Factor Solution. Loadings > .40 are highlighted in green, those < -.40 in red

CF-FACPARSIM ROTATED LOADINGS (significant at 5% level)

	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00	18.00	19.00
LBP3B	0.42	0.16	0.07	0.00	-0.13	0.06	0.06	-0.08	0.08	0.02	-0.04	-0.07	-0.03	0.11	-0.03	-0.07	-0.01	0.09	0.03
LBP4B	0.76	0.01	0.05	0.01	0.00	0.04	-0.01	-0.02	-0.03	-0.01	-0.01	-0.01	0.05	0.00	-0.01	-0.06	-0.04	-0.04	0.02
LBP5B	0.63	0.05	0.02	0.00	0.04	0.05	-0.04	0.06	-0.02	-0.08	0.03	0.03	0.06	-0.01	0.04	0.01	-0.02	0.13	0.04
LBP6B	0.76	0.10	0.02	0.02	0.03	-0.03	0.12	-0.05	0.06	0.00	-0.02	-0.01	-0.09	0.03	0.01	0.05	0.02	0.01	0.06
LBP8B	0.06	0.59	0.11	-0.10	0.00	0.00	-0.09	0.07	0.07	-0.07	-0.04	-0.03	0.02	-0.02	-0.02	-0.03	-0.04	0.05	0.03
LBP9B	0.09	0.89	0.01	0.06	0.05	-0.01	-0.07	-0.05	-0.01	0.02	0.08	-0.10	-0.05	-0.02	-0.03	0.04	-0.04	-0.11	0.05
LSGA1B	-0.03	0.02	0.65	0.01	0.02	-0.06	0.04	0.04	-0.03	0.05	0.03	-0.08	-0.04	0.03	0.05	0.01	0.02	0.01	0.05
LSGA2B	0.02	0.00	0.87	-0.01	-0.02	0.02	0.05	-0.02	-0.01	-0.03	0.00	-0.01	0.03	-0.03	0.03	0.03	0.02	-0.02	0.02
LSGA3B	0.04	0.03	0.82	0.03	0.01	0.01	0.01	-0.08	-0.02	0.05	0.02	0.03	0.00	0.01	-0.03	0.07	-0.05	0.05	0.01
LSGB1B	-0.02	-0.08	0.06	-0.38	-0.09	0.11	-0.11	-0.05	0.03	0.01	-0.05	0.05	-0.03	0.03	0.18	-0.05	0.23	-0.08	-0.20
LSGB2B	0.10	0.02	0.10	0.23	0.13	0.06	-0.19	-0.02	-0.02	-0.19	0.00	0.07	0.10	-0.07	0.09	-0.03	0.07	-0.14	0.09
LSGB3B	-0.03	-0.25	-0.02	-0.17	0.10	-0.06	0.12	-0.05	0.06	0.04	0.04	-0.10	-0.16	0.08	0.01	0.24	0.41	-0.49	-0.02
LSGB4B	0.05	-0.04	0.11	0.34	0.04	-0.04	-0.02	0.13	0.04	0.06	0.03	-0.01	0.04	0.00	-0.01	-0.10	0.07	-0.03	0.00
LSGB5B	0.05	0.05	0.01	0.22	0.70	0.03	-0.04	0.02	-0.05	0.02	0.00	-0.01	0.05	-0.03	-0.02	0.05	-0.02	-0.11	0.01
LSGB6B	0.01	-0.08	0.02	0.00	-0.01	-0.20	0.04	0.11	-0.02	0.23	0.00	0.11	0.19	-0.03	0.08	0.16	0.02	0.05	0.06
LSGB7B	0.07	0.23	0.04	0.06	-0.09	-0.15	-0.06	-0.05	0.18	-0.09	0.08	0.04	0.09	-0.06	-0.05	0.22	-0.06	0.02	0.03
LSGB9B	0.00	0.01	0.02	-0.09	0.00	-0.05	-0.03	0.11	0.05	0.12	-0.03	0.01	-0.14	0.09	0.12	0.10	0.07	-0.09	-0.14
LSGB10B	-0.01	-0.12	0.00	-0.74	-0.11	0.04	0.08	-0.05	-0.03	0.16	-0.02	0.06	0.03	0.06	0.11	0.11	0.01	0.06	-0.09
LSGB11B	0.07	-0.19	-0.18	-0.15	0.10	-0.14	0.33	0.07	0.03	0.06	0.10	-0.13	-0.02	-0.02	-0.15	0.31	0.26	-0.39	0.07
LSGB12B	-0.08	-0.05	0.18	-0.35	0.21	0.11	-0.04	0.07	0.04	-0.08	-0.01	-0.03	0.03	0.08	0.08	-0.11	0.03	0.23	0.09
LSBC1B	0.04	-0.09	0.08	0.47	0.11	-0.06	0.01	0.09	0.04	0.04	-0.02	0.04	0.03	-0.02	-0.11	-0.16	0.09	-0.02	0.01
LSBC2B	0.00	0.08	-0.06	-0.02	0.68	-0.07	0.13	0.01	-0.08	0.01	0.08	-0.04	0.14	0.03	-0.07	0.02	0.07	-0.02	-0.02
LSBC3B	0.07	0.06	0.05	0.18	0.66	0.08	-0.11	-0.04	0.10	-0.07	0.01	0.04	-0.16	0.02	0.06	0.02	0.02	0.13	0.06
LSBC4B	0.00	0.10	0.07	-0.02	0.67	0.00	0.03	0.00	0.02	-0.04	-0.06	-0.08	0.02	0.06	0.05	-0.03	0.04	0.10	0.03
LSBC5B	0.10	0.06	0.04	-0.01	0.01	-0.08	0.39	0.04	0.08	0.32	0.05	0.01	-0.07	-0.14	0.02	-0.18	-0.03	0.03	0.01
LSBC6B	0.01	0.18	-0.05	0.09	0.01	0.00	0.20	0.06	0.12	0.06	-0.06	0.11	0.00	-0.08	0.03	-0.24	0.17	-0.08	-0.03
LSBC7B	-0.05	0.13	-0.01	0.08	0.02	-0.07	0.10	0.07	0.12	0.14	0.00	0.07	0.08	-0.14	-0.02	-0.23	-0.04	0.09	-0.08
LSBC8B	0.06	-0.06	0.04	0.22	0.18	0.06	0.04	-0.02	0.15	0.12	-0.02	0.09	-0.20	0.02	-0.01	-0.04	0.01	0.07	-0.03
LSBC9B	-0.01	0.03	0.16	0.19	0.08	0.06	-0.01	0.08	0.10	-0.01	-0.13	0.01	-0.17	-0.03	0.25	-0.15	0.23	-0.11	0.02
LSNA1B	0.19	0.05	0.15	-0.08	-0.01	0.51	0.06	0.15	-0.04	0.02	-0.02	0.01	-0.10	0.10	-0.02	-0.13	0.05	0.01	0.06
LSNA2B	0.09	0.03	0.14	-0.04	0.02	0.40	0.03	0.15	-0.13	0.16	-0.03	-0.01	-0.07	0.11	-0.09	-0.03	-0.06	0.01	0.09
LSNA3B	0.07	0.05	0.09	-0.02	-0.01	0.69	0.02	0.03	0.08	0.02	0.10	0.05	0.02	0.04	-0.10	0.00	0.04	-0.09	0.04
LSNA4B	-0.01	0.03	0.03	-0.02	0.03	0.68	0.03	-0.02	0.10	0.02	0.08	-0.02	0.09	-0.06	0.09	0.02	0.01	-0.10	0.09
LSNA5B	0.01	-0.08	0.08	0.11	0.00	0.08	0.16	0.21	-0.12	0.21	0.04	-0.03	0.09	0.05	-0.11	0.03	-0.07	-0.02	0.01
LSNA6B	-0.06	-0.11	0.07	0.02	0.00	0.18	0.02	0.33	-0.02	0.25	0.02	0.01	0.07	-0.08	-0.17	0.11	0.02	0.11	-0.02
LSNA7B	-0.01	-0.02	0.02	0.01	0.09	0.33	-0.04	0.32	0.12	0.16	-0.08	0.03	-0.04	0.09	-0.17	0.12	-0.08	0.06	0.14
LSNA8B	-0.13	-0.09	0.06	-0.05	0.00	0.23	0.06	0.10	0.09	0.56	-0.03	-0.04	-0.02	0.05	-0.01	-0.02	-0.05	-0.01	-0.03
LSNA9B	-0.01	0.12	0.07	-0.09	-0.01	0.04	0.20	0.27	0.02	0.04	-0.01	-0.02	0.01	0.01	0.21	0.04	0.02	-0.01	0.08
LSNA10B	0.03	0.12	0.03	0.04	-0.02	0.18	0.14	0.37	-0.03	0.03	0.08	-0.08	0.13	0.13	0.18	0.05	-0.09	-0.14	-0.11
LSNA11B	0.03	-0.03	0.13	0.00	0.01	0.11	0.05	0.51	0.15	-0.06	0.00	-0.03	-0.03	0.20	0.00	0.08	-0.10	0.08	-0.03
LSNA12B	0.01	0.01	0.11	-0.01	0.01	0.19	-0.10	0.42	-0.01	0.04	0.07	0.02	0.14	0.09	-0.09	0.04	-0.05	-0.02	0.07
LSNA13B	0.05	0.09	0.02	-0.03	0.02	0.21	0.24	0.24	0.03	0.18	0.02	-0.11	0.09	-0.03	0.20	0.04	-0.08	0.02	0.05
LSNA14B	-0.09	0.01	0.05	0.13	0.01	0.11	0.24	0.08	0.14	-0.13	0.01	-0.09	0.33	0.01	0.09	-0.15	0.02	0.04	0.11
LSNA15B	0.02	0.09	0.08	0.07	0.20	0.10	0.78	-0.03	0.02	0.15	-0.02	-0.01	0.15	0.04	0.02	0.12	0.07	-0.06	0.07
LSNA16B	-0.13	-0.09	-0.03	0.14	-0.09	0.17	0.76	-0.08	0.11	-0.07	0.00	0.02	0.09	0.24	0.12	0.01	0.12	0.11	0.27
LSNA17B	-0.34	0.41	0.08	0.04	-0.07	0.05	0.52	0.08	0.08	-0.04	0.09	0.09	-0.05	0.10	0.10	0.18	0.01	0.01	0.10
LSNA18B	0.11	0.11	0.05	-0.04	-0.05	-0.01	-0.08	0.02	0.53	0.16	0.04	-0.04	0.04	-0.01	0.04	0.07	0.11	-0.05	0.04
LSNA19B	0.05	0.05	0.00	0.05	-0.01	0.06	0.10	-0.03	0.68	0.04	-0.05	0.04	0.02	0.13	-0.02	0.00	-0.08	0.05	0.02
LSNA20B	0.18	-0.01	0.02	0.04	0.03	0.00	-0.05	0.27	0.17	-0.23	-0.01	-0.02	0.21	0.01	0.22	-0.16	0.17	-0.10	0.05
LSNA21B	0.03	-0.06	0.08	-0.06	0.03	0.13	-0.01	0.18	0.32	-0.17	-0.01	0.03	0.12	0.32	-0.14	-0.15	0.08	0.11	0.10
LSNA22B	0.07	0.02	0.00	0.00	-0.04	0.07	-0.01	0.06	0.58	0.04	0.03	0.01	0.00	0.18	-0.03	0.17	0.02	-0.02	0.05
LSNA23B	-0.06	0.02	-0.03	0.10	0.04	0.17	0.00	0.03	0.51	0.08	-0.04	-0.03	0.09	0.00	0.02	0.05	-0.04	-0.01	0.11
LSNB1B	0.02	0.02	0.06	-0.01	-0.01	0.07	0.01	0.02	0.02	-0.01	0.93	0.00	-0.05	-0.01	-0.05	-0.09	0.04	0.07	-0.02
LSNB2B	0.11	0.05	-0.04	-0.01	0.13	-0.04	0.07	0.17	-0.07	0.14	0.53	0.12	0.04	-0.03	0.11	0.08	-0.10	-0.16	-0.01
LSNB3B	0.05	-0.04	0.10	0.05	-0.06	0.16	-0.20	0.50	0.07	0.04	0.08	-0.07	-0.06	0.11	-0.05	0.17	0.00	0.04	0.09
LSNB4B	-0.02	-0.18	-0.15	0.23	0.07	0.16	0.10	-0.04	0.08	0.18	0.07	0.02	0.12	0.05	0.40	0.17	-0.13	0.14	0.00

LSNB5B	0.01	0.03	-0.08	0.19	0.08	0.15	-0.04	-0.10	0.17	0.16	0.16	0.02	0.18	0.01	0.35	0.15	-0.10	0.11	0.03
LSNB6B	0.03	0.02	0.03	-0.02	-0.12	-0.09	0.02	0.24	0.02	0.08	0.08	-0.03	0.18	0.09	0.05	0.04	0.18	-0.25	0.04
LSNB7B	0.04	0.04	0.02	-0.08	0.05	-0.03	-0.06	0.21	0.19	0.09	0.03	-0.02	0.36	0.13	0.07	0.07	-0.05	-0.10	0.20
LSNB8B	0.07	0.12	0.02	0.01	-0.04	0.12	-0.09	0.11	0.15	0.00	0.00	-0.04	0.56	-0.02	-0.01	0.15	-0.02	-0.13	0.12
LSNB9B	0.07	-0.05	0.01	0.02	0.00	0.02	0.11	-0.01	0.22	0.04	0.06	-0.02	0.62	0.12	-0.03	-0.08	-0.01	-0.13	0.07
LSNB10B	0.07	0.02	0.06	-0.08	-0.06	0.06	-0.06	0.19	0.14	0.10	-0.03	0.00	0.21	-0.16	0.08	0.01	0.04	0.19	0.15
LSNB11B	-0.05	-0.06	0.04	0.26	0.01	-0.11	0.07	0.03	0.11	0.12	0.29	-0.04	-0.01	0.07	0.19	0.14	0.18	0.11	-0.01
LSNC1B	0.05	-0.03	0.03	0.03	-0.07	0.03	0.02	0.01	-0.01	-0.02	0.06	0.87	0.02	0.04	0.05	0.06	-0.03	-0.01	0.08
LSNC2B	0.11	0.04	0.04	-0.13	0.05	-0.10	-0.05	0.22	0.09	-0.14	0.11	0.31	0.02	-0.06	-0.08	-0.04	0.12	0.15	0.05
LSNC3B	0.07	0.05	0.05	0.08	0.04	-0.06	-0.04	-0.02	0.05	-0.01	0.16	0.68	-0.01	0.08	0.07	0.12	0.00	-0.07	0.05
LSNC4B	0.09	0.07	-0.01	-0.09	-0.06	0.00	-0.07	0.12	-0.05	0.08	0.14	0.16	0.13	0.08	0.10	0.05	0.06	-0.06	-0.38
LSNC5B	-0.03	0.04	-0.01	0.03	0.00	0.04	-0.03	0.04	-0.03	-0.02	0.82	0.09	0.01	0.07	0.03	-0.04	0.05	0.05	0.02
LSNC6B	0.05	0.00	-0.03	0.04	-0.03	0.03	0.01	0.05	-0.03	0.04	0.09	0.88	0.06	0.06	0.04	0.04	-0.02	-0.09	0.05
LSNC7B	0.10	-0.12	0.04	0.05	0.12	0.01	-0.06	0.07	-0.05	0.12	0.20	0.13	0.12	0.12	0.21	0.17	0.06	-0.06	0.07
LSNC8B	-0.09	0.03	-0.07	-0.04	0.09	0.12	-0.15	-0.04	-0.04	0.17	0.12	0.10	0.13	0.24	0.39	0.06	0.01	-0.06	0.25
LSNC9B	0.12	0.10	0.13	0.07	-0.02	0.01	-0.13	0.32	-0.01	0.12	0.11	0.02	-0.09	0.07	0.00	-0.02	0.22	-0.17	0.07
LSNC10B	-0.04	0.03	0.08	-0.08	-0.05	0.03	-0.23	0.00	0.12	0.69	-0.06	0.02	0.06	0.06	0.01	-0.14	0.01	-0.08	0.05
LSNC11B	0.01	0.08	0.07	-0.02	0.00	0.01	-0.20	0.37	0.00	0.26	0.05	0.16	0.14	0.02	-0.08	-0.11	0.18	-0.07	0.03
LSND1B	0.13	-0.01	0.06	-0.08	0.02	0.21	0.05	0.26	0.04	0.16	0.06	0.03	0.05	0.07	0.05	-0.11	0.12	0.04	0.07
LSND2B	-0.07	-0.04	0.02	0.07	-0.05	0.05	0.00	0.02	-0.11	0.34	0.09	-0.13	-0.04	0.25	0.02	-0.07	0.01	0.03	0.01
LSND3B	0.12	0.01	0.06	-0.11	0.05	0.03	0.02	0.17	0.12	-0.03	0.00	0.06	0.10	0.64	-0.22	-0.16	-0.02	0.04	0.05
LSND4B	0.06	0.12	0.04	-0.05	0.05	0.00	-0.06	0.05	0.20	0.01	0.04	-0.02	0.10	0.60	-0.11	-0.03	-0.04	-0.04	0.06
LSND5B	0.04	0.07	-0.14	0.11	-0.10	0.02	0.03	0.06	-0.05	0.22	0.14	-0.08	0.16	0.32	0.45	0.00	0.02	-0.04	0.13
LSND6B	-0.01	0.01	0.01	0.13	-0.01	0.06	0.06	-0.11	0.08	0.14	-0.02	-0.16	-0.10	0.47	0.25	0.05	0.02	-0.04	-0.01
LSND7B	-0.03	0.06	-0.02	0.07	-0.03	-0.02	0.07	0.12	0.03	0.17	-0.03	0.08	-0.07	0.16	0.26	-0.05	0.18	0.10	0.17
LSND8B	0.17	0.07	0.01	0.19	0.04	-0.02	0.15	0.03	-0.21	0.21	-0.06	0.23	0.00	0.29	0.46	0.03	-0.07	0.04	0.17
LSND9B	-0.11	0.04	-0.11	0.13	0.02	-0.11	0.05	-0.02	0.00	0.17	0.03	0.08	-0.09	0.40	0.52	0.03	0.10	0.09	0.17
LSND10B	-0.07	0.00	0.11	0.04	-0.03	0.04	0.01	-0.07	0.03	0.12	-0.09	0.00	0.05	0.05	0.51	0.12	0.12	0.05	0.02
LGC1B	0.02	0.26	0.00	0.29	-0.07	0.20	0.01	-0.21	-0.05	0.07	-0.13	0.14	0.10	0.32	-0.05	0.36	0.07	-0.04	0.13
LGC2B	-0.10	0.31	0.02	0.04	0.06	0.00	0.08	0.08	0.05	0.00	-0.14	0.11	0.16	0.04	0.08	0.80	0.01	0.16	0.10
LGC3B	0.21	0.04	-0.03	0.32	-0.20	0.10	0.01	-0.16	0.01	-0.03	-0.17	0.11	0.03	0.13	0.15	0.49	0.18	0.23	0.06
LGC4B	0.00	-0.04	0.11	-0.01	-0.10	0.18	-0.06	-0.13	-0.27	0.16	0.10	0.03	0.16	0.19	-0.05	0.40	0.25	0.00	0.29
LGC6B	-0.11	0.17	-0.01	0.22	0.12	0.01	0.11	-0.14	-0.04	0.16	-0.05	-0.02	0.44	0.20	-0.11	-0.06	0.29	0.07	-0.07
LGC7B	-0.07	0.15	-0.04	-0.05	0.07	0.05	0.02	0.02	-0.24	0.02	-0.29	0.09	0.58	0.14	0.01	0.14	0.10	0.20	-0.13
LGC8B	-0.03	0.12	-0.11	0.13	0.05	0.10	0.00	0.11	-0.21	-0.24	0.02	-0.02	0.06	0.06	0.23	0.06	0.50	0.10	0.11
LGC9B	-0.09	0.10	-0.03	-0.13	0.03	0.08	0.06	0.00	0.01	-0.06	0.06	0.06	0.16	0.05	-0.06	-0.14	0.56	0.16	0.03
LGC10B	-0.02	0.36	-0.11	0.02	0.23	0.11	0.07	-0.01	-0.02	0.03	-0.09	0.08	0.04	0.03	-0.05	-0.03	0.27	0.16	-0.01
LGC11B	0.01	0.14	-0.22	0.05	-0.11	0.11	0.10	0.04	-0.20	0.18	0.02	-0.16	0.10	0.02	-0.03	0.32	0.32	0.18	0.09
LGC12B	0.07	0.21	-0.05	-0.04	0.10	0.01	0.08	0.08	0.08	-0.06	-0.05	-0.02	0.04	0.12	0.00	-0.03	0.24	0.29	0.18
LGC13B	0.04	0.12	-0.01	0.09	0.11	0.02	-0.04	-0.05	-0.03	0.18	0.14	-0.07	0.12	0.10	-0.07	0.05	0.54	0.28	-0.25
LGC14B	0.00	-0.06	0.00	-0.08	0.00	-0.02	0.00	-0.06	0.10	0.21	0.15	-0.09	0.10	0.01	-0.13	0.05	0.33	0.51	0.01
LGC15B	0.05	0.04	0.04	-0.30	0.13	0.07	-0.10	0.10	0.06	-0.15	-0.05	0.03	0.11	0.02	0.01	-0.18	0.27	0.12	-0.05
LGC16B	0.03	0.06	0.05	-0.05	0.10	-0.08	0.05	-0.02	0.00	-0.07	0.07	-0.12	-0.04	0.09	0.06	0.21	0.23	0.85	0.00
LGC17B	0.02	0.02	0.03	-0.07	-0.03	-0.04	-0.05	-0.06	-0.02	-0.02	-0.04	-0.01	-0.06	-0.07	-0.07	-0.10	-0.04	-0.03	0.90
LGC18B	0.04	0.01	-0.02	0.06	0.05	-0.08	0.00	-0.02	-0.03	-0.04	0.02	-0.02	-0.06	-0.11	-0.10	-0.01	-0.05	-0.01	0.69

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That said, we had not intended to choose all the factors, but rather to pick those that appeared consistently across studies. We believed that picking repeatedly-appearing factors would mitigate any indistinctness (e.g., multiple loadings) that might have arisen in the original solutions). Perhaps the bottom line is the degree to which the final Core and Expanded files correlated.

:

Chapter 4. Identifying Recurrent Factors Across Studies

After obtaining satisfactory 18- to 20-factor solutions for the three scales, we identified 10 factors that were present (defined as 2/3rds or more of the items in each of the three factor solutions) across all three scale versions and samples. We next identified 5 more factor scales that were common just to the later versions of the scale, the PILSI 3 and PILSI 3R, due to added items. The first 10 scales were referred to the Core Factor Scales; the latter 5 as the Expansion Scales.

The 10 Core scales could be used in the PILSI-2 study. The PILSI-3 contained 14 of the scales—10 Core and 4 Expansion scales—and the PILSI 3R study included all 15 scales.

All factor-based scales were "fixed" across the studies for which they were employed: That is, the Core scale of "Body Symptoms" was scored the same way across all three versions of the PILSI.

A Note on the Terminology Regarding the Small Factor-Based Scales of the PILSI Forms

In our initial examinations of the small factor-based scales, we regularly distinguished between the 10 "Core" and 5 "Expansion" scales as noted above. Later, however, we realized that for ease of exposition, it was best simply to refer to the 15 small factor-based scales and numbered them such. In this technical supplement, both labels are employed. We favor the "Core" versus "Expansion" terminology when speaking of the historical development of the scales and favor the simple numbering of the scales from 1 to 15 when we are presenting key results of the analyses.

The second analysis concerned the side-by-side comparisons of the factor loadings across studies to determine consistent, replicable factors. The revised versus original loadings for the PILSI 2 and PILSI 3R were trivial (with no changes to the PILSI 3). To provide an example of this, Supplement Table 4.1 illustrates the first and last two factors of the PILSI 2 factor loadings for the N = 1193 and N = 1186 analyses. The average difference was slightly less than .01 in absolute magnitude. All values in the side-by-side table were updated to the current outputs (N = 1186).

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Supplement Table 4.1

Comparison of loading changes from *N* = 1193 to 1186 for the first and last two factors of the PILSI 2

	Variable	**Original**	**Revised**	**Difference**
N	--	1193	1186	*N* = 6
Factor 1	Lbp3	.420	.419	.001
	Lbp4	.764	.759	.005
	Lbp5	.626	.628	.002
	Lbp6	.760	.755	.005
Factor 2	Lbp8	.590	.591	.001
	Lbp9	.890	.894	.004
	Lsna27b/lsna17b	.411	.414	.003
Factor 18	Lgc14	.483	.512	.029
	Lgc16	.883	.850	.033
Factor 19	Lgc17b	.903	.898	.005
	Lgc18b	.694	.693	.001
Average difference				.008

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Identification of Recurrent Factors Across Scales

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Supplement Table 4.2

Factor Matches Across Studies 1 through 3 Based on a Criterion of Matching 2/3rds or More of the Items that Loaded Over |.40| and Using the Highest Dimensional Solution Free of Heywood Cases. Matches are Indicated By Matching Colors and In the Right-Most Column

Survey	**PILSI 2* Items are "b" series (binned) [re-checked 12/06/23**	**PILSI 3**	**PILSI 3R**	**Congruence of 2/3rds or more items***	**Final Item List**	
Number of Factors	**19 factors N = 1186**	**18 factors /no change in sample N=416**	**20 factors / final 696, corrected 9/8/23, 12/10/23**		**Core**	**Expansion**
Factor No.	Factor-by-Factor Results			Factor Numbers, Disposition; Label		
Checked? ✓	[date of check] 6/22/21	[date of check] 6/23/21	[first check] 6/23/21; updated 9/8/23		✓ 6.26.21	
1	Lbp3 .419, lbp4 .759 lbp5 .628, lbp6 .755 ✓	Lbp3 .599, lbp4 .658 lbp5 .467, lbp6 .619 ✓	Lbp3 .495, lbp4 .697, lbp5 .482, lbp6 .667 ✓	1-1-1 [CORE #1]	C1: Lbp3, lbp4, lbp5, lbp6 ✓	
2	Lbp8 .591, lbp9, .894, *lsna27b* .414 ✓✓	Lbp8 .704, lbp9, .770, lsna27 .454 ✓	Lbp8 .602, Lbp9 .909 ✓	2-2-2 [CORE #2]	C2: lbp8, lbp9, lsna27 omitted and in C5 instead. ✓	
3	Lsga1 .648, lsga2 .872, lsga3 .815 ✓	Lbp11 .884, lbp12 .801 ✓	lbp11 .751, lbp12 .821 (lbp4 .189) ✓	**X**-3-3 [EXP #1]		E1: lbp11, lbp12 ✓
4	Lsgb10b -.744, lsbc1b .470 ✓	Lsga1 .613, lsga2 .828, lsga3 .825 ✓	Lsga1 .564, lsga2 .760, lsga3 .789 ✓	3-4-4 [CORE #3]	C3: lsga1, lsga2, lsga3 ✓	
5	Lsbc2 .676, lsbc3 .662, lsbc4 .673 ✓	Lsbc5 .441, lsbc6 .433, lsbc7 .537, lsbc8 .741, lsbc13 .660 ✓	[***Items new to the 3r***] Lsga8 .801, lsga12 .878, lsgb7 .506 ✓	*Check for utility X-X-5 [EXP #2] Added items		E2: lsga8, lsga12, lsgb7 ✓
6	Lsna1b .510, lsna2b .402, lsna3b .693, lsnga4b, .682 ✓	Lsbc2 .573, lsbc10 .465, lsbc11 .744 ✓	Lsna1 .709, lsna2 .497, lsna3 .479, lsna4 .756 ✓	6-8-6 [CORE #4]	C4: lsna1, lsna2, lsna3, lsna4 ✓	

7	(Lsna14 .239), Lsna15 .775, lsna16 .762, lsna17b .523 ✓	Lsbc1 .406, lsbc3 .461, lsbc9 .434, lsbc12 .704 ✓	Lsna8 .764, lsna9 .505, lsgb10 .449 (lsna10 .302) (lsnd8 .390) ✓	10-X-7 / too many items changed; not included		
8	Lsna11 .509, lsna12 .423, lsnb3b .497 ✓	Lsna1 .682, lsna2 .463, lsna4 .749, (lsna27 -.395) ✓	**[*Items new to the 3 and 3r*]** Lsna14 .532, lsna27 .807, lsna15 .761, (lsna16 .387), (lsna17 .318) ✓	7-X-8 [CORE #5]; note lsna15, 16, 17 remvd in "3"; Heywoods	C5: lsna14, lsna27, lsna15, lsna16, lsna17 ✓	
9	Lsna18b .527, lsna19b, .675, lsna22b .579, lsna23b .507 ✓	Lsna7 .414, lsna25 .459, lsna26 .611, lsnb3 .455 ✓	Lsna7 .445, lsna26 .733, lsnb3 .532 ✓	X-9-9 [EXP #3]		E3: lsna7, lsna25, lsna26, lsnb3 ✓
10	Lsna8b .555, (lsna9b -.009) lsnc10b .693, (lsbc5 .317) (lsnd8b .212)✓	Lsnb1 .695, lsnb2 .710, lsnc11 .452 (lsnb11 .185) ✓	Lsnb1 .769, lsnb2 .722, lsnb11 .349 (lsnd9 .405) (lsnc11 .210) (lsnc7 .349) ✓	11-10-10 [CORE #6]	C6: lsnb1, lsnb2 ✓	
11	Lsnb1b .927, lsnb2b .527, lsnc5b .824 ✓ (nothing else over .3)	Lsna21 .454, lsnd3 .755, lsnd4 .655 (lsnd5 .115) (lsnd6 .035) (lsnd9 .087) ✓	Lsnb4 .567, lsnb5 .514, lsnd10 .435, (lsnd5 .242), (lsnc21 .298), (lsgb10 -.388), (lsna14, -.249) ✓	X-15?-11 [EXP #4]		E4: lsnb4, lsnb5 ✓ *note, although other items might belong, items 4 and 5 involve shared meaning. Factor 15 in the PILSI-3 might be similar, but thrown off by lgcs?*
12	Lsnc1b .866, lsnc3b .678, lsnc6b, .876 ✓	Lsnd5 .411, (lsnd6 .378), lsnd7 .405, lsnd9, .677, lsnd10 .411 ✓	Lsnd3 .845, lsnd4 .669 (lsnd5 .158) (lsnd6 .143) (lsnd9 -.073) (lsna21 .320) ✓	14-11-12 [CORE #7]	C7: lsnd3, lsnd4 ~~lsnd5 lsnd6~~ lsna21 ✓ *Note: Lsnd5 and 6 are moved to C9 on which they load more highly*	
13	Lsnb8b .561, lsnb9b .620, lgc6b .436, lgc7b .577 ✓	Lsne1 .604, lsne2 .644, lsne3 .619, lsne4 .444 (lsne5 .256, lsne6 .262, lsne7 .163) ✓	Lsna24 .550, lsnd7 .498, lgc13 .624 ✓	X-13-14 [EXP #4]	C8: lsnd5, lsnd6, lsnd7, lsnd8, lsnd9, lsnd10 ✓	
14	Lsnd3b .635, lsnd4b .602, (lsnd5b .`318) lsnd6b	Lsbc4 .455, lgc6 .972, (lsgb5 .357) ✓	(lsnd2 .439), (lsnd5 .253), lsnd6 .626, lsnd8 .504, (lsnd9	15-12-13 [CORE #8]		

	.465 (lsna21 .318) (lsnd9 .397) ✓		.235), (lsnd10 .036), lgc23 .494; ***note*** *lsnd7 .040*✓			
15	(lsnd2b .021), lsnb4 .399, Lsnd5b .449, (lsnd6b .253) (lsnd7b .263) lsnd8b .456, lsnd9b .515, lsnd10b .508 ✓	Lsnb4 .507, [lsnb5 .183], lgc11 .724, lgc13 .426 ✓	**[*Items new to the 3 and 3r*]** Lsne1 .651, lsne2 .695, lsne3 .490, lsne4 .411, lsne5 .396 (lsne6 .146) (lsne7 .349) ✓			E5: lsne1, lsne2, lsne3, lsne4, lsne5 ✓
16	Lgc2b .799, lgc3b .487, lgc4b .398 ✓	Lsnc4, .403, lgc17 -.786, lgc18 -.885 ✓	Lgc2 .960, (lgc3 *.388*) ✓	16-X-16 [CORE #9] ✓ note lsg2 remvd in "3"; Heywoods	C9: lgc2, lgc3, (lgc4/merged)	
17	Lgc8b .501, lgc9b .560, lgc13b .537 ✓	Lgc20 .787, (lsna27 .328), (lbp10 -.368) ✓	Lgc6 .874, (lgc13 .351), (lsnc21 .139) ✓			
18	Lgc14 .512, lgc16 .850	lsna24 .405, Lgc23 -.533, lgc28 -.461 ✓	Lsnc4 -.487, lgc17 .817, lgc18 .778 ✓	19-16-18 [CORE #10]	C10: Lgc17, lgc18 ✓ *note: Lsnc4 (reversed) was omitted as different format*	
19	Lgc17b .898, lgc18b .693 ✓	--	Lgc26 .664, lgc30 .398 ✓			
20	--	--	Lgc25 .633, lgc31 .638 ✓			

Notes:

- Some items with factor loadings < |.30| were added to factors subsequently for clarification
- Similar factors are in similar colors
- Underline corrected on check
- Where items loaded on two factors, they were placed in their dominant factor, defined both by the similar item content and loadings across the three studies.

On 7/18/2021 corrected to *N* = 1186 for PILSI2 and *N* = 686 for PILSI3R (i.e., 17-year-olds deleted). Loadings changed slightly, and factor order for PILSI 3R slightly, but no substantive differences—*except* Core 8 and 9 were reversed to reflect the slightly altered order of factors.

On 9/8/2023 reran to *N* = 686 for PILSI3R (because 2021 copy was missing) and then corrected the PILSI3R values. There were very small changes; in addition, the factors 13 and 14 appeared to have been mistakenly reversed in the early version (not a consequence of deleting the two cases).

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Scale Item Selection

To identify factor-based scales, all the items that loaded > +/- .4 on a factor and that still were present in the PILSI 3R were included. There were issues of judgment: Where items varied somewhat, values under .4 were considered for inclusion depending upon the number of items already on the factor, the consistency of the lesser-loading items across factors, the degree to which the item's meaning was consistent with the rest of the factor content, and whether it also loaded on another factor for which it was better suited. In addition, items were favored that all loaded in the same direction so as to reduce artifactual variance due to reverse scoring.

What about the unique factors?

As a further check on the above we also examined the remaining unique factors. In the three studies, we separated out these inconsistent factors for each study (there were 9, 7, and 5 unique factors in Studies 1, 2, and 3).

Three factors each in Studies 1 and 2 were food related and those did not generalize because the items mostly were removed (the factors appeared to be carbohydrates and sweets, and vegetarianism). Three more factors in Study 1 had items that were later removed due to repetitiveness and non-performance. The remainder were later factors that were relatively weak (i.e., one high loading item) or coherent but not related to PI (i.e., reading fiction). Study 2 had, as indicated, three food items, and similarly, weak factors (low loadings) or factors with items that later were deleted. Of the remaining factors with good items, the same items already appeared on the 15 Core and Expansion scales. Study 3 had the fewest rejected factors. Of the five, the first three items of Factor 7, perhaps, which concerned confident judgments and setting limits, might be viable. Factors 13 and 17 appeared to be amalgams of a few disparate negative behaviors, and the last two factors represented group memberships that could be considered for inclusion, but that did not appear related to PI in either Study 2 or 3.

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Supplement Table 4.3 *Note: Font used in table*

Table 2 from the manuscript, expanded. The Fifteen Small Factors Obtained Across Studies 3, 4 and 5 for the PILSI, Ns = 1186, 416, and 696

Variable	Area, Scale Names, and Reliabilities by Study	Factor Loadings		
	Item Content[a] (e.g., "How many times a day/week/year did you…)"	PILSI-2	PILSI-3	PILSI-3R
	Physical Sensitivity			
	Pain Symptoms αs = .66, .66, .66			
LBP3	Need to lie down for headache?	.419	.599	.495
LBP4	A chronic pain you had?	.759	.658	.697
LBP5	Wonder if you needed to see a doctor about an ailment?	.628	.467	.482
LBP6	Have trouble sleeping because of physical pain?	.755	.619	.667
	Skipping Food αs = .51, .50, .47			
LBP8	Skip a meal?	.591	.704	.602
LBP9	Fast all day?	.894	.770	.909
	Body Sense αs = NSF, .83, .86			
LBP11	Experience tension in your body?	NSF[b]	.884	.751
LBP12	Try to relax the tension in your muscles or other parts of your body?	NSF	.801	.821
	Adaptive Integration			
	Interpersonal Communication αs = .74, .81, .82			
LSNA1	Spoke with a distressed friend and listened to their concerns for a few minutes or more.	.510	.682	.709
LSNA2	Let a friend know how much you valued them.	.402	.463	.497
LSNA3	Let someone know who was upset that you had felt that way before too.	.693	-.-	.479
LSNA4	Communicate with a distressed friend and listened to them for a few minutes or more.	.682	.749	.756
	Relationship Signifiers αs = .79, .78, .72			
LSGA1	About how many printed and digital photos of friends and family do you have readily accessible?	.648	.613	.561
LSGA2	Letters, lengthy e-mails or written/recorded messages from friends or family that are important?"	.872	.828	.758
LSGA3	Mementos or physical reminders of people close to you?"	.815	.825	.791
	Companionship αs = NSF, .71, .65			
LSNA7	Share a personal, confidential issue of your own with a friend.	NSF	.414	.445
LSNA25	Laugh with a friend.	NSF	.459	.224
LSNA26	Seek advice from a friend.	NSF	.611	.733
LSNB3	Communicate with a friend or relative to ask for advice to improve yourself?	NSF	.455	.532
	Critical Evaluation αs = .68, .67, .61			
LSND3	Describe someone's serious character flaw to a friend or friends.	.635	.755	.845
LSND4	Realize that someone you knew had a character flaw much worse than you had suspected before.	.602	.655	.669

LSNA21	Spoke badly about someone you observed, but who hadn't done anything bad to you directly.	.318	.454	.320
	Planfulness αs = NSF, .69, .75			
LSNE1	Check or double-check the calendar to make sure you had time left to complete an assignment?	NSF	.604	.651
LSNE2	Carefully check a task you completed and then revised part of it before deciding you were finished?	NSF	.644	.695
LSNE3	Make a plan first thing in the day for what you wanted to accomplish?	NSF	.619	.490
LSNE4	Acknowledge a mistake you had made on a task and corrected it?	NSF	.444	.411
LSNE5	Achieve your goal to get a high grade on an assignment, quiz, or test?	NSF	.256	.396

a. Sometimes abridged; see technical supplement for full text; b. NSF: No such factor

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Supplement Table 4.4 (Continued)

	Area, with *Scale Names* and Reliabilities (α)[a]	**Factor Loadings**		
	Individual Item (e.g., "How many times did you…)"[b]			
		PILSI-2	PILSI-3	PILSI-3R
	Unintegrated Behavior			
	Unreflective Judgments αs = .68, .65, .44			
Lsnd5	Post something on social media that described someone else's personality in some detail.	.449	.411	.284
Lsnd6	Turn down a possible roommate for a group living situation and later found out it was the right choice.	.253	.378	.626
Lsnd8	Write a poem that described someone else's personality.	.456	--	.504
Lsnd9	Write an e-mail that described someone else's personality in some detail.	.515	.677	.235
Lsnd10	Change to a different section of a course because your first instructor didn't match your learning approach	.508	.411	.036
	Impersonal Identifications αs = .54, .63, .70			
Lsnb1	Read or watch a video about a public figure who serves as a role model for you?	.927	.695	.769
Lsnb2	Read or watch a video about a(n) historical figure who serves as a role model for you?	.527	.710	.722
	Self-Incuriosity αs = NSF, .46, .58			
Lsnb4	Tell someone that self-knowledge (or self-understanding) is not very important?	NSF	.507	.695
Lsnb5	Tell someone that you weren't interested in understanding yourself?	NSF	.183	.710
	Overt Conflict αs = .73, .60, .70			
Lsna14	Raise your voice because someone wouldn't listen.	.239	NA[d]	.532
Lsna27	Get into an argument with someone who insulted you or a friend.	NI[e]	NA[d]	.807
Lsna15	Get into a fight with someone who insulted you or a friend (in person or online).	.775	NA[d]	.761
Lsna16	Get into a fight with someone to ensure they did something you wanted.	.762	NA[d]	.387
Lsna17	Get yourself into trouble when you were drunk or high.	.523	NA[d]	.318
	Support Groups αs = .63, .70, .72			
Lgc2	Attend a peer support group for a problem with eating, drugs, alcohol, or gambling?	.799	NA[d]	.960
Lgc3	Attend a support group for a problem that a person close to you experienced (but that you were not directly experiencing at the time)?	.487	NA[d]	.388
	Substance Use[d] αs = NSF, NSF, .69			
Lsga8	Cans of beer and bottles of wine for everyday use?	NSF	NSF[a]	.801
Lsga12	Cans of beer and bottles of wine for use sharing with family and friends?	NSF	NSF	.878
Lsgb7	Go to a bar?	NSF	NSF	.507
	Academic/Occupational Interest			
	Humanities v. STEM αs = .69, .74, .69			
Lgc17	Please select the area below most similar to your college major or expected major: [followed by five alternatives from Mathematics to Theater]	.898	.786[f]	.817
Lgc18	Please select the area below most similar to your college major or expected	.693	.885[f]	.778

major: [followed by five alternatives from Physics to Literature]

a. Reliabilities are in order of studies; b. Sometimes abridged with time period specified by item; see technical supplement for full text. c. NSF = No such factor appeared; d. these three items were either rewritten or newly introduced in the PILSI-3R. e. Not included f. This factor was reversed in sign to match the directionality of the other two studies.

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The List of the 15 Small Expansion Factors with Factor Loadings Studies Ordered According to Area

A Complete List of the 15 Small Factors in Common Across Studies

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Supplement Table 4.5

The 15 Small Factor Scales (10 Core and 5 Expansion) Across Studies and their Relationship with Personal Intelligence

Corrected for Ns = 1186, 416, 696 and using unit weighting as of 7/27/2021

Factor		***Alpha (Standardized)*Study**			**Correlation with TOPI Scale**			
Number	Name	1	2	3	Study 1	Study 2	Study 3	
					N = 1186	*N* = 416	*N* = 696	
	Core Scales (Scales 1 through 10)							
1	Pain symptoms	.66	.66	.66	.073**	.010	.035	
2	Irritable control	.51	.50	.47	.077**	.075	.000	
3	Relationship signifiers	.79	.78	.72	.052	.134**	.079*	
4	Interpersonal comm.	.74	.81	.82	-.013	.159***	.136***	
5	Overt conflict	.73	.60	.70	-.199	-.234***	-.199***	
6	Impersonal Identification	.54	.63	.59	-.091***	-.122*	-.045	
7	Negative Critic	.68	.67	.61	.024	.129*	.171***	
8	Confident judge	.68	.60	.44	-.283***	-.270***	-.308***	
9	Support Groups	.63	.70	.72	-.126***	-.227***	-.146***	
10	Humanities	.69	.74	.69	-.013	-.001	-.026	
	Core Scales Multiple R				.346***	.434***	.433***	
	With Shrinkage				.335***	.410***	.432***	
	Unit Weighted Scales*				.254***	.322***	.303***	
	Expansion Scales (Scales 11 through 15)							
11	Body Sense	NI	.83	.86	NI	.088	.197***	
12	Substance Use	NI	NI	.72	NI	NI	-.177***	
13	Companionship	NI	.71	.65	NI	.038	.061	
14	Planfulness	NI	.69	.75	NI	.237***	.158***	
15	Self Disinterest	NI	.46	.58	NI	-.323	-.250***	

	Core and Extended Scales Multiple R	NI	NI	NI	NI	.507***	.506***	
	With Shrinkage	NI	NI	NI	NI	.481***	.490***	
	Unit Weighted Scales*	NI	NI	NI	NI	.385***	.404***	

*Scales were z-scored and summed; NI = no information provided

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Obtained Correlations Among the 15 Factor Based Scales of the PILSI 3R

The obtained correlations among the 15 factor-based scales are indicated below in Table 4.5. As can be seen, the correlations are quite modest. Among the 105 correlations, just 4 are above .30 (in boldface).

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Supplement Table 4.6

Obtained Correlations Among the Factor-Based Scales of the PILSI-3R

	pains	skpfd	bdysn	icomm	relsg	compn	crtev	planf	unrfj	imprs	incur	confl	supgr	subst	humnt
pains	1.000	0.225	0.389	0.225	0.120	0.163	0.193	0.079	0.177	0.085	0.070	0.208	0.065	0.074	0.061
skpfd	0.225	1.000	0.163	0.189	0.002	0.121	0.124	0.000	0.029	0.041	0.023	0.172	0.110	0.146	0.060
bdysn	0.389	0.163	1.000	0.285	0.128	0.242	0.210	0.168	0.084	0.110	0.032	0.126	-0.019	0.082	0.019
icomm	0.225	0.189	0.285	1.000	0.212	0.567	0.273	0.218	0.052	0.060	0.089	0.131	-0.034	0.012	0.048
relsg	0.120	0.002	0.128	0.212	1.000	0.156	0.040	0.111	-0.040	0.084	-0.039	-0.049	-0.022	0.032	0.033
compn	0.163	0.121	0.242	0.567	0.156	1.000	0.326	0.275	0.149	0.095	0.163	0.178	-0.014	0.032	0.123
crtev	0.193	0.124	0.210	0.273	0.040	0.326	1.000	0.122	0.109	0.033	0.050	0.266	-0.053	0.075	0.095
planf	0.079	0.000	0.168	0.218	0.111	0.275	0.122	1.000	0.059	0.186	0.009	0.015	0.030	-0.128	-0.058
unrfj	0.177	0.029	0.084	0.052	-0.040	0.149	0.109	0.059	1.000	0.166	0.336	0.299	0.246	0.141	0.038
imprs	0.085	0.041	0.110	0.060	0.084	0.095	0.033	0.186	0.166	1.000	0.065	0.153	0.152	0.069	0.007
incur	0.070	0.023	0.032	0.089	-0.039	0.163	0.050	0.009	0.336	0.065	1.000	0.151	0.183	0.062	0.045
confl	0.208	0.172	0.126	0.131	-0.049	0.178	0.266	0.015	0.299	0.153	0.151	1.000	0.093	0.277	0.024
supgr	0.065	0.110	-0.019	-0.034	-0.022	-0.014	-0.053	0.030	0.246	0.152	0.183	0.093	1.000	0.048	0.035
subst	0.074	0.146	0.082	0.012	0.032	0.032	0.075	-0.128	0.141	0.069	0.062	0.277	0.048	1.000	-0.015
humnt	0.061	0.060	0.019	0.048	0.033	0.123	0.095	-0.058	0.038	0.007	0.045	0.024	0.035	-0.015	1.000

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Fit of a Confirmatory Simple Structure Model to the 10-to-15 Factor Model Across Studies

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Supplement Table 4.7

Fits of Confirmatory Factor Analysis of the Basic PILSI Scales Across Forms: RMSEA Extraction for the Obtained 10-to-15 Factors

Small Scale Factor Solutions (9 to 14 scales[a])

				Fit Indices to Categorical Item Data						
	Num. of Factors[a]	**Items**	**Free Params**	**χ^2**	**df**	**RMSEA**	**CFI**	**TLI**	**SRMR**	**rs**
PILSI2	8[b]	27	193	629.55	296	.031	.961	.954	.057	*r* = .03 to .57
PILSI3	14[c]	40	296	792.27	662	.022	.982	.978	.057	*r* = -.01 to .76
PILSI3R	15[d]	47	348	1446.74	943	.028	.955	.949	.061	*r* = -.07 to .86

Notes:

a. Excluding “Interests” owing to its consistent lack of relation to personal intelligence

b. Core 9, Support Groups, and Interests were omitted to remove Heywood cases

c. Core 9, Support Groups, and three items were removed to remove Heywood cases

d. Core 9, Support Groups, was removed to remove Heywood cases

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Retrospective identification of the small scales in items of the PILSI 1.0 and 1.1

Before we could begin these tests with the PILSI 1.0 and 1.1 samples, we had to see whether it was feasible to identify small factors in each. Recall that in the main three studies, we had identified 10 Core Scales and 5 Expansion Scales.

The PILSI 1.0 and 1.1 contained roughly three-quarters of the items of the later PILSI versions, with many of the items later revised, so we expected to find a smaller subset of scales at best in the earlier scales. Supplement Table 4.6 shows a summary of what we found, with the subsequent table exhibiting the item-by-item correspondences.

We found matches for the small factor scales in both studies 4A and 4B: In 4A, we found six small factor scales correspondent to the final versions, divided into 15 matched items (2.5 items per scale). In 4B, we found 9 scales with 22 matching items (2.4 items per scale). This compared with the final 15 scales and their 48 items (3.2 items per scale). Given the reduced items and scales, any association between the lifespace scales in Studies 4A and 4B and the TOPI above and beyond the full Big Five would provide a stringent test of their efficacy.

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Supplement Table 4.8

The Small Factor-Based Scales Identified in the PILSI 1.0 and 1.1

Scale Numbers	**Scale Name**	**PILSI 1.0, Study (2012) Overlapping Items**	**PILSI 1.1, Study (2014) Overlapping Items**	**Number of items on the final scales employed for the PILSI 2 through 3R**
1. Core I	Pain Symptoms	–	–	4
2. Core II	Skipping Food	–	–	2
3. Core III	Relationship sigs	–	3	3
4. Core IV	Interpersonal communic.	3	–	4
5. Core V	Overt conflict	–	3	5
6. Core VI	Impersonal Ident.	2	2	2
7. Core VII	Neg. Criticism	–	–	3
8. Core VIII	Unreflective judg.	3	3	5
9. Core IX	Support groups	–	2	2
10. Core X	Humanities-Stem	–	–	2
11. Expansion I	Body sense	–	–	2
12. Expansion II	Substance use	–	2	3

13. Expansion III	Companionship/ Feedback	4	4	4
14. Expansion IV	Self incuriosity	2	2	2
15. Expansion V	Planfulness	1	1	5
Total Scales	–	6	9	15
Total Items	–	15	22	48

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Supplement Table 4.9

Comparison of Item Content from the Ten[a] Core, Replicable, Small Factors Obtained Across Studies 1, 2 and 3 for the PILSI 2, 3, and 3R with Items of Similar Content from Studies in 2012 and 2014 with Versions 1.0 and 1.1 of the PILSI (NI = Not Included)

Item Content[b] Preceded by a "How many" question… (e.g., "How many times a day did you?")	Factor Loadings			Proposed Item Matches from Versions 1.0 and 1.1 of the PILSI
	Study 1	Study 2	Study 3	
1 (Core I). Pain Symptoms				**Core I. Pain Symptoms.** *Insufficient representation in earlier studies*
Need to lie down for headache?	.419	.599	.492	NI
A chronic pain you had?	.759	.658	.694	NI
Wonder if you needed to see a doctor about an ailment?	.628	.467	.478	NI
Have trouble sleeping because of physical pain?	.755	.619	.672	NI
2 (Core II). Skipping Food				**Core II. Skipping Food.** *Insufficient representation in earlier studies*
Skip a meal?	.591	.704	.603	NI
Fast all day?	.890	.770	.907	NI
3. (Core III). Relationship Signifiers				**Core III. Relationship Signifiers: PILSI 1.1 only**
About how many printed and digital photos of friends and family do you have readily accessible?	.648	.613	.554	Do you own or keep: a. a photo album or an on-line photo album?
Letters, lengthy e-mails or similar written or recorded messages from friends or family that are important?"	.872	.823	.760	Do you own or keep: d. letters or important emails from friends or family?
Mementos or physical reminders of people close to you?"	.815	.825	.789	Do you own or keep: e. mementos or physical reminders of people close to you?
4 (Core IV). Interpersonal Communications				**Core IV. Interpersonal Communications: PILSI 1.0 only**
Spoke with a friend who was distressed and listened to their concerns for a few minutes or more.	.510	.682	.709	…listen to or discuss a friend's personal issues or provide comfort to the friend?

Let a friend know how much you valued them.	.402	.463	.494	…display physical affection to a friend or relative?.
Let someone know who was upset that you had felt that way before too.	.693	--	.477	…discuss or share a personal, secret or confidential issue of your own with a friend?
Communicated with a friend who was distressed and listened to their concerns for a few minutes or more.	.682	.749	.755	--
5 (Core V). Overt Conflict				**Core V. Overt Conflict: TOPI 1.1 Only**
Raised your voice because someone wouldn't listen.	.239	NA[c]	.533	Over the past month, how often did you: a. raise your voice or yell at someone to stop them from doing something wrong?
Got into an argument with someone who insulted you or a friend.	NI[d]	NA[c]	.806	Over the past month, how often did you: f. get into a shouting match with someone?
Got into a fight with someone who insulted you or a friend (in person or online).	.775	NA[c]	.761	Over the past month, how often did you: d. get into a physical fight with someone?
Got into a fight with someone to ensure they did something you wanted.	.762	NA[c]	.388	
Got yourself into trouble when you were drunk or high.	.523	NA[c]	.317	
6. (Core VI). Impersonal Identifications				**Core VI. Impersonal Identifications—TOPI 1.0 & 1.1**
Read or watched a video about a public figure who serves as a role model for you?	.927	.695	.755	Read about a public figure who serves as a role model to you?
Read or watched a video about a(n) historical figure who serves as a role model for you?	.527	.710	.734	Read about a historical figure who serves as a role model to you?
7. (Core VII). Negative Criticism				**Core VII. Negative Criticism.** *Insufficient representation in earlier studies*
Described someone's serious character flaw to a friend or friends.	.635	.755	.846	NI
Realized that someone you knew had a character flaw much worse than you had suspected before.	.602	.655	.669	NI
Spoke badly about someone you observed, but who hadn't done anything bad to you directly.	.318	.454	.320	

8. (Core VIII). Unreflective Judgments				**Core VIII. Unreflective Judgments PILSI 1.0 & 1.1**
Posted something on social media that described someone else's personality in some detail.	.318	.411	.289	--
Turned down a possible roommate for a group living situation and later found out it was the right choice.	.465	--	.628	6d. turn down the right roommate for a group living situation and later found out it was the right choice?
Wrote a poem that described someone else's personality.	.449	.405	.495	7c. write a poem that described someone else's personality?
Wrote an e-mail that described someone else's personality in some detail.	.515	.677	.232	7d. write an e-mail that described someone else's personality in some detail?
Changed to a different section of a course because your first instructor didn't match your learning approach	.508	.411	.041	
9. (Core XI). Support Groups				**Core XI. Support Groups PILSI 1.1 only**
Attend a peer support group for a problem with eating, drugs, alcohol, or gambling?	.791	--	.962	11. how many weeks (please estimate): f. did you attend a support group for a problem such as alcohol or drug use?.
Attend a support group for a problem that a person close to you experienced (but that you were not directly experiencing at the time)?	.487	--	.326	11. In the past year, how many weeks (please estimate): g. did you attend a support group for a problem with eating?.
10. (Core X). Humanities v. STEM[d]				**Core X. Humanities v. STEM[d] These were present but not scored**
Please select the area below most similar to your college major or expected major: [followed by five alternatives from Mathematics to Theater]	.898	.786	.820	NI
Please select the area below most similar to your college major or expected major: [followed by five alternatives from Physics to Literature]	.693	.885	.777	NI

a. The factor analyses of Studies 1, 2, and 3 extracted 19, 18, and 20 factors, respectively.
b. Item content is often paraphrased and abridged from the original in the table.

c. NA: Not available for Study 2 as several items this factor manifested Heywood Cases and were removed.
d. STEM: Majors focused on science, technology, engineering, and mathematics
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Supplemental Table 4.9 (continued)

Comparison of Item Content from the Five[a] Expansion Small Factors (Factors 10 through 15) Obtained Across Studies 1, 2 and 3 for the PILSI 2, 3, and 3R with Items of Similar Content from Studies in 2012 and 2014 with Versions 1.0 and 1.1 of the PILSI (NI = Not Included)

Item Content[b] Preceded by a "How many" question…(e.g., "How many times a day did you?")	Factor Loadings		Proposed Item Matches from Versions 1.0 and 1.1 of the PILSI
	Study 2	Study 3	
11. (Expansion I). Body Sense			**Expansion I. Body Sense. Insufficient representation in earlier studies**
Experience tension in your body?	.884	.745	NI
Try to relax the tension in your muscles or other parts of your body?	.801	.831	NI
12. (Expansion II). Substance Use[a]			**Expansion II Substance Use[a] PILSI 1.1 Only**
Cans of beer and bottles of wine for everyday use?	NSF[a]	.800	
Cans of beer and bottles of wine for use sharing with family and friends?	NSF	.878	8. Over the past month, how often did you:-b. get drunk or high?
Go to a bar?	NSF	.506	11. In the past year, how many weeks (please estimate):-f. did you attend a support group for a problem such as alcohol or drug use?.
13. (Expansion III). Companionship			**Expansion III. Companionship/feedback PILSI 1.0, 1.1**
Shared a personal, confidential issue of your own with a friend.	.414	.446	2. Over the past week, how many times did you (0 times = not at all/never):-g. ask someone for feedback as to how you were doing?
Laughed with a friend.	.459	.216	3. Over the past week, how many times did you (0 times = not at all/never):-i. talk to a mentor or advisor to help better understand or improve yourself?

Sought advice from a friend.	.611	.730	2. Over the past week, how many times did you (0 times = not at all/never):-f. ask someone for feedback on a project?
Communicate with a friend or relative to ask for advice to improve yourself?	.455	.537	3. Over the past week, how many times did you (0 times = not at all/never):-j. talk to a friend or relative to help better understand or improve yourself?.
14. (Expansion IV). Self-Incuriosity			**Expansion IV. Self-Incuriosity PILSI 1.0, 1.1**
Tell someone that self-knowledge (or self-understanding) is not very important?	.587	.558	4. Over the past week, how many times did you (0 times = not at all/never):-g. tell someone that self-knowledge (or self-understanding) is not very important?.
Tell someone that you weren't interested in understanding yourself?	.183	.503	7. Over the past month, how many times did you:-a. tell someone that you aren't interested in understanding yourself?.
15. (Expansion V). Planfulness			**Expansion V. Planfulness PILSI 1.0, 1.1**
Check or double-check the calendar to make sure you had enough time left to complete an assignment?	.604	.651	4. Over the past week, how many times did you (0 times = not at all/never): f. work on a plan involving your future?
Carefully check over a task you completed and then revised part of it before deciding you were finished?	.655	.693	
Make a plan first thing in the day for what you wanted to accomplish?	.619	.489	
Acknowledge a mistake you had made on a task and corrected it?	.444	.411	
Achieve your goal to get a high grade on an assignment, quiz, or test?	.246	.392	

[a]NSF No such factor appeared; these three items were either rewritten or newly introduced in the PILSI-3R.

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Chapter 5. A Higher Order Structure? Exploratory Factor Analyses of the Basic Level Scales

To ensure we were not missing anything in our conceptualization of the scales of the PILSI 2nd Generation form, we also conducted exploratory factor analyses of the 10 to 15 factor-based scales of the PILSI forms 2, 3, and 3R. The fit statistics for these exploratory analyses can be found in Supplement Table 5.1. Note that these are not true hierarchical factors in the sense that we did not employ a confirmatory factor model to test that specified item loadings were arranged in an a priori hierarchical structure. That said, exploratory factor analyses of the scales based on the "small factors" can give us some general idea of whether a higher-order factor structure for the scales might exist.

To address this issue we fit from 1- to 4-factor exploratory factor models to the PILSI 2, 3, and 3R scales. The fits can be seen in Table 5.1.

Fit Statistics for EFAs of the Three 2nd Generation Study Scales

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Supplement Table 5.1

Fits of Exploratory Factor Analysis of the Basic PILSI Scales Across Forms: Maximum Likelihood Extraction with GEOMIN Rotation on Continuous Data for 1- through 4-factors

Model	Scales	Free Params.	Fit Indices-Categorical Data						
			χ^2	df	RMSEA	CFI	TLI	SRMR	rs
PILSI 2 *N* = 1186									
1-factor	10	30	338.51	35	.086	.625	.523	.061	
2-factors	10	39	70.35	26	.038	.946	.906	.026	*r* = .41
3-factors	10	47	22.13	18	.014	.995	.987	.013	*r* = -.11 to .45
4-factors	10	54	7.19	11	.000	1.000	1.000	.008	*r* = -.01 to .42
PILSI 3 *N* = 416									
1-factor	14	42	453.43	77	.108	.553	.471	.090	NA
2-factors	14	55	210.16	64	.074	.826	.753	.050	*r* = .13
3-factors	14	67	134.81	52	.062	.902	.828	.039	*r* = .10 to .51
4-factors	14	78	75.06	41	.045	.960	.910	.029	*r* = .03 to .38
PILSI 3R *N* = 686									
1-factor	15	45	557.87	90	.086	.597	.530	.072	*r* = NA

2-factors	15	59	302.70	76	.065	.805	.731	.048	*r* = .25
3-factors	15	72	180.57	63	.052	.899	.831	.037	*r* = -.26 to .18
4-factors	15	84	107.31	51	.040	.952	.900	.027	*r* = .15 to .36

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The fits began to reach a level of adequacy around 3 or 4 factors: 3 factors for the PILSI 2, and four factors for the PILSI 3 and 3R. That said, the four-factor solution for the PILSI 3, although it apparently fit well, exhibited a Heywood case (i.e., loading > 1), arguing for the three-factor solution. And although the 4-factor solution certainly fit better than the 3-factor solution for the PILSI 3R (without any such problematic loadings), the additional factor simply divided one of the "major three" factors into two. We therefore illustrate these higher-level representations of the PILSI factor-based scales for the 3-factor solutions first.

These 3-factor versions share in common the same three factors: First, a "Physical" factor representing Pain Symptoms, Skipping Food, and the like. Second, an "Adaptive Integration" factor reflecting interpersonal communication, companionship, and planfulness; and third, an "Unintegrated Behavior" factor representing such factors as Unreflective Judgments and Overt Conflict.

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Supplement Table 5.2

Factor Loadings for the Exploratory Factor Analysis of the 2nd Generation PILSI scales Across Forms: Maximum Likelihood with GEOMIN Rotation on Continuous Data for 3 Factor Solutions

	Name	PILSI 2 Study 3			PILSI 3 Study 4			PILSI 3R Study 5		
		Phys	Adapt	Unint	Phys	Adapt	Unint	Phys	Adapt	Unint
Physical Sense	Pain Symptoms	**.50**	.07	-.02	**.74**	-.22	-.00	**.63**	.16	.22
	Skipping Food	**.40**	-.02	.03	.29	.08	.06	**.34**	.12	.13
	Body Sense	--	--	--	**.59**	.01	.04	**.57**	.28	.11
Adaptive Integra-tion	Interpersonal Comm.	.04	**.71**	-.02	.12	**.63**	-.01	**.37**	**.67**	.12
	Relationship Signifiers	.10	**.31**	-.07	.27	.24	-.07	.18	.21	-.06
	Critical Evaluation	.11	**.39**	.03	.22	.29	.11	**.31**	**.36**	.19
	Companionship[a]	--	--	--	-.01	**.86**	.02	.23	**.85**	.27
	Planfulness	--	--	--	.24	.18	-.13	.13	**.32**	.06
Unintе-grated Behavior	Unreflective Judgments	.02	.25	**.51**	-.01	-.00	**.73**	.13	.05	**.68**
	Impersonal Identification	-.08	.25	-.05	.11	.13	15	.14	.08	.24
	Overt Conflict	-.01	**.32**	**.62**	.18	.19	**.30**	**.30**	.13	**.46**
	Support Groups	.21	-.01	**.52**	.01	-.09	**.73**	.03	-.08	**.34**
	Self-Incuriosity	--	--	--	-.05	.06	**.48**	.01	.11	**.46**
	Substance Use	--	--	--	--	--	--	.18	-.02	.24
Interests	Humanities vs. STEM	.15	.05	.03	-.09	.13	.00	.05	.11	.08

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The 4-factor PILSI 3R solution was quite similar except that the Unintegrated factor split into two factors, one of which loaded most of the items, and the second of which seemed to combine substance abuse with the overt conflict scale.

Conceptual versus Mathematical Usages

Our conceptual division of the small factor scales into Physical, Adaptive, Unintegrative, and Interest groups corresponds well with these higher-level factors. We note that our classification of the scales in the paper were proposed on mostly conceptual grounds, before conducting these analyses.

That said, these quasi-hierarchical factors do *not* correspond exactly with our "Adaptive Connections" equation and its prediction of PI. For that prediction equation, we consulted the overall correlations of our scales with personal intelligence. In comparing the prediction equation to the higher-level factors, there certainly are two notable resemblances: The scales that correlated positive-with-PI scales overlap with Adaptive Integration and those scales with negative-with-PI scale correlations overlap with Unintegrated Behavior. That said, our prediction equation also had merged the physical/medical scales into the equations: Body sense was merged into the positive group, and Support Groups and Substance Abuse were merged into the negative group yielding a prediction equation that (for the PILSI 3R) consisted of 12 scales.

"Pain symptoms," "Skipping food," and "Humanities versus Stem," were omitted. The Adaptive Connections equation predicted PI fairly well. By comparison, the three factors here did less well, in part because the Physical factor combines factor scales that possess both positive and negative correlations with PI and that therefore cancel out.

Factor Scores of the Three Broad Factors

Mplus will not return factor scores for EFAs although it will for CFAs; SPSS will return factor scores for EFAs but will not do CFAs. Thus, we had the options either of using factor scores from CFAs in Mplus, or checking the equivalence between the factor loadings in Mplus and SPSS. Using the latter technique, we found that the correlations between the factor scores for the EFAs in Mplus and SPSS were sufficiently similar at r = .89, .84, and .89 for the PILSI-3R, with all 15 scales, as indicated below, to allow for treating them as "approximate estimates" of one another. Note that in SPSS we also used a maximum likelihood extraction with a varimax rotation (Geomin is a type of varimax).

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Supplement Table 5.3

The 3-Factor EFA Loadings in Mplus and SPSS are Very Roughly Comparable Across the Three Studies

PILSI-3R							
Mplus				SPSS			rs across solutions
PAINS	0.613	0.113	-0.013	0.367	0.284	0.441	factors 1 & 3
SKPFD	0.321	0.064	0.033	0.230	0.136	0.224	0.888907
RELSG	0.152	-0.119	0.192	0.203	-0.126	0.139	
ICOMM	0.212	-0.009	0.614	0.668	-0.185	0.084	Factors 2 & 2
CONFL	0.219	0.414	0.011	0.312	0.397	0.012	0.838751
IMPRS	0.092	0.219	0.025	0.169	0.195	-0.015	
CRTEV	0.221	0.111	0.283	0.425	0.046	0.091	
UNRFJ	0.017	0.685	-0.047	0.272	0.577	-0.244	Factors 3 & 1
SUPGR	-0.01	0.361	-0.124	0.043	0.338	-0.129	0.888907
HUMNT	0.012	0.06	0.102	0.126	0.011	-0.028	
BDYSN	0.54	-0.013	0.142	0.413	0.099	0.410	
SUBST	0.16	0.225	-0.093	0.101	0.267	0.052	
COMPN	-0.006	0.158	0.826	0.818	-0.199	-0.182	
PLANF	0.051	0.01	0.308	0.312	-0.098	-0.007	
INCUR	-0.094	0.469	0.068	0.220	0.323	-0.264	

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Correlational Powers of the Broad Factors versus Specific Scales

Returning to SPSS, we extracted much the same factors as in Mplus and then used the regression-based factor scores to predict PI. The result was something less than using the individual scales. The results are copied in below. Considering the PILSI-2 and 3R (the first and last studies with larger samples): For the PILSI-2, the *R* for the three higher-level factors was *R* = .31 versus the individual scales' .33, both after shrinkage. For PILSI-3R, the respective *Rs* for the higher-level versus individual scales were *R* = .44 versus .49, both after shrinkage. It appears that, as often is the case, a bit of predictive power is lost with the more general scales. That said, this could be a workable approach in the future for those who do not wish the burdens of dealing with so many basic-level scales.

Overall Considerations

The higher-level factor analysis provides an additional, promising approach for future research. At present, we favor the more specific factors in that they exhibit both superior fit, a non-negligible advantage in correlating with personal intelligence, and certain smaller factors

are revealing in their differences in relations with PI, especially in the “Physical” area that would potentially be obscured by combining them in larger factors.

Model	Entered	Removed	Method
1	FAC3_2 REGR factor score 3 for analysis 2, FAC2_2 REGR factor score 2 for analysis 2, FAC1_2 REGR factor score 1 for analysis 2[b]	.	Enter

a. Dependent Variable: TOPI5E39

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.442[a]	.195	.191	.147781773

a. Predictors: (Constant), FAC3_2 REGR factor score 3 for analysis 2, FAC2_2 REGR factor score 2 for analysis 2, FAC1_2 REGR factor score 1 for analysis 2

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.660	3	1.220	55.859	.000[b]
	Residual	15.113	692	.022		
	Total	18.773	695			

a. Dependent Variable: TOPI5E39

b. Predictors: (Constant), FAC3_2 REGR factor score 3 for analysis 2, FAC2_2 REGR factor score 2 for analysis 2, FAC1_2 REGR factor score 1 for analysis 2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.677	.006		120.882	.000
	FAC1_2 REGR factor score 1 for analysis 2	.025	.006	.137	3.977	.000
	FAC2_2 REGR factor score 2 for analysis 2	-.085	.007	-.406	-11.840	.000
	FAC3_2 REGR factor score 3 for analysis 2	.035	.008	.160	4.632	.000

a. Dependent Variable: TOPI5E39

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Supplement Table 5.4

Development of the PILSI Scales Arranged by Content Domains with the 4-Factor Solution for the PILSI 3R and Technical Codes for Each Scale

Name (Legacy Scale #)		PILSI 2 Study 3			PILSI 3 Study 4			PILSI 3R Study 5			PILSI 3R Study 5			
Physical and Medical-Related Group Scales		Phys	Unint	Adapt	Phys	Unint	Adapt	Phys	Unint	Adapt	Phys	Unint 1	Unint 2	Adapt
Pain Symptoms (1)	PAINS	**.50**	-.02	.07	**.74**	-.00	-.22	**.63**	.22	.16	**.62**	.07	.10	-.04
Skipping Food (2)	SKPFD	**.40**	.03	-.02	.29	.06	.08	**.34**	.13	.12	.23	.23	-.04	.04
Body Sense (11)	BDYSN	--	--	--	**.59**	.04	.01	**.57**	.11	.28	**.57**	-.01	-.01	.11
Support Groups (9)	SUPGR	.21	**.52**	-.01	.01	**.73**	-.09	.03	**.34**	-.08	.04	-.06	**.41**	-.11
Substance Use (12)	SUBST	--	--	--	--	--	--	.18	.24	-.02	.01	**.42**	.06	-.07
Adaptive Integration														
Interpersonal Comm. (4)	ICOMM	.04	-.02	**.71**	.12	-.01	**.63**	**.37**	.12	**.67**	.18	.00	-.06	**.62**
Relationship Signifiers (3)	RELSG	.10	-.07	**.31**	.27	-.07	.24	.18	-.06	.21	.20	-.14	-.07	.17
Companionship[a] (13)	COMPN	--	--	--	-.01	.02	**.86**	.23	.27	**.85**	-.06	.02	.07	**.86**
Planfulness (14)	PLANF	--	--	--	.24	-.13	.18	.13	.06	**.32**	.14	-.24	.10	**.30**
Critical Evaluation (7) *(Negative Criticism)*	CRTEV	.11	.03	**.39**	.22	.11	.29	**.31**	.19	**.36**	.10	.27	-.03	**.31**
Unintegrated Behavior														
Unreflective Judgments (8)	SNPJD	.02	**.51**	.25	-.01	**.73**	-.00	.13	**.68**	.05	.01	.08	**.68**	-.02
Impersonal Identification (6)	IMPRS	-.08	-.05	.25	.11	15	.13	.14	.24	.08	.13	-.04	.25	.03
Self-Incuriosity (15)	INCUR	--	--	--	-.05	**.48**	.06	.01	**.46**	.11	-.08	.00	**.46**	.11
Overt Conflict (5)	CONFL	-.01	**.62**	**.32**	.18	**.30**	.19	**.30**	**.46**	.13	.03	**.55**	.25	.05
Interests														
Humanities vs. STEM (10)	HUMNT	.15	.03	.05	-.09	.00	.13	.05	.08	.11	-.01	.05	.02	.12
Total Number of Scales	15	10												
Loadings > .30 are in bold font														

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PART 3.

THE PILSI STUDIES CONSIDERED INDIVIDUALLY

Chapter 6. The PILSI 1.0 and 1.1 Studies and Big Five

The present set of analyses represent an examination of whether the lifespace scales simply duplicated predictions that might be made from the Big Five, or were distinct from them. Three scales of the Big Five, Agreeableness, Conscientiousness, and Openness regularly exhibit correlations of *r* = .10 to .20 with the PILSI. To test whether the lifespace scales predicted the PILSI above the contributions of the Big Five, we returned to two earlier studies that had used early versions of the PILSI, Big Five, and TOPI. One had used the PILSI 1.0 (Mayer et al., 2012) the other, the PILSI 1.1 (Mayer et al., 2014).

Both studies had used the BFI-44 (John et al., 1991); they used the TOPI 1.2 (Study 1) and TOPI MINI (Study 2) (Mayer et al., 2019).

Step 1: Integrity Check of Retrieved Data Files Against the Original Journal Report and One Another

Checking Data from Mayer, Panter & Caruso, 2012

To ensure that we were using data and syntax files that were correct, we checked the original report of the analyses with the analyses our current files output. The original article indicated these means and SDs for the Big Five as shown in Supplement Table 6.1.

If Neuroticism is scored as-is (i.e., as Neuroticism, not emotional stability), we have a M = 2.80 for an *N* = 340 from the original scoring statement—a close match to the 2.81 reported (the discrepancy due to a subsequent small change in N due to revised missing data treatment). All the other Means are either the same, or off by .01 or so. Note that if Neuroticism is reversed (to be Emotional Stability), the M = 3.2, not 2.81 as indicated in the article paper. Ergo, the scoring was truly for Neuroticism, and the correlations are in the correct direction at this point. We followed this approach into the final analytic program.

The final scoring of the study for the published version matches very closely, allowing for the difference in *N* owing to the different treatment of missing data here. Note that Neuroticism is scored such that higher values reflect Neuroticism (as opposed to Emotional Stability).

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Supplement Table 6.1

Match Between the Descriptive Statistics of the Big Five Variables, Reproduced from Table 4 of Mayer, Panter, & Caruso (2012) [Top Row] with a Recalculation of the Same Data in SPSS for this Project [Bottom Row].

TABLE 4.—Criterion measures administered over Studies 1 to 3: Means and standard deviations.

Criterion Scales[a]	Items	Study 1			Study 2			Study 3		
		M	*SD*	α	*M*	*SD*	α	*M*	*SD*	α
Vocabulary	29–30[b]	18.43	4.27	.75	20.13	4.41	.78	20.18	4.41	.77
Big Five Inventory–44										
Extraversion	8	3.46	.76	.88	3.29	.81	.89	3.39	.77	.88
Agreeableness	9	3.86	.54	.78	3.71	.62	.82	3.80	.60	.81
Conscientiousness	9	3.67	.57	.78	3.58	.57	.77	3.57	.63	.82
Emotional Stability	8	2.93	.68	.80	2.96	.76	.85	2.81	.76	.84
Openness to Experience	10	3.55	.55	.77	3.59	.63	.82	3.52	.63	.81
Psychological Mindedness (Overall)	45[c]	3.58	.40	.89	3.52	.36	.86	3.51	.39	.88
Discussing Problems	7	4.05	.64	.84	3.91	.67	.85	3.93	.69	.86
Accessing Feelings	4	3.54	.78	.77	3.51	.79	.79	3.51	.74	.76
Figuring Out Others	3	3.06	.89	.61	2.91	.89	.61	2.94	.88	.59
Understanding Behaviors	3	4.18	.60	.64	4.13	.62	.60	4.05	.71	.69
Changing Oneself	4	3.61	.55	.60	3.53	.57	.58	3.56	.60	.61
Self-Monitoring	25	12.42	3.65	.62	13.05	3.81	.65	—[d]	—[d]	—[d]

[a]The scales are Vocabulary, adapted (see text); the Big Five Inventory (John et al., 1991); Psychological Mindedness scale (Conte et al., 1990). [b]One of the Vocabulary test items was in error in Study 1, it was corrected for Studies 2 and 3, changing the number of items included from 29 to 30. [c]The Psychological Mindedness subscale items are from Shill & Lumley (2002); the total score included all 45 items, reversed scored as indicated in Conte, et al. (1990). [d]The Self-Monitoring scale was no longer administered after the second study.

Descriptives

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
voc total vocabulary core -- number of words correct	379	9.00	30.00	20.1794	4.41132
extra mean extraversion score for the respondent	379	1.25	5.00	3.3861	.77477
agree mean agreeableness score for the respondent	379	1.44	5.00	3.8013	.59732
consc mean conscientiousness score for the respondent	379	1.67	5.00	3.5708	.62945
neuro mean neuroticism score for the respondent	379	1.00	5.00	2.8146	.75549
openn mean openness to experience score for the respondent	379	1.67	4.90	3.5207	.62991
Valid N (listwise)	379				

Note, the SPSS software calculates both the topi_tot and topi_b. The topi_b score was reported in the original article. Note also that Table 4 indicates that Neuroticism was scored as Emotional Stability, whereas Table 5 lists it as Neuroticism.

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Comparable Check of the Data from Mayer, Caruso, and Panter (2014)

The second dataset, which included the PILSI 1.1, was never published and so there was less to check it against. We could however, first, check to ensure missing values were correctly handled and that all -99s had been correctly recoded as missing. This appeared to be the case.

We then examined the means of the five BFI scales from 2014 against those of 2012. In both instances, Neuroticism had the lowest score, Agreeableness was most agreed to, and the rest were in the middle.

Supplement Table 6.2

A Comparison of the Big Five Means from the 2012 and 2014 (PILSI 1.0 and 1.1) Datasets

PILSI 1.0, 2012

Descriptives

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
voc total vocabulary core -- number of words correct	379	9.00	30.00	20.1794	4.41132
extra mean extraversion score for the respondent	379	1.25	5.00	3.3861	.77477
agree mean agreeableness score for the respondent	379	1.44	5.00	3.8013	.59732
consc mean conscientiousness score for the respondent	379	1.67	5.00	3.5708	.62945
neuro mean neuroticism score for the respondent	379	1.00	5.00	2.8146	.75549
openn mean openness to experience score for the respondent	379	1.67	4.90	3.5207	.62991
Valid N (listwise)	379				

Correlations

		extra mean extraversion score for the respondent	agree mean agreeableness score for the respondent	consc mean conscientiousness score for the respondent	neuro mean neuroticism score for the respondent	openn mean openness to experience score for the respondent
extra mean extraversion score for the respondent	Pearson Correlation	1	.212**	.023	-.339**	.231**
	Sig. (2-tailed)		.000	.651	.000	.000
	N	379	379	379	379	379
agree mean agreeableness score for the respondent	Pearson Correlation	.212**	1	.286**	-.348**	.130*
	Sig. (2-tailed)	.000		.000	.000	.011
	N	379	379	379	379	379
consc mean conscientiousness score for the respondent	Pearson Correlation	.023	.286**	1	-.122*	-.008
	Sig. (2-tailed)	.651	.000		.018	.874
	N	379	379	379	379	379
neuro mean neuroticism score for the respondent	Pearson Correlation	-.339**	-.348**	-.122*	1	-.155**
	Sig. (2-tailed)	.000	.000	.018		.003
	N	379	379	379	379	379
openn mean openness to experience score for the respondent	Pearson Correlation	.231**	.130*	-.008	-.155**	1
	Sig. (2-tailed)	.000	.011	.874	.003	
	N	379	379	379	379	379

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

PILSI 1.1, 2014

Descriptives

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
extra	360	1.13	5.00	3.4250	.76648
agree	360	1.67	5.00	3.7967	.58430
consc	360	1.89	5.00	3.5642	.57775
neuro	359	1.38	5.00	3.1236	.70049
openn	360	1.80	5.00	3.4957	.55393
Valid N (listwise)	359				

Correlations

		extra	agree	consc	neuro	openn
extra	Pearson Correlation	1	.228**	.161**	-.320**	.177**
	Sig. (2-tailed)		.000	.002	.000	.001
	N	360	360	360	359	360
agree	Pearson Correlation	.228**	1	.363**	-.176**	.176**
	Sig. (2-tailed)	.000		.000	.001	.001
	N	360	360	360	359	360
consc	Pearson Correlation	.161**	.363**	1	-.060	.129*
	Sig. (2-tailed)	.002	.000		.257	.015
	N	360	360	360	359	360
neuro	Pearson Correlation	-.320**	-.176**	-.060	1	-.089
	Sig. (2-tailed)	.000	.001	.257		.093
	N	359	359	359	359	359
openn	Pearson Correlation	.177**	.176**	.129*	-.089	1
	Sig. (2-tailed)	.001	.001	.015	.093	
	N	360	360	360	359	360

**. Correlation is significant at the 0.01 level (2-tailed).

In the 2012 data, the rank order of the means was Agreeableness > Conscientiousness > Openness > Extraversion > Neuroticism; In 2014 the rank order was the exact same. The means were in a narrow range, from 2.8 to 3.8 in 2012, and from 3.1 to 3.8 in 2014. In short, the values appear to be very similar.

The correlations also exhibited substantial similarities across studies. We concluded that both studies were in sufficient agreement, and in sufficient agreement with the 2012 publication, to indicate the general integrity of the data and of the data scoring for the Big Five.

Note that in the reported outputs in the tables and here the order of variables has been changed to Extraversion, Neuroticism, Agreeableness, Conscientiousness, and Openness.

Step 2: The Correlations of the Small Factors Appearing with the PILSI 1.0 and 1.1 with the Big Five and TOPI

In both studies, we regressed the TOPI against the Big Five measures in a first model (Ns = 385 and 383). In the two studies, the Big Five predicted the TOPI with *Rs* = .22 and .23, or about 5% of the variance overall in each. We then tested a second model that added in the lifespace scales. The lifespace scales incremented the prediction in the first study (PILSI 1.0) from R = .22 for the Big Five alone to .54—with an R_{change} = .25, $F(6,366) = 21.154$, $p < .001$. The same analysis for the second study (PILSI 1.1) lifted the R = .23 to .50—with an R_{change} = .20, $F(9,342) = 10.234$, $p < .001$. In both studies, the lifespace items handily outperformed the Big Five in their relation with the TOPI.

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Supplement Table 6.3—Revised Version

Correction for calculated BFI scales from the 2012 JPA article (original correct as reported), corrected for this project 2022-18-22 [earlier version mishandled missing values for reverse-scored items]

Correlations Between Reconstructed Small Factors of the PILSI Scales with the Big Five and TOPI from[a] Two Studies[b] Using PILSI Versions 1.0 and 1.1, the Big Five, and TOPI Scales *(Ns* = 379[g] *and 359*[g]*)*

PILSI Scale		No. items	Extraversion		Neuroticism		Agreeableness		Conscientious		Openness		TOPI Versions	
			v. 1.0	v. 1.1	v. 1.0	v. 1.1	v. 1.0	v. 1.1	v. 1.0	v. 1.1	v. 1.0	v. 1.1	v. 1.0	v. 1.1
Core Scales														
III.	Relationship Signifiers[c]	3	--	.12*	--	.04	--	.21**	--	.17**	--	.10		.26***
IV.	Interpers. Communicat.[d]	3	-.25	--	-.06	--	-.11	--	.00	--	-.20	--	-.08	--
V.	Overt Conflict[c]	3	--	.07	--	.04	--	-.28***	--	-.18***	--	-.05	--	-.17***
VI.	Impersonal Identifications	2	.11	-.10*	-.04	-.05	-.10	-.09	-.13*	-.13*	-.07	.14**	-.29***	-.24***
VIII.	Unreflective Judgments	3	.08*	-.01	.05	-.08	-.13*	-.04	-.18***	-.13*	.04	.02	-.41***	-.32***

XI.	Support Groups[c]	2	--	.05	--	-.04	--	-.07	--	-.05	--	.02	--	-.11*
Expansion Scales														
II	Substance Use[c]	2	--	.20***	--	-.12*	--	-.05	--	-.21***	--	.02	--	-.08
III.	Companionship[e]	4	.20**	.13*	.09	-.02	.05	-.03	-.03	.05	.16***	-.01	-.10*	-.19***
IV.	Self-Incuriosity	2	.12*	-.01	.02	-.00	-.12*	-.11*	-.16***	-.12*	-.03	-.08	-.42***	-.35***
V.	Planfulness[h]	1	.13**	.05	.06	.04	.08	-.01	.12*	.13*	.17***	.13*	.15**	.09
TOPI	TOPI 1.2 (PILSI 1.0); MINI-12 for (PILSI 1.1)		-.04	.07	-.05	.05	.18***	.15**	.21***-	.20***	.11*	.14**	1.00	1.00

*Ps * .05, ** .01, ***.001*

a. There were insufficient numbers of items to represent the small factors Core 1, Core 2, CoreVII, Core X, or Expansion 1 for either study

b. (Mayer et al., 2012, 2014)

c. PILSI 1.1 only;

d. PILSI 1.0 only;

e. Although this scale was included, there was some drift away from the Companionship quality in the later PILSIs, with more feedback items here; as such, the scales were not entirely comparable

f. TOPI 1.2 in Mayer, Panter & Caruso (2012); Alternate Uses Study (Mayer et al., 2014)

g. Mayer, Panter & Caruso (2012), Study 3, had an overall *N* of 384 of whom 379 completed the PILSI, TOPI, and BFI; for the Alternate Measures study (Mayer et al., 2014) the comparable figures were *N* = 383 overall, of whom 359 provided complete data for the scales.

h. The lifespace planfulness scale was represented by just one item in the PILSI 1.0 and 1.1

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Step 3: Incremental validity of the lifespace scales for predicting the TOPI over and above the Big Five

PILSI 1.0 (2012 Study)

Note: Big Five variables corrected 2022-09-18 (see Integrity Check above for details)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.274[a]	.075	.063	.10945	.075	6.028	5	372	.000
2	.527[b]	.278	.256	.09750	.203	17.137	6	366	.000

a. Predictors: (Constant), openn mean openness to experience score for the respondent, consc mean conscientiousness score for the respondent, neuro mean neuroticism score for the respondent, extra mean extraversion score for the respondent, agree mean agreeableness score for the respondent

b. Predictors: (Constant), openn mean openness to experience score for the respondent, consc mean conscientiousness score for the respondent, neuro mean neuroticism score for the respondent, extra mean extraversion score for the respondent, agree mean agreeableness score for the respondent, lifeCVI, lifeEV, lifeCIV, lifeCVIII, lifeEIII, lifeEIV

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.361	5	.072	6.028	.000[b]
	Residual	4.456	372	.012		
	Total	4.818	377			
2	Regression	1.338	11	.122	12.800	.000[c]
	Residual	3.479	366	.010		
	Total	4.818	377			

a. Dependent Variable: topi_tot

b. Predictors: (Constant), openn mean openness to experience score for the respondent, consc mean conscientiousness score for the respondent, neuro mean neuroticism score for the respondent, extra mean extraversion score for the respondent, agree mean agreeableness score for the respondent

c. Predictors: (Constant), openn mean openness to experience score for the respondent, consc mean conscientiousness score for the respondent, neuro mean neuroticism score for the respondent, extra mean extraversion score for the respondent, agree mean agreeableness score for the respondent, lifeCVI, lifeEV, lifeCIV, lifeCVIII, lifeEIII, lifeEIV

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.490	.069		7.059	.000
	extra mean extraversion score for the respondent	-.014	.008	-.095	-1.748	.081
	neuro mean neuroticism score for the respondent	.001	.008	.009	.165	.869
	agree mean agreeableness score for the respondent	.026	.011	.137	2.451	.015
	consc mean conscientiousness score for the respondent	.031	.009	.172	3.297	.001
	openn mean openness to experience score for the respondent	.020	.009	.110	2.140	.033
2	(Constant)	.714	.073		9.842	.000
	extra mean extraversion score for the respondent	-.011	.007	-.073	-1.430	.154
	neuro mean neuroticism score for the respondent	-.004	.008	-.029	-.552	.581
	agree mean agreeableness score for the respondent	.012	.010	.063	1.241	.216
	consc mean conscientiousness score for the respondent	.015	.009	.084	1.766	.078
	openn mean openness to experience score for the respondent	.014	.008	.080	1.697	.091
	lifeCIV	-.010	.006	-.079	-1.620	.106
	lifeCVI	-.011	.005	-.131	-2.433	.015
	lifeCVIII	-.029	.008	-.231	-3.683	.000
	lifeEIII	.003	.004	.038	.697	.486
	lifeEIV	-.023	.007	-.193	-3.131	.002
	lifeEV	.006	.002	.136	2.823	.005

a. Dependent Variable: tapi_tot

PILSI 1.1 (2014 Study)

Regression

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	openn, consc, neuro, extra, agree[b]	.	Enter
2	lifeCXI, lifeEIV, lifeEV, lifeCIII, lifeCV, lifeCVI, lifeEIII, lifeEII, lifeCVIII[b]	.	Enter

a. Dependent Variable: mini_12

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.231[a]	.053	.040	.17821	.053	3.944	5	351	.002
2	.504[b]	.254	.224	.16024	.201	10.234	9	342	.000

a. Predictors: (Constant), openn, consc, neuro, extra, agree

b. Predictors: (Constant), openn, consc, neuro, extra, agree, lifeCXI, lifeEIV, lifeEV, lifeCIII, lifeCV, lifeCVI, lifeEIII, lifeEII, lifeCVIII

$F(9,342) = 10.234$, $p < .001$

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.329	.114		2.885	.004
	extra	.014	.013	.059	1.051	.294
	neuro	.025	.014	.096	1.734	.084
	agree	.039	.018	.124	2.178	.030
	consc	.021	.018	.066	1.185	.237
	openn	.039	.018	.117	2.205	.028
2	(Constant)	.520	.124		4.190	.000
	extra	.010	.013	.041	.765	.445
	neuro	.010	.013	.040	.793	.428
	agree	.020	.017	.062	1.152	.250
	consc	-.009	.017	-.028	-.539	.591
	openn	.035	.016	.104	2.107	.036
	lifeCIII	.122	.034	.172	3.535	.000
	lifeCV	-.011	.014	-.040	-.770	.442
	lifeCVI	-.019	.008	-.131	-2.491	.013
	lifeCVIII	-.031	.012	-.152	-2.621	.009
	lifeCXI	-.029	.025	-.062	-1.196	.233
	lifeEII	-.001	.011	-.006	-.116	.908
	lifeEIII	-.006	.008	-.042	-.781	.435
	lifeEIV	-.044	.013	-.197	-3.509	.001
	lifeEV	.013	.004	.157	3.103	.002

a. Dependent Variable: mini_12

Step 4: PILSI Unit Weighting.

Unit Weighted Composite of the Big Five and PILSI 1.0 Scales

```
COMPUTE LIFECOMPOSITEPOS = sum (ZlifeCIV, ZlifeEV).
COMPUTE LIFECOMPOSITENEG = SUM(ZlifeCVI, ZlifeCVIII, ZlifeEIII, ZlifeEIV).
COMPUTE LIFECOMPOSITE = LIFECOMPOSITEPOS - LIFECOMPOSITENEG.

COMPUTE BIGFIVECOMPOSITE = sum(zbfia, zbfic, zbfio).


CORRELATIONS VARIABLES = LIFECOMPOSITE TOPI_TOT.
```

Unit Weighted Composite of the Big Five and PILSI 1.1 Scales

```
COMPUTE LIFECOMPOSITEPOS = SUM(zlifeCIII, zlifeEV).
COMPUTE LIFECOMPOSITENEG = SUM(zlifeCV, zlifeCVIII, zlifeCXI, zlifeEII, zlifeEIII, zlifeEIV).
COMPUTE LIFECOMPOSITE = LIFECOMPOSITEPOS - LIFECOMPOSITENEG.

COMPUTE BIGFIVECOMPOSITE = SUM(zagree, zconsc, zopenn).

correlations variables = LIFECOMPOSITE, BIGFIVECOMPOSITE, mini_12.
```

Correlations

Correlations

		LIFECOMPOSITE	BIGFIVECOMPOSITE	mini_12
LIFECOMPOSITE	Pearson Correlation	1	.275	.428
	Sig. (2-tailed)		.000	.000
	N	363	359	359
BIGFIVECOMPOSITE	Pearson Correlation	.275	1	.175
	Sig. (2-tailed)	.000		.001
	N	359	360	360
mini_12	Pearson Correlation	.428	.175	1
	Sig. (2-tailed)	.000	.001	
	N	359	360	360

```
partial corr variables = LIFECOMPOSITE, mini_12 by BIGFIVECOMPOSITE.
```

Partial Corr

Correlations

Control Variables			LIFECOMPOSITE	mini_12
BIGFIVECOMPOSITE	LIFECOMPOSITE	Correlation	1.000	.391
		Significance (2-tailed)	.	.000
		df	0	356
	mini_12	Correlation	.391	1.000
		Significance (2-tailed)	.000	.
		df	356	0

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Chapter 7. The PILSI 2 Study

Our organization of lifespace items is carried out according to the systems that surround personality.

The 20th century personality psychologist Raymond Cattell once said that people exist in a personality sphere (Cattell, 1965), and Kurt Lewin developed an Interpersonal Field Theory and spoke of a person's "Life Space" (Lewin et al., 1936). It is from those ideas that we hope to assess criteria of the lifespace.

The personality systems framework is an integrative framework for personality psychology. In 1995, the framework added a diagram of the lifespace that provided a bird's-eye view of some of the issues dealt with earlier by Lewin and Cattell (Mayer, 1995, 2015). The overview was based on the idea that personality could be located amidst its neighboring systems according to two dimensions: (a) molecular-molar dimension that separated more complex systems from the simpler, more foundational systems that made them up, and (b) an inside- versus outside-the-person dimension.

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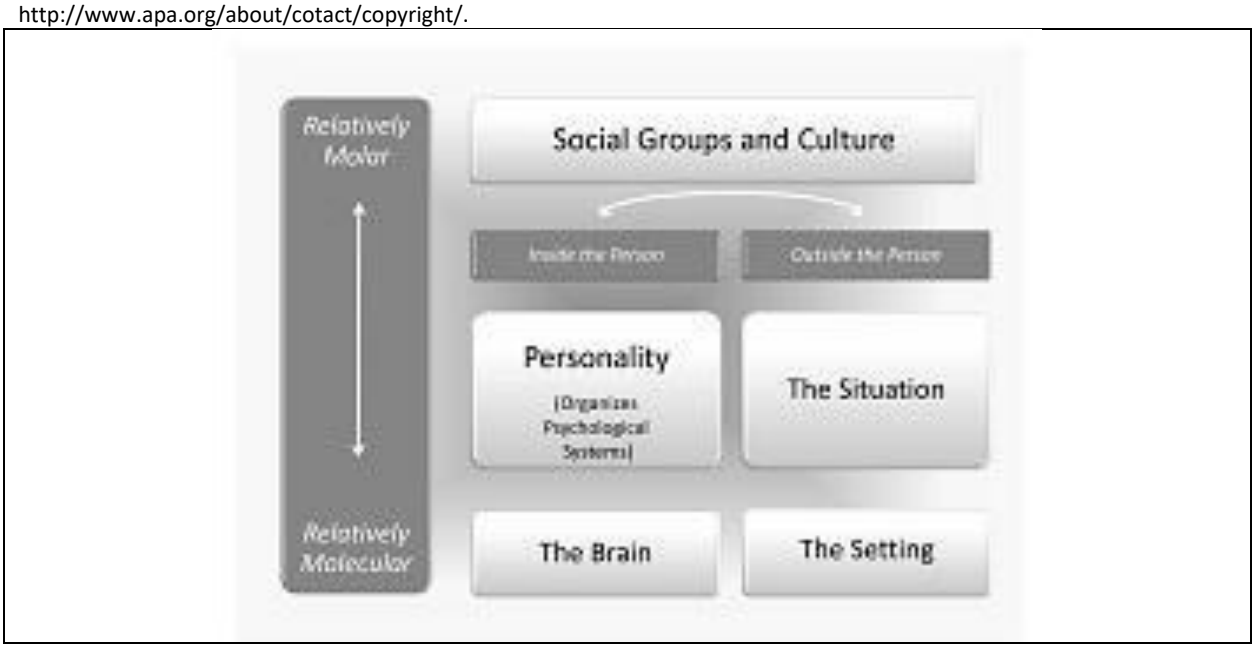
Supplement Figure 7.1. Personality and its neighboring systems.

Modified from Mayer and Allen (2013, Figure 1), in compliance with the regulations and copyright rules of the *American Psychological Association*, as indicated in Section 3 of the APA Permissions Policy, downloaded September 17, 2017 from http://www.apa.org/about/cotact/copyright/.



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Now, we would use a "traditional" lifespace framework with the arrangement based on the personality systems model.

In Figure 7.1, the molecular-molar dimension, which runs vertically, separates out social groups and culture (at top), from personality (middle left), and the brain and bodily systems that compose it).

The inner-outer dimension, which runs horizontally, separates out inner personality—where personal intelligence and other personality characteristics reside—from the expressions of personality in the person's setting, situation, and social group interactions that personality influences.

Lifespace items can be written for each area. Brain and body items concern the individual's neural, brain, and physical integrity. Setting items concern the area(s) the person lives in, goes to, and possessions, clothing, belongings, food, and other props (analogous to stage props), the person keeps around. Situation items concern interactions the person has with other people and the environment. Group items refer to the individual's group memberships.

We took the insights from the original test items of the PILSI 1.0 and 1.1 to create categories within each area of the lifespace, as indicated in Figure 7.2.

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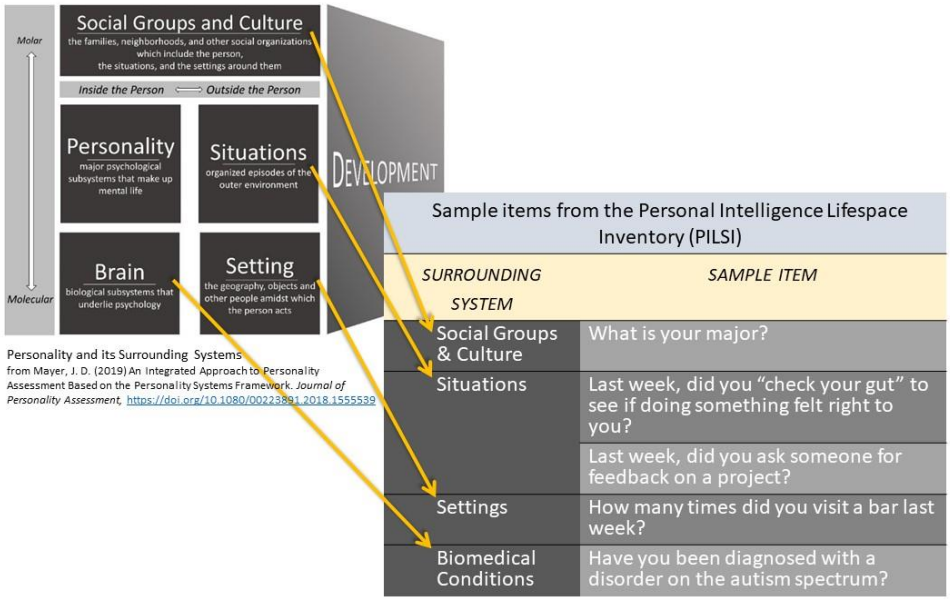
Supplement Figure 7.2. The Personality Systems Framework Organization of Lifespace Items

Figure 2 from Mayer, J. D., Caruso, D. R. & Panter, A. T. (2019). Life expressions of people with high and low personal intelligence: Initial findings. Poster presented at the 2019 Biennial Conference of the Association for Research in Personality, Grand Rapids, MI.



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The areas of questions, therefore, and lifespace-item labels, centered around each area. The areas were abbreviated as:

lbp--lifespace biopsychological

lsg—lifespace setting

lsn—lifespace situation, and

lgc—lifespace groups and culture

The PILSI-2 Item Development

We expanded the PILSI-2 using several approaches:

- We examined the items that worked in the PILSI 1.0 and 1.1 and added more like them.
- We examined the model in Figure 5.1 and considered areas that had been underrepresented such as the biopsychological area
- We drew on others' works on lifespace in related areas, including Bryan's (2018) Master's Thesis concerning personal intelligence and relationships, and Lortie's work on counterproductive work behavior, reported in (Mayer et al., 2018), and the extension of the counterproductive behavior concept to student life by Rimkus (Rimkus, 2012)

Supplement Table 7.1

An Overview of the Organization of the PILSI-2

	Category	Examples of Item Types
LBP Biopsychol.	a. Medical illnesses	●tendency toward chronic pain
	b. Psychiatric illnesses	●Asperberger's spectrum
LSG Setting	a. Possessions	●possessions connecting to other people; ●junk v. healthy food ●overreliance on painkillers ●overuse of drugs
	b. Locations	●gyms, sports teams?, library?, online?
LSN Situation	a. Giving support	●listening to others
	b. Receiving support	●receiving time and care from others
	c. Flexibly accommodating to others	●adjusting behavior to others
	d. Conflict/punishment of others	●conflicting/punishing others

	e. Confusion/dismissal of personality	●over-reliance on role models ●over-self-monitoring ●negative feedback about oneself ●active dismissal of self-knowledge
	f. media consumption (Individual-difference-centered versus normative and impersonal)	●novels, character-based stories v. history, science
	g. personal skills in action implementation	●acting skill, ●using personality to plan and fulfill goals
	h. bad judgment	●black and white judgment of others ●overly broad, general character judgments
LGC **Groups and culture**	a. Reliance on group support in preference to individual	●support groups
	b. Acting out against institutions and groups	●sabotage or undermine group ●steal from institution ●badmouth groups or group members
	c. People-v-thing-centered groups	●people v. thing centered major or occupation

The full scale can be found in Appendix F.

Sample Screening

First Screening Process

The study was conducted from the University of New Hampshire participant pool administered by the psychology department. Participants received 1 credit of a required 3 or 4, depending upon the course, for their participation. Data collection began at the conclusion of the Spring 2019 semester, and ended with the conclusion of the Fall, 2019 semester. There were 1,234 initial sign-ins to the survey. Of these, 16 were removed for completing fewer than half of the responses, 12 for "speeding"—completing the items in under 2 seconds per item, 26 for failing half or more of the attention checks, for a total of 41 exclusions, yielding a final sample of 1193.

Second Screening Process in June and July of 2021

After conducting a first pass through the demographics in late December of 2019, we returned to describe the sample characteristics in greater detail in the summer of 2021. At that time we discovered an earlier-unnoticed anomaly: The PILSI-2 data set contained seven 17-year-olds despite the consent form, that clearly had indicated anyone under 18 years of age was ineligible to participate but could opt for an alternative experience.

After consulting with our IRB as to the appropriate actions needed, we removed those seven individuals. This resulted in a reduction of the sample size to N = 1186. As most readers

will realize, this resulted in only very minimal change in the results (typically changing correlation levels at the thousandth place only although the changes were slightly larger for one or two items. All analyses reported in the accompanying article have been corrected for this change, although there may remain earlier analyses that report the larger sample size and have not been corrected since originally being conducted.

Sample Characteristics

Of this final sample, 74.4% were women and 25.3% men, with the remainder using other self-descriptions. Nearly all of the sample—99%--were between 18 and 21 years of age, with 10 .9%) reporting ages up to 40. In regard to ethnicity, 92.6 percent identified as White/Caucasian, 3.8 percent as Hispanic/Latin (some of whom also identified as White/Caucasian), 3.3 percent as Asian, and 2.1% as Black/African American with less than 1% identifying as Native American or Other.

In table form, the original demographics looked like this:

Corrected Demographics Table

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Supplement Table 7.2

Demographics (Fully Corrected as of 7/17/2021)

	Study 1/PILSI-2		Study 2/PILSI-3		Study 3/PILSI 3R	
	N	Percent	N	Percent	N	Percent
Total N	1186	--	416	--	696	--
Age						
18-22	1174	99	408	98.1	688	98.9
23-30	9	.8	8	1.9	6	.9
31-40	1	.1	0	0	2	.3
41 and over	0	0	0	0	0	0
Missing	2	.1				
Mean (Standard Dev.)	*19.1 (.10)*	--	*19.3 (.14)*	--	*19.07 (.141)*	--
Gender						
Male	300	25.3	99	23.8	126	18.1
Female	882	74.4	314	75.5	562	80.7
Other	2	.1	3	.7	8	1.1
Missing	0	0	0	0	0	0
Race/ethnicity						
Asian	39	3.3	21	5.0	29	4.2
Black/African Am.	25	2.1	7	1.7	11	1.6
Hawaiian/Pacific Islander	1	0.1	3	.7	3	.4
Hispanic/Latino	45	3.8	14	3.4	21	3.0
Multiracial/Two or more	11	.9	4	1.0	6	.9
Native Am.	10	.8	3	.7	2	.3

White/Caucasian	1098	92.6	379	91.1	642	92.2
Other	5	.4	2	.5		
Missing						

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Approaches to the Open-Ended Responding

In this chapter, we describe two ways we used to encode the open-ended numerical responses participants employed. The first was to mitigate outliers, coaxing extreme responses in to the first plausible category in the low and upper range of a given set of responses to an item. The second method employed using assigning a set range of bins to each item and redistributing items into those bins. We describe the two methods first, followed by a comparison as to how they performed relative to the item correlations with the TOPI.

Treatment of Numerical Responses on the PILSI-2

Although respondents were generally conscientious in completing the scale, there were outliers: One participant claimed to have 10 million mementos or other objects reminding them of people in their lives; another, 10 million beer cans at their residence. Others used the numbers in an impressionistic fashion, preferring, for example, multiples of 11 (e.g., they possessed “33” recordings and had “44” interactions). We mitigated the issue using two independent methods and comparing them: Recoding for Outliers and Binning.

Recoding Responses. To recode outliers, we simply reassigned extreme-high values to the first plausible value (determined in part by two or more other participants’ responses) nearest it. Low frequencies of behaviors generally constituted plausible responses and were not recoded.

Binning Responses. To bin the items, we created nine templates to fit the obtained response patterns from low-frequency events occurring over a week, to high-frequency daily events (e.g., multiple computer interactions). These are discussed later in this chapter.

The outlier-recoding and binning methods yielded very similar average magnitudes of correlations with the TOPI (i.e., in absolute values) of M= .0656 and M = .0649 for binning and outliers, respectively, with item-TOPI correlations of the two methods correlated r = .938 across the 108 items (see Technical Supplement, Chapter 8, for details). We used the binned responses in subsequent analyses as it provided ready-made dropdown menus for future scale revisions.

First Approach: Outlier Mitigation with Categories "As is"

We began by visually inspecting each item for aberrant responses—particularly large ones, as "zero" was a plausible answer in most instances. Although we did not use a strict rule, we did use several heuristics including:

(a) impossibility or close to it (e.g., 10,000,000 beer cans in residence)

(b) implausibility (e.g., 100,000,000) reminders of people

(b) large interval between a response that appeared aberrant and the next smaller response

(c) apparent exaggerated large number for a joke or to make a point (e.g., any answer of one million or more)

(d) apparent number selected for its appearance, i.e., symmetry, rather than meaning (e.g., a participant who used 33, 44—multiples of 11—in an implausible fashion)

(d) very low number/single individual making the response

Recoding Plan

Our recoding plan was to deal with the outliers by recoding them. The plan is presented in full below.

We assigned the following recodes in the spirit of transforming the response to the highest possible value that was within reason and would not disrupt the distribution of other responses. That entailed recoding the outlier either to

- the smallest response of concern (i.e., the first flagged potential outlier if it was reasonable, in range, and several people responded that way),
- or to the next lowest more reasonable/minimally plausible value.
- Supplement Table 8.1 provides and item-by-item overview of the process
- The full set of items, once recoded as indicated in Supplement Table 8.1, were relabeled with "r" as a suffix to indicate they had been recoded in this way.

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Supplement Table 7.3

Item List with Outliers Noted *N* = 1186, corrected and checked 7/25/2021

item	Question	questionable response(s)	frequency of response	Recode max to either the smallest response of concern (if reasonable, in range, and several responses that way), or to the next lowest more reasonable value.
lwr3	Personal events out of the routine?	7, 8, 10	3, 1, 4	7
lbp4	times noticed a chronic pain over the week (next highest respondent: 40 times)	100	1	40
lbp8	skipped a meal over the week?	15, 20	1, 1	14
lbp9	fast all day	7	2	as is, but rewrite to indicate 24 hours
lsga1	keep a photo album or online photo album	100, 450, 1000, 3000, 10,000	5, 1, 4, 1 and 1 person respectively	100 or more
lsga2	Letters or other important texts or posts	100, 150, 200, 300, 500, 800, 1000, and 10,000,000	30, 1, 3, 1, 1, 1, 10, 1	1000. 1000 or more
lsga3	mementos, physical reminders of people	100, 100,000,000	15, 1	500
lsgb1	times go to class	25, 28, 30, 1000	3, 2, 2, 1	30
lsgb2	go to a workplace	8, 10, 12, 14	1, 3, 1, 1	7
lsgb7	spend the day mostly alone	9, 10, 20	1, 2, 2	7
lsgb10	use the cafeteria/dining hall	58	1	30
lsgb12	check social media (Facebook Instagram)	(more than 700 times a week and then) 3000, 10000, 20000, 100000, 100,000,000	18 > 700, in addition, 1, 2, 1, 1, & 1	700
lsbc2	how many beer cans?	66, 85, 90, 100, 10,000,000	1, 1, 1, 4, 1	60
lsbc4	other containers/bottles alcohol	100	1	36
lsbc8	cans or bottles of seltzer	2000	1	48
lsbc9	cups of coffee	100	1	50
lsna1	spoke with a distressed friend	60, 100	1, 2	50
lsna2	told a friend you valued them	30, 35, 40, 100	3, 1, 1, 2	30
lsna6	accepted help from someone	33, 99, 1000	1, 1, 1	21
lsna8	selected someone to make friends with and made a good decision	25, 30, 100	1, 1, 1	12
lsna9	arrived late or early	42	1	20

lsna11	discussed another person to better understand	50	1	20
ldna12	described your interests, motivations, values etc	100	1	21
lsna13	changed plans because needed	100	1	20
lsna14	raised voice	100	1	20
lsna15	got into a physical fight	10	1	6
lsna21	spoke badly about someone who didn't treat you well	50, 100	1, 1	20
lsnb1	read about a public figure	56	1	25
lsnb5	told someone you weren't interested in understanding yourself	10	1	6
lsnb6	watched yourself do something	50, 100	1, 1	20
lsnb10	Relied on someone for key decision	22, 50	1, 1, 1	10
lsnc2	watching fictional characters	100, 1000	3, 1	100
lsnc5	public figure/role model	100	1	20
lsnc9	worked on a plan for the future	20, 30	1, 1	30
lsnc10	accomplish a major relationship goal	14, 15, 16	1, 1, 1	12
lsnc11	decisively make a choice reflecting self	30, 45, 100	2, 1, 2	30
lsnd2	selected the right roommate	10, 20	1, 1	as is, but rewrite
lsnd4	realize a character defect worse than you thought before	10, 15, 100, 100,000,000,000…	3, 1, 1, 1	10, and rewrite "an event led you to realize…"
ldnd6	turned down roommate, right choice	5, 8	2, 1	as is, but rewrite "saw event that reconfirmed"
lsnd10	changed to a different section of a course	4, 5, 6, 7	3, 1, 1, 1	4
lgc6	insulted someone/religion	4	1	as is
lgc7	insulted someone/ethnic	6	1	as is
lgc8	brought cheat sheet to quiz	3,6,8	1,1,1	as is
lgc9	glanced at quiz to answer quest	100	1	9
lgc10	showed up to class high	15, 100	2, 1	15
lgc11	obtained part of test in advance	9, 18	1, 1	5
lgc12	made up excuse to be absent from class	69	1	5
lgc13	copied part of another student's paper	7, 104	1, 1	3
lgc14	copied online material for own paper	100,000	1	9
lgc15	surfed internet during class	56, 10,000,000	1	50
lgc16	obtained an online paper	7, 100	1, 1	4

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Although we removed this step in SPSS later, we initially intended to mitigate the outliers by addressing them with specific code for each item. This was later replaced with the binning method (see next chapter), which took care of this problem via a binning procedure.

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Supplement Table 7.4

Translated to SPSS as this:

if lwr3 gt 7 lwr3r = 7. if lbp4 gt 40 lbp4r = 40. if lbp8 gt 14 lbp8r = 14. if lsga1 gt 100 lsga1r = 100. if lsga2 gt 1000 lsga2r = 1000. if lsga3 gt 500 lsga3r = 500. if lsgb1 gt 30 lsgb1r = 30. if lsgb2 gt 7 lsgb1r = 7. if lsgb7 gt 7 lsgb7r = 7. if lsgb10 gt 30 lsgb10r = 30. if lsgb12 gt 700 lsgb12r = 700. if lsbc2 gt 60 lsbc2r = 60. if lsbc4 gt 60 lsbc4r = 60. if lsbc8 gt 48 lsbc8r = 48. if lsbc9 gt 50 lsbc9r = 50.	if lsna1 gt 50 lsna1r = 50. if lsna2 gt 30 lsna2r = 50. if lsna6 gt 21 lsna6r = 21. if lsna8 gt 12 lsna8r = 12. if lsna9 gt 20 lsna9r = 20. if lsna11 gt 20 lsna11r = 20. if lsna12 gt 20 lsna12r = 20. if lsna13 gt 20 lsna13r = 20. if lsna14 gt 21 lsna14r = 21. if lsna15 gt 6 lsna15r = 6. if lsna21 gt 20 lsna21r = 22.	if lsnb1 gt 25 lsnb1r =25. if lsnb5 gt 6 lsnb5r = 6. if lsnb6 gt 20 lsnb6r = 20. if lsnb7 gt 6 lsnb7r = 6. if lsnb8 gt 10 lsnb8r = 10. if lsnb10 gt 10 lsnb10r = 10. if lsnb11 gt 9 lsnb11r = 9. if lsnc2 gt 100 lsnc2r = 100. if lsnc5 gt 20 lsnc5r = 20. if lsnc10 gt 12 lsnc10r = 10. if lsnc11 gt 30 lsnc11r = 30.	if lsnd1 gt 12 lsnd1r = 12. if lsnd4 gt 10 lsnd4r = 10. if lsnd10 gt 4 lsnd10r = 4. if lgc4 gt 10 lgc4r = 10. if lgc9 gt 9 lgc9r = 9. if lgc10 gt 15 lgc10r = 15. if lgc11 gt 5 lgc11r = 5. if lgc12 gt 5 lgc12r = 5. if lgc13 gt 3 lgc13r = 3. if lgc14 gt 9 lgc14r = 9. if lgc15 gt 50 lgc15r = 50. if lgc16 gt 4 lgc16 = 4.

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Second Pass

After making the above changes, the frequencies command was re-run. Corrections were made to any mistaken implementations, and further changes were made as indicated to two negative values. Our assumption was that, when the item dealt with a mundane issue (e.g., bottles of seltzer owned at the moment) and was plausible as a positive number, respondents had inadvertently added a dash before the number; therefore the negative was switched to a positive:

if lsbc5 = -1 lsbc5r = 1.
if lsbc8 = -6 lsbc8 = 6.
lf lwr2 = 6.5 lwr2r = 6.
These involved two common-sense switches that, in the context of > 1,000 respondents, would not affect the results.

Second Approach: Using "Templated Bins" for Items

To bin the items, the following steps were followed:

- First, each item was reviewed along with its distribution of responses.
- Second, based on the review, nine response templates were created for the roughly 110 items as indicated below. There were, conceivably, one or two more templates created than were needed, strictly speaking, particularly involving templates 3 through 5. That said, having too many templates did not seem to create any particular issues. These are indicated in Supplement Table 7.5
- Third, each item was sorted into the template-box for which its responses fit best, as indicated in Supplement Table 7.6
- Fourth, SPSS code was written to reassign the variables' intervals to match the template as indicated in Supplement Table 7.7.
- Fifth, a second set of variables were created using the original variable names but with a "b" appended at the end to indicate they were binned.
- Sixth, the distributions of the binned variables were examined for anything problematic-seeming.
- Seventh, if there were issues (in this instance there were none), the binning method was changed.

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Supplement Table 7.5

The Nine Binning Templates Developed From an Examination of Item Distributions

1. Low response: Typically, once or twice a week (e.g., lbp1 receive treatment for autism)	**2. Over the week, ranging over one time a day:**	**3. Over the week: ranging about one time a day but positively skewed (lbp3 Lie down for a headache)**
○ 0 times ○ 1 time ○ 2 times ○ 3 times or more	1. 0 times 2. 1 time 3. 2 times 4. 3 to 4 times 5. 5 to 6 times 6. 7 times or more	1. 0 times 2. 1 time 3. 2 times 4. 3 to 5 times 5. 6 to 8 times 6. 10 times or more

4. Over the week: ranging between once or twice a day (e.g., skip a meal)	**5. Over the week: Ranging between one and three times a day (attend classes)**	**6. Some Objects Positively Skewed (Cartons of milk)**
1. 0 times 2. 1 time 3. 2 times 4. 3 times 5. 4 to 5 times 6. 6 to 7 times 7. 8 to 10 times 8. 11 to 12 times 9. More than 12 times	1. 0 times 2. 1 time 3. 2 to 3 times 4. 4 to 6 times **5.** 7 to 9 times **6.** 10 to 14 times **7.** 15 to 21 times **8.** More than 21 times	1. 0 2. 1 3. 2 to 3 4. 4 to 5 5. 6 to 10 6. 11 to 20 7. 20 to 50 8. More than 50
7. Many Objects Positively Skewed (Letters or important texts or posts from friends/family)	**8. Thought Action Repetitions (Noticing, observing) (lbp4 Notice a chronic pain)**	**9. Web/Computer Interactions**
1. 0 2. 1 3. 2 to 3 4. 4 to 5 5. 6 to 10 6. 11 to 30 7. 30 to 100 **1.** More than 100	○ 0 times ○ 1 time this week ○ 2 to 3 times this week ○ 1 time per day ○ 2 to 3 times a day, some or all days ○ More than 2 to 3 times a day, some or all days	1. 0 times 2. 1 to 3 times this week 3. 4 to 6 times this week 4. 1 time per day, some or most days 5. 2 to 3 times a day, some or most days 6. 5 to 9 times a day, some or most days 7. 10 to 15 times a day, most or all days 8. More than 15 times a day most or all days

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Supplement Table 7.6

Items Matched to Specific Templates

Not applicable lwr1r lwr2 lwr3 lgc17 lgc18		
Low Response lbp1 lbp2 lsna15 lsna24 lgc1 lgc2 lgc3 lgc4 lgc6 lgc7 lgc16	**Once a Day** lbp6 lbp7 lbp9 lsna16 lsna17 lsna18 lsna19 lsna20 lsna22 lsna23 lsnb4 lsnb5 lsnb7 lsnb8 lsnb9 lsnb11 lsnc7 lsnc8 lsnd5 lsnd6 lsnd7 lsnd8 lsnd9 lsnd10	**Over the week once a day or more (positively skewed)** lbp3 lsgb4 lsgb5 lsgb6 lsgb7 lsgb9 lgc8 lgc9 lgc10 lgc11 lgc12 lgc13 lgc14
Over the week: once, twice or more than twice a day lbp8 lsgb2 lsgb3 lsgb11 lsna4 lsna5 lsna10 lsnc9 lsnc10 lsnc11 lsnd1 lsnd2 lsnd3 lgc15	**Over the week: between one and three times a day (attend classes)** lsgb1 lsgb10 lsna1 lsna2 lsna3 lsna6 lsna7 lsna8 lsna9 lsna11 lsna12 lsna13 lsna14 lsna21 lsnb1 lsnb2 lsnb3 lsnb6 lsnb10 lsnc1 lsnc2 lsnc3 lsnc4 lsnc5 lsnc6 lsnd4	**Some Objects Positively Skewed (Cartons of milk)** lsbc1 lsbc2 lsbc3 lsbc4 lsbc5 lsbc6 lsbc7 lsbc8 lsbc9
Many Objects Positively Skewed (Letters or	**Thought Action Repetitions (Noticing, observing)** lbp4 lbp5	**Web/Computer Interactions** lsgb12

important texts or posts from friends/family) lsga1 lsga2 lsga3		

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The coding used to bin the items in SPSS

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Supplement Table 7.7

SPSS Code for Translating Each Variable Into its Assigned Binned Version for the PILSI 3

Low response: Typically, once or twice a week (e.g., lbp1 receive treatment for autism) 1. 0 times 2. 1 time 3. 2 times 4. 3 times or more if varxr gt 3 varxb eq 3. recode varxr (0=1) (1=2)(2=3)(3=4) into varxb	**Over the week, ranging over one time a day:** 1. 0 times 2. 1 time 3. 2 times 4. 3 to 4 times 5. 5 to 6 times 6. 7 times or more if varxr gt 7 varxb eq 7. recode varxr (0=1) (1=2)(2=3)(3=4)(4=4) (5=5)(6=5)(7=5) into varxb	**Over the week: ranging about one time a day but positively skewed (lbp3 Lie down for a headache)** 1. 0 times 2. 1 time 3. 2 times 4. 3 to 5 times 5. 6 to 9 times 6. 10 times or more if varxr gt 10 varxr eq 10. recode varxr (0=1) (1=2)(2=3)(3=4)(4=4) (5=5)(6=5)(7=5) (8=5)(9=5) (10=6) into varxb
Over the week: ranging between once or twice a day (e.g., skip a meal) 1. 0 times 2. 1 time 3. 2 times 4. 3 times 5. 4 to 5 times 6. 6 to 7 times 7. 8 to 10 times 8. 11 to 12 times 9. More than 12 times If y > 12 y eq 12. recode vars (0=1) (1=2)(2=3)(3=4)(4=5) (5=5)(6=6)(7=6) (8=7)(9=7) (10=7) (11=8) (12=8).	**Over the week: Ranging between one and three times a day (attend classes)** 1. 0 times 2. 1 time 3. 2 to 3 times 4. 4 to 6 times 5. 7 to 9 times 6. 10 to 14 times 7. 15 to 21 times More than 21 times If y > 21 y eq 21. recode vars (0=1) (1=2)(2,3=3)(4,5,6=4) (7,8,9=5) (10,11,12,13,14=6) (15,16,17,18,19,20,21=7)	**Some Objects Positively Skewed (Cartons of milk)** 1. 0 2. 1 3. 2 to 3 4. 4 to 5 5. 6 to 10 6. 11 to 20 7. 21 to 50 8. More than 50 If y > 50 y eq 50. (0=1) (1=2)(2,3=3)(4,5=4) (6,7,8,9,10=5) (11,12,13,14,15,16,17,18,19,20=6) (21,22,23,24,25,26,27,28,29,30, 31,32,33,34,35,36,37,28,39,40, 41,42,43,44,45,46,47,48,49,50=7) Recode vars

Many Objects Positively Skewed (Letters or important texts or posts from friends/family)	**Thought Action Repetitions (Noticing, observing) (lbp4 Notice a chronic pain)**	**Web/Computer Interactions**
1. 0 2. 1 3. 2 to 3 4. 4 to 5 5. 6 to 10 6. 11 to 30 7. 30 to 100 8. More than 100 If y > 100 y eq 100. (0=1) (1=2)(2,3=3)(4,5=4) (6,7,8,9,10=5) (11,12,13,14,15,16,17,18,19,20 21,22,23,24,25,26,27,28,29,30=6) (31,32,33,34,35,36,37,28,39,40, 41,42,43,44,45,46,47,48,49,50, 51,52,53,54,55,56,57,58,59,60, 61,62,63,64,65,66,67,68,69,70 71,72,73,74,75,76,77,78,79,80, 81,82,83,84,85,86,87,88,89,90, 91,92,93,94,95,96,97,98,99,100=7)	1. 0 times 2. 1 time this week 3. 2 to 3 times this week 4. about 1 time per day 5. 2 to 3 times a day, some or all days 6. More than 2 to 3 times a day, some or all days If y > 21 y eq 21. recode vars (0=1) (1=2)(2,3=3)(4,5,6,7=4) (8,9, 10,11,12,13,14, 15,16,17,18,19,20,21=7)	1. 0 times 2. 1 to 3 times this week 3. 4 to 6 times this week 4. 1 time per day, some or all days 5. 2 to 3 times a day, some or all days 6. 5 to 9 times a day, some or all days 7. 10 to 15 times a day, most or all days 8. More than 15 times a day most or all days If y > 100 y eq 100. (0=1) (1,2,3=2)(4,5,6=3) (7,8,9,10, 11,12,13,14,15,16,17,18,19,20 21 = 4) 22,23,24,25,26,27,28,29,30=6) (31,32,33,34,35,36,37,28,39,40, 41,42,43,44,45,46,47,48,49,50, 51,52,53,54,55,56,57,58,59,60, 61,62,63,64,65,66,67,68,69,70 71,72,73,74,75,76,77,78,79,80, 81,82,83,84,85,86,87,88,89,90, 91,92,93,94,95,96,97,98,99,100=7)

buffer text between tables

Note: The PILSI 3 also generated a large number of warnings about high polychoric correlations among binned items. We explored adding a further category of *very* low frequency responses, combining categories that had no endorsements so as to reduce the number of empty cells. However, that approach does reduce the response options, throwing away some information at the lower ranges. For the items temporarily adjusted in this fashion, we were able to reduce the 13 warnings to 10—which did not seem worth the adjustment to the binning. We abandoned the approach.

Comparison of Recoded Items (for Outlier Mitigation) and Binned Items of the PILSI-2 as they Related to the TOPI

Checked and corrected 07/25/2021

Supplement Table 7.8

A comparison of Binned and Recoded data: Correlations with the TOPI-MINI N = 1186 (Revised 07/26/2021)

	Item-by-Item Correlations with the TOPI MINI			
	BINNED		RECODED	
Lwr1	lwr1b	-0.03	lwr1r	-0.03
lwr2 How typical was the past week compared to other weeks for you this time of year, on a scale from 1 to 10, where 0 is not-at-all typical and 10 is very typical?	lwr2b	0.025	lwr2r	0.025
lwr3 How many personal events occurred that were very much out of the routine, if any (for example, serious medical diagnoses, illnesses, death in family, public awards)?	lwr3b	-0.045	lwr3r	-0.045
lbp1 Over the past week, how many times did you: Take medication for a disorder on the Autism spectrum?	lbp1b	-0.03	lbp1r	-0.03
lbp2 Over the past week, how many times did you: Receive treatment for a disorder on the Autism spectrum?	lbp2b	-0.014	lbp2r	-0.014
lbp3 Over the past week, how many times did you: Need to lie down for headache?	lbp3b	0.013	lbp3r	0.009
lbp4 Over the past week, how many times did you: Notice a chronic pain you had?	lbp4b	0.094	lbp4r	0.09
lbp5 Over the past week, how many times did you: Wonder if you needed to see a doctor about an ailment?	lbp5b	0.08	lbp5r	0.073
lbp6 Over the past week, how many times did you: Have trouble sleeping because of physical pain?	lbp6b	0.018	lbp6r	0.023
lbp7 Over the past week, how many times did you: See a medical professional for pain management?	lbp7b	-0.019	lbp7r	-0.012
lbp8 Over the past week, how many times did you: Skip a meal?	lbp8b	0.089	lbp8r	0.089
lbp9 Over the past week, how many times did you: Fast all day?	lbp9b	0.038	lbp9r	0.02
lsga1 How many of the following possessions did you own or keep: A photo album or an on-line photo album?	lsga1b	-0.014	lsga1r	-0.114
lsga2 How many of the following possessions did you own or keep: Letters or other important texts or posts from friends or family that are important?	lsga2b	0.06	lsga2r	-0.095
lsga3 How many of the following possessions did you own or keep: Mementos or physical reminds of people close to you?	lsga3b	0.084	lsga3r	-0.014
lsgb1 Over the past week, how many times did you: Go to a class or classes	lsgb1b	0.014	lsgb1r	0.025

lsgb2 Over the past week, how many times did you: Go to a workplace for part-time or full-time work?	lsgb2b	0.064	lsgb2r	0.064
lsgb3 Over the past week, how many times did you: Go to the gym?	lsgb3b	-0.08	lsgb3r	-0.081
lsgb4 Over the past week, how many times did you: Go to a supermarket?	lsgb4b	-0.073	lsgb4r	-0.065
slgb5 Over the past week, how many times did you: Go to a bar and/or liquor store?	lsgb5b	-0.084	slgb5r	-0.078
lsgb6 Over the past week, how many times did you: Go to a movie or a play?	lsgb6b	-0.06	lsgb6r	-0.059
lsgb7 Over the past week, how many times did you: Spend the day mostly alone, except for passersby or other superficial interactions?	lsgb7b	0.002	lsgb7r	0.003
lsgb9 Over the past week, how many times did you: Use the library?	lsgb9b	-0.078	lsgb9r	-0.076
lsgb10 Over the past week, how many times did you: Use the campus cafeteria and/or dining hall?	lsgb10b	0.99	lsgb10r	0.101
lsgb11 Over the past week, how many times did you: Play on a sports team?	lsgb11b	-0.009	lsgb11r	-0.003
lsgb12 Over the past week, how many times did you: Check online Facebook, Instagram, and other social media?	lsgb12b	0.063	lsgb12r	-0.016
lsbc1 How many: Milk cartons/containers?	lsbc1b	-0.075	lsbc1r	-0.078
lsbc2 How many: Beer cans?	lsbc2b	-0.051	lsbc2r	-0.079
lsbc3 How many: Bottles of wine?	lsbc3b	-0.061	lsbc3r	-0.07
lsbc4 How many: Other containers/bottles of alcohol?	lsbc4b	-0.027	lsbc4r	-0.063
lsbc5 How many: Vitamin water	lsbc5b	-0.1	lsbc5r	-0.123
lsbc6 How many: Energy drinks	lsbc6b	-0.058	lsbc6r	-0.055
lsbc7 How many: Soft drinks	lsbc7b	-0.036	lsbc7r	-0.061
lsbc8 How many: Cans or bottles of seltzer	lsbc8b	-0.082	lsbc8r	-0.079
lsbc9 How many: Cups of coffee (brewed, bottled, or other)	lsbc9b	-0.078	lsbc9r	-0.068
lsna1 How many times last week you: Spoke with a friend who was distressed and listened to their concerns for a few minutes or more.	lsna1b	0.02	lsna1r	-0.03
lsna2 How many times last week you: Told a friend how much you valued them.	lsna2b	0.027	lsna2r	0.024
lsna3 How many times last week you: Told someone who was upset that you had felt that way before.	lsna3b	0.008	lsna3r	0.008
lsna4 How many times last week you: Told someone who did something they regretted that you had done something similar.	lsna4b	-0.093	lsna4r	-0.094
lsna5 How many times last week you: Received a gift from someone.	lsna5b	-0.054	lsna5r	-0.062
lsna6 How many times last week you: Accepted help from someone.	lsna6b	0.002	lsna6r	0.008
lsna7 How many times last week you: Discussed and/or shared a personal, confidential issue of your own with a friend.	lsna7b	-0.021	lsna7r	-0.009
lsna8 How many times last week you: Selected someone to make friends with and made a good decision.	lsna8b	-0.098	lsna8r	-0.082
lsna9 How many times last week you: Arrived late to a destination (or on time, or early) knowing the person who would be there was likely to be similarly late (or on time, or early).	lsna9b	-0.028	lsna9r	-0.016

lsna10 How many times last week you: Thought over a polite way to set a limit on helping someone meet their needs, so as protect your time and energy.	lsna10b	-0.068	lsna10r	-0.062
lsna11 How many times last week you: Discussed another person with a friend or family member so as to better understand how that other person might act or react.	lsna11b	0.049	lsna11r	0.067
lsna12 How many times last week you: Described your interests, motivations, values, beliefs, attitudes, or reasons for your behavior to someone else.	lsna12b	0.035	lsna12r	0.035
lsna13 How many times last week you: Changed your plans at the last minute because you sensed that your friend would benefit from your help.	lsna13b	-0.099	lsna13r	-0.095
lsna14 How many times last week you: Raised your voice because someone wouldn't listen.	lsna14b	-0.081	lsna14r	-0.087
lsna15 How many times last week you: Got into a physical fight with someone who insulted you or a friend.	lsna15b	-0.167	lsna15r	-0.175
lsna16 How many times last week you: Got into a physical fight with someone to ensure they did something you wanted.	lsna16b	-0.198	lsna16r	-0.194
lsna17 How many times last week you: Were stopped by the police for a disturbance when you were drunk or high.	lsna17b	-0.147	lsna17r	-0.141
lsna18 How many times last week you: Stopped interacting with a friend online.	lsna18b	-0.025	lsna18r	-0.031
lsna19 How many times last week you: Didn't speak with a friend after a fight.	lsna19b	0.008	lsna19r	0.001
lsna20 How many times last week you: Criticized someone you were working with.	lsna20b	-0.006	lsna20r	0.006
lsna21 How many times last week you: Spoke badly about someone who didn't treat you well.	lsna21b	0.06	lsna21r	0.038
lsna22 How many times last week you: Decided to "take a break" from someone for a while.	lsna22b	-0.022	lsna22r	-0.028
lsna23 How many times last week you: Told someone who didn't treat you well just how you felt about them.	lsna23b	-0.04	lsna23r	-0.032
lsna24 How many times last week you: Posted negative comments about a friend online.	lsna24b	-0.062	lsna24r	-0.062
lsnb1 How many times last week did you: Read about a public figure who serves as a role model for you?	lsnb1b	-0.038	lsnb1r	-0.046
lsnb2 How many times last week you: Read about a(n) historical figure who serves as a role model for you?	lsnb2b	-0.113	lsnb2r	-0.131
lsnb3 How many times last week you: Talked to a friend or relative to help better understand or improve yourself?	lsnb3b	0.037	lsnb3r	0.025
lsnb4 How many times last week you: Told someone that self-knowledge (or self-understanding) is not very important?	lsnb4b	-0.222	lsnb4r	-0.229
lsnb5 How many times last week you: Told someone that you weren't interested in understanding yourself?	lsnb5b	-0.158	lsnb5r	-0.16
lsnb6 How many times last week you: Watched yourself do something to see if you could improve what you were doing?	lsnb6b	-0.061	lsnb6r	-0.054

lsnb7 How many times last week you: Heard something someone else said about how they view you that surprised you (e.g., about your reputation)?	lsnb7b	-0.004	lsnb7r	-0.001
lsnb8 How many times last week you: Heard some negative feedback about yourself that you agreed with?	lsnb8b	0.018	lsnb8r	0.011
lsnb9 How many times last week you: Heard some negative feedback about yourself you disagreed with?	lsnb9b	-0.05	lsnb9r	-0.06
lsnb10 How many times last week you: Relied on someone to make a key decision for you because you could not figure out your own preferences?	lsnb10b	0.05	lsnb10r	0.043
lsnb11 How many times last week you: Bought something you saw a celebrity endorse?	lsnb11b	-0.15	lsnb11r	-0.157
lsnc1 How many times last week did you: Read drama, literature, or other creative works about fictional characters and their lives?	lsnc1b	0.012	lsnc1r	0.017
lsnc2 How many times last week did you: Spend time watching fictional characters and their lives (in movies or videos)?	lsnc2b	0.16	lsnc2r	0.037
lsnc3 How many times last week did you: Spend time reading about or listening about fictional characters and their lives (in books or podcasts)?	lsnc3b	-0.003	lsnc3r	0.019
lsnc4 How many times last week did you: Spend time learning about science and/or engineering or mathematics from books, podcasts, or videos?	lsnc4b	0.054	lsnc4r	0.041
lsnc5 How many times last week did you: Read about public figure who serves as a role model for you?	lsnc5b	-0.053	lsnc5r	-0.054
lsnc6 How many times last week did you: Read drama, literature, or other creative works about fictional characters and their lives?	lsnc6b	0.026	lsnc6r	0.043
lsnc7 How many times last week did you: Recommend a biographical movie or book to someone who might benefit from reading the life story?	lsnc7b	-0.126	lsnc7r	-0.126
lsnc8 How many times last week did you: Receive feedback from a director when rehearsing in a play, video, or movie?	lsnc8b	-0.067	lsnc8r	-0.041
lsnc9 How many times last week did you: Worked on a plan involving your future?	lsnc9b	-0.002	lsnc9r	-0.013
lsnc10 How many times last week did you: Accomplish a major relationship goal such as meeting a promising new partner, becoming engaged or married, or making a new friend?	lsnc10b	-0.026	lsnc10r	-0.032
lsnc11 How many times last week did you: Decisively make a choice that clearly reflected your own preferences and values?	lsnc11b	0.068	lsnc11r	0.07
lsnd1 How many times last week had you: Helped someone make a decision because the choice was really what they wanted to do?	lsnd1b	0.009	lsnd1r	0.015
lsnd2 How many times last week had you: Selected the right roommate for a group living situation.	lsnd2b	-0.12	lsnd2r	-0.102
lsnd3 How many times last week had you: Described someone's serious character flaw to a friend or friends.	lsnd3b	0.069	lsnd3r	0.044
lsnd4 How many times last week had you: Realized that someone you knew had a character defect much worse than you had suspected before.	lsnd4b	-0.023	lsnd4r	-0.045
lsnd5 How many times last week had you: Turned down a possible team-member for a class project, and later found out information indicating it was the right choice.	lsnd5b	-0.242	lsnd5r	-0.234

lsnd6 How many times last week had you: Turned down a possible roommate for a group living situation and later found out it was the right choice.	lsnd6b	-0.193	lsnd6r	-0.194
lsnd7 How many times last week had you: Posted something on social media that described someone else's personality in some detail.	lsnd7b	-0.149	lsnd7r	-0.15
lsnd8 How many times last week had you: Wrote a poem that described someone else's personality.	lsnd8b	-0.134	lsnd8r	-0.124
lsnd9 How many times last week had you: Written an e-mail that described someone else's personality in some detail.	lsnd9b	-0.214	lsnd9r	-0.188
lsnd10 How many times last week had you: Changed to a different section of a course because your first instructor didn't match your learning approach.	lsnd10b	-0.155	lsnd10r	-0.148
lgc1 How many times last week had you: Attended a support group for a problem with eating?	lgc1b	-0.095	lgc1r	-0.104
lgc2 How many times last week had you: Attended a peer support group for a problem with drugs, alcohol, or gambling?	lgc2b	-0.099	lgc2r	-0.108
lgc3 How many times last week had you: Attended a support group for a problem experienced by a person close to you?	lgc3b	-0.117	lgc3r	-0.129
lgc4 How many times last week had you: Attended an affinity group meeting?	lgc4b	-0.048	lgc4r	-0.046
lgc6 How many times last week had you: Insulted someone based on their religion?	lgc6b	-0.022	lgc6r	-0.021
lgc7 How many times last week had you: Insulted someone based on their race and/or ethnicity?	lgc7b	-0.007	lgc7r	-0.034
lgc8 How many times last week had you: Brought a cheat sheet to a quiz or exam?	lgc8b	-0.08	lgc8r	-0.08
lgc9 How many times last week had you: Glanced at a classmate's quiz or exam to help decide how to answer a question?	lgc9b	-0.021	lgc9r	-0.009
lgc10 How many times last week had you: Showed up for class after drinking alcohol or otherwise high?	lgc10b	-0.054	lgc10r	-0.056
lgc11 How many times last week had you: Obtained part or all of a test in advance?	lgc11b	-0.147	lgc11r	-0.156
lgc12 How many times last week had you: Made up an excuse to avoid a penalty for being absent from class?	lgc12b	-0.032	lgc12r	-0.03
lgc13 How many times last week had you: Copied part of another student's paper?	lgc13b	-0.031	lgc13r	-0.009
lgc14 How many times last week had you: Copied online material into your own paper for a course?	lgc14b	-0.023	lgc14r	-0.015
lgc15 How many times last week had you: Surfed the internet during class or texted during class?	lgc15b	0.15	lgc15r	0.112
lgc16 How many times last week had you: Obtained a paper online or from another student and submitted parts or all of it as your own?	lgc16b	-0.067	lgc16r	-0.073
lgc17 Please select the area below most similar to your college major or expected major:	lgc17b	-0.011	lgc17r	-0.011
lgc18 Please select the area below most similar to your college major or expected major:	lgc18b	-0.012	lgc18r	-0.012

The outlier-recoding and binning methods yielded very similar average magnitudes of correlations with the TOPI (i.e., in absolute values) of *M*= .0656 and *M* = .0649 for binning and outliers, respectively, with item-TOPI correlations of the two methods correlated *r* = .938 across the 108 items (see Figure 7.X). We used the binned responses in subsequent analyses as it provided ready-made dropdown menus for future scale revisions.

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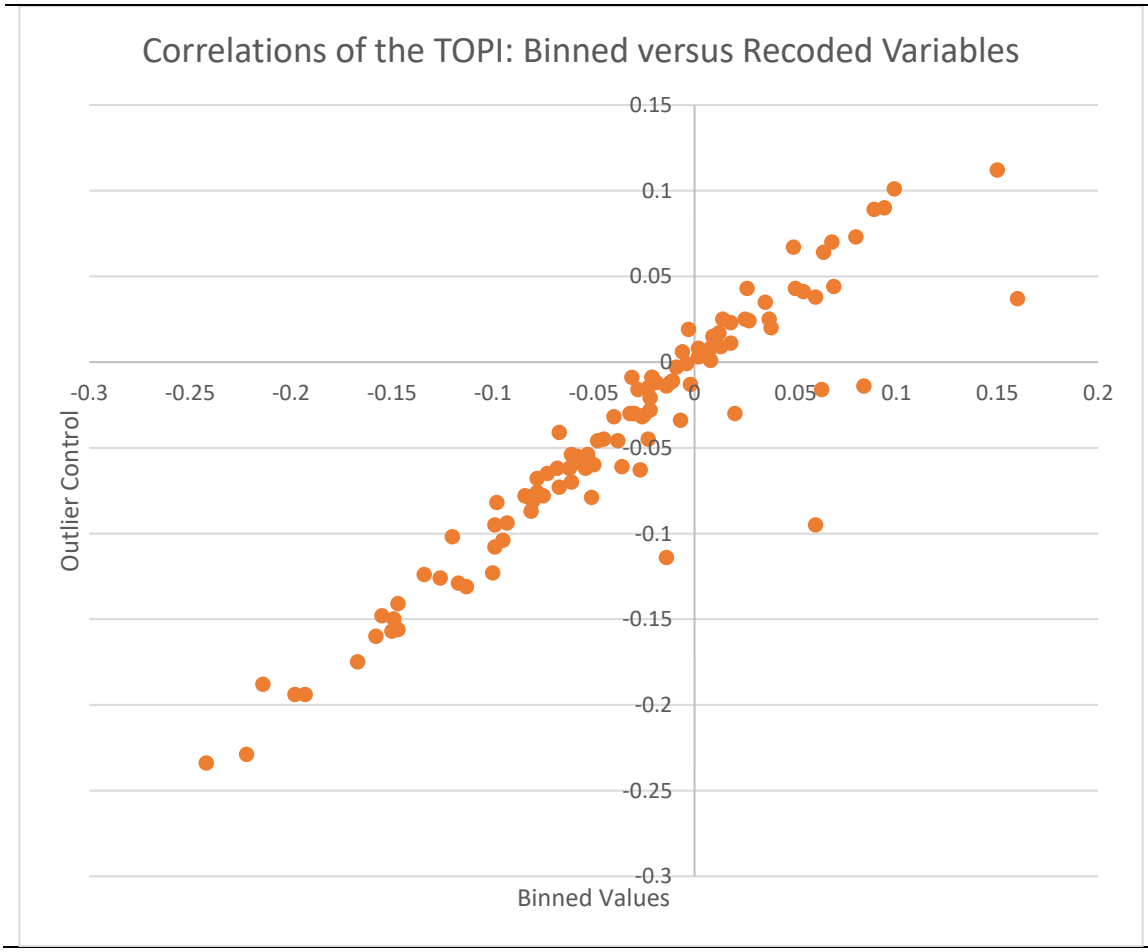
Supplement Figure 7.3.

Correlations between TOPI Items in their Binned and Recoded Forms



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Chapter 8. The PILSI-3 Study

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Recapitulation of the PILSI-2 Binning Method

Recall from earlier that the PILSI-2 used nine binning categories depending upon the response frequencies for a given item. These are reproduced in Supplement Table 8.1.

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Supplement Table 8.1 Response alternatives from Binning, Recapitulated from Supplement Table 7.5

Low response: Typically, once or twice a week (e.g., lbp1 receive treatment for autism) 5. 0 times 6. 1 time 7. 2 times 8. 3 times or more	**Over the week, ranging over one time a day:** 7. 0 times 8. 1 time 9. 2 times 10. 3 to 4 times 11. 5 to 6 times 12. 7 times or more	**Over the week: ranging about one time a day but positively skewed (lbp3 Lie down for a headache)** 6. 0 times 7. 1 time 8. 2 times 9. 3 to 5 times 10. 6 to 9 times 6. 10 times or more
Over the week: ranging between once or twice a day (e.g., skip a meal) 10. 0 times 11. 1 time 12. 2 times 13. 3 times 14. 4 to 5 times 15. 6 to 7 times 16. 8 to 10 times 17. 11 to 12 times 18. More than 12 times	**Over the week: Ranging between one and three times a day (attend classes)** 8. 0 times 9. 1 time 10. 2 to 3 times 11. 4 to 6 times 12. 7 to 9 times 13. 10 to 14 times 14. 15 to 21 times More than 21 times	**Some Objects Positively Skewed (Cartons of milk)** 9. 0 10. 1 11. 2 to 3 12. 4 to 5 13. 6 to 10 14. 11 to 20 15. 21 to 50 16. More than 50
Many Objects Positively Skewed (Letters or important texts or posts from friends/family) 9. 0 10. 1 11. 2 to 3 12. 4 to 5 13. 6 to 10 14. 11 to 30 15. 30 to 100 16. More than 100	**Thought Action Repetitions (Noticing, observing) (lbp4 Notice a chronic pain)** 7. 0 times 8. 1 time this week 9. 2 to 3 times this week 10. about 1 time per day 11. 2 to 3 times a day, some or all days 12. More than 2 to 3 times a day, some or all days	**Web/Computer Interactions** 9. 0 times 10. 1 to 3 times this week 11. 4 to 6 times this week 12. 1 time per day, some or all days 13. 2 to 3 times a day, some or all days 14. 5 to 9 times a day, some or all days 15. 10 to 15 times a day, most or all days 16. More than 15 times a day most or all days

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Transition to the PILSI-3 Binning Method

For the PILSI-3, we sought to simplify the above approach. We retained seven of the nine original binning categories for:

- low responses
- many objects
- thought-action repetitions and
- web/computer interactions.

In addition, we extended the time range for low-frequency, highly memorable events. Supplement Table 8.2 indicates the new binning categories we employed.

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Supplement Table 8.2

Template Formats Used in the PILSI 3 Items

Low Response per Week	No More than Once a Day	Possibly more than once a day
Over the past week, how many times did you fast all day? o 0 times o 1 time o 2 times o 3 times or more	*Over the past week, how many times did you* Have trouble sleeping because of physical pain? o 0 times this week o 1 time this week o 2 to 3 times this week o 4 to 5 times this week o 6 to 7 times this week	*Over the past week, how many times did you* Skip a meal? o 0 times this week o 1 time this week o 2 to 3 times this week o 4 to 6 times this week o 7 times this week o More than 7 times this week
Up to Many Times a Week	**Reported by Day**	**Range of Possessions**
Over the past week, how many times did you Told a friend how much you valued them? o 0 times this week o 1 time this week o 2 to 4 times this week o 5 to 7 times this week o 8 to 14 times this week o 15 times or more this week	*On a typical day this past week, how many times were you aware of:* A chronic pain you had? o 0 times a day o 1 time a day, for one or two days o 1 time a day, most days o 2 to 4 times a day, most days o 5 to 10 times a day, most days o more than 10 times a day	Cans of beer and bottles of wine for everyday use? o 0 (1) o 1 (2) o 2 to 3 (3) o 4 to 5 (4) o 6 to 10 (5) o 11 to 30 (6) o 31 to 100 (7) o More than 100 (8)
Computer/E-Interactions		
Over the past week, how many times did you: Check Facebook, Instagram, and other social media? o 0 times (1) o 1 to 3 times this week (2)		

o 4 to 6 times this week (3) o 1 time per day, some or all days (4) o 2 to 3 times per day, some or all days (5) o 4 to 9 times per day, some or all days (6) o 10 to 15 times per day, some or all days (7) o 16 or more times per day, some or all days (8)	

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Summary of the Steps Taken to Create the PILSI-3

A Note on this Section

This section was developed before we had decided to seek out high-dimensional factor solutions. It was originally reliant on a four- and *nine*-factor solution, as opposed to the *eight*-factor solution mentioned in the prior chapter. The nine-factor solution was available in an earlier form of the dataset which contained 1192 participants. We removed several participants, however, from the PILSI-2 after discovering that they were 17-years-old, and had participated, having disregarded our instructions that participants should be 18-years or older. In consultation with our Institutional Review Board for the ethical treatment of human participants, we removed them and substituted the eight-factor solution for the nine-factor solution. The two solutions were very similar and do not substantively affect the revisions of the scale so far as we could tell.

The Initial Outline of the PILSI-3 Development

To summarize the steps taken in this chapter, for the development of the PILSI-3, we took the following steps:

a. We conducted exploratory factor analyses of the PILSI-2.

> Using all the approximately 102 items, the four-factor solution was the highest-dimensional solution that converged without Heywood cases. Deleting two items, we were able to obtain a much higher eight-factor solution of the PILSI-2. Neither solution fit terribly well, but as is typically the case, higher dimensions fit better than lower dimensions. Which is to say that the four-factor solution was interesting and had some strong factors that correlated with the TOPI and were interpretable. Generally speaking, however, the eight-factor solution fit marginally well by customary standards, with the TLI and CFI hovering around .90.

b. We examined factors of the above mentioned four- and eight-factor solutions and interpreted them.

c. Based on *both* factor solutions, we identified five promising-appearing "item clusters" ("clusters" rather than factor-based scales because we divided one factor in half, separating the positive-loading from the negative-loading items).

> Our criteria were to find item clusters that (a) appeared on both four- and eight-factor solutions where available, (b) appeared related to personal intelligence as assessed by the TOPI and (c) were unipolar (operationally, we split bipolar factors apart, separating their positive- and negative-loading items in one instance. The five item clusters we obtained were:
>
> (a) ***Meaningful Relationships***. This was the first factor in both the 4- and 9-Factor solutions
> (b) ***Agonistic-Disagreeable Behavior*** (both with and without drug issues): This was the positive-loading-end of the second factor in both the 4- and 9-factor solutions.
> (c) ***Inner Body Sense.*** This was the negative-loading end of the second factor in both the 4- and 9-factor solutions.
> (d) ***Impersonal/Non-Specific Identifications***
> (e) ***Confident judgments***

d. We then attempted to enhance each cluster.

> To enhance the clusters, we
>
> (a) shifted items that had near-equal loadings on two different factors such that they were assigned to the factor to which they appeared most conceptually similar, and we
> (b) deleted items that failed to exhibit correlations with personal intelligence ability in the same direction as the remaining items on the factor, as well as
> (c) one item that, although it correlated with the TOPI, was challenging to interpret in any meaningful way.

e. We employed a revised set of response templates for items of similar kinds based on the response templates introduced for scoring and analyzing the PILSI-2

f. We rewrote items as needed to improve their clarity and

g. We added about a dozen additional items to two existing clusters (Meaningful Relations and Body Sense) and added a new cluster, "Planfulness" based on correlation patterns we had seen among "leftover" items, i.e., those that correlated with the TOPI but were not in any of the existing clusters. This appears as "Factor 6" in Supplement Table 8.3.

h. We then reread the survey from beginning to end and copy-edited it where needed.

The resulting item list, and the assignment of items to areas are below:

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Supplement Table 8.3

Initial Assignment of the PILSI-3 Items to the Five Promising Empirical Clusters Identified from the Factor Analyses of the PILSI-2, and Adding a Sixth Planfulness Cluster (Many Retained Items Were Unassigned to a Cluster)

Variable Name	Factor Assign	New Items/ Factor Assgn	Content
dem1			What is your gender/sex?
dem2			How old are you? Please write a number (for example, 32).
dem3			What is the highest level of education you have completed?
dem4			What is your race/ethnicity? Please choose all that apply
housing			Do you live:
roomates			Do you live:
relationship			What is your current relationship status?
lngthrelate			If you have a partner, how long have you and your partner been in a relationship?
lwr1			On what day of the week are you taking this survey? (If on multiple days, choose the day you started.)
lwr2			How typical was the past week compared to other weeks for you this time of year, on a scale from 1 to 10, where 0 is not-at-all typical and 10 is very typical?
lwr3			How many personal events occurred that were very much out of the routine, if any (for example, serious medical diagnoses, illnesses, death in family, public awards)?
lbp3	**3**		Need to lie down for headache?
lbp4			*A* chronic pain you had?
lbp5	**3**		Wonder if you needed to see a doctor about an ailment?
lbp6	**3**		Have trouble sleeping because of physical pain?
lbp8	**3**		Skip a meal?
lbp9	**3**		Fast all day?
lbp10		**3**	On a typical day...times...you aware of: your heartbeat?
lbp11		**3**	On a typical day...times...you aware of: noticing tension in your body?
lbp12		**3**	On a typical day...times...you aware of: trying to relax tension in your body?
lbp13		**3**	On a typical day...times...you aware of: your muscle strength or of moving a specific muscle?
lbp14		**3**	On a typical day...times...you aware of: focusing on your breath to calm down?
lbp15		**3**	*[Item Inadvertently Omitted] On a typical day…times you aware of: dizziness*
lsga1	**1**		How many: A photo album or on-line photo album
lsga2	**1**		How many: Letters or other important texts or posts from friends or family that are important?

lsga3	**1**		How many: Mementos or physical reminds of people close to you?
lsgb2		**6**	How many times: Go to a workplace for part-time or full-time work?
lsgb5		**2**	How many times: Go to a bar or liquor store?
lsgb10		**6**	How many times: Use the campus cafeteria and/or dining hall?
lsgb12	**1**		How many times: Check online Facebook, Instagram, and other social media?
lsbc1			bakery items (bread, bagels, crackers) (lsbc1)
lsbc2			beans (bags, cans) (lsbc2)
lsbc3			beverages (non-alcoholic such as milk, soda) (lsbc3)
lsbc4	**4**		beverages (alcoholic such as cans of beer, bottles of wine, gin, etc.) (lsbc4)
lsbc5			dairy (yogurt, cheese) (lsbc5)
lsbc6			fish (lsbc6)
lsbc7			fruits (lsbc7)
lsbc8			meats (lsbc8)
lsbc9			noodles (Ramen, spaghetti) (lsbc9)
lsbc10			nuts (bags or containers) (lsbc10)
lsbc11			soups (lsbc11)
lsbc12			sweets (boxes of candy, ice cream, brownies) (lsbc12)
lsbc13			vegetables (canned, fresh, packaged) (lsbc13)
lsna1	**1**		Times: Spoke with a friend who was distressed and listened to their concerns for a few minutes or more.
lsna2	**1**		Times: Told a friend how much you valued them.
lsna3	**1**		Times: Told someone who was upset that you had felt that way before.
lsna4	**1**		Times: Spoke with a friend who was distressed and listened to their concerns for a few minutes or more.
lsna7	**1**		Times: Discussed and/or shared a personal, confidential issue of your own with a friend
lsna8	**2**		Times: Selected someone to make friends with and made a good decision.
lsna10	**4**		Times: Thought over a polite way to set a limit on helping someone meet their needs, so as protect your time and energy.
lsna11	**1**		Times: Discussed another person with a friend or family member so as to better understand how that other person might act or react.
lsna12	**1**		Times: Described your interests, motivations, values, beliefs, attitudes, or reasons for your behavior to someone else.
lsna13		**5**	Times: Changed your plans at the last minute because you sensed that your friend would benefit from your help.
lsna14	**2**		Times: Raised your voice because someone wouldn't listen.
lsna27		**2**	Times: Gotten into an argument with someone who insulted you or a friend.
lsna15	**2**		Times: Got into a physical fight with someone who insulted you or a friend.
lsna16	**2**		Times: Got into a physical fight with someone to ensure they did something you wanted
lsna17	**2**		Times: Were stopped by the police for a disturbance when you were drunk or high.
lsna18			Times: Stopped interacting with a friend online.
lsna21	**1**		Times: Spoke badly about someone who didn't treat you well.

lsna24	**1**	**2**	Times: Posted negative comments about someone you know online
lsna25		**1**	Times: Laughed with a friend.
lsna26		**1**	Times: Sought advice from a friend.
lsnb1	**4**		Times: Read about a public figure who serves as a role model for you?
lsnb2	**4**		Times: Read about a(n) historical figure who serves as a role model for you?
lsnb3	**1**		Times: Talked to a friend or relative to help better understand or improve yourself?
lsnb4	**5**		Times: Told someone that self-knowledge (or self-understanding) is not very important?
lsnb5	**5**		Times: Told someone that you weren't interested in understanding yourself?
lsnb10		**1**	Times: Relied on someone to make a key decision for you because you could not figure out your own preferences?
lsnb11	**4**		Times: Bought something you saw a celebrity endorse?
lsnc2	**3**		Times: Spend time watching fictional characters and their lives (in movies or videos)?
lsnc4	**4**	**6**	Times: Spend time learning about science and/or engineering or mathematics from books, podcasts, or videos?
~~lsnc5~~	~~4~~		~~Times: Read about a public figure who serves as a role model for you?~~ Note: This item appears as lsnb1 and is not included in the final version
lsnc7	**4**		Times: Recommend a biographical movie or book to someone who might benefit from reading the life story?
lsnc8	2	rm from 2	*ITEM MISSING Times: Receive feedback from a director when rehearsing in a play, video, or movie? (intentionally deleted for over-specificity/narrow applicability)*
lsnc9	**4**		Times: Worked on a plan involving your future?
lsnc11	**4**		Times: Decisively make a choice that clearly reflected your own preferences and values?
lsnd1	**4**		Times: Helped someone make a decision because the choice was really what they wanted to do?
lsnd2		**5**	Times: Selected the right roommate for a group living situation.
lsnd3	**1**		Times: Described someone's serious character flaw to a friend or friends.
lsnd4	**1**	**2**	Times: Realized that someone you knew had a character defect much worse than you had suspected before.
lsnd5	**5**		Times: Realized that someone you knew had a character defect much worse than you had suspected before.
lsnd6	**5**		Times: Turned down a possible roommate for a group living situation and later found out it was the right choice.
lsnd7		**5**	Times: Posted something on social media that described someone else's personality in some detail.
lsnd8	**5**		Times: Wrote a poem that described someone else's personality.
lsnd9	**5**		Times: Written an e-mail that described someone else's personality in some detail.
lsnd10	**5**		Times: Changed to a different section of a course because your first instructor didn't match your learning approach.
lsne1		**6**	Times: Check or double-check the calendar to make sure you had enough time left to complete an assignment?
lsne2		**6**	Times: Carefully check over a task you completed and then revised part of it before deciding you were finished?

lsne3		**6**	Times: Make a plan first thing in the morning for what you wanted to accomplish?
lsne4		**6**	Times: Acknowledge a mistake you had made on a task and corrected it?
lsne5		**6**	Times: Achieve your goal to get a high grade on an assignment, quiz, or test?
lsne6		**6**	Times: Put your clothes away neatly?
lsne7		**6**	Times: Worked late to complete your part of a project?
lgc1	**5**		Times: Attended a support group for a problem with eating?
lgc2	**2**		Times: Attended a peer support group for a problem with drugs, alcohol, or gambling?
lgc3	**5**		Times: Attended a support group for a problem experienced by a person close to you?
lgc6	**2**		Times: Insulted someone based on their religion?
lgc11	**5**	**2**	Times: Obtained part or all of a test in advance?
lgc13	**4**		Times: Copied part of another student's paper?
lgc15		**1**	Times: Surfed the internet during class or texted during class?
lgc17			Most similar to major…5. Theater, drama, creative writing
lgc18			Most similar to major…5. Psychology, English, Literature
lgc20			An honors program (e.g., university, school, or department) (lgc20)
lgc21			A scientific or literary organization related to your interests (e.g., Aviation club, French club, Lab Science Society) (lgc21)
lgc22			Reserve Officer Training Corps (e.g., Army or Air Force ROTC) (lgc22)
lgc23			A Greek house (e.g., fraternity or sorority) (lgc23)
lgc24			A Sports or Outing club (e.g., Half Marathon Club, Judo Club, Club Volleyball, New Hampshire Outing club) (lgc24)
lgc25			A club focused on a National or Ethnic Identity (Middle Eastern Cultural Association, Native American Cultural Association) (lgc25)
lgc26			A political club (e.g., Young Americans for Liberty, Young Democratic Socialists of America) (lgc26)
lgc27			A music- and arts-performance club (e.g., New Hampshire Notables, Off the Clef, Improv Club) (lgc27)
lgc28			A club with a social and/or environmental mission (e.g., Organic Garden Club, Project Sunshine, Senior Smiles) (lgc28)
lgc29			A dance or arts performance club (e.g., Sisters in Step, Sketched Out Comedy Troupe) (lgc29)
lgc30			A leadership or governance organization (e.g., Stoke Hall Council, Student Senate) (lgc30)
lgc31			An organization for a sexual identity or identities (e.g., Trans UNH) (lgc31)
lgc32			A religious organization or club (e.g., Intervarsity Christian Fellowship, Muslim Students Association) (lgc32)

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Full Item List in SPSS Code

Notes: Missing items are in red;
ata, ate, and atc items represent attention checks; these were not included in the analyses beyond the screening.

dem1 to dem4,
housing, roomates, relationship, interrelated
lwr1 lwr2, lwr3,
[PILSI3 test items begin here]
lbp3, lbp4, lbp5, lbp6, lbp8, lbp9, lbp10, lbp11, lbp12, lbp13, lbp14, lbp15, [12 items]
lsga1, lsga2, lsga3 [3 items]
[ata1, ata2, ata3]
lsgb2, lsgb5, lsgb10, lsgb12, [4 items]
lsbc1, lsbc2, lsbc3, lsbc4, lsbc5, lsbc6, lsbc7, lsbc8, lsbc9, lsbc10, lsbc11, lsbc12, lsbc13
lsna1, lsna2, lsna3, lsna4, lsna7, lsna8, lsna10, lsna11, lsna12,
lsna13, lsna14, lsna27, lsna15, lsna16, lsna17, lsna18, lsna21, lsna24, lsna25, lsna26,
lsnb1, lsnb2, lsnb3, lsnb4, lsnb5, lsnb10, lsnb11,
lsnc2, lsnc4, **lsnc5,** lsnc7, **lsnc8,** lsnc9, lsnc11,
[atb1, atb2, atb3,]
lsnd1, lsnd2, lsnd3, lsnd4, lsnd5, lsnd6, lsnd7, lsnd8, lsnd9, lsnd10,
lsne1, lsne2, lsne3, lsne4, lsne5, lsne6, lsne7,
lgc1, lgc2, lgc3, lgc6, lgc11, lgc13, lgc15, lgc17, lgc18,
lgc20, lgc21, lgc22, lgc23, lgc24, lgc25, lgc26, lgc27, lgc28, lgc29, lgc30, lgc31, lgc32.
[PILSI3 test items end here]

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Final Item List		
Substantive PILSI Items	**Number**	**Cum.**
lbp3, lbp4, lbp5, lbp6, lbp8, lbp9, lbp10, lbp11, lbp12, lbp13, lbp14,	11	11
lsga1, lsga2, lsga3	3	14
lsgb2, lsgb5, lsgb10, lsgb12,	4	18
lsbc1, lsbc2, lsbc3, lsbc4, lsbc5, lsbc6, lsbc7, lsbc8, lsbc9, lsbc10, lsbc11, lsbc12, lsbc13	13	31
lsna1, lsna2, lsna3, lsna4, lsna7, lsna8, lsna10, lsna11, lsna12, lsna13, lsna14, lsna27, lsna15, lsna16, lsna17, lsna18, lsna21, lsna24, lsna25, lsna26,	20	51
lsnb1, lsnb2, lsnb3, lsnb4, lsnb5, lsnb10, lsnb11,	7	58
lsnc2, lsnc4, lsnc7, lsnc9, lsnc11,	5	63
lsnd1, lsnd2, lsnd3, lsnd4, lsnd5, lsnd6, lsnd7, lsnd8, lsnd9, lsnd10,	10	73
lsne1, lsne2, lsne3, lsne4, lsne5, lsne6, lsne7,	7	80
lgc1, lgc2, lgc3, lgc6, lgc11, lgc13, lgc15, lgc17, lgc18,	9	89
lgc20, lgc21, lgc22, lgc23, lgc24, lgc25, lgc26, lgc27, lgc28, lgc29, lgc30, lgc31, lgc32.	13	102

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AGE	GNDR													
lbp3	lbp4	lbp5	lbp6	lbp8	lbp9	lbp10	lbp11	lbp12	lbp13	lbp14			11	11
lsga1	lsga2	lsga3											3	14
lsgb2	lsgb5	lsgb10	lsgb12										4	18
lsbc1	lsbc2	lsbc3	lsbc4	lsbc5	lsbc6	lsbc7	lsbc8	lsbc9	lsbc10	lsbc11	lsbc12	lsbc13	13	31
lsna1	lsna2	lsna3	lsna4	lsna7	lsna8	lsna10	lsna11	lsna12	lsna13	lsna14	lsna27	lsna15		
		Cont.	lsna16	lsna17	lsna18	lsna21	lsna24	lsna25	lsna26				20	51
lsnb1	lsnb2	lsnb3	lsnb4	lsnb5	lsnb10	lsnb11							7	58
lsnc2	lsnc4	lsnc7	lsnc9	lsnc11									5	63
lsnd1	lsnd2	lsnd3	lsnd4	lsnd5	lsnd6	lsnd7	lsnd8	lsnd9	lsnd10				10	73
lsne1	lsne2	lsne3	lsne4	lsne5	lsne6	lsne7							7	80
lgc1	lgc2	lgc3	lgc6	lgc11	lgc13	lgc15	lgc17	lgc18					9	89
lgc20m	lgc21m	lgc22m	lgc23m	lgc24m	lgc25m	lgc26m	lgc27m	lgc28m	lgc29m	lgc30m	lgc31m	lgc32m	13	102

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Chapter 9. The PILSI-3 Analyses and Adjustments

The PILSI-3 data analyses presented their own unique issues. Fortunately, there were no changes to the *N* of the PILIS-3 data analyses in the July, 2021 correction of results. That said, one of the notable issues *re* the EFAs of the PILSI 3 were almost 100 warnings of very high pairwise correlations between items. Although it may not be clear from the narrative below, it turned out that mitigating such correlations by combining highly correlated items together did little to improve the solutions and merely made the factors more difficult to interpret. Ultimately, we left the highly correlated items in the analyses. That is, on the second pass (the small factors approach), we simply ignored the warnings about high correlations and attended only to the issue of Heywood cases. Removing Heywood cases was a more effective approach.

Participants and Data Screening

There were 444 logins to the PILSI-3 Survey during the study. Of those 6 were flagged for moving too quickly through the survey (< 2 sec. per item), 4 were non-respondents (i.e., quit the survey early, 7 were partial respondents, completing fewer than half the work. A further 11 failed the attention checks. Of the respondents, 8 more exhibited longstring responding on the TOPI 5 E39, and 20 on the SEPI. Any participant flagged for any reason was removed from the sample. Because the number of participants who were flagged for one issue were flagged for others, this summed to a total of 28 participants, all of whom were removed, leaving 416. All analyses were conducted on those 416 individuals.

Chapter 10. The PILSI 3R Sample, Screening, and Binning Approach

Screening

Altogether, 715 individuals logged onto the survey. Of these, 17 participants were flagged for signs of extreme inattention or non-compliance: Four participants were flagged for speeding, 4 for non-responding, and 6 for partial responding. Six participants were flagged for failing the attention check, eight for longstring responding on the TOPI 5E39 (an ability measure of PI) and 13 more on the SEPI (a self-report measure of PI). Altogether, 13 of the participants earned 1, 2, or 4 flags, and the remaining four triggered five flags. All 17 were excluded such that the final sample was *N* = 698. All subsequent analyses were conducted with these 698 participants.

Final Sample and Demographics

The final sample of the PILSI-3R data can be seen in Supplement Table 10-1, far right columns. (This table repeats some information from Supplement Table 2.1.)

Supplement Table 10.1 (Supplement Table 1.1, recapitulated)

Demographics (Fully Corrected) 7/17/2021

	Study 1/PILSI-2		Study 2/PILSI-3		Study 3/PILSI 3R	
	N	Percent	N	Percent	N	Percent
Age						
18-22	1174	99	408	98.1	688	98.9
23-30	9	.8	8	1.9	6	.9
31-40	1	.1	0	0	2	.3
41 and over	0	0	0	0	0	0
Missing	2	.1				
Mean (Standard Dev.)	*19.1 (.10)*	--	*19.3 (.14)*	--	*19.07 (.141)*	--
Gender						
Male	300	25.3	99	23.8	126	18.1
Female	882	74.4	314	75.5	562	80.7
Other	2	.1	3	.7	8	1.1
Missing	0	0	0	0	0	0
Race/ethnicity						
Asian	39	3.3	21	5.0	29	4.2
Black/African Am.	25	2.1	7	1.7	11	1.6
Hawaiian/Pacific Islander	1	0.1	3	.7	3	.4
Hispanic/Latino	45	3.8	14	3.4	21	3.0

Multiracial/Two or more	11	.9		4	1.0	6	.9
Native Am.	10	.8		3	.7	2	.3
White/Caucasian	1098	92.6		379	91.1	642	92.2
Other	5	.4		2	.5		
Missing							
Total N	1186	--		416	--	696	--

Response Templates

The response templates used in the 3R were the same as in the PILSI-3 with one exception: A further response template was added for items that had been reworded to allow for a longer time period. Participants had remarked in the survey comments section that there were some events that had occurred for them, but not over the week we were inquiring as to. The PILSI-3R inquired as to those low-frequency but memorable events, and allowed participants to recall whether something like them had occurred over the past year. The last, added, response template in Supplement Table 11.2 indicates the possible responses.

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Supplement Table 10.2

Template Formats Used in the PILSI 3R Items

Low Response per Week	No More than Once a Day	Possibly more than once a day
Over the past week, how many times did you fast all day? 0 times 1 time 2 times 3 times or more	*Over the past week, how many times did you* Have trouble sleeping because of physical pain? 0 times this week 1 time this week 2 to 3 times this week 4 to 5 times this week 6 to 7 times this week	*Over the past week, how many times did you* Skip a meal? 0 times this week 1 time this week 2 to 3 times this week 4 to 6 times this week 7 times this week More than 7 times this week
Up to Many Times a Week	**Reported by Day**	**Range of Possessions**
Over the past week, how many times did you Told a friend how much you valued them? 0 times this week 1 time this week 2 to 4 times this week 5 to 7 times this week 8 to 14 times this week 15 times or more this week	*On a typical day this past week, how many times were you aware of:* A chronic pain you had? 0 times a day 1 time a day, for one or two days 1 time a day, most days 2 to 4 times a day, most days 5 to 10 times a day, most days more than 10 times a day	Cans of beer and bottles of wine for everyday use? 0 1 2 to 3 4 to 5 6 to 10 11 to 30 31 to 100 More than 100
Computer/E-Interactions		**Adding Longer Time Periods for Memorable Events**

Over the past week, how many times did you: Check Facebook, Instagram, and other social media? 0 times (1) 1 to 3 times this week (2) 4 to 6 times this week (3) 1 time per day, some or all days (4) 2 to 3 times per day, some or all days (5) 4 to 9 times per day, some or all days (6) 10 to 15 times per day, some or all days (7) 16 or more times per day, some or all days (8)	*lsnd2 How many times over the past year had you:* Selected the right roommate for a group living situation. 0 times over the past year (1) 1 time over the past year (2) 2 to 3 times over the past year (3) 4 to 6 times over the past year (4) More than 6 times over the past year (6)

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PART 5: ADDITIONAL KEY AND ANCILLARY ANALYSES

Chapter 11. SEPI-24 AND SEPI-16 Correlations with the PILSI

In a submitted paper, we administered the *Self-Estimated Personal Intelligence-16 (*SEPI-16) with three versions of the PILSI (the PILSI 2, 3, and 3R). In the Study 1 of that paper (the PILSI 2), we used the SEPI-24. In Studies 2 (PILSI 3) and 3 (PILSI 3R), we substituted the *SEPI-16* for the 24-item version because of its superior psychometric properties overall (Mayer et al., 2021).

Because it was not central to the research there, we report some of the further details here. In particular, the correlations between the PILSI Core and Expansion scales and the SEPI are indicated in Supplemental Table 11-1.

Across all three studies, the Core and Expansion scales were only slightly related to participants' self-estimates of their PI ability, mostly at levels below $r = |.10|$. One noticeable exception was the correlation between the PILSI Planfulness scale and the SEPI-16 of $r = .17$, $p < .001$ in Studies 2 and 3. Four items of the SEPI deal with self-estimated planfulness (Mayer et al., 2021), and it was likely that this overlap accounted for the relationship.

Supplemental Table 11.1 can be found on the following page. Supplement Table 11.1 also includes the results for a measure of social desirability, the Balanced Inventory of Desired Responding (BIDR).

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Supplement Table 11.1

The Core and Expansion Small Factors Across Studies and their Relationship to Comparison Measures of Social Desirability and Self-Estimates of Personal Intelligence

Factor		BIDR Short Form (Study 1 only)			Correlation with SEPI Scale		
Number	Name	SDE[a]	IM[b]	BIDR Total	Study 1	Study 2	Study 3
					N = 1186	*N* = 416	*N* = 696
				Core Scales			
1	Pain Symptoms	-.22*** [-.27, -.17]	-.07* [-.13, -.01]	-.18*** [-.23, .12]	-.13*** [-.19, -.07]	-.09 [-.18, .01]	-.19*** [-.26, -.12]
2	Skipping Food	-.20*** [-.25, -.14]	.09** [.03, .15]	-.18*** [-.23, .12]	-.06* [-.12, .00]	-.10* [-.19, .00]	-.22*** [-.29, -.15]
3	Relationship Signifiers	.04 [-.02, .10]	-.01 [-.07, .05]	-.03 [-.09, .03]	-.08** [-.14, -.02]	.09 [-.01, .18]	.10** [.03, .17]
4	Interpersonal Comm.	-.09*** [-.15, -.03]	-.14*** [-.20, -.08]	-.15*** [-.21, .09]	.03 [-.03, .09]	.09 [-.01, .18]	.06 [-.01, .13]
5	Overt Conflict	-.01 [-.07, .05]	-.06* [-.12, .00]	-.04 [-.10, .02]	-.01 [-.07, .05]	-.04 [-.14, .06]	-.11** [-.18, .04]
6	Impersonal Identification	.03 [-.03, .09]	.00 [-.06, .06]	.02 [-.04, .08]	.05 [-.01, .11]	.03 [-.07, .13]	.04 [-.11, .03]
7	Fault-Finding	-.10*** [-.16, -.04]	-.31*** [-.36, -.26]	-.26 [-.31, -.21]	.02 [-.04, .08]	-.15** [-.24, .05]	-.09* [-.13, .02]
8	Confident Judgments	-.02 [-.08, .04]	-.03 [-.08, .04]	-.03 [-.09, .03]	.00 [-.06, .06]	-.10* [-.09, .00]	.02 [-.05, .09]
9	Support Groups	-.09*** [-.15, -.03]	-.02 [-.08, .04]	-.07*** [-.13, -.01]	-.03 [-.09, .03]	-.08 [-.17, .02]	-.05 [-.12, .02]
10	Humanities	-.09** [-.15, -.03	-.02 [-.08, .04]	-.07** [-.13, -.01]	.00 [-.06, .06]	.05 [-.05, .15]	-.01 [-.08, .06]
				Expansion Scales			
11	Body Sense	NI [NI, NI]	NI [NI, NI]	NI [NI, NI]	NI [NI, NI]	-.01 [-.11, .09]	-.13*** [-.20, .06]
12	Substance Use	NI [NI, NI]	NI [NI, NI]	NI [NI, NI]	NI [NI, NI]	NI [NI, NI]	-.02 [-.09, .05]
13	Companionship	NI [NI, NI]	NI [NI, NI]	NI [NI, NI]	NI [NI, NI]	-.03 [-.13, .07]	.05 [.02, .12]
14	Planfulness	NI [NI, NI]	NI [NI, NI]	NI [NI, NI]	NI [NI, NI]	.17*** [.08, .26]	.17*** [.10, .24]
15	Self-Disinterest	NI [NI, NI]	NI [NI, NI]	NI [NI, NI]	NI [NI, NI]	-.08 [-.13, .07]	-.02 [-.09, .05]
	TOPI Scale	-.08** [.00, .00]	-.02 [-.08, .04]	-.06* [-.12, .00]	.01 [-.05, .07]	.05 [-.05, .15]	-.05 [-.12, .02]
	SEPI Scale	.57*** [.53, .61]	.10*** [.04, .16]	.41*** [.36, .46]	1.00 [--, .--]	1.00 [--, .--]	1.00 [--, .--]

*p < .05; ** p < .01; ***p < .001; a. self-deception enhancement b. impression management

NI: Not Included

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Chapter 12. Confidence Intervals for Correlations in Tables

Confidence Intervals for Coefficient Alpha

The confidence intervals for coefficient alpha were generated in SPSS using the Intraclass Correlation Coefficient. The following web resource, from IBM, indicates the nature of the issue.

https://www.ibm.com/support/pages/confidence-interval-cronbachs-alpha-spss

> "Cronbach's alpha is identical to the intraclass correlation coefficient (ICC), when the ICC is calculated using either the two-way mixed consistency or two-way random consistency models. ICCs can be obtained through dialogs by clicking on the Statistics button under Analyze > Scale > Reliability Analysis, and checking the "Intraclass Correlation Coefficient" checkbox. A total of five ANOVA models are available through which the ICC may be calculated; as long as one chooses a two way consistency model (this is done through the two dropdowns labeled "Model" and "Type" just below the ICC checkbox), you will see in the output table titled "Intraclass Correlation Coefficient" a line labeled "Average Measures". The ICC on this line will be identical to Cronbach's Alpha, and a confidence interval is reported for the ICC; hence this is a CI for Alpha as well."

Confidence Intervals for Correlations and Regressions

Both the confidence intervals for the correlations and for the R^2 were computed in R using the *psychometrics* package. The key code in R for the analyses, along with examples for Study 1, are indicated below:

Supplement Table 12.1

R Code in the *Psychometrics* package for calculating confidence intervals for correlations

```
if (!require('psychometric'))
{
  install.packages('psychometric');
  library(psychometric);

CIr(r=.07, n = 1186, level = .95) #confidence interval for a Pearson correlation
CIr(r=.08, n = 1186, level = .95)
CIr(r=.05, n = 1186, level = .95)
CIr(r=-.01, n = 1186, level = .95)
```

```
CIr(r=-.20, n = 1186, level = .95)

CIr(r= -.09, n = 1186, level = .95)
CIr(r= .02, n = 1186, level = .95)
CIr(r= -.28, n = 1186, level = .95)
CIr(r= -.13, n = 1186, level = .95)
CIr(r=- -.01, n = 1186, level = .95)

CI.Rsq(rsq = .112, n = 1186, k = 10, level=.95) #confidence interval for a Regression R^2
```

Here are some key stats for the regressions *re* the three studies.

Please note that, for the regression, the Lower and Upper Bounds of the R^2 values came from the Psychometrics program in

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Supplement Table 12.2

R Code in the *Psychometrics* package for calculating confidence intervals for correlations

	Scales	R	R2	Adj R	LCL 95	UCL 95	Adj R2	LCL 95	UCL 95	F df	F	sig
Study 1	Core	.346	.120	.33	.28	.38	.112	0.07852948	0.1454705	10, 1179	15.915	.000
	All	NA	NA				NA			NA	NA	
Study 2	Core	.434	.188	.41	.32	.48	.168	0.1044212	0.2315788	10,415	9.393	.000
	All	.507	.257	.48	.40	.55	.231	0.1627731	0.2992269	14, 415	9.897	.000
Study 3	Core	.433	.187	.42	.35	.47	.175	0.124639	0.225361	10, 697	15.834	.000
	All	.506	.256	.49	.43	.54	.240	0.1860665	0.2939335	15, 682	15.667	.000

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Chapter 13. Differences Between the Self-Identified Gender Groups

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Supplement Table 13.1

Preparation for Tests of Gender Differences

	Study 1			Study 2			Study 3		
	Women	Men	Diff	Women	Men	Diff	Women	Men	Diff
N	*882*	*300*		*314*	*99*		*562*	*126*	
Pain symptoms	.08	.02		-.03	.10		.01	-.06	
Irritable control/fasting	.10	.03		.06	.10		.00	-.02	
Relation Signifiers	.07	-.07		.11	.12		.05	.00	
Interpersonal comms	-.03	-.03		.15	.13		.08	.20	
Overt Conflict	-.20	-.22		-.25	-.21		-.17	-.25	
Impersonal Identifications	-.05	-.16		-.07	-.23		.02	-.21	
Neg Critic	.04	-.04		.10	.16		.11	.32	
Conf. Unreflective Judgment	-.29	-.29		-.29	-.26		-.28	-.29	
Support Groups	-.14	-.16		-.24	-.19		-.10	-.23	
Humanities	-.01	-.04		.01	-.08		-.05	-.02	
Body sense	--	--		.09	.08		.19	.16	
Substance	--	--		--	--		-.11	-.37	
Companionship	--	--		.09	-.12		.03	.06	
Planfulness	--	--		.22	.28		.21	-.04	
Self disinterest	--	--		-.32	-.35		-.20	-.33	

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Supplement Table 13.2

The Conversion to Fischer Zs

	STUDY 1		**STUDY 2**		**STUDY 3**	
	Women Fisher Z	Men FisherZ	Women Fisher Z	Men FisherZ	Women Fisher Z	Men FisherZ
Factor Scale	*882*	*300*	*314*	*99*	*562*	*126*

1	0.08	0.02	-0.03	0.10	0.01	-0.06
2	0.10	0.03	0.06	0.10	0.00	-0.02
3	0.07	-0.07	0.11	0.12	0.05	0.00
4	-0.03	-0.03	0.15	0.13	0.08	0.20
5	-0.20	-0.22	-0.26	-0.21	-0.17	-0.26
6	-0.05	-0.16	-0.07	-0.23	0.02	-0.21
7	0.04	-0.04	0.10	0.16	0.11	0.33
8	-0.30	-0.30	-0.30	-0.27	-0.29	-0.30
9	-0.14	-0.16	-0.24	-0.19	-0.10	-0.23
10	-0.01	-0.04	0.01	-0.08	-0.05	-0.02
11			0.09	0.08	0.19	0.16
12			NA	NA	-0.11	-0.39
13			0.09	-0.12	0.03	0.06
14			0.22	0.29	0.21	-0.04
15			-0.33	-0.37	-0.20	-0.34

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Supplement Table 13.3

The Weighted Means, Inverse Fischer *r*s and significance levels

	WEIGHTED FISHER MEAN		**INVERSE FISHER**			
Factor Scale	WOMEN	MEN	WOMEN	MEN	DIFF	
	1758.00	525.00	1758.00	525.00		
1	0.04	0.02	0.04	0.02	0.02	
2	0.06	0.03	0.06	0.03	0.03	
3	0.07	-0.02	0.07	-0.02	0.09	p < .04
4	0.04	0.06	0.04	0.06	-0.02	
5	-0.20	-0.23	-0.20	-0.23	0.03	
6	-0.03	-0.19	-0.03	-0.19	0.15	p < .001
7	0.07	0.09	0.07	0.09	-0.01	
8	-0.30	-0.29	-0.29	-0.28	0.00	
9	-0.15	-0.18	-0.15	-0.18	0.04	
10	-0.02	-0.04	-0.02	-0.04	0.02	
	876.00	225.00	*876.00*	225.00		
11	0.16	0.13	0.15	0.12	0.03	
12	-0.11	-0.39	-0.11	-0.37	0.26	p < .05
13	0.05	-0.02	0.05	-0.02	0.07	
14	0.22	0.10	0.21	0.10	0.11	p < .07 (n.s.)
15	-0.25	-0.35	-0.24	-0.34	0.09	

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MAIN APPENDICES

Appendix A. Open-Source Version of the PILSI 3R Scale and Scoring

Item Codes, Numbering, and Item Content

lbp3
1. Over the past week, how many times did you: Need to lie down for headache?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lbp4
2. On a typical day this past week, how many times were you aware of:
A chronic pain you had?

- 0 times a day (1)
- 1 time a day, for one or two days (2)
- 1 time a day, most days (3)
- 2 to 4 times a day, most days (4)
- 5 to 10 times a day, most days (5)
- more than 10 times a day (6)

lbp5
3. Over the past week, how many times did you:
Wonder if you needed to see a doctor about an ailment?

- 0 times this week (1)
- 1 time this week (2)
- 2 to 4 times this week (3)
- 5 to 7 times this week (4)
- 8 to 14 times this week (5)
- 15 times or more this week (6)

lbp6
4. Over the past week, how many times did you:
Have trouble sleeping because of physical pain?

- 0 times this week (1)
- 1 time this week (2)
- 2 to 3 times this week (3)

- 4 to 5 times this week (4)
- 6 to 7 times this week (5)

lbp8
5. Over the past week, how many times did you:
Skip a meal?

- 0 times this week (1)
- 1 time this week (2)
- 2 to 3 times this week (3)
- 4 to 6 times this week (4)

lbp9
6. Over the past week, how many times did you:
Fast all day?

- 0 times (1)
- 1 time (2)
- 2 times (3)
- 3 times or more (4)

lbp11
7. On a typical day this past week, how many times were you aware of:
tension in your body?

- 0 times this week (1)
- 1 to 2 times this week (2)
- 3 to 4 times this week (3)
- 1 time a day, most days (4)
- 2 to 4 times a day, most days (5)
- 5 to 10 times a day, most days (6)
- more than 10 times a day, most days (7)

lbp12
8. On a typical day this past week, how many times were you aware of:
trying to relax the tension in your muscles or other parts of your body?

- 0 times this week (1)
- 1 to 2 times this week (2)
- 3 to 4 times this week (3)
- 1 time a day, most days (4)
- 2 to 4 times a day, most days (5)
- 5 to 10 times a day, most days (6)
- more than 10 times a day, most days (7)

lsga1

9. About how many printed and digital photos of friends and family do you have readily accessible?

- 0 (1)
- 1 (2)
- 2 to 3 (3)
- 4 to 5 (4)
- 6 to 10 (5)
- 11 to 30 (6)
- 31 to 100 (7)
- More than 100 (8)
- More than 1000 (9)

lsga2

10. How many of the following possessions did you own or keep:
Letters, lengthy e-mails or similar written or recorded messages from friends or family that are important?

- 0 (1)
- 1 (2)
- 2 to 3 (3)
- 4 to 5 (4)
- 6 to 10 (5)
- 11 to 30 (6)
- 31 to 100 (7)
- More than 100 (8)

lsga3

11. How many of the following possessions did you own or keep:
Mementos or physical reminders of people close to you?

- 0 (1)
- 1 (2)
- 2 to 3 (3)
- 4 to 5 (4)
- 6 to 10 (5)
- 11 to 30 (6)
- 31 to 100 (7)
- More than 100 (8)

lsga8

12. How many of the following possessions did you own or keep?
Cans of beer and bottles of wine for everyday use?

- 0 (1)
- 1 (2)
- 2 to 3 (3)

- 4 to 5 (4)
- 6 to 10 (5)
- 11 to 30 (6)
- 31 to 100 (7)
- More than 100 (8)

lsga12
13. How many of the following possessions did you own or keep?
Cans of beer and bottles of wine for use sharing with family and friends?

- 0 (1)
- 1 (2)
- 2 to 3 (3)
- 4 to 5 (4)
- 6 to 10 (5)
- 11 to 30 (6)
- 31 to 100 (7)
- More than 100 (8)

lsgb7
14. Over the past week, how many times did you: Go to a store to buy alcoholic drinks (e.g., beer or liquor?)

- Click to write Choice 1 (1)
- Click to write Choice 2 (2)
- Click to write Choice 3 (3)

lsna0 [Instructions for the next section]
Instructions. Please tell us how many times last week you spent in each type of interactions with other people described below. The interactions can include in-person, socially distanced, online, or other communications.

lsna1
15. How many times last week you:
Spoke with a friend who was distressed and listened to their concerns for a few minutes or more.

- 0 times this week (1)
- 1 time this week (2)
- 2 to 4 times this week (3)
- 5 to 7 times this week (4)
- 8 to 14 times this week (5)
- 15 times or more this week (6)

lsna2
16. How many times last week you: Let a friend know how much you valued them.

- 0 times this week (1)
- 1 time this week (2)
- 2 to 4 times this week (3)
- 5 to 7 times this week (4)
- 8 to 14 times this week (5)
- 15 times or more this week (6)

lsna3
17. How many times last week you: Let someone know who was upset that you had felt that way before too.

- 0 times this week (1)
- 1 time this week (2)
- 2 to 4 times this week (3)
- 5 to 7 times this week (4)
- 8 to 14 times this week (5)
- 15 times or more this week (6)

lsna4
18. How many times last week you: Communicated with a friend who was distressed and listened to their concerns for a few minutes or more.

- 0 times this week (1)
- 1 time this week (2)
- 2 to 4 times this week (3)
- 5 to 7 times this week (4)
- 8 to 14 times this week (5)
- 15 times or more this week (6)

lsna7
19. How many times last week you: Shared a personal, confidential issue of your own with a friend.

- 0 times this week (1)
- 1 time this week (2)
- 2 to 4 times this week (3)
- 5 to 7 times this week (4)
- 8 to 14 times this week (5)
- 15 times or more this week (6)

lsna14
20. How many times last week you: Raised your voice because someone wouldn't listen.

- 0 times this week (1)
- 1 time this week (2)
- 2 to 4 times this week (3)
- 5 to 7 times this week (4)

- 8 to 14 times this week (5)
- 15 times or more this week (6)

lsna27
21. How many times last week you: Got into an argument with someone who insulted you or a friend.

- 0 times this week (1)
- 1 time this week (2)
- 2 to 4 times this week (3)
- 5 to 7 times this week (4)
- 8 to 14 times this week (5)
- 15 times or more this week (6)

lsna15
22. How many times last week you: Got into a fight with someone who insulted you or a friend (in person or online).

- 0 times this week (1)
- 1 time this week (2)
- 2 times this week (3)
- 3 times this week or more (4)

lsna16
23. How many times last week you: Got into a fight with someone to ensure they did something you wanted.

- 0 times this week (1)
- 1 time this week (2)
- 2 times this week (3)
- 3 times this week or more (4)

lsna17
24. How many times last week you: Got yourself into trouble when you were drunk or high.

- 0 times this week (1)
- 1 time this week (2)
- 2 times this week (3)
- 3 times this week or more (4)

lsna21
25. How many times last week you: Spoke badly about someone you observed, but who hadn't done anything bad to you directly.

- 0 times this week (1)
- 1 time this week (2)
- 2 to 4 times this week (3)

- 5 to 7 times this week (4)
- 8 to 14 times this week (5)
- 15 times or more this week (6)

lsna25
26. How many times last week you: Laughed with a friend.
- 0 times this week (1)
- 1 time this week (2)
- 2 to 4 times this week (3)
- 5 to 7 times this week (4)
- 8 to 14 times this week (5)
- 15 times or more this week (6)

lsna26
27. How many times last week you: Sought advice from a friend.
- 0 times this week (1)
- 1 time this week (2)
- 2 to 3 times this week (3)
- 4 to 6 times this week (4)
- 7 times this week (5)
- More than 7 times this week (6)

lsnb0
[Instructions for the next items]
Instructions. Please continue to tell us how many times last week you spent in each type of interaction described below.

lsnb1
28. How many times last week did you: Read or watched a video about a public figure who serves as a role model for you?
- 0 times this week (1)
- 1 time this week (2)
- 2 to 4 times this week (3)
- 5 to 7 times this week (4)
- 8 to 14 times this week (5)
- 15 times or more this week (6)

lsnb2
29. How many times last week did you: Read or watched a video about a(n) historical figure who serves as a role model for you?
- 0 times this week (1)
- 1 time this week (2)

- 2 to 4 times this week (3)
- 5 to 7 times this week (4)
- 8 to 14 times this week (5)
- 15 times or more this week (6)

lsnb3
30. How many times last week did you: Communicate with a friend or relative to ask for advice to improve yourself?

- 0 times this week (1)
- 1 time this week (2)
- 2 to 3 times this week (3)
- 4 to 6 times this week (4)
- 7 times this week (5)
- More than 7 times this week (6)

lsnb4
31. How many times last week did you: Tell someone that self-knowledge (or self-understanding) is not very important?

- 0 times this week (1)
- 1 time this week (2)
- 2 to 3 times this week (3)
- 4 to 6 times this week (4)
- 7 times this week (5)
- More than 7 times this week (6)

lsnb5
32. How many times last week did you: Tell someone that you weren't interested in understanding yourself?

- 0 times this week (1)
- 1 time this week (2)
- 2 to 3 times this week (3)
- 4 to 6 times this week (4)
- 7 times this week (5)
- More than 7 times this week (6)

lsnd3
33. How many times last week you: Described someone’s serious character flaw to a friend or friends.

- 0 times this week (1)
- 1 time this week (2)
- 2 times this week (3)
- 3 times or more this week (4)

lsnd4
34. How many times last week you: Realized that someone you knew had a character flaw much worse than you had suspected before.

- 0 times this week (1)
- 1 time this week (2)
- 2 to 3 times this week (3)
- 3 times or more this week (4)

lsnd5
35. How many times over the past semester (or this semester) you: Turned down or avoided a possible team-member for a class project, and later found out information indicating it was the right choice.
o 0 times over the past semester (1)
o 1 time over the past semester (2)
o 2 to 3 times over the past semester (3)
o 3 times or more over the past semester (4)

lsnd6
36. How many times over the last several months you: Turned down a possible roommate for a group living situation and later found out it was the right choice.
o 0 times the past year (1)
o 1 time the past year (2)
o 2 to 3 times the past year (3)
o 4 to 6 times the past year (5)
o More than 6 times over the past year (7)

lsnd8
37. How many times last week you: Wrote a poem that described someone else's personality.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsnd9
38. How many times last week you: Wrote an e-mail that described someone else's personality in some detail.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)

o More than 7 times this week (6)

lsnd10
39. How many times this semester had you: Changed to a different section of a course because your first instructor didn't match your learning approach.
o 0 times (1)
o 1 time (2)
o 2 times (3)
o more than 2 times (4)

lsne1
40. Over the past week, how many times did you: Check or double-check the calendar to make sure you had enough time left to complete a an assignment?

- 0 times this week (1)
- 1 time this week (2)
- 2 to 3 times this week (3)
- 4 to 6 times this week (4)
- 7 times this week (5)
- More than 7 times this week (6)

lsne2
41. Over the past week, how many times did you: Carefully check over a task you completed and then revised part of it before deciding you were finished?

- 0 times this week (1)
- 1 time this week (2)
- 2 to 3 times this week (3)
- 4 to 6 times this week (4)
- 7 times this week (5)
- More than 7 times this week (6)

lsne3
42. Over the past week, how many times did you: Make a plan first thing in the day for what you wanted to accomplish?

- 0 times this week (1)
- 1 time this week (2)
- 2 to 3 times this week (3)
- 4 to 6 times this week (4)
- 7 times this week (5)
- More than 7 times this week (6)

lsne4
43. Over the past week, how many times did you: Acknowledge a mistake you had made on a task and corrected it?

- 0 times this week (1)
- 1 time this week (2)
- 2 to 3 times this week (3)
- 4 to 6 times this week (4)
- 7 times this week (5)
- More than 7 times this week (6)

lsne5
44. Over the past week, how many times did you: Achieve your goal to get a high grade on an assignment, quiz, or test?

- 0 times this week (1)
- 1 time this week (2)
- 2 to 3 times this week (3)
- 4 to 6 times this week (4)
- 7 times this week (5)
- More than 7 times this week (6)

lgc2
45. How many times last week did you: Attend a peer support group for a problem with eating, drugs, alcohol, or gambling?

- 0 times (1)
- 1 time (2)
- 2 times (3)
- 3 times or more (4)

lgc3
46. How many times last week did you: Attend a support group for a problem that a person close to you experienced (but that you were not directly experiencing at the time)?

- 0 times (1)
- 1 time (2)
- 2 times (3)
- 3 times ore more (4)

lgc17
47. Please select the area below most similar to your college major or expected major:

- Mathematics, Engineering (1)
- Business, Marketing and Sales (2)
- History, Religion, Legal, Justice Studies (3)
- Sociology, Anthropology, Cultural Studies (4)
- Theater, Drama, Creative Writing (5)

lgc18
48. Please select the area below most similar to your college major or expected major:

- Chemistry, Biology, Physics (1)
- Government, Environmental Studies (2)
- Economics, Political Science, Women's Studies (3)
- Education, Nursing, Pre-Med (4)
- Psychology, English, Literature (5)

Table of Scored Items and Item Codes

List of scored items	
Item Number	Item Code
1	lbp3
2	lbp4
3	lbp5
4	lbp6
5	lbp8
6	lbp9
7	lbp11
8	lbp12
9	lsga1
10	lsga2
11	lsga3
12	lsga8
13	lsga12
14	lsgb5
15	lsna1
16	lsna2
17	lsna3
18	lsna4
19	lsna7
20	lsna14
21	lsna27
22	lsna15
23	lsna16
24	lsna17
25	lsna21
26	lsna25
27	lsna26

28	lsnb1
29	lsnb2
30	lsnb3
31	lsnb4
32	lsnb5
33	lsnd3
34	lsnd4
35	Lsnd5
36	Lsnd6
37	Lsnd8
38	Lsnd9
39	Lsnd10
40	lsne1
41	lsne2
42	lsne3
43	lsne4
44	lsne5
45	lgc2
46	lgc3
47	lgc17
48	lgc18

Buffer text

Compute statements in SPSS

	Scale								
Physical Sensitivity									
Pain Symptoms	pains	=	sum	zlbp3	zlbp4	zlbp5	zlbp6).		4
Skipping Food	skpfd	=	sum	zlbp8	zlbp9).				2
Body Sense	bdysn	=	sum	zlbp11	zlbp12).				2
Adaptive Integration									
Interpersonal Communication	icomm	=	sum	zlsna1	zlsna2	zlsna3	zlsna4).		4
Relationship Signifiers	relsg	=	sum	zlsga1	zlsga2	zlsga3).			3
Companionship	compn	=	sum	zlsna7	zlsna25	zlsna26	zlsnb3).		4
Critical Evaluation	crtev	=	sum	zlsnd3	zlsnd4	zlsna21).			3
Planfulness	planf	=	sum	zlsne1	zlsne2	zlsne3	zlsne4	zlsne5).	5
Unintegrated Behavior									
Unreflective Judgments	unrfj	=	sum	zlsnd5	zlsnd6	zlsnd8	zlsnd9	zlsnd10).	5
Impersonal Identification	imprs	=	sum	zlsnb1	zlsnb2).				2

Self-Incuriosity	incur	=	sum	zlsnb4	zlsnb5).				2
Overt Conflict	confl	=	sum	zlsna14	zlsna27	zlsna15	zlsna16	zlsna17).	5
Support Groups	supgr	=	sum	zlgc2	zlgc3).				2
Substance Abuse	subst	=	sum	zlsga8	zlsga12	zlsgb7).			3
Academic/ Occupational Interest									
Interest	humnt	=	sum	zlgc17	zlgc18).				2
SUM									48

Computational Code for Calculating Scales (Alt. Format)

Computations		# scored items
Note: The "z" preceding each variable indicates that it has been converted to a z-score before these operations		
Physical Sensitivity		
Pain Symptoms	compute pains = sum(zlbp3, zlbp4, zlbp5, zlbp6).	4
Skipping Food	compute skpfd = sum(zlbp8, zlbp9).	2
Body Sense	compute bdysn = sum(zlbp11, zlbp12).	2
Adaptive Integration		
Interpersonal Communication	compute icomm = sum(zlsna1, zlsna2, zlsna3, zlsna4).	4
Relationship Signifiers	compute relsg = sum(zlsga1, zlsga2, zlsga3).	3
Companionship	compute compn = sum(zlsna7, zlsna25, zlsna26, zlsnb3).	4
Critical Evaluation	compute crtev = sum(zlsnd3, zlsnd4, zlsna21).	3
Planfulness	compute planf = sum(zlsne1, zlsne2, zlsne3, zlsne4, zlsne5).	5
Unintegrated Behavior		
Unreflective Judgments	compute unrfj = sum(zlsnd5, zlsnd6, zlsnd8, zlsnd9, zlsnd10).	5
Impersonal Identification	compute imprs = sum(zlsnb1, zlsnb2).	2
Self-Incuriosity	compute incur = sum(zlsnb4, zlsnb5).	2
Overt Conflict	compute confl = sum(zlsna14, zlsna27, zlsna15, zlsna16, zlsna17).	5

Support Groups	compute supgr = sum(zlgc2, zlgc3).	2
Substance Abuse	compute subst = sum(zlsga8, zlsga12, zlsgb7).	3
Academic/Occupational Interest		
Interest	compute humnt = sum(zlgc17, zlgc18).	2

Appendix B. Copies of all the PILSI Scales as Administered

PILSI 1.0 Survey

J. D. Mayer, D. R. Caruso, A. T. Panter

Instructions The following scale asks you to report on a number of activities, possessions, memberships and other aspects of your life environment. For example, a number of questions ask you the number of times you did something over the space of a week (or longer, in some instances). For each question, please answer as accurately as you can. If you never engaged in an activity, use "0 time" to indicate "never."

PART 1

Over the past week, how many times did you (0 times = not at all/never):

1. remember a dream in the morning from the night before? 0 times 1 time 2 times 3 times 4 times 5 mornings 6 mornings 7 mornings
2. notice an emotion you were feeling that you had not expected 0 times 1 time 2 times 3 times 4 times 5 times – why limited #? True for most items
3. describe an inner feeling you had that was important to you, to someone else 0 times 1 time 2 times 3 times 4 times 5 times
4. watch yourself doing something to see if you could improve what you were doing? 0 times 1 time 2 times 3 times 4 times 5 times
5. hear anything said by others that reflected how they view you (e.g., your reputation?) 0 times 1 time 2 times 3 times 4 times 5 times
6. ask someone for feedback on a project? 0 times 1 time 2 times 3 times 4 times 5 times
7. ask someone for feedback as to how you were doing? 0 times 1 time 2 times 3 times 4 times 5 times
8. ask someone whether other people like you (or another person likes you)? Yes No

Over the past month, how many times did you:

9. tell someone that you aren't interested in understanding yourself? 0 times 1 time 2 times 3 times 4 times 5 times
10. ask someone for help in trying to better understand yourself? 0 times 1 time 2 times 3 times 4 times 5 times

Over the past <u>year</u>, did you:

11. see a psychotherapist on a regular basis? A. 0 weeks (not at all) B. 1-2 weeks C. 3-4 weeks D. 5-6 weeks E. 7 weeks or more
12. Make entries in a journal diary? A. 0 times B. 1-10 entries C. 11-20 entries D. More than 20 entires
13. Maintain a facebook page? A. 0 weeks B. 1-5 months C. Most or all of the year
14. Blog or otherwise record in at least a few sentences on-line your personal feelings or reactions to your ongoing life? A. 0 times B. 1-10 times C. 11-20 times D. More than 20 times.

PART 2

Over the past week, how many times did you:

15. imitate someone, using their voice and inflection, to make a point about the person? 0 times 1 time 2 times 3 times 4 times 5 times
16. imitate someone, using their voice and inflection, to entertain someone else? 0 times 1 time 2 times 3 times 4 times 5 times
17. watch a dramatic television show, movie, or play that emphasized characters? (e.g., a medical show, detective show, or soap?) ? 0 times 1 time 2 times 3 times 4 times 5 times
18. watch a situation comedy or comedy movie or play with memorable characters (e.g., with several colorful characters who interact in amusing ways)? 0 times 1 time 2 times 3 times 4 times 5 times
19. describe your interests, motivations, values, beliefs, attitudes, or reasons for your behavior to someone else? 0 times 1 time 2 times 3 times 4 times 5 times
20. read about a public figure who serves as a role model to you? 0 times 1 time 2 times 3 times 4 times 5 times
21. read about a historical figure who serves as a role model to you? 0 times 1 time 2 times 3 times 4 times 5 times
22. talk to someone who is a role model for you? 0 times 1 time 2 times 3 times 4 times 5 times – assumes phone not email, assumes number of times shows intensity of communication
23. talk to a mentor or advisor to help better understand or improve yourself ? 0 times 1 time 2 times 3 times 4 times 5 times

24. talk to a friend or relative to help better understand or improve yourself ? 0 times 1 time 2 times 3 times 4 times 5 times

Over the past week, did you:

25. spend time with a friend or co-worker trying to figure out what makes someone else "tick?" e.g., do the things they do? YES NO
26. spend time with a family member trying to figure out what makes someone else "tick?" e.g., do the things they do? YES NO

Over the past month, how many times did you:

27. write a poem that described someone else's personality? 0 1 2 3 4 5
28. write an e-mail that described someone else's personality in some detail? 0 1 2 3 4 5
29. feel surprised by feedback from someone else about you, or an exam you took or a project you worked on? 0 times 1 time 2 times 3 times 4 times 5 times

Over the past year, how many weeks were you:

30. involved as an actor in a theater or video play? A. 0 weeks B. 1-2 weeks C. 3-4 weeks D. 5-6 weeks E. 7 weeks or more
31. a member of an acting group? ? A. 0 weeks B. 1-2 weeks C. 3-4 weeks D. 5-6 weeks E. 7 weeks or more

Please estimate the number of books you have read in ***the last year in:***

32. Science and technology A. none B. 1 C. 2-3 D. 4 E. 5 or more
33. Drama A. none B. 1 C. 2-3 D. 4 E. 5 or more
34. Classics A. none B. 1 C. 2-3 D. 4 E. 5 or more
35. Romance A. none B. 1 C. 2-3 D. 4 E. 5 or more
36. Poetry A. none B. 1 C. 2-3 D. 4 E. 5 or more
37. Autobiography and/or Memoirs A. none B. 1 C. 2-3 D. 4 E. 5 or more
38. Biographies A. none B. 1 C. 2-3 D. 4 E. 5 or more
39. History A. none B. 1 C. 2-3 D. 4 E. 5 or more
40. Mystery A. none B. 1 C. 2-3 D. 4 E. 5 or more
41. Self Help A. none B. 1 C. 2-3 D. 4 E. 5 or more
42. Religion A. none B. 1 C. 2-3 D. 4 E. 5 or more
43. Other A. none B. 1 C. 2-3 D. 4 E. 5 or more

PART 3

Over the past week, how many times did you:

44. rely on someone else to make a key choice (decision) for you because you could not figure out your own preferences? 0 times 1 time 2 times 3 times 4 times 5 times
45. decisively make a choice, knowing that the choice reflected your own preferences and values? 0 times 1 time 2 times 3 times 4 times 5 times
46. Work on a project that was a good fit with your personality? Never 1-3 months; 4-6 months; 7-9 months 10-12 months
47. Work at a job that was a bad overall fit with your personality? Never 1-3 months; 4-6 months; 7-9 months 10-12 months
48. join a club or social group that allowed you to express a part of yourself you otherwise might not? Yes No
49. select the right team-member for a project – the team-member came through 0 times (no opportunity/living alone) 1 time 2 times 3 times 4 times 5 times
50. select the right roommate for a group living situation 0 times (no opportunity) 1 time 2 times 3 times 4 times 5 times
51. turn down a possible team-member for a class project, and later found out information indicating it was the right choice 0 times 1 time 2 times 3 times 4 times 5 times
52. turn down the right roommate for a group living situation and later found out it was the right choice 0 times (no opportunity\living alone) 1 time 2 times 3 times 4 times 5 times
53. select someone to make friends with and made a good decision 0 times 1 time 2 times 3 times 4 times 5 times

Please answer the following questions about courses in relation to the most recent college semester you completed. If this is your first college semester, answer it as best you can in relation to this semester. This semester, how many courses have you taken/are you taking that you found:

54. Really motivated you to learn and study harder? 0 courses 1 course 2 courses 3 courses 4 courses
55. Seemed to diminish your motivation or interest in learning? 0 courses 1 course 2 courses 3 courses 4 courses

PART 4

In the past week, how many times did you:

56. Use a personal experience to motivate your behavior 0 times 1 time 2 times 3 times 4 times 5 times
57. Use an ideal image of yourself to motivate yourself to get something done? 0 times 1 time 2 times 3 times 4 times 5 times
58. share a story from your own past to try to help someone 0 times 1 time 2 times 3 times 4 times 5 times
59. use a memory from your life to motivate yourself to get something done? 0 times 1 time 2 times 3 times 4 times 5 times
60. use a memory from your life to help you cope with something difficult? 0 times 1 time 2 times 3 times 4 times 5 times
61. work on a plan involving your future? 0 times 1 time 2 times 3 times 4 times 5 times
62. tell someone that self-knowledge (or self-understanding) is not very important 0 times 1 time 2 times 3 times 4 times 5 times
63. help someone make a decision by identifying what (sounded like what) they most wanted to do 0 times 1 time 2 times 3 times 4 times 5 times
64. suggested to someone who was trying to make a decision which alternative was probably best 0 times 1 time 2 times 3 times 4 times 5 times

In the last year, how many times have you:

65. achieved a life goal or an important part of a career-related goal such as finishing a class, or a degree, or another major life project? 0 times 1-3 times 4-6 times 7-9 times 9 times or more.
66. achieved a major relationship goals such as meeting a promising new partner, becoming engaged or married, or making a new friend? 0 times 1-3 times 4-6 times 7-9 times 9 times or more.
67. achieved a major personal goal such as getting more exercise, eating right, cultivating a hobby, or exploring a new place? 0 times 1-3 times 4-6 times 7-9 times 9 times or more.
68. Do you have a list of goals? [ ] Yes [ ] No

Over the past month, how often did you discuss or share a personal, secret or confidential issue of your own with a

69. Friend : A. every day B. several days a week C. once a week D. two or three times a month E. less often
70. Co-worker/colleague: A. every day B. several days a week C. once a week D. two or three times a month E. less often

71. Over the past month, how often did you listen to or discuss a friend's personal issues or provide comfort to the friend? A. every day B. several days a week C. once a week D. two or three times a month E. less often

72. Over the past month, how often did you display physical affection to a friend or relative? A. every day B. several days a week C. once a week D. two or three times a month E. less often

Section Break Here:

But, as implemented, the PILSI 1.0 had been edited a further time:

1a	1. Please answer these questions.	1. Please answer these questions.-a. Do you have a list of goals?
1b	1. Please answer these questions.	1. Please answer these questions.-b. In the past year did you join a club or social group that allowed you to express a part of yourself you otherwise might not?
2a	2. Over the past week, how many times did you (0 times = not at all/never):	2. a. remember a dream in the morning from the night before?
2b	2. Over the past week, how many times did you (0 times = not at all/never):	2. b. notice an emotion you were feeling that you had not expected?
2c	2. Over the past week, how many times did you (0 times = not at all/never):	2. c. describe an inner feeling you had that was important to you, to someone?
2d	2. Over the past week, how many times did you (0 times = not at all/never):-d.	2. d. watch yourself doing something to see if you could improve what you were doing?
2e	2. Over the past week, how many times did you (0 times = not at all/never):-e.	2. e. hear anything said by others that reflected how they view you (e.g., your reputation?)
2f	2. Over the past week, how many times did you (0 times = not at all/never):-f.	2. f. ask someone for feedback on a project?
2g	2. Over the past week, how many times did you (0 times = not at all/never):-g.	2. g. ask someone for feedback as to how you were doing?
3a	3. Over the past week, how many times did you (0 times = not at all/never):-a.	3. a. imitate someone, using their voice and inflection, to make a point about the person?
3b	3. Over the past week, how many times did you (0 times = not at all/never):-b.	3. b. imitate someone, using their voice and inflection, to entertain someone else?
3c	3. Over the past week, how many times did you (0 times = not at all/never):	3. c. watch a dramatic television show, movie, or play that emphasized characters (e.g., a medical show, detective show, or soap?)
3d	3. Over the past week, how many times did you (0 times = not at all/never):	3. d. watch a situation comedy or comedy movie or play with memorable characters (e.g., with several colorful characters who interact in amusing ways)?
3e	3. Over the past week, how many times did you (0 times = not at all/never):-e.	3. e. describe your interests, motivations, values, beliefs, attitudes, or reasons for your behavior to someone else
3f	3. Over the past week, how many times did you (0 times = not at all/never):-f.	3. f. read about a public figure who serves as a role model to you?
3g	3. Over the past week, how many times did you (0 times = not at all/never):-g.	3. g. read about a historical figure who serves as a role model to you?
3h	3. Over the past week, how many times did you (0 times = not at all/never):-h.	3. h. talk to someone who is a role model for you? (assumes phone not email, assumes number of times shows intensity of communication)
3i	3. Over the past week, how many times did you (0 times = not at all/never):	3. i. talk to a mentor or advisor to help better understand or improve yourself?
3j	3. Over the past week, how many times did you (0 times = not at all/never):	3. j. talk to a friend or relative to help better understand or improve yourself?
4a	4. Over the past week, how many times did you (0 times = not at all/never):	4. a. Use a personal experience to motivate your behavior?
4b	4. Over the past week, how many times did you (0 times = not at all/never):-b.	4. b. Use an ideal image of yourself to motivate yourself to get something done?

4c	4. Over the past week, how many times did you (0 times = not at all/never):	4. c. share a story from your own past to try to help someone?
4d	4. Over the past week, how many times did you (0 times = not at all/never):-d.	4. d. use a memory from your life to motivate yourself to get something done?
4e	4. Over the past week, how many times did you (0 times = not at all/never):-e.	4. e. use a memory from your life to help you cope with something difficult?
4f	4. Over the past week, how many times did you (0 times = not at all/never):-f.	4. f. work on a plan involving your future?
4g	4. Over the past week, how many times did you (0 times = not at all/never):	4. g. tell someone that self-knowledge (or self-understanding) is not very important?
4h	4. Over the past week, how many times did you (0 times = not at all/never):	4. h. help someone make a decision by identifying what (sounded like what) they most wanted to do?
4i	4. Over the past week, how many times did you (0 times = not at all/never):	4. i. suggested to someone who was trying to make a decision which alternative was probably best?
4j	4. Over the past week, how many times did you (0 times = not at all/never):	4. j. decisively make a choice, knowing that the choice reflected your own preferences and values?
4k	4. Over the past week, how many times did you (0 times = not at all/never):	4. k. decisively make a choice, knowing that the choice reflected your own preferences and values?
5a	5. Over the past week, how many times did you:	5. a. ask someone whether other people like you (or another person likes you)?
5b	5. Over the past week, how many times did you:	5. b. spend time with a friend or co-worker trying to figure out what makes someone else “tick?” e.g., do the things they do?
5c	5. Over the past week, how many times did you:	5. c. spend time with a family member trying to figure out what makes someone else “tick?” e.g., do the things they do?
6a	6. Over the past month, how many times did you (0 times = not at all/never/no opportunity):	6. Over the past month, how many times did you (0 times = not at all/never/no opportunity):-a. select the right team-member for a project – the team-member came?
6b	6. Over the past month, how many times did you (0 times = not at all/never/no opportunity):	6. Over the past month, how many times did you (0 times = not at all/never/no opportunity):-b. select the right roommate for a group living situation?
6c	6. Over the past month, how many times did you (0 times = not at all/never/no opportunity):	6. Over the past month, how many times did you (0 times = not at all/never/no opportunity):-c. turn down a possible team-member for a class project, and later found out information indicating it was the right choice?
6d	6. Over the past month, how many times did you (0 times = not at all/never/no opportunity):	6. Over the past month, how many times did you (0 times = not at all/never/no opportunity):-d. turn down the right roommate for a group living situation and later found out it was the right choice?
6e	6. Over the past month, how many times did you (0 times = not at all/never/no opportunity):	6. Over the past month, how many times did you (0 times = not at all/never/no opportunity):-e. select someone to make friends with and made a good decision?
7a	7. Over the past month, how many times did you:	7. a. tell someone that you aren’t interested in understanding yourself?
7b	7. Over the past month, how many times did you:	7. b. ask someone for help in trying to better understand yourself?
7c	7. Over the past month, how many times did you:	7. c. write a poem that described someone else’s personality?

7d	7. Over the past month, how many times did you:	7. d. write an e-mail that described someone else's personality in some detail?
7e	7. Over the past month, how many times did you:	7. e. feel surprised by feedback from someone else about you, or an exam you took or a project you worked on?
8a	8. Over the past month, how often did you:	8. a. discuss or share a personal, secret or confidential issue of your own with a friend?
8b	8. Over the past month, how often did you:	8. b. discuss or share a personal, secret or confidential issue of your own with a co-worker/colleague?
8c	8. Over the past month, how often did you:	8. c. listen to or discuss a friend's personal issues or provide comfort to the friend?
8d	8. Over the past month, how often did you:	8. d. display physical affection to a friend or relative?
9a	9. In the past year, for how many months did you:	9. In the past year, for how many months did you:-a. Work on a project that was a good fit with your personality?
9b	9. In the past year, for how many months did you:	9. In the past year, for how many months did you:-b. Work at a job that was a bad overall fit with your personality?
10a	10. In the past year, how many books you have read in these areas (please estimate):-a.	a. Science and technology
10b	10. In the past year, how many books you have read in these areas (please estimate):-b.	b. Drama
10c	10. In the past year, how many books you have read in these areas (please estimate):-c.	c. Classics
10d	10. In the past year, how many books you have read in these areas (please estimate):-d.	d. Romance
10e	10. In the past year, how many books you have read in these areas (please estimate):-e.	e. Poetry
10f	10. In the past year, how many books you have read in these areas (please estimate):-f.	f. Autobiography and/or Memoirs
10g	10. In the past year, how many books you have read in these areas (please estimate):-g.	g. Biographies
10h	10. In the past year, how many books you have read in these areas (please estimate):-h.	h. History
10i	10. In the past year, how many books you have read in these areas (please estimate):-i.	i. Mystery
10j	10. In the past year, how many books you have read in these areas (please estimate):-j.	j. Self Help
10k	10. In the past year, how many books you have read in these areas (please estimate):-k.	k. Religion
10i	10. In the past year, how many books you have read in these areas (please estimate):-l.	l. Other
11a	11. In the past year, how many weeks (please estimate):	11. a. were you involved as an actor in a theater or video play?
11b	11. In the past year, how many weeks (please estimate):	11. b. were you a member of an acting group?

11c	11. In the past year, how many weeks (please estimate):	11. c. did you see a psychotherapist on a regular basis?
12a	12. In the past year, how many times did you (please estimate):	12. a. achieve a life goal or an important part of a career-related goal such as finishing a class, or a degree, or another major life project?
12b	12. In the past year, how many times did you (please estimate):	12. b. achieve a major relationship goals such as meeting a promising new partner, becoming engaged or married, or making a new friend?
12c	12. In the past year, how many times did you (please estimate):	12. c. achieve a major personal goal such as getting more exercise, eating right, cultivating a hobby, or exploring a new place?
13a	13. In the past year, how many times did you (please estimate):	13. a. Make entries in a journal diary?
13b	13. In the past year, how many times did you (please estimate):	13. b. Blog or otherwise record in at least a few sentences on-line your personal feelings or reactions to your ongoing life
14a	Please answer the following questions about courses in relation to the most recent college semester…	a. Really motivated you to learn and study harder?
14b	Please answer the following questions about courses in relation to the most recent college semester…	b. Seemed to diminish your motivation or interest in learning?
15	Please tell us about your Facebook use. 15. Do you use Facebook?	Please tell us about your Facebook use. 15. Do you use Facebook?
16		16. In general, how often do you update your Facebook page? (e.g., make updates, post to your page)?
17		17. In general, how often do you check Facebook? (e.g., check messages, read what is posted, look ar...
18		18. How many friends do you have on Facebook?-Please use the slider:

PILSI 1.1 Survey

Clean copy for IRB

TOPI 1.1
1. Major. Please indicate the field that is closest to your major:
a. drama, literature, or creative writing (but not English or other languages)
b. English or other languages
c. sociology, anthropology, and/or cultural studies
d. experimental and related other areas of research psychology (e.g., perception, biopsychology, cognition, social psychology)
e. clinical, counseling and/or personality psychology
d. history
e. engineering, chemistry, biology, or physics
f. business and/or economics, excluding organizational behavior/human resources
g. organizational behavior or psychology and/or human resources
i. education
j. prelaw or premed
k. medicine or veterinary school
l. other
m. Undecided
SELF OBSERVATION
2. Over the past week, how many times did you (0 times = not at all/never)
a. check your horoscope
b. "check your gut" to see if doing something felt right to you to do
c. look in a mirror to think about how you were maturing
d. watch yourself doing something to see if you could improve what you were doing?
e. hear anything said by others that reflected how they view you (e.g., your reputation?)
f. ask someone for feedback on a project?
g. ask someone for feedback as to how you were doing?
h. hear some negative feedback about yourself that you agreed with?
i. hear some negative feedback about yourself that you disagreed with?
PORTRAYING SELF AND OTHERS
3. Over the past week, how many times did you (0 times = not at all/never):
a. imitate someone in their presence, using their voice and gestures, to make a point about the person?
b. imitate someone who was not there, using their voice and gestures, to entertain someone else?
c. Exaggerate something you yourself often do in the presence of others to make fun of yourself with them.
d. Describe a personality characteristic of yourself (e.g., shy, creative, conventional) to another person?
e. describe your interests, motivations, values, beliefs, attitudes, or reasons for your behavior to someone else?

f. read about a public figure who serves as a role model to you?
g. read about a historical figure who serves as a role model to you?
h. talk to someone who is a role model for you? (assumes phone not email, assumes number of times shows intensity of communication)
i. talk to a mentor or advisor to help better understand or improve yourself?
j. talk to a friend or relative to help better understand or improve yourself?
MAKING CHOICES/SYSTEMATIZING GOALS
4. Over the past week, how many times did you (0 times = not at all/never)
a. Use a personal experience to motivate your behavior?
b. Use an ideal image of yourself to motivate yourself to get something done?
c. share a story from your own past to try to help someone?
d. use a memory from your life to motivate yourself to get something done?
e. use a memory from your life to help you cope with something difficult?
f. work on a plan involving your future?
g. tell someone that self-knowledge (or self-understanding) is not very important?
h. help someone make a decision by identifying what (sounded like what) they most wanted to do?
[Make Choices for Others]
i. suggested to someone who was trying to make a decision which alternative was probably best?
j. decisively make a choice, knowing that the choice reflected your own preferences and values?
k. decisively make a choice, knowing that the choice reflected your own preferences and values?
5. Training and Education
Please indicate the amount of training you have had in any of the following areas: (less than one hour/1-10 hours/11-40 hours/more than 40 hours
a. peer counseling
b. empathic listening
c. conflict resolution
d. crisis intervention
e. a form of psychotherapy technique such as conducting cognitive-behavioral therapy
f. an academic course in acting
g. being directed as an actor in a play, video, or movie
h. a course on writing fiction with an emphasis on character development
Selection of Others
6. Over the past year how many times did you (0 times = not at all/never/no opportunity):
a. select the right team-member for a project
b. select the right roommate for a group living situation?
c. turn down a possible team-member for a class project, and later found out information indicating it was the right choice?
d. turn down the right roommate for a group living situation and later found out it was the right choice?
e. select someone to make friends with and made a good decision?
7. Over the past month, how many times did you:
a. tell someone that you aren't interested in understanding yourself?

b. ask someone for help in trying to better understand yourself?
c. write a poem that described someone else's personality?
d. write an e-mail that described someone else's personality in some detail?
e. feel surprised by feedback from someone else about you, or an exam you took or a project you worked on?
f. post something on a blog or social network that described someone else's personality in some detail?
g. talk with a friend or family member about a third person so as to better understand how that third person might act or react.
h. Initiated a conversation with someone you do not really like in order to better understand the person's point of view.
i. Prolonged a conversation with someone you do not really like in order to better understand their point of view.
Setting Boundaries and Facing Conflict **8. Over the past month, how often did you:**
a. raise your voice or yell at someone to stop them from doing something wrong
b. get drunk or high
c. repeat a negative rumor about someone you knew to one or more other people
d. get into a physical fight with someone
e. stopped by the police for a disturbance
f. get into a shouting match with someone
g. stop talking with someone because of a disagreement, argument, or other problem
h. analyze the problem with someone's personality with a friend or coworker
i. stop interacting with a friend online
j.Post negative comments about a friend online
9. In the past year, for how many months did you:
a. Work on a project that was a good fit with your personality?
b. Work at a job that was a bad overall fit with your personality?
MEDIA -- Composite **10. In the past year, how many books you have read in these areas (please estimate):**
a. Science and technology
b. Drama
c. Classics
d. Romance
e. Poetry
f. Autobiography and/or Memoirs
g. Biographies
h. History
i. Mystery
j. Self Help
k. Religion
l. Other

11. In the past year, how many weeks (please estimate):
a. were you involved as an actor in a theater or video play?
b. were you a member of an acting group?
c. did you see a psychotherapist for individual therapy where you discussed your thoughts and feelings?
d. did you attend group psychotherapy where you discussed your thoughts and feelings?
e. did you see a psychologist, psychiatrist, or other health professional about medication for a psychiatric problem?
f. did you attend a support group for a problem such as alcohol or drug use?
g. did you attend a support group for a problem with eating?
h. did you attend a peer support group for a problem other than drugs, alcohol, or eating?
12. In the past year, how many times did you (please estimate):
a. achieve a life goal or an important part of a career-related goal such as finishing a class, or a degree, or another major life project?
b. achieve a major relationship goals such as meeting a promising new partner, becoming engaged or married, or making a new friend?
c. achieve a major personal goal such as getting more exercise, eating right, cultivating a hobby, or exploring a new place?
13. In the past year, how many times did you (please estimate):
a. Make entries in a journal diary?
b. Blog or otherwise record in at least a few sentences on-line your personal feelings or reactions to your ongoing life
c. took a personality test online to learn about yourself
14. Please answer the following questions about courses in relation to the most recent college semester
a. Really motivated you to learn and study harder?
b. Seemed to diminish your motivation or interest in learning?
c. How many courses did you take over the last semester that you believe increased your motivation to learn?
d. How many courses did you take over the last semester that you believe reduced your motivation to learn?
e. How many class projects did you choose (where you were given a choice by the professor) that you were genuinely interested in?
15. Please tell us about some of your possessions. Do you own or keep:
a. a photo album or an on-line photo album?
b. a copy of your family tree?
c. results for yourself from psychological tests?
d. letters or important emails from friends or family?
e. mementos or physical reminders of people close to you?

	Item is included in factor*:	1	2	3	4
	18. Training and Education				
	Please indicate the amount of training you have had in any of the following areas: (less than one hour/1-10 hours/11-40 hours/more than 40 hours				
	a. Peer counseling				
	b. Emphatic listening				
	c. Crisis intervention				
	d. A form of psychotherapy technique such as conducting cognitive-behavioral therapy				
	e. An academic course in acting				
	f. Being directed as an actor in a play, video, or movie				
	15. Problematic and Rule-Following Behavior				
	a. raise your voice or yell at someone to stop them from doing something wrong				
	b. get drunk or high				
	c. repeat a negative rumor about someone you knew to one or more other people				
	d. get into a physical fight with someone				
	e. stopped by the police for a disturbance				
	f. get into a shouting match with someone				
	g. stop talking with someone because of a disagreement, argument, or other problem				
	h. analyze the problem with someone's personality with a friend or coworker				
	16. Media consumption (Re-development of 10)				
	Use the following weighting system:				
	a. Science and technology				
	b. Drama				
	c. Classics				
	d. Romance				
	e. Poetry				
	f. Autobiography and/or Memoirs				
	g. Biographies				
	h. History				
	i. Mystery				
	j. Self Help				
	k. Religion				
	l. Other				

	3c. watch a dramatic television show, movie, or play that emphasized characters (e.g., a medical show, detective show, or soap?)				
	3d. watch a situation comedy or comedy movie or play with memorable characters (e.g., with several colorful characters who interact in amusing ways)?				
	i.				

PILSI-2 SURVEY

2019-04-24rev27-Distrb

Start of Block: PILSI2-LWR

lwr0 Now think back on the last seven or eight days. For example, if today is Monday, begin with last Monday and include Monday, today. If today is Saturday, think back to last Saturday. Next, think back to what happened over the past week, including up to the time of this survey.

lwr1 On what day of the week are you taking this survey?

_____

lwr2 How typical was the past week compared to other weeks for you this time of year, on a scale from 1 to 10, where 0 is not-at-all typical and 10 is very typical?

_____

lwr3 How many personal events occurred that were very much out of the routine, if any (for example, serious medical diagnoses, illnesses, death in family, public awards)?

_____

End of Block: PILSI2-LWR
Start of Block: PILSI2-LBP

lbp1 Over the past week, how many times did you: Take medication for a disorder on the Autism spectrum?

_____

lbp2 Over the past week, how many times did you: Receive treatment for a disorder on the Autism spectrum?

_____

lbp3 Over the past week, how many times did you: Need to lie down for headache?

_____

lbp4 Over the past week, how many times did you: Notice a chronic pain you had?

_____

lbp5 Over the past week, how many times did you: Wonder if you needed to see a doctor about an ailment?

_____

lbp6 Over the past week, how many times did you: Have trouble sleeping because of physical pain?

_____

lbp7 Over the past week, how many times did you: See a medical professional for pain management?

_____

lbp8 Over the past week, how many times did you: Skip a meal?

_____

lbp9 Over the past week, how many times did you: Fast all day?

_____

End of Block: PILSI2-LBP
Start of Block: PILSI2-LSGa

lsga1 How many of the following possessions did you own or keep: A photo album or an on-line photo album?

_____

lsga2 How many of the following possessions did you own or keep: Letters or other important texts or posts from friends or family that are important?

_____

lsga3 How many of the following possessions did you own or keep: Mementos or physical reminds of people close to you?

_____

End of Block: PILSI2-LSGa
Start of Block: Part ATA

ata1 1. The researchers who designed this survey would like to thank you for your participation this far. For this question and the two after it we're going to ask you to select a specific

alternative to make sure you're still reading and thinking about the items. For this question, please choose the alternative below that begins with the letter q.
o too loud (1)
o about the right level when he talks (2)
o quiet (3)
o he never says anything (4)

ata2 2. Please select the word below that rhymes with "lattice":
o status (1)
o affection (2)
o cognition (3)
o normality (4)

ata3 3. Our last question about attention in this section asks you to select the word "agreeable" from the list below:
o a quality hard to judge (1)
o thoughtful (2)
o agreeable (3)
o uncertain (4)

End of Block: Part ATA
Start of Block: PILSI-LSGb

lsgb1 Over the past week, how many times did you: Go to a class or classes
_____

lsgb2 Over the past week, how many times did you: Go to a workplace for part-time or full-time work?
_____

lsgb3 Over the past week, how many times did you: Go to the gym?
_____

lsgb4 Over the past week, how many times did you: Go to a supermarket?
_____

slgb5 Over the past week, how many times did you: Go to a bar and/or liquor store?
_____

lsgb6 Over the past week, how many times did you: Go to a movie or a play?
_____

lsgb7 Over the past week, how many times did you: Spend the day mostly alone, except for passersby or other superficial interactions?

_____

lsgb9 Over the past week, how many times did you: Use the library?

_____

lsgb10 Over the past week, how many times did you: Use the campus cafeteria and/or dining hall?

_____

lbp11 Over the past week, how many times did you: Play on a sports team?

_____

lbp12 Over the past week, how many times did you: Check online Facebook, Instagram, and other social media?

_____

End of Block: PILSI-LSGb
Start of Block: PILSI-LSBc

lsbc0 Instructions. Please tell us, generally speaking, how many of the following items you had in your refrigerator, cupboard, or other food storage area last week.

lsbc1 How many: Milk cartons/containers?

_____

lsbc2 How many: Beer cans?

_____

lsbc3 How many: Bottles of wine?

_____

lsbc4 How many: Other containers/bottles of alcohol?

_____

lsbc5 How many: Vitamin water

_____

lsbc6 How many: Energy drinks

_____

lsbc7 How many: Soft drinks

_____

lsbc8 How many: Cans or bottles of seltzer

_____

lsbc9 How many: Cups of coffee (brewed, bottled, or other)

_____

End of Block: PILSI-LSBc
Start of Block: PILSI-LSNa

lsna0 Instructions. Please tell us how many times last week you spent in each type of interactions with other people described below.

lsna1 How many times last week you: Spoke with a friend who was distressed and listened to their concerns for a few minutes or more.

_____

lsna2 How many times last week you: Told a friend how much you valued them.

_____

lsna3 How many times last week you: Told someone who was upset that you had felt that way before.

_____

lsna4 How many times last week you: Told someone who did something they regretted that you had done something similar.

_____

lsna5 How many times last week you Received a gift from someone.

_____

lsna6 How many times last week you Accepted help from someone.

_____

lsna7 How many times last week you Discussed and/or shared a personal, confidential issue of your own with a friend.

_____

lsna8 How many times last week you Selected someone to make friends with and made a good decision.

_____

lsna9 How many times last week you Arrived late to a destination (or on time, or early) knowing the person who would be there was likely to be similarly late (or on time, or early).

_____

lsna10 How many times last week you Thought over a polite way to set a limit on helping someone meet their needs, so as protect your time and energy.

_____

lsna11 How many times last week you Discussed another person with a friend or family member so as to better understand how that other person might act or react.

_____

lsna12 How many times last week you Described your interests, motivations, values, beliefs, attitudes, or reasons for your behavior to someone else.

_____

lsna13 How many times last week you Changed your plans at the last minute because you sensed that your friend would benefit from your help.

_____

lsna14 How many times last week you Raised your voice because someone wouldn't listen.

_____

lsna15 How many times last week you Got into a physical fight with someone who insulted you or a friend.

_____

lsna16 How many times last week you Got into a physical fight with someone to ensure they did something you wanted.

_____

lsna17 How many times last week you Were stopped by the police for a disturbance when you were drunk or high.

_____

lsna18 How many times last week you Stopped interacting with a friend online.

_____

lsna19 How many times last week you Didn't speak with a friend after a fight.

_____

lsna20 How many times last week you: Criticized someone you were working with.

_____

lsna21 How many times last week you: Spoke badly about someone who didn't treat you well.

_____

lsna22 How many times last week you: Decided to "take a break" from someone for a while.

_____

lsna23 How many times last week you: Told someone who didn't treat you well just how you felt about them

_____

lsna24 How many times last week you: Posted negative comments about a friend online.

_____

End of Block: PILSI-LSNa
Start of Block: PILSI-LSNb

lsnb0 Instructions. Please continue to tell us how many times last week you spent in each type of interaction described below.

lsnb1 How many times last week did you: Read about a public figure who serves as a role model for you?

_____

lsnb2 How many times last week you: Read about a(n) historical figure who serves as a role model for you?

_____

lsnb3 How many times last week you: Talked to a friend or relative to help better understand or improve yourself?

_____

lsnb4 How many times last week you: Told someone that self-knowledge (or self-understanding) is not very important?

_____

lsnb5 How many times last week you: Told someone that you weren't interested in understanding yourself?

_____

lsnb6 How many times last week you: Watched yourself do something to see if you could improve what you were doing?

_____

lsnb7 How many times last week you: Heard something someone else said about how they view you that surprised you (e.g., about your reputation)?

_____

lsnb8 How many times last week you: Heard some negative feedback about yourself that you agreed with?

_____

lsnb9 How many times last week you: Heard some negative feedback about yourself you disagreed with?

_____

lsnb10 How many times last week you: Relied on someone to make a key decision for you because you could not figure out your own preferences?

_____

lsnb11 How many times last week you: Bought something you saw a celebrity endorse?

_____

End of Block: PILSI-LSNb
Start of Block: PILSI-LSNc

lsnc1 How many times last week did you: Read drama, literature, or other creative works about fictional characters and their lives?

_____

lsnc2 How many times last week did you: Spend time watching fictional characters and their lives (in movies or videos)?

_____

lsnc3 How many times last week did you: Spend time reading about or listening about fictional characters and their lives (in books or podcasts)?

_____

lsnc4 How many times last week did you:
 Spend time learning about science and/or engineering or mathematics from books, podcasts, or videos?

_____

lsnc5 How many times last week did you: Read about public figure who serves as a role model for you?

_____

lsnc6 How many times last week did you: Read drama, literature, or other creative works about fictional characters and their lives?

_____

lsnc7 How many times last week did you : Recommend a biographical movie or book to someone who might benefit from reading the life story?

_____

lsnc8 How many times last week did you: Receive feedback from a director when rehearsing in a play, video, or movie?

_____

lsnc9 How many times last week did you: Worked on a plan involving your future?<o:p></o:p></p>

_____

lsnc10 How many times last week did you: Accomplish a major relationship goal such as meeting a promising new partner, becoming engaged or married, or making a new friend?

_____

lsnc11 How many times last week did you: Decisively make a choice that clearly reflected your own preferences and values?<span style="font-family:"Lucida Sans Unicode",sans-serif"><o:p></o:p> </p>

_____

End of Block: PILSI-LSNc

Start of Block: Part ATB

atb1 1. The three questions of this section are focused on whether you are continuing to carefully read and respond to the questions. Please characterize how well you have been paying attention during this time:
o clicking on alternatives randomly for the most part just to get this done (1)
o drifting and attention has wandered and these answers don't indicate much (2)
o following along fairly closely so this represents my judgments fairly well at this time (3)
o this is a random answer and I'm not paying attention (4)

atb2 2. Please select the alternative that begins with the third letter from the end of the alphabet:
o belligerent (1)
o xenophobic (2)
o in-between (3)
o nonsensical (4)

atb3 3. Please select the shortest alternative below:
o happy (1)
o the people couldn't choose between more of the same or something different (2)
o although the attraction was there, it wasn't clear what would happen (3)

o there is nothing to recommend the choice they made (4)

End of Block: Part ATB

Start of Block: PILSI-LSNd

lsnd1 How many times last week had you: Helped someone make a decision because the choice was really what they wanted to do?

_____

lsnd2 How many times last week had you: Selected the right roommate for a group living situation.

_____

lsnd3 How many times last week had you: Described someone's serious character flaw to a friend or friends.

_____

lsnd4 How many times last week had you: Realized that someone you knew had a character defect much worse than you had suspected before.<o:p></o:p></p>

_____

lsnd5 How many times last week had you: Turned down a possible team-member for a class project, and later found out information indicating it was the right choice.

_____

lsnd6 How many times last week had you: Turned down a possible roommate for a group living situation and later found out it was the right choice

_____

lsnd7 How many times last week had you: Posted something on social media that described someone else's personality in some detail.

_____

lsnd8 How many times last week had you: Wrote a poem that described someone else's personality.

_____

lsnd9 How many times last week had you: Written an e-mail that described someone else's personality in some detail.

_____

lsnd10 How many times last week had you: Changed to a different section of a course because your first instructor didn't match your learning approach.

_____

End of Block: PILSI-LSNd

Start of Block: PILSI-LGC

lgc1 How many times last week had you: Attended a support group for a problem with eating?

_____

lgc2 How many times last week had you: Attended a peer support group for a problem with drugs, alcohol, or gambling?

_____

lgc3 How many times last week had you: Attended a support group for a problem experienced by a person close to you?

_____

lgc4 How many times last week had you : Attended an affinity group meeting?

_____

lgc6 How many times last week had you : Insulted someone based on their religion?

_____

lgc7 How many times last week had you : Insulted someone based on their race and/or ethnicity?

_____

lgc8 How many times last week had you : Brought a cheat sheet to a quiz or exam?

_____

lgc9 How many times last week had you : Glanced at a classmate's quiz or exam to help decide how to answer a question?

_____

lgc10 How many times last week had you : Showed up for class after drinking alcohol or otherwise high?

_____

lgc11 How many times last week had you : Obtained part or all of a test in advance?

_____

lgc12 How many times last week had you : Made up an excuse to avoid a penalty for being absent from class?

_____

lgc13 How many times last week had you : Copied part of another student's paper?

_____

lgc14 How many times last week had you : Copied online material into your own paper for a course?

_____

lgc15 How many times last week had you : Surfed the internet during class or texted during class?

_____

lgc16 How many times last week had you : Obtained a paper online or from another student and submitted parts or all of it as your own?

_____

lgc17 Please select the area below most similar to your college major or expected major:
o Mathematics, Engineering (1)
o Business, Marketing and Sales (2)
o History, Religion, Legal, Justice Studies (3)
o Sociology, Anthropology, Cultural Studies (4)
o Theater, Drama, Creative Writing (5)

lgc18 Please select the area below most similar to your college major or expected major:
o Chemistry, Biology, Physics (1)
o Government, Environmental Studies (2)
o Economics, Political Science, Women's Studies (3)
o Education, Nursing, Pre-Med (4)
o Psychology, English, Literature (5)

End of Block: PILSI-LGC

PILSI-3 SURVEY

PILSI 3
PERSONAL INTELLIGENCE LIFESPACE INVENTORY (PILSI)

lwr0 Now think back on the last seven or eight days. For example, if today is Monday, begin with last Monday and include Monday, today. If today is Saturday, think back to last Saturday. Next, think back to what happened over the past week, including up to the time of this survey.

lwr1
On what day of the week are you taking this survey? (If on multiple days, choose the day you started.)
o Monday (1)
o Tuesday (2)
o Wednesday (3)
o Thursday (4)
o Friday (5)
o Saturday (6)
o Sunday (7)

lwr2 How typical was the past week (previous seven days) compared to other weeks for you this time of year, on a scale from 1 to 10, where 0 is not-at-all typical and 10 is very typical?
0 (0)
1 (1)
2 (2)
3 (3)
4 (4)
5 (5)
6 (6)
7 (7)
8 (8)
9 (9)
10 (10)

lwr3 How many events impacting you occurred that were very much out of the routine, if any (for example, serious medical diagnoses, illnesses, death in family, public awards, work issue)?
o One event (1)
o Two events (2)
o Three or more events (3)

End of Block: PILSI2-LWR
Start of Block: PILSI2-LBP

lbp3
Over the past week, how many times did you:
Need to lie down for headache?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lbp4
On a typical day this past week, how many times were you aware of:

A chronic pain you had?
o 0 times a day (1)
o 1 time a day, for one or two days (2)
o 1 time a day, most days (3)
o 2 to 4 times a day, most days (4)
o 5 to 10 times a day, most days (5)
o more than 10 times a day (6)

lbp5
Over the past week, how many times did you:
Wonder if you needed to see a doctor about an ailment?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lbp6
Over the past week, how many times did you:
Have trouble sleeping because of physical pain?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 5 times this week (4)
o 6 to 7 times this week (5)

lbp8
Over the past week, how many times did you:

Skip a meal?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)

lbp9
Over the past week, how many times did you:
Fast all day?
o 0 times (1)
o 1 time (2)
o 2 times (3)
o 3 times or more (4)

lbp10
On a typical day this past week, how many times were you aware of:
your heartbeat?
o 0 times this week (1)
o 1 to 2 times this week (2)
o 3 to 4 times this week (3)
o 1 time a day, most days (4)
o 2 to 4 times a day, most days (5)
o 5 to 10 times a day, most days (6)
o more than 10 times a day, most days (7)

lbp11
On a typical day this past week, how many times were you aware of:
tension in your body?
o 0 times this week (1)
o 1 to 2 times this week (2)
o 3 to 4 times this week (3)
o 1 time a day, most days (4)
o 2 to 4 times a day, most days (5)
o 5 to 10 times a day, most days (6)
o more than 10 times a day, most days (7)

lbp12
On a typical day this past week, how many times were you aware of:
trying to relax tension in your body?
o 0 times this week (1)
o 1 to 2 times this week (2)
o 3 to 4 times this week (3)
o 1 time a day, most days (4)
o 2 to 4 times a day, most days (5)

o 5 to 10 times a day, most days (6)
o more than 10 times a day, most days (7)

lbp13
On a typical day this past week, how many times were you aware of:
your muscle strength or of moving a specific muscle?
o 0 times this week (1)
o 1 to 2 times this week (2)
o 3 to 4 times this week (3)
o 1 time a day, most days (4)
o 2 to 4 times a day, most days (5)
o 5 to 10 times a day, most days (6)
o more than 10 times a day, most days (7)

lbp14
On a typical day this past week, how many times were you aware of:
focusing on your breath to calm down?
o 0 times this week (1)
o 1 to 2 times this week (2)
o 3 to 4 times this week (3)
o 1 time a day, most days (4)
o 2 to 4 times a day, most days (5)
o 5 to 10 times a day, most days (6)
o more than 10 times a day, most days (7)

End of Block: PILSI2-LBP
Start of Block: PILSI2-LSGa

lsga1 How many of the following possessions did you own or keep:
A photo album or an on-line photo album?
o 0 (1)
o 1 (2)
o 2 to 3 (3)
o 4 to 5 (4)
o 6 to 10 (5)
o 11 to 30 (6)
o 31 to 100 (7)
o More than 100 (8)

lsga2 How many of the following possessions did you own or keep:
Letters or other important texts or posts from friends or family that are important?
o 0 (1)
o 1 (2)

o 2 to 3 (3)
o 4 to 5 (4)
o 6 to 10 (5)
o 11 to 30 (6)
o 31 to 100 (7)
o More than 100 (8)

lsga3
How many of the following possessions did you own or keep:
Mementos or physical reminds of people close to you?
o 0 (1)
o 1 (2)
o 2 to 3 (3)
o 4 to 5 (4)
o 6 to 10 (5)
o 11 to 30 (6)
o 31 to 100 (7)
o More than 100 (8)

End of Block: PILSI2-LSGa
Start of Block: Part ATA

ata1 1. The researchers who designed this survey would like to thank you for your participation this far. For this question and the two after it we're going to ask you to select a specific alternative to make sure you're still reading and thinking about the items. For this question, please choose the alternative below that begins with the letter q.
o too loud (1)
o about the right level when he talks (2)
o quiet (3)
o he never says anything (4)

ata2 2. Please select the word below that rhymes with "lattice":
o status (1)
o affection (2)
o cognition (3)
o normality (4)

ata3 3. Our last question about attention in this section asks you to select the word "agreeable" from the list below:
o a quality hard to judge (1)
o thoughtful (2)
o agreeable (3)
o uncertain (4)

End of Block: Part ATA
Start of Block: PILSI-LSGb

lsgb2
Over the past week, how many times did you:
Go to a workplace or login/telecommute for paid part-time or full-time work?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o more than 7 times this week (6)

lsgb5
Over the past week, how many times did you:
Go to a bar or liquor store?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o more than 7 times this week (6)

lsgb10
Over the past week, how many times did you:
Use the campus cafeteria and/or dining hall?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsgb12
Over the past week, how many times did you:
Check online Facebook, Instagram, and other social media?
o 0 times (1)
o 1 to 3 times this week (2)
o 4 to 6 times this week (3)
o 1 time per day, some or all days (4)
o 2 to 3 times per day, some or all days (5)
o 4 to 9 times per day, some or all days (6)
o 10 to 15 times per day, some or all days (7)

o 16 or more times per day, some or all days (8)

End of Block: PILSI-LSGb
Start of Block: PILSI-LSBc

lsbc0
Instructions. Please tell us, generally speaking, how many of the following items you had in your refrigerator, cupboard, or other food storage area last week. If you live with roommates, indicate your likely share of the amount.
0 (1)
1 (2)
2 to 3 (3)
4 to 10 (4)
11 to 20 (5)
21 to 30 (6)
31 or more (7)

bakery items (bread, bagels, crackers) (lsbc1)
0 (1)
1 (2)
2 to 3 (3)
4 to 10 (4)
11 to 20 (5)
21 to 30 (6)
31 or more (7)

beans (bags, cans) (lsbc2)
0 (1)
1 (2)
2 to 3 (3)
4 to 10 (4)
11 to 20 (5)
21 to 30 (6)
31 or more (7)

beverages (non-alcoholic such as milk, soda) (lsbc3)
0 (1)
1 (2)
2 to 3 (3)
4 to 10 (4)
11 to 20 (5)
21 to 30 (6)

31 or more (7)

beverages (alcoholic such as cans of beer, bottles of wine, gin, etc.) (lsbc4)
0 (1)
1 (2)
2 to 3 (3)
4 to 10 (4)
11 to 20 (5)
21 to 30 (6)
31 or more (7)

dairy (yogurt, cheese) (lsbc5)
0 (1)
1 (2)
2 to 3 (3)
4 to 10 (4)
11 to 20 (5)
21 to 30 (6)
31 or more (7)

fish (lsbc6)
0 (1)
1 (2)
2 to 3 (3)
4 to 10 (4)
11 to 20 (5)
21 to 30 (6)
31 or more (7)
fruits (lsbc7)

meats (lsbc8)
0 (1)
1 (2)
2 to 3 (3)
4 to 10 (4)
11 to 20 (5)
21 to 30 (6)
31 or more (7)

noodles (Ramen, spaghetti) (lsbc9)
0 (1)
1 (2)
2 to 3 (3)
4 to 10 (4)

11 to 20 (5)
21 to 30 (6)
31 or more (7)

nuts (bags or containers) (lsbc10)
0 (1)
1 (2)
2 to 3 (3)
4 to 10 (4)
11 to 20 (5)
21 to 30 (6)
31 or more (7)

soups (lsbc11)
0 (1)
1 (2)
2 to 3 (3)
4 to 10 (4)
11 to 20 (5)
21 to 30 (6)
31 or more (7)

sweets (boxes of candy, ice cream, brownies) (lsbc12)
0 (1)
1 (2)
2 to 3 (3)
4 to 10 (4)
11 to 20 (5)
21 to 30 (6)
31 or more (7)

vegetables (canned, fresh, packaged) (lsbc13)

0 (1)
1 (2)
2 to 3 (3)
4 to 10 (4)
11 to 20 (5)
21 to 30 (6)
31 or more (7)

End of Block: PILSI-LSBc
Start of Block: PILSI-LSNa

lsna0 Instructions. Please tell us how many times last week you spent in each type of interactions with other people described below.

lsna1 How many times last week you:
Spoke with a friend who was distressed and listened to their concerns for a few minutes or more.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna2 How many times last week you:
Told a friend how much you valued them.

o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna3 How many times last week you:
Told someone who was upset that you had felt that way before.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna4 How many times last week you:
Spoke with a friend who was distressed and listened to their concerns for a few minutes or more.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna7 How many times last week you:
Discussed and/or shared a personal, confidential issue of your own with a friend.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna8 How many times last week you:
Selected someone to make friends with and made a good decision.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna10 How many times last week you:
Thought over a polite way to set a limit on helping someone meet their needs, so as to protect your time and energy.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna11 How many times last week you:
Discussed another person with a friend or family member so as to better understand how that person might act or react.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna12 How many times last week you:
Described your interests, motives, values, feelings, or other reasons for your behavior to someone else.
o 0 times this week (1)

o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna13 How many times last week you:
Changed your plans at the last minute because you sensed that your friend would benefit from your help.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna14 How many times last week you:
Raised your voice because someone wouldn't listen.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna27 How many times last week you:
Got into an argument with someone who insulted you or a friend.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna15 How many times last week you:
Got into a physical fight with someone who insulted you or a friend.
o 0 times this week (1)
o 1 time this week (2)
o 2 times this week (3)
o 3 times this week or more (4)

lsna16 How many times last week you:
Got into a physical fight with someone to ensure they did something you wanted.
o 0 times this week (1)

o 1 time this week (2)
o 2 times this week (3)
o 3 times this week or more (4)

lsna17 How many times last week you:
Were stopped by the police for a disturbance when you were drunk or high.
o 0 times this week (1)
o 1 time this week (2)
o 2 times this week (3)
o 3 times this week or more (4)

lsna18 How many times last week you:
Stopped interacting with a friend online.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsna21 How many times last week you:
Spoke badly about someone who didn't treat you well.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna24 How many times last week you:
Posted negative comments about someone you know online.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna25 How many times last week you:
Laughed with a friend.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)

o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna26 How many times last week you:
Sought advice from a friend.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

End of Block: PILSI-LSNa
Start of Block: PILSI-LSNb

lsnb0 Instructions. Please continue to tell us how many times last week you spent in each type of interaction described below.

lsnb1 How many times last week did you:
Read about a public figure who serves as a role model for you?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsnb2 How many times last week did you:
Read about a(n) historical figure who serves as a role model for you?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsnb3 How many times last week did you:
Talked to a friend or relative to help better understand or improve yourself?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsnb4 How many times last week did you:
Told someone that self-knowledge (or self-understanding) is not very important?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsnb5 How many times last week did you:
Told someone that you weren't interested in understanding yourself?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsnb10 How many times last week did you:
Relied on someone to make a key decision for you because you could not figure out your own preferences?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsnb11 How many times last week did you:
Bought something you saw a celebrity endorse?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

End of Block: PILSI-LSNb
Start of Block: PILSI-LSNc

lsnc2 How many times last week you:
Spend time watching fictional characters and their lives (in movies or videos)?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsnc4 How many times last week you:
Spend time learning about science and/or engineering or mathematics from books, podcasts, or videos?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsnc7 How many times last week you:
Recommend a biographical movie or book to someone who might benefit from reading the life story?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsnc9 How many times last week you:
Worked on a plan involving your future?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsnc11 How many times last week you:
Decisively make a choice that clearly reflected your own preferences and values?
o 0 times this week (1)
o 1 time this week (2)

o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

End of Block: PILSI-LSNc
Start of Block: Part ATB

atb1 1. The three questions of this section are focused on whether you are continuing to carefully read and respond to the questions. Please characterize how well you have been paying attention during this time:
o clicking on alternatives randomly for the most part just to get this done (1)
o drifting and attention has wandered and these answers don't indicate much (2)
o following along fairly closely so this represents my judgments fairly well at this time (3)
o this is a random answer and I'm not paying attention (4)

atb2 2. Please select the alternative that begins with the third letter from the end of the alphabet:
o belligerent (1)
o xenophobic (2)
o in-between (3)
o nonsensical (4)

atb3 3. Please select the shortest alternative below:
o happy (1)
o the people couldn't choose between more of the same or something different (2)
o although the attraction was there, it wasn't clear what would happen (3)
o there is nothing to recommend the choice they made (4)

End of Block: Part ATB
Start of Block: PILSI-LSNd

lsnd1 How many times last week you:
Helped someone make a decision because the choice was really what they wanted to do?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsnd2 How many times last week--and also including the past several weeks--had you:
Selected the right roommate for a group living situation.

o 0 times over the past several weeks (1)
o 1 time over the past several weeks (2)
o 2 to 3 times over the past several weeks (3)
o 4 to 6 times over the past several weeks (4)
o 7 times this over the past several weeks (5)
o More than 7 times over the past several weeks (6)

lsnd3 How many times last week you:
Described someone's serious character flaw to a friend or friends.
o 0 times this week (1)
o 1 time this week (2)
o 2 times this week (3)
o 3 times or more this week (4)

lsnd4 How many times last week you:
Realized that someone you knew had a character flaw much worse than you had suspected before.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 3 times or more this week (4)

lsnd5 How many times last week-and also including the past several weeks--had you:
Turned down a possible team-member for a class project, and later found out information indicating it was the right choice.
o 0 times over the past several weeks (1)
o 1 time over the past several weeks (2)
o 2 to 3 times over the past several weeks (3)
o 3 times or more over the past several weeks (4)

lsnd6 How many times last week--and also including the past several weeks--had you:
Turned down a possible roommate for a group living situation and later found out it was the right choice.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 3 times or more this week (4)

lsnd7 How many times last week you:
Posted something on social media that described someone else's personality in some detail.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)

o 7 times this week (5)
o More than 7 times this week (6)

lsnd8 How many times last week you:
Wrote a poem that described someone else's personality.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsnd9 How many times last week you:
Written an e-mail that described someone else's personality in some detail.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsnd10 How many times this semester had you:
Changed to a different section of a course because your first instructor didn't match your learning approach.
o 0 times (1)
o 1 time (2)
o 2 times (3)
o more than 2 times (4)

End of Block: PILSI-LSNd
Start of Block: PILSI-LSNe

lsne1
Over the past week, how many times did you:
Check or double-check the calendar to make sure you had enough time left to complete a an assignment?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsne2
Over the past week, how many times did you:
Carefully check over a task you completed and then revised part of it before deciding you were finished?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsne3
Over the past week, how many times did you:
Make a plan first thing in the day for what you wanted to accomplish?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsne4
Over the past week, how many times did you:
Acknowledge a mistake you had made on a task and corrected it?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsne5
Over the past week, how many times did you:
Achieve your goal to get a high grade on an assignment, quiz, or test?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsne6
How many times last week did you:
Put your clothes away neatly?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsne7
How many times last week did you:
Worked late to complete your part of a project?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

End of Block: PILSI-LSNe
Start of Block: PILSI-LGC

lgc1 How many times last week had you:
Attended a support group for a problem with eating?
o 0 times (1)
o 1 time (2)
o 2 times (3)
o 3 times or more (4)

lgc2 How many times last week had you:
Attended a peer support group for a problem with drugs, alcohol, or gambling?
o 0 times (1)
o 1 time (2)
o 2 times (3)
o 3 times or more (4)

lgc3
How many times last week had you:
Attended a support group for a problem experienced by a person close to you?
o 0 times (1)
o 1 time (2)
o 2 times (3)

o 3 times ore more (4)

lgc6
How many times last week had you:
Insulted someone based on their religion?
o 0 times (1)
o 1 time (2)
o 2 times (3)
o 3 times or more (4)

lgc11
How many times last week had you: Obtained part or all of a test in advance?
o 0 times (1)
o 1 time (2)
o 2 times (3)
o 3 times or more (4)

lgc13
How many times last week or over the past several weeks had you:
Copied part of another student's paper?
o 0 times (1)
o 1 time (2)
o 2 times (3)
o 3 times or more (4)

lgc15
How many times last week or over the past week had you:
Surfed the internet during class or texted during class?
o 0 times (1)
o 1 time (2)
o 2 times (3)
o 3 times or more (4)

lgc17 Please select the area below most similar to your college major or expected major:
o Mathematics, Engineering (1)
o Business, Marketing and Sales (2)
o History, Religion, Legal, Justice Studies (3)
o Sociology, Anthropology, Cultural Studies (4)
o Theater, Drama, Creative Writing (5)

lgc18 Please select the area below most similar to your college major or expected major:
o Chemistry, Biology, Physics (1)
o Government, Environmental Studies (2)
o Economics, Political Science, Women's Studies (3)

o Education, Nursing, Pre-Med (4)
o Psychology, English, Literature (5)

lgc19 Please indicate how many organizations of the following types (if any) you are a member of at this time:
0 (0)
1 (1)
2 (2)
3 or more (3)

An honors program (e.g., university, school, or department) (lgc20)
0 (0)
1 (1)
2 (2)
3 or more (3)

A scientific or literary organization related to your interests (e.g., Aviation club, French club, Lab Science Society) (lgc21)
0 (0)
1 (1)
2 (2)
3 or more (3)

Reserve Officer Training Corps (e.g., Army or Air Force ROTC) (lgc22)
0 (0)
1 (1)
2 (2)
3 or more (3)

A Greek house (e.g., fraternity or sorority) (lgc23)
0 (0)
1 (1)
2 (2)
3 or more (3)

A Sports or Outing club (e.g., Half Marathon Club, Judo Club, Club Volleyball, New Hampshire Outing club) (lgc24)
0 (0)
1 (1)
2 (2)
3 or more (3)

A club focused on a National or Ethnic Identity (Middle Eastern Cultural Association, Native American Cultural Association) (lgc25)

0 (0)
1 (1)
2 (2)
3 or more (3)

A political club (e.g., Young Americans for Liberty, Young Democratic Socialists of America) (lgc26)
0 (0)
1 (1)
2 (2)
3 or more (3)

A music- and arts-performance club (e.g., New Hampshire Notables, Off the Clef, Improv Club) (lgc27)
0 (0)
1 (1)
2 (2)
3 or more (3)

A club with a social and/or environmental mission (e.g., Organic Garden Club, Project Sunshine, Senior Smiles) (lgc28)
0 (0)
1 (1)
2 (2)
3 or more (3)

A dance or arts performance club (e.g., Sisters in Step, Sketched Out Comedy Troupe) (lgc29)
0 (0)
1 (1)
2 (2)
3 or more (3)

A leadership or governance organization (e.g., Stoke Hall Council, Student Senate) (lgc30)
0 (0)
1 (1)
2 (2)
3 or more (3)

An organization for a sexual identity or identities (e.g., Trans UNH) (lgc31)
0 (0)
1 (1)
2 (2)
3 or more (3)

A religious organization or club (e.g., Intervarsity Christian Fellowship, Muslim Students Association) (lgc32)
0 (0)
1 (1)
2 (2)
3 or more (3)

End of Block: PILSI-LGC

PILSI-3R SURVEY

PILSI 3R
lwr1
On what day of the week are you taking this survey? (If on multiple days, choose the day you started.)
o Monday (1)
o Tuesday (2)
o Wednesday (3)
o Thursday (4)
o Friday (5)
o Saturday (6)
o Sunday (7)

lwr2 How typical was the past week (previous seven days) compared to other weeks for you the past few months, on a scale from 1 to 10, where 0 is not-at-all typical and 10 is very typical?
0 (0)
1 (1)
2 (2)
3 (3)
4 (4)
5 (5)
6 (6)
7 (7)
8 (8)
9 (9)
10 (10)

lwr3 How many events impacting you occurred that were very much out of the routine if any. This would include serious medical diagnoses including Covid19, illnesses, death in family, public awards, work issue. Please do not report the general social changes imposed by Covid19, although we understand they are ongoing.
o One event (1)
o Two events (2)
o Three or more events (3)

End of Block: PILSI2-LWR
Start of Block: PILSI2-LBP

lbp3
Over the past week, how many times did you:

Need to lie down for headache?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lbp4
On a typical day this past week, how many times were you aware of:
A chronic pain you had?
o 0 times a day (1)
o 1 time a day, for one or two days (2)
o 1 time a day, most days (3)
o 2 to 4 times a day, most days (4)
o 5 to 10 times a day, most days (5)
o more than 10 times a day (6)

lbp5
Over the past week, how many times did you:
Wonder if you needed to see a doctor about an ailment?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lbp6
Over the past week, how many times did you:
Have trouble sleeping because of physical pain?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 5 times this week (4)
o 6 to 7 times this week (5)

lbp8
Over the past week, how many times did you:
Skip a meal?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)

lbp9
Over the past week, how many times did you:
Fast all day?
o 0 times (1)
o 1 time (2)
o 2 times (3)
o 3 times or more (4)

lbp10
On a typical day this past week, how many times were you aware of:
your heartbeat?
o 0 times this week (1)
o 1 to 2 times this week (2)
o 3 to 4 times this week (3)
o 1 time a day, most days (4)
o 2 to 4 times a day, most days (5)
o 5 to 10 times a day, most days (6)
o more than 10 times a day, most days (7)

lbp11
On a typical day this past week, how many times were you aware of:
tension in your body?
o 0 times this week (1)
o 1 to 2 times this week (2)
o 3 to 4 times this week (3)
o 1 time a day, most days (4)
o 2 to 4 times a day, most days (5)
o 5 to 10 times a day, most days (6)
o more than 10 times a day, most days (7)

lbp12
On a typical day this past week, how many times were you aware of:
trying to relax the tension in your muscles or other parts of your body?
o 0 times this week (1)
o 1 to 2 times this week (2)
o 3 to 4 times this week (3)
o 1 time a day, most days (4)
o 2 to 4 times a day, most days (5)
o 5 to 10 times a day, most days (6)
o more than 10 times a day, most days (7)

lbp14
On a typical day this past week, how many times were you aware of:

focusing on your breath to calm down?
o 0 times this week (1)
o 1 to 2 times this week (2)
o 3 to 4 times this week (3)
o 1 time a day, most days (4)
o 2 to 4 times a day, most days (5)
o 5 to 10 times a day, most days (6)
o more than 10 times a day, most days (7)

End of Block: PILSI2-LBP
Start of Block: PILSI2-LSGa

lsga1 About how many printed and digital photos of friends and family do you have readily accessible?
o 0 (1)
o 1 (2)
o 2 to 3 (3)
o 4 to 5 (4)
o 6 to 10 (5)
o 11 to 30 (6)
o 31 to 100 (7)
o More than 100 (8)
o More than 1000 (9)

lsga2 How many of the following possessions did you own or keep:
Letters, lengthy e-mails or similar written or recorded messages from friends or family that are important?
o 0 (1)
o 1 (2)
o 2 to 3 (3)
o 4 to 5 (4)
o 6 to 10 (5)
o 11 to 30 (6)
o 31 to 100 (7)
o More than 100 (8)

lsga3
How many of the following possessions did you own or keep:
Mementos or physical reminders of people close to you?
o 0 (1)
o 1 (2)
o 2 to 3 (3)
o 4 to 5 (4)

o 6 to 10 (5)
o 11 to 30 (6)
o 31 to 100 (7)
o More than 100 (8)

lsga7 How many of the following possessions did you own or keep?
Pieces of tableware and table settings such as tablecloths and candlesticks for everyday use and for special occasions?
o 0 (1)
o 1 (2)
o 2 to 3 (3)
o 4 to 5 (4)
o 6 to 10 (5)
o 11 to 30 (6)
o 31 to 100 (7)
o More than 100 (8)

lsga8 How many of the following possessions did you own or keep?
Cans of beer and bottles of wine for everyday use?
o 0 (1)
o 1 (2)
o 2 to 3 (3)
o 4 to 5 (4)
o 6 to 10 (5)
o 11 to 30 (6)
o 31 to 100 (7)
o More than 100 (8)

lsga12 How many of the following possessions did you own or keep?
Cans of beer and bottles of wine for use sharing with family and friends?
o 0 (1)
o 1 (2)
o 2 to 3 (3)
o 4 to 5 (4)
o 6 to 10 (5)
o 11 to 30 (6)
o 31 to 100 (7)
o More than 100 (8)

End of Block: PILSI2-LSGa
Start of Block: Part ATA

ata1 1. The researchers who designed this survey would like to thank you for your participation this far. For this question and the two after it we're going to ask you to select a specific

alternative to make sure you're still reading and thinking about the items. For this question, please choose the alternative below that begins with the letter q.
o too loud (1)
o about the right level when he talks (2)
o quiet (3)
o he never says anything (4)

ata2 2. Please select the word below that rhymes with "lattice":
o status (1)
o affection (2)
o cognition (3)
o normality (4)

ata3 3. Our last question about attention in this section asks you to select the word "agreeable" from the list below:
o a quality hard to judge (1)
o thoughtful (2)
o agreeable (3)
o uncertain (4)

End of Block: Part ATA
Start of Block: PILSI-LSGb

lsgb2
Over the past week, how many times did you:
Go to a workplace or login/telecommute for paid part-time or full-time work?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o more than 7 times this week (6)

lsgb5
Over the past week, how many times did you:
Go to a bar?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o more than 7 times this week (6)

lsgb7
Over the past week, how many times did you: Go to a store to buy alcoholic drinks (e.g., beer or liquor?)
o Click to write Choice 1 (1)
o Click to write Choice 2 (2)
o Click to write Choice 3 (3)

lsgb10
Over the past week, how many times did you:Go to the campus cafeteria and/or dining hall to obtain a meal?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsgb12
Over the past week, how many times did you:
Check Facebook, Instagram, and other social media?
o 0 times (1)
o 1 to 3 times this week (2)
o 4 to 6 times this week (3)
o 1 time per day, some or all days (4)
o 2 to 3 times per day, some or all days (5)
o 4 to 9 times per day, some or all days (6)
o 10 to 15 times per day, some or all days (7)
o 16 or more times per day, some or all days (8)

End of Block: PILSI-LSGb
Start of Block: PILSI-LSBc

Start of Block: PILSI-LSNa

lsna0 Instructions. Please tell us how many times last week you spent in each type of interactions with other people described below. The interactions can include in-person, socially distanced, online, or other communications.

lsna1 How many times last week you:
Spoke with a friend who was distressed and listened to their concerns for a few minutes or more.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)

o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna2 How many times last week you:
Let a friend know how much you valued them.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna3 How many times last week you:
Let someone know who was upset that you had felt that way before too.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna4 How many times last week you:
Communicated with a friend who was distressed and listened to their concerns for a few minutes or more.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna7 How many times last week you:
Shared a personal, confidential issue of your own with a friend.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna8 How many times last week you:
Selected someone to make friends with and felt it was a good decision.
o 0 times this week (1)

o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna9 How many times last week you:
Initiated a conversation with someone you did not know and felt it was a good decision.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna10 How many times last week you:
Thought over a polite way to set a limit on helping someone meet their needs, so as to protect your time and energy.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna11 How many times last week you:
Discussed another person with a friend or family member so as to better understand how that person might act or react.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna12 How many times last week you:
Described your interests, motives, values, feelings, or other reasons for your behavior to someone else.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna13 How many times last week you:
Changed your plans at the last minute because you sensed that your friend would benefit from your help.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna14 How many times last week you:
Raised your voice because someone wouldn't listen.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna27 How many times last week you:
Got into an argument with someone who insulted you or a friend.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna15 How many times last week you:
Got into a fight with someone who insulted you or a friend (in person or online).
o 0 times this week (1)
o 1 time this week (2)
o 2 times this week (3)
o 3 times this week or more (4)

lsna16 How many times last week you:
Got into a fight with someone to ensure they did something you wanted.
o 0 times this week (1)
o 1 time this week (2)
o 2 times this week (3)
o 3 times this week or more (4)

lsna17 How many times last week you:

Got yourself into trouble when you were drunk or high.
o 0 times this week (1)
o 1 time this week (2)
o 2 times this week (3)
o 3 times this week or more (4)

lsna18 How many times last week you:
Stopped interacting with a friend online and/or no longer responded to calls or messages from them on your phone.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsna21 How many times last week you:
Spoke badly about someone you observed, but who hadn't done anything bad to you directly.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna24 How many times last week you:
Posted negative comments about someone you know online.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna25 How many times last week you:
Laughed with a friend.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsna26 How many times last week you:

Sought advice from a friend.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

End of Block: PILSI-LSNa
Start of Block: PILSI-LSNb

lsnb0 Instructions. Please continue to tell us how many times last week you spent in each type of interaction described below.

lsnb1 How many times last week did you:
Read or watched a video about a public figure who serves as a role model for you?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsnb2 How many times last week did you:
Read or watched a video about a(n) historical figure who serves as a role model for you?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsnb3 How many times last week did you:
Communicate with a friend or relative to ask for advice to improve yourself?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsnb4 How many times last week did you:
Tell someone that self-knowledge (or self-understanding) is not very important?
o 0 times this week (1)

o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsnb5 How many times last week did you:
Tell someone that you weren't interested in understanding yourself?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsnb10 How many times last week did you:
Rely on someone else to make a key decision for you because you didn't know own preference?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsnb11 How many times last week did you:
Buy something you saw a celebrity endorse?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

End of Block: PILSI-LSNb
Start of Block: PILSI-LSNc

lsnc21 Last week, did you:
Change your style or behavior based on something you saw on a celebrity tweet, influencer webpage or similar media?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)

o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsnc4 How many times last week you:
Spent time learning about science and/or engineering or mathematics from books, podcasts, or videos?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 4 times this week (3)
o 5 to 7 times this week (4)
o 8 to 14 times this week (5)
o 15 times or more this week (6)

lsnc9 How many times last week you:
Worked on a plan involving your future?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsnc11 How many times last week you:
Decisively made a choice that clearly reflected your own preferences and values?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsnc7 Thinking over the past month, how many times did you:
Recommend a biographical movie or book to someone because the person who was depicted could serve as a good role model for others?
o 0 times the past month (1)
o 1 time the past month (2)
o 2 to 3 times the past month (3)
o 4 to 6 times the past month (4)
o 7 times or more the past month (5)

End of Block: PILSI-LSNc
Start of Block: Part ATB

atb1 1. The three questions of this section are focused on whether you are continuing to carefully read and respond to the questions. Please characterize how well you have been paying attention during this time:
o clicking on alternatives randomly for the most part just to get this done (1)
o drifting and attention has wandered and these answers don't indicate much (2)
o following along fairly closely so this represents my judgments fairly well at this time (3)
o this is a random answer and I'm not paying attention (4)

atb2 2. Please select the alternative that begins with the third letter from the end of the alphabet:
o belligerent (1)
o xenophobic (2)
o in-between (3)
o nonsensical (4)

atb3 3. Please select the shortest alternative below:
o happy (1)
o the people couldn't choose between more of the same or something different (2)
o although the attraction was there, it wasn't clear what would happen (3)
o there is nothing to recommend the choice they made (4)

End of Block: Part ATB
Start of Block: PILSI-LSNd

lsnd1 How many times last week you:
Helped someone make a decision because the choice was really what they wanted to do?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsnd2 How many times over the past year had you:
Selected the right roommate for a group living situation.
o 0 times over the past year (1)
o 1 time over the past year (2)
o 2 to 3 times over the past year (3)
o 4 to 6 times over the past year (4)
o More than 6 times over the past year (6)

lsnd6 How many times over the last several months you:
Turned down a possible roommate for a group living situation and later found out it was the right choice.

o 0 times the past year (1)
o 1 time the past year (2)
o 2 to 3 times the past year (3)
o 4 to 6 times the past year (5)
o More than 6 times over the past year (7)

lsnd3 How many times last week you:
Described someone's serious character flaw to a friend or friends.
o 0 times this week (1)
o 1 time this week (2)
o 2 times this week (3)
o 3 times or more this week (4)

lsnd4 How many times last week you:
Realized that someone you knew had a character flaw much worse than you had suspected before.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 3 times or more this week (4)

lsnd5 How many times over the past semester (or this semester) you:
Turned down or avoided a possible team-member for a class project, and later found out information indicating it was the right choice.
o 0 times over the past semester (1)
o 1 time over the past semester (2)
o 2 to 3 times over the past semester (3)
o 3 times or more over the past semester (4)

lsnd7 How many times last week you:
Posted something on social media that described someone else's personality in some detail.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsnd8 How many times last week you:
Wrote a poem that described someone else's personality.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)

o 7 times this week (5)
o More than 7 times this week (6)

lsnd9 How many times last week you:
Wrote an e-mail that described someone else's personality in some detail.
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsnd10 How many times this semester had you:
Changed to a different section of a course because your first instructor didn't match your learning approach.
o 0 times (1)
o 1 time (2)
o 2 times (3)
o more than 2 times (4)

End of Block: PILSI-LSNd
Start of Block: PILSI-LSNe

lsne1
Over the past week, how many times did you:

Check or double-check the calendar to make sure you had enough time left to complete a an assignment?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsne2
Over the past week, how many times did you:
Carefully check over a task you completed and then revised part of it before deciding you were finished?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)

o 7 times this week (5)
o More than 7 times this week (6)

lsne3
Over the past week, how many times did you:
Make a plan first thing in the day for what you wanted to accomplish?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsne4
Over the past week, how many times did you:
Acknowledge a mistake you had made on a task and corrected it?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsne5
Over the past week, how many times did you:
Achieve your goal to get a high grade on an assignment, quiz, or test?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsne6
How many times last week did you:

Put your clothes away neatly?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

lsne7
How many times last week did you:
Work late to complete your part of a project?
o 0 times this week (1)
o 1 time this week (2)
o 2 to 3 times this week (3)
o 4 to 6 times this week (4)
o 7 times this week (5)
o More than 7 times this week (6)

End of Block: PILSI-LSNe
Start of Block: PILSI-LGC

lgc2 How many times last week did you:
Attend a peer support group for a problem with eating, drugs, alcohol, or gambling?
o 0 times (1)
o 1 time (2)
o 2 times (3)
o 3 times or more (4)

lgc3
How many times last week did you:
Attend a support group for a problem that a person close to you experienced (but that you were not directly experiencing at the time)?
o 0 times (1)
o 1 time (2)
o 2 times (3)
o 3 times ore more (4)

lgc6
How many times last week did you:
Insult someone based on their religion?
o 0 times (1)
o 1 time (2)
o 2 times (3)
o 3 times or more (4)

lgc11
How many times last week did you: Obtain part or all of a test in advance?
o 0 times (1)
o 1 time (2)

o 2 times (3)
o 3 times or more (4)

lgc13
How many times last week or over the past several weeks did you:
Copy part of another student's paper?
o 0 times (1)
o 1 time (2)
o 2 times (3)
o 3 times or more (4)

lgc15
How many times last week or over the past week did you:
Surf the internet or texted during an online or in-person class meeting?
o 0 times (1)
o 1 time (2)
o 2 times (3)
o 3 times (4)
o 4 times (5)
o 5 or more times (6)

lgc17 Please select the area below most similar to your college major or expected major:
o Mathematics, Engineering (1)
o Business, Marketing and Sales (2)
o History, Religion, Legal, Justice Studies (3)
o Sociology, Anthropology, Cultural Studies (4)
o Theater, Drama, Creative Writing (5)

lgc18 Please select the area below most similar to your college major or expected major:
o Chemistry, Biology, Physics (1)
o Government, Environmental Studies (2)
o Economics, Political Science, Women's Studies (3)
o Education, Nursing, Pre-Med (4)
o Psychology, English, Literature (5)

lgc19 Please indicate how many organizations of the following types (if any) you are a member of at this time. Please be sure to indicate how many organizations you belong to in each instance, even if the answer is zero:
0 (0)
1 (1)
2 (2)
3 or more (3)

An honors program (e.g., university, school, or department) (lgc20)

A scientific or literary organization related to your interests (e.g., Aviation club, French club, Lab Science Society) (lgc21)
0 (0)
1 (1)
2 (2)
3 or more (3)

Reserve Officer Training Corps (e.g., Army or Air Force ROTC) (lgc22)
0 (0)
1 (1)
2 (2)
3 or more (3)

A Greek house (e.g., fraternity or sorority) (lgc23)
0 (0)
1 (1)
2 (2)
3 or more (3)

A Sports or Outing club (e.g., Half Marathon Club, Judo Club, Club Volleyball, New Hampshire Outing club) (lgc24)
0 (0)
1 (1)
2 (2)
3 or more (3)

A club focused on a National or Ethnic Identity (Middle Eastern Cultural Association, Native American Cultural Association) (lgc25)
0 (0)
1 (1)
2 (2)
3 or more (3)

A political club (e.g., Young Americans for Liberty, Young Democratic Socialists of America) (lgc26)
0 (0)
1 (1)
2 (2)
3 or more (3)

A music- and arts-performance club (e.g., New Hampshire Notables, Off the Clef, 0 (0)
1 (1)
2 (2)
3 or more (3)

Improv Club, Sketched Out Comedy Troupe) (lgc27)
0 (0)
1 (1)
2 (2)
3 or more (3)

A club with a social and/or environmental mission (e.g., Organic Garden Club, Project Sunshine, Senior Smiles) (lgc28)
0 (0)
1 (1)
2 (2)
3 or more (3)

A leadership or governance organization (e.g., Stoke Hall Council, Student Senate) (lgc30)
0 (0)
1 (1)
2 (2)
3 or more (3)

An organization for a sexual identity or identities (e.g., Trans UNH) (lgc31)
0 (0)
1 (1)
2 (2)
3 or more (3)

A religious organization or club (e.g., Intervarsity Christian Fellowship, Muslim Students Association) (lgc32)
0 (0)
1 (1)
2 (2)
3 or more (3)

End of Block: PILSI-LGC

Appendix C Side-by-Side Comparison of Items Across Forms

Buffer text

Note: PILSI2 Values Corrected for *N* = 1186 on 7/25/2021 // PILSI3R values corrected for *N* = 696 for the same // PILSI 3 required no change (these alterations removed 17-year-olds)

LABEL	**VERSION**						**VERSION**		**PILSI 3R VERSION**	
label	**PILSI2**	**PILSI3**	**PILSI3R**	**PILSI 1.0**	**PILSI 1.1**	**PILSI2-binned**	**PILSI 3**	**PILSI3R**	**Stem Timeframe**	**Stem Content**
	Y=On form; N=Not on form	**R=Revised**	X=New to Scale; O=Original; T=Trivial rewrite (grammar, etc.)							
lwr1						-0.030		-0.048	NOTE, THESE VARIABLES ARE NOT IN THE FACTOR ANALYSES	On what day of the week are you taking this survey? (If on multiple days, choose the day you started.)
lwr2						0.025		0.065	NOTE, THESE VARIABLES ARE NOT IN THE FACTOR ANALYSES	How typical was the past week (previous seven days) compared to other weeks for you the past few months, on a scale from 1 to 10, where 0 is not-at-all typical and 10 is very typical?
lwr3						-0.045		-0.200	NOTE, THESE VARIABLES ARE NOT IN THE FACTOR ANALYSES	How many events impacting you occurred that were very much out of the routine if any. This would include serious medical diagnoses including Covid19, illnesses, death in family, public awards, work issue. Please do not report the general social changes imposed by Covid19, although we understand they are ongoing.
lbp1	Y		N			-0.030	NAN	NAN	*deleted*	
lbp2	Y		N			-0.014	NAN	NAN	*deleted*	
lbp3	Y	Y	Y			0.013	-0.064	-0.056	Over the past week, how many times did you:	Need to lie down for headache?

lbp4	Y	Y	Y			0.094	0.043	0.085	On a typical day this past week, how many times were you aware of:	A chronic pain you had?
lbp5	Y	Y	Y			0.080	0.017	0.113	Over the past week, how many times did you:	Wonder if you needed to see a doctor about an ailment?
lbp6	Y	Y	Y			0.018	0.031	-0.040	Over the past week, how many times did you:	Have trouble sleeping because of physical pain?
lbp7	Y		N			-0.019	NAN	NAN	Over the past week, how many times did you:	See a medical professional for pain management
lbp8	Y	Y	Y			0.089	0.08	0.062	Over the past week, how many times did you:	Skip a meal?
lbp9	Y	Y	Y			0.038	0.042	-0.048	Over the past week, how many times did you:	Fast all day?
lbp10	N	Y	Y			NAN	0.057	0.076	On a typical day this past week, how many times were you aware of:	your heartbeat?
lbp11	N	Y	Y			NAN	0.057	0.181	On a typical day this past week, how many times were you aware of:	tension in your body?
lbp12	N	Y	Y			NAN	0.107	0.183	On a typical day this past week, how many times were you aware of:	trying to relax the tension in your muscles or other parts of your body?
lbp13	N	Y	N			NAN	0.058	NAN	*deleted*	
lbp14	N	Y	Y			NAN	0.064	0.037	On a typical day this past week, how many times were you aware of:	focusing on your breath to calm down?
lsga1	O	O	R	NAN	0.139	-0.014	0.037	0.097	(No stem in final version)	About how many printed and digital photos of friends and family do you have readily accessible?
lsga2	O	O	R	NAN	0.180	0.060	0.174	0.001	How many of the following possessions did you own or keep:	Letters, lengthy e-mails or similar written or recorded messages from friends or family that are important?

lsga3	Y	Y	Y	NAN	0.258	0.084	0.126	0.084		How many of the following possessions did you own or keep:	Mementos or physical reminders of people close to you?
lsga7	null	null	X			NAN	NAN	0.055		How many of the following possessions did you own or keep:	Pieces of tableware and table settings such as tablecloths and candlesticks for everyday use and for special occasions?
lsga8	null	null	X			NAN	NAN	-0.140		How many of the following possessions did you own or keep:	Cans of beer and bottles of wine for everyday use?
lsga12	null	null	X			NAN	NAN	-0.136		How many of the following possessions did you own or keep:	Cans of beer and bottles of wine for use sharing with family and friends?
lsgb1	Y	N	N			0.014	NAN	NAN		Over the past week, how many times did you:	Go to a class or classes…?
lsgb2	Y	Y	Y			0.064	-0.044	-0.008		Over the past week, how many times did you:	Go to a workplace or login/telecommute for paid part-time or full-time work?
lsgb3	Y	N	N			-0.080	NAN	NAN		*deleted (go to the gym)*	
lsgb4	Y	N	N			-0.073	NAN	NAN		*deleted (go to the supermarket)*	
lsgb5	O	O	R			-0.084	-0.053	-0.213		Over the past week, how many times did you:	Go to a bar?
lsgb6	Y	N	N			-0.060	NAN	NAN			
lsgb7	O	O	R			0.002	NAN	-0.189		Over the past week, how many times did you:	Go to a store to buy alcoholic drinks (e.g., beer or liquor?)
lsgb9	Y	N	N			-0.078	NAN	NAN		*deleted (use the library)*	
lsgb10	Y	Y	Y			0.099	-0.012	0.123		Over the past week, how many times did you:	Go to the campus cafeteria and/or dining hall to obtain a meal?
lsgb11	Y	N	N			-0.009	NAN	NAN			
lsgb12	Y	Y	Y			0.063	0.005	-0.070		Over the past week, how many times did you:	Check Facebook, Instagram, and other social media?
lsbc1	Y	Y	N			-0.075	0.047	NAN		Please tell us, generally speaking, how many of the following items you had in your refrigerator, cupboard, or other food storage area last	bakery items (bread, bagels, crackers)

							week. If you live with roomates, indicate your likely share of the amount	
lsbc2	Y	Y	N	-0.051	-0.085	NAN	Please tell us, generally speaking, how many of the following items you had in your refrigerator, cupboard, or other food storage area last week. If you live with roomates, indicate your likely share of the amount	beans (bags, cans)
lsbc3	Y	Y	N	-0.061	-0.034	NAN	Please tell us, generally speaking, how many of the following items you had in your refrigerator, cupboard, or other food storage area last week. If you live with roomates, indicate your likely share of the amount	beverages (non-alcoholic, such as milk, soda)
lsbc4	Y	Y	N	-0.027	-0.081	NAN	Please tell us, generally speaking, how many of the following items you had in your refrigerator, cupboard, or other food storage area last week. If you live with roomates, indicate your likely share of the amount	beverages (alcoholic, such as cans of beer, bottles of wine, gin, etc.)

lsbc5	Y	Y	N	-0.100	0.083	NAN	Please tell us, generally speaking, how many of the following items you had in your refrigerator, cupboard, or other food storage area last week. If you live with roomates, indicate your likely share of the amount	dairy (yogurt, cheese)
lsbc6	Y	Y	N	-0.058	-0.059	NAN	Please tell us, generally speaking, how many of the following items you had in your refrigerator, cupboard, or other food storage area last week. If you live with roomates, indicate your likely share of the amount	fish
lsbc7	Y	Y	N	-0.036	-0.028	NAN	Please tell us, generally speaking, how many of the following items you had in your refrigerator, cupboard, or other food storage area last week. If you live with roomates, indicate your likely share of the amount	fruits
lsbc8	Y	Y	N	-0.082	-0.028	NAN	Please tell us, generally speaking, how many of the following items you had in your refrigerator,	meats

							cupboard, or other food storage area last week. If you live with roomates, indicate your likely share of the amount	
lsbc9	Y	Y	N	-0.080	-0.054	NAN	Please tell us, generally speaking, how many of the following items you had in your refrigerator, cupboard, or other food storage area last week. If you live with roomates, indicate your likely share of the amount	noodles (Ramen, spaghetti)
lsbc10	N	Y	N	NAN	-0.073	NAN	Please tell us, generally speaking, how many of the following items you had in your refrigerator, cupboard, or other food storage area last week. If you live with roomates, indicate your likely share of the amount	nuts (bags or containers)
lsbc11	N	Y	N	NAN	-0.008	NAN	Please tell us, generally speaking, how many of the following items you had in your refrigerator, cupboard, or other food storage area last week. If you live with roomates, indicate your	soups

							likely share of the amount	
lsbc12	N	Y	N	NAN	-0.062	NAN	Please tell us, generally speaking, how many of the following items you had in your refrigerator, cupboard, or other food storage area last week. If you live with roomates, indicate your likely share of the amount	sweets (boxes of candy, ice cream, brownies)
lsbc13	N	Y	N	NAN	0.077	NAN	Please tell us, generally speaking, how many of the following items you had in your refrigerator, cupboard, or other food storage area last week. If you live with roomates, indicate your likely share of the amount	vegetables (canned, fresh, packaged)
lsna1	Y	Y	Y	0.020	0.124	0.111	How many times last week you:	Spoke with a friend who was distressed and listened to their concerns for a few minutes or more.
lsna2	Y	Y	Y	0.027	0.124	0.049	How many times last week you:	Let a friend know how much you valued them.
lsna3	Y	Y	Y	0.008	0.083	0.113	How many times last week you:	Let someone know who was upset that you had felt that way before too.
lsna4	Y	Y	Y	-0.093	0.178	0.163	How many times last week you:	Communicated with a friend who was distressed and listened to their concerns for a few minutes or more.
lsna5	Y	N	N	-0.054	NAN	NAN	*deleted (received a gift)*	

lsna6	Y	N	N			0.002	NAN	NAN		*deleted (accepted help from somone)*	
lsna7	Y	Y	Y	0.066	-0.084	-0.021	0.08	-0.008		How many times last week you:	Shared a personal, confidential issue of your own with a friend.
lsna8	Y	Y	Y	###	0.149	-0.098	-0.163	-0.080		How many times last week you:	Selected someone to make friends with and felt it was a good decision.
lsna9	Y	N	Y			-0.028	NAN	-0.031			Initiated a conversation with someone you did not know and felt it was a good decision.
lsna10	Y	Y	Y			-0.068	-0.088	-0.047		How many times last week you:	Thought over a polite way to set a limit on helping someone meet their needs, so as to protect your time and energy.
lsna11	Y	Y	Y	NAN	0.119	0.049	0.009	0.136		How many times last week you:	Discussed another person with a friend or family member so as to better understand how that person might act or react.
lsna12	Y	Y	Y	0.009	0.095	0.035	0.09	0.157		How many times last week you:	Described your interests, motives, values, feelings, or other reasons for your behavior to someone else.
lsna13	Y	Y	Y			-0.099	-0.131	-0.070		How many times last week you:	Changed your plans at the last minute because you sensed that your friend would benefit from your help.
lsna14	Y	Y	Y			-0.081	-0.174	-0.120		How many times last week you:	Raised your voice because someone wouldn't listen.
lsna27	N	Y	Y			NAN	-0.048	-0.134		How many times last week you:	Got into an argument with someone who insulted you or a friend.
lsna15	Y	Y	R			-0.167	-0.166	-0.101		How many times last week you:	Got into a fight with someone who insulted you or a friend (in person or online).
lsna16	Y	Y	R			-0.198	-0.193	-0.116		How many times last week you:	Got into a fight with someone to ensure they did something you wanted.
lsna17	Y	Y	R			-0.147	-0.147	-0.178		How many times last week you:	Got yourself into trouble when you were drunk or high.
lsna18	Y	Y	R	NAN	-0.097	-0.025	0.071	0.014		How many times last week you:	Stopped interacting with a friend online and/or no longer responded to calls or messages from them on your phone.
lsna19	Y	N	N			0.008	NAN	NAN		*deleted (didn't speak w/friend after fight)*	
lsna20	Y	N	N			-0.006	NAN	NAN		*deleted (criticized someone working with)*	

lsna21	Y	Y	R			0.060	0.072	0.153	How many times last week you:	Spoke badly about someone you observed, but who hadn't done anything bad to you directly.
lsna22	Y	N	N			-0.022	NAN	NAN	*deleted ("take a break" from someone)*	
lsna23	Y	N	N			-0.040	NAN	NAN	*deleted (told someone 'just how you felt abt them')*	
lsna24	Y	Y	Y	NAN	-0.281	-0.062	-0.103	-0.133	How many times last week you:	Posted negative comments about someone you know online.
lsna25	N	Y	Y			NAN	0.087	0.084	How many times last week you:	Laughed with a friend.
lsna26	N	Y	Y			NAN	-0.024	0.069	How many times last week you:	Sought advice from a friend.
lsnb1	Y	Y	Y	###	-0.178	-0.038	-0.047	-0.007	Over the past week, how many times did you:	Read or watched a video about a public figure who serves as a role model for you?
lsnb2	Y	Y	Y	###	-0.254	-0.113	-0.161	-0.074	Over the past week, how many times did you:	Read or watched a video about a(n) historical figure who serves as a role model for you?
lsnb3	Y	Y	T	0.048	-0.046	0.037	-0.033	0.022	Over the past week, how many times did you:	Communicate with a friend or relative to ask for advice to improve yourself?
lsnb4	Y	Y	T	###	-0.429	-0.222	-0.249	-0.256	Over the past week, how many times did you:	Tell someone that self-knowledge (or self-understanding) is not very important?
lsnb5	Y	Y	T	###	-0.144	-0.158	-0.271	-0.150	Over the past week, how many times did you:	Tell someone that you weren't interested in understanding yourself?
lsnb6	Y		N			-0.061	NAN	NAN	*deleted (Watched self to see if could improve)*	
lsnb7	Y		N			-0.004	NAN	NAN	*deleted (Heard s.t. from s.o else about you & were surprised)*	
lsnb8	Y		N			0.018	NAN	NAN	*deleted (Heard neg. feedbk about self u agreed with)*	
lsnb9	Y		N			-0.050	NAN	NAN	*deleted (Heard neg. feedbk about self u disagreed with')*	

lsnb10	Y	Y	T	0.119	-0.162	0.050	-0.037	0.036	Over the past week, how many times did you:	Rely on someone else to make a key decision for you because you didn't know own preference?
lsnb11	Y	Y	T			-0.150	-0.218	-0.204	Over the past week, how many times did you:	Buy something you saw a celebrity endorse?
lsnc1	Y	N	N			0.012	NAN	NAN	*deleted (read drama, lit, creative works abt fictional characteris & their lives?)*	
lsnc2	Y	Y	N			0.160	0.247	NAN	*deleted (Spend time watching fictional characters and their lives on videos)*	
lsnc3	Y	Y	N			-0.003	NAN	NAN	*deleted (Reading/listening about fictional characters on books/podcasts)*	
lsnc21	N	N	X			NAN	NAN	-0.114	Last week, did you:	Change your style or behavior based on something you saw on a celebrity tweet, influencer webpage or similar media?
lsnc4	Y	Y	T			0.054	0.177	0.179	How many times last week you:	Spent time learning about science and/or engineering or mathematics from books, podcasts, or videos?
lsnc5	Y	N	N			-0.053	NAN	NAN	*deleted (read about pub. figure who serves as role model)*	
lsnc6	Y	N	N			0.026	NAN	NAN	*deleted (read drama, literature or other creative works')*	
lsnc8	Y	N	N			-0.067	NAN	NAN	*deleted (receive feedback from a director when rehearsing a play)*	
lsnc9	Y	Y	T	0.148	0.094	0.002	-0.022	0.068	How many times last week you:	Worked on a plan involving your future?
lsnc10	Y	N	N			-0.026	NAN	NAN	How many times last week you:	Accomplish a major relationship goal such as meeting a promising new partner, becoming engaged or married, or making a new friend?

lsnc11	Y	Y	T	0.133	0.067	0.069	0.083	0.112	How many times last week you:	Decisively made a choice that clearly reflected your own preferences and values?
lsnc7	Y	Y	T			-0.126	0.044	-0.062	Thinking over the past month, how many times did you:	Recommend a biographical movie or book to someone because the person who was depicted could serve as a good role model for others?
										1. The three questions of this section are focused on whether you are continuing to carefully read and respond to the questions. Please characterize how well you have been paying attention during this time:
lsnd1	Y	Y	Y	###	-0.142	0.009	0.016	0.110	How many times last week you:	Helped someone make a decision because the choice was really what they wanted to do?
lsnd2	Y	Y	Y	###	-0.094	-0.120	-0.031	-0.080	How many times over the past year had you:	Selected the right roommate for a group living situation.
lsnd6	Y	Y	Y	###	-0.268	-0.193	-0.09	-0.232	How many times over the last several months you:	Turned down a possible roommate for a group living situation and later found out it was the right choice.
lsnd3	Y	Y	Y			0.069	0.17	0.165	How many times last week you:	Described someone's serious character flaw to a friend or friends.
lsnd4	Y	Y	Y			-0.023	0.057	0.078	How many times last week you:	Realized that someone you knew had a character flaw much worse than you had suspected before.
lsnd5	Y	Y	Y	###	-0.262	-0.242	-0.222	-0.101	How many times over the past semester you:	Turned down or avoided a possible team-member for a class project, and later found out information indicating it was the right choice.
lsnd7	Y	Y	Y			-0.149	-0.145	-0.188	How many times last week you:	Posted something on social media that described someone else's personality in some detail.
lsnd8	Y	Y	Y	###	-0.197	-0.134	-0.204	-0.223	How many times last week you:	Wrote a poem that described someone else's personality.
lsnd9	Y	Y	Y	###	-0.215	-0.214	-0.263	-0.180	How many times last week you:	Wrote an e-mail that described someone else's personality in some detail.

lsnd10	Y		Y		Y		-0.155	-0.089	-0.104	How many times this semester had you:	Changed to a different section of a course because your first instructor didn't match your learning approach.
lsne1	N		Y		Y		NAN	0.19	0.177	Over the past week, how many times did you:	Check or double-check the calendar to make sure you had enough time left to complete a an assignment?
lsne2	N		Y		Y		NAN	0.118	0.131	Over the past week, how many times did you:	Carefully check over a task you completed and then revised part of it before deciding you were finished?
lsne3	N		Y		Y		NAN	0.222	0.117	Over the past week, how many times did you:	Make a plan first thing in the day for what you wanted to accomplish?
lsne4	N		Y		Y		NAN	0.172	0.098	Over the past week, how many times did you:	Acknowledge a mistake you had made on a task and corrected it?
lsne5	N		Y		Y		NAN	0.089	0.037	Over the past week, how many times did you:	Achieve your goal to get a high grade on an assignment, quiz, or test?
lsne6	N		Y		Y		NAN	-0.014	0.037	How many times last week did you:	Put your clothes away neatly?
lsne7	N		Y		Y		NAN	0.008	-0.006	How many times last week did you:	Work late to complete your part of a project?
lgc1	Y		N		N		-0.095	-0.213	NAN	*merged (attended support group for eating dis.)*	
lgc2	Y			R	NAN	-0.110	-0.099	-0.256	-0.117	How many times last week did you:	Attend a peer support group for a problem with eating, drugs, alcohol, or gambling?
lgc3	Y			R			-0.117	-144	-0.143	How many times last week did you:	Attend a support group for a problem that a person close to you experienced (but that you were not directly experiencing at the time)?
lgc4	Y		N		N		-0.048	NAN	NAN	*merged (attended affinity group meeting)*	
lgc5	N		N		N		NAN	NAN	NAN	*merged (attended support group for eating dis.)*	
lgc6	Y		R		R		-0.022	-0.121	-0.023	How many times last week did you:	Insult someone based on their religion?
lgc7	Y		N		N		-0.007	NAN	NAN	*merged (insulted based on race/ethnicity)*	
lgc8	Y		N		N		-0.080	NAN	NAN	*deleted (brough cheat sheet to quiz/exam)*	

lgc9	Y	N	N	-0.021	NAN	NAN	*deleted (glanced at classmate's quiz exam to decide on answer)*	
lgc10	Y	N	N	-0.054	NAN	NAN	*deleted (showed up for class after drinking alcohol)*	
lgc11	Y	T	T	-0.147	-0.114	-0.140	How many times last week did you:	Obtain part or all of a test in advance?
lgc12	Y	N		-0.032	NAN	NAN		
lgc13	Y	Y	T	-0.031	-0.11	-0.120	How many times last week or over the past several weeks did you:	Copy part of another student's paper?
lgc14							How many times last week…	Copied material into your own paper for a course?
lgc15	Y	Y	Y	0.150	0.128	0.221	How many times last week or over the past week did you:	Surf the internet or texted during an online or in-person class meeting?
lgc16	Y	N	N	-0.067	NAN	NAN	*deleted (obtained a paper online or from anth student/claimed as ownl)*	
lgc17	Y	Y	Y	-0.011	0.01	0.009		Please select the area below most similar to your college major or expected major:
lgc18	Y	Y	Y	-0.012	-0.011	-0.050		Please select the area below most similar to your college major or expected major:
lgc20	N		R	NAN	0.024	0.020	Please indicate how many organizations of the following types (if any) you are a member of at this time. Please be sure to indicate how many organizations you belong to in each instance, even if the answer is zero:	An honors program (e.g., university, school, or department)
lgc21	N		R	NAN	0.05	0.035	Please indicate how many organizations of the following types (if any) you	A scientific or literary organization related to your interests (e.g., Aviation club, French club, Lab Science Society)

						are a member of at this time. Please be sure to indicate how many organizations you belong to in each instance, even if the answer is zero:	
lgc22	N	R	NAN	-0.144	-0.070	Please indicate how many organizations of the following types (if any) you are a member of at this time. Please be sure to indicate how many organizations you belong to in each instance, even if the answer is zero:	Reserve Officer Training Corps (e.g., Army or Air Force ROTC)
lgc23	N	R	NAN	-0.039	-0.148	Please indicate how many organizations of the following types (if any) you are a member of at this time. Please be sure to indicate how many organizations you belong to in each instance, even if the answer is zero:	A Greek house (e.g., fraternity or sorority)
lgc24	N	R	NAN	-0.077	-0.055	Please indicate how many organizations of the following types (if any) you are a member of at this time. Please be sure to indicate how many organizations you belong to in each	A Sports or Outing club (e.g., Half Marathon Club, Judo Club, Club Volleyball, New Hampshire Outing club)

								instance, even if the answer is zero:	
lgc25	N	R		NAN	-0.085	-0.051		Please indicate how many organizations of the following types (if any) you are a member of at this time. Please be sure to indicate how many organizations you belong to in each instance, even if the answer is zero:	A club focused on a National or Ethnic Identity (Middle Eastern Cultural Association, Native American Cultural Association)
lgc26	N	R		NAN	0.094	-0.005		Please indicate how many organizations of the following types (if any) you are a member of at this time. Please be sure to indicate how many organizations you belong to in each instance, even if the answer is zero:	A political club (e.g., Young Americans for Liberty, Young Democratic Socialists of America)
lgc27	N	R	###	0.020	NAN	-0.025	-0.047	Please indicate how many organizations of the following types (if any) you are a member of at this time. Please be sure to indicate how many organizations you belong to in each instance, even if the answer is zero:	A music- and arts-performance club (e.g., New Hampshire Notables, Off the Clef, Improv Club, Sketched Out Comedy Troupe)

lgc28	N	R	NAN	0.107 0.099	Please indicate how many organizations of the following types (if any) you are a member of at this time. Please be sure to indicate how many organizations you belong to in each instance, even if the answer is zero:	A club with a social and/or environmental mission (e.g., Organic Garden Club, Project Sunshine, Senior Smiles)
lgc30	N	R	NAN	0.058 0.072	Please indicate how many organizations of the following types (if any) you are a member of at this time. Please be sure to indicate how many organizations you belong to in each instance, even if the answer is zero:	A leadership or governance organization (e.g., Stoke Hall Council, Student Senate)
lgc31	N	R	NAN	0.064 0.043	Please indicate how many organizations of the following types (if any) you are a member of at this time. Please be sure to indicate how many organizations you belong to in each instance, even if the answer is zero:	An organization for a sexual identity or identities (e.g., Trans UNH)

lgc32	N	R	NAN	-0.024	0.023	Please indicate how many organizations of the following types (if any) you are a member of at this time. Please be sure to indicate how many organizations you belong to in each instance, even if the answer is zero:	A religious organization or club (e.g., Intervarsity Christian Fellowship, Muslim Students Association)

EXTENDED APPENDICES: LAB RECORDS AND DOCUMENTS OF POSSIBLE REFERENCE USE

Extended Appendix A. Four-Factor Analysis of the PILSI 1.0

buffer text between tables

Supplement Appendix Table E1 PILSI Geomin Rotated Factor Loadings for Items on the Final 1.0 Scales (Items selected according to their significant loadings)				
using: Lifespace 1 5 11 final four factor.out	1	2	3	4
SELF OBSERVATION **2. Over the past week, how many times did you (0 times = not at all/never)**				
2d. watch yourself doing something to see if you could improve what you were doing?	.46			
2e. hear anything said by others that reflected how they view you (e.g., your reputation?)	.31			
2f. ask someone for feedback on a project?	.79			
2g. ask someone for feedback as to how you were doing?	.80			
3e. describe your interests, motivations, values, beliefs, attitudes, or reasons for your behavior to someone else?	.29	.44		
3f. read about a public figure who serves as a role model to you?	.53			
3g. read about a historical figure who serves as a role model to you?	.58			
3h. talk to someone who is a role model for you? (assumes phone not email, assumes number of times shows intensity of communication)				
3i. talk to a mentor or advisor to help better understand or improve yourself?	.57			
3j. talk to a friend or relative to help better understand or improve yourself?	.42			
4a. Use a personal experience to motivate your behavior?		.66		
4b. Use an ideal image of yourself to motivate yourself to get something done?		.64		
4c. share a story from your own past to try to help someone?	.25	.51		
4d. use a memory from your life to motivate yourself to get something done?		.57		
4e. use a memory from your life to help you cope with something difficult?		.48		
4f. work on a plan involving your future?		.42	-.20	
4g. tell someone that self-knowledge (or self-understanding) is not very important?				
3a. imitate someone, using their voice, to make a point about the person?		.55	.64	

3b. imitate someone, using their voice, to entertain someone else?		.58	.62	
4h. help someone make a decision by identifying what (sounded like what) they most wanted to do?	.26	.48		
4i. suggested to someone who was trying to make a decision which alternative was probably best?		.52		
4j. decisively make a choice, knowing that the choice reflected your own preferences and values?		.84		
4k. decisively make a choice, knowing that the choice reflected your own preferences and values?		.85	-.46	
6c. turn down a possible team-member for a class project, and later found out information indicating it was the right choice?	.72		.40	
6d. turn down the right roommate for a group living situation and later found out it was the right choice?	.72		.52	
6e. select someone to make friends with and made a good decision?				
7a. tell someone that you aren't interested in understanding yourself?	.53		.41	
7b. ask someone for help in trying to better understand yourself?	.54			
7c. write a poem that described someone else's personality?	.54		.51	
7d. write an e-mail that described someone else's personality in some detail?	.56		.28	
7e. feel surprised by feedback from someone else about you, or an exam you took or a project you worked on?	.32			
9a. Work on a project that was a good fit with your personality?			-.32	
10c. [read books:] Classics				.68
10d. [read books:] Romance				.52
10e. [read books:] Poetry				.59
10f. [read books:] Autobiography and/or Memoirs				.68
10g. [read books:] Biographies				.73
10h. [read books:] History				.56
10i. [read books:] Mystery				.54
10l. [read books:] Other				.45
12a. achieve a life goal or an important part of a career-related goal such as finishing a class, or a degree, or another major life project?			-.28	
12b. achieve a major relationship goals such as meeting a promising new partner, becoming engaged or married, or making a new friend?			-.27	
12c. achieve a major personal goal such as getting more exercise, eating right, cultivating a hobby, or exploring a new place?			-.34	
14a. Really motivated you to learn and study harder?			-.25	
Total Number of Items on the First Scales	18	13	15	8
Correlation with the MINI-12	-.19	.06	-.43	-.02

buffer text between tables

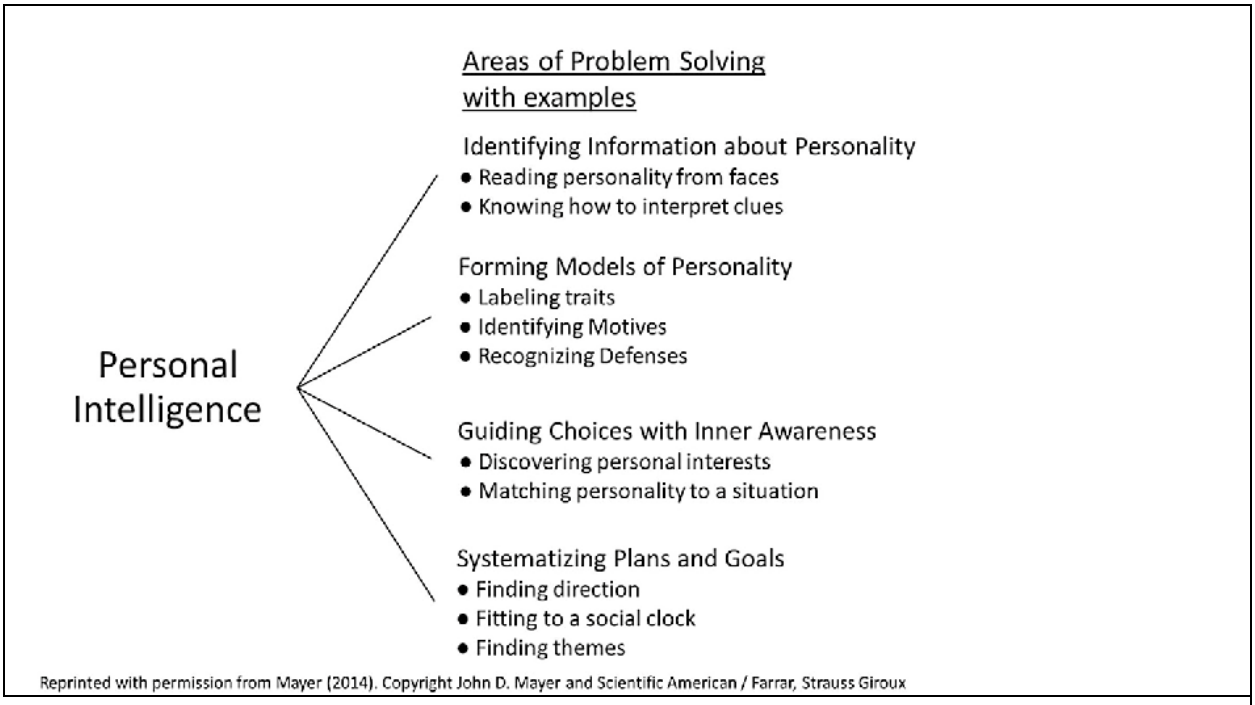
Extended Appendix B. The PILSI 1.0 and 1.1: Two Initial Studies

The PILSI 1.0

Overview of the Scale

Our first research project on the Test of Personal Intelligence (Mayer et al., 2012), piloted and reported a Personal Intelligence Lifespace Scale version 1.0 (PILSI 1.0) as a side analysis. An updated version of that scale was then included in the "Alternative Measures of Personal Intelligence" study, an unpublished data set on which we have drawn for further information on our scales. The original TOPI 1.0 and 1.1 scales can be found in Appendices A and B.

The organization of the PILSI pilot scales 1.0 and 1.1 organized items according to this four-fold diagram:



Supplement Figure 4.1

Fit of an Exploratory Factor Analysis

We reported a fit an EFA in Mplus to 59 items of the 75 items of the PILSI 1.0 scale in the Mayer et. al. paper (Mayer et al., 2012). Sixteen items were dropped, presumably to facilitate a fit, although records of that process are no longer available.

For that paper, we fit exploratory versions of four, five, and six factor models of the scale. We treated the data as categorical, and used the weighted least squares mean adjusted (WLSM) estimator with a GEOMIN rogtation.

Note that for reasons that appear to have been lost, items from the "13" and "8" group were omitted, with the consequence that that original test, which had

The fits were as follows:

Extended Appendix B Table EAB.1

Exploratory Factor Analyses of the PILSI 1.0

Model	Free Params.	Fit Indices						Correlations	Heywood Cases
		χ^2	df	RMSEA	SRMR	CFI	TLI		
Four-factor	230	5068.82	1481	.080	.069	.937	.927	*r* = -.04 to .37	none
Five-factor		4380.63	1426	.074	.062	.949	.937	*r* = .05 to .41	one
Six-factor		3762.80	1372	.068	.058	.959	.937	*r* = .09 to .54	two

The output looked like this:

GEOMIN ROTATED LOADINGS

	1	2	3	4
LIFE2A	-0.004	0.187	0.110	0.031
LIFE2B	0.193	0.269	0.105	0.025
LIFE2C	0.270	0.317	0.041	0.023
LIFE2D	0.458	0.101	-0.039	-0.110
LIFE2E	0.305	0.228	0.047	0.055
LIFE2F	0.786	-0.002	-0.124	-0.198
LIFE2G	0.796	0.022	-0.078	-0.178
LIFE5A	0.229	0.167	0.216	0.012
LIFE7B	0.484	0.256	-0.028	-0.014
LIFE7E	0.317	0.308	0.072	0.046
LIFE3A	-0.002	0.552	0.643	-0.005
LIFE3B	-0.024	0.575	0.620	-0.008
LIFE3C	-0.035	0.299	0.172	0.194
LIFE3D	0.087	0.293	0.189	0.155
LIFE3E	0.294	0.435	0.038	0.044
LIFE3F	0.532	0.106	0.093	0.194

LIFE3G	0.579	-0.015	0.067	0.229
LIFE3H	0.267	0.212	-0.136	0.049
LIFE5B	0.152	0.327	0.056	0.046
LIFE5C	0.172	0.177	0.087	0.094
LIFE7A	0.531	0.012	0.413	0.033
LIFE7C	0.541	-0.017	0.506	0.063
LIFE7D	0.557	0.112	0.282	0.111
LIFE10A	0.082	-0.045	-0.131	0.161
LIFE10B	-0.196	0.179	-0.010	0.519
LIFE10C	-0.079	0.041	-0.077	0.680
LIFE10D	-0.225	0.146	0.061	0.520
LIFE10E	0.056	0.076	0.042	0.587
LIFE10F	0.229	-0.130	0.000	0.679
LIFE10G	0.231	-0.193	0.025	0.732
LIFE10H	0.098	-0.112	-0.153	0.558
LIFE10I	-0.112	0.058	-0.031	0.538
LIFE10J	0.381	0.002	-0.110	0.207
LIFE10K	0.112	-0.011	-0.133	0.304
LIFE10L	-0.071	0.065	-0.108	0.446
LIFE4H	0.263	0.478	0.029	0.026
LIFE4I	0.158	0.523	0.023	0.098
LIFE4J	-0.039	0.843	-0.442	-0.031
LIFE4K	-0.058	0.854	-0.457	-0.038
LIFE6C	0.719	0.014	0.403	-0.072
LIFE6D	0.724	-0.064	0.521	-0.010
LIFE6E	0.248	0.356	-0.076	0.074
LIFE9A	0.285	0.072	-0.322	0.037
LIFE9BR	-0.168	0.018	-0.124	-0.038
LIFE14A	0.011	-0.022	-0.251	0.240
LIFE14BR	0.019	-0.232	-0.222	0.086
LIFE1A	0.314	0.023	-0.200	-0.078
LIFE3I	0.568	0.081	-0.041	0.011
LIFE3J	0.421	0.283	-0.092	0.046
LIFE4A	0.103	0.659	-0.043	-0.046
LIFE4B	0.055	0.643	-0.040	-0.089
LIFE4C	0.254	0.508	-0.031	0.038
LIFE4D	0.184	0.574	0.005	-0.060
LIFE4E	0.260	0.475	0.111	-0.026
LIFE4F	0.059	0.417	-0.203	0.094
LIFE11C	0.209	-0.061	-0.115	0.083
LIFE12A	0.168	0.268	-0.281	0.104
LIFE12B	0.070	0.277	-0.266	0.162
LIFE12C	0.106	0.348	-0.340	0.104

In the chief reported study from (Mayer et al., 2012, p. 134), we wrote:

> *Lifespace:* Finally, the TOPI 1.2 correlated with certain dimensions of the Personal Intelligence Lifespace Index (PILSI). This initial version of the Lifespace Index yielded four factors. High scorers on the first factor, an outer-directed sort of People Pleasing, exhibited lower personal intelligence than others, $r = –.21$.

> Even more strikingly, those scoring high on Confirmed Controlling, which involves a confident decisiveness about others coupled with a dismissive attitude toward the importance of psychological knowledge, correlated $r = -.41$, $p < .01$, with personal intelligence. These individuals seem to exercise power over others in a confident fashion that neglects the needs of others and might involve objectifying and making fun of others (Table 7).

In reflecting on the analysis today, however, we would interpret them a bit differently. Factor 1 loaded most highly items such as "ask someone for feedback on a project (2f; loading .79)" and "ask someone for feedback as to how you were doing? (2g; .80), as well as "turn down a possible teammate…and found out it was the right choice (6c; .72) and "turn down the right roommate…and it was the right choice" (6d; .72). It seems to reflect a kind of "Covering-up-Doubt" factor, in that one is looking for confirmation (and finding it), where, perhaps, certainty cannot be found.

We labeled Factor 2 the "Well-Put-Together" or "Self-Confident Self". Factor 2 had loaded "decisively made a choice, knowing that the choice reflected your own preferences and values" (4J, loading .84), "use a personal experience to motivate behavior" (4a, .66) and "use an ideal image of yourself to motivate yourself to get something done" (4b, .64), as well as

We labeled Factor 3 an "Acting Against Others" factor; it loaded most highly "imitate someone, using their voice and inflection, to make a point about the person" (3a; .64), "imitate someone, using their voice and inflection, to entertain someone else" (3b; .62), "Turn down a roommate and found out it was the right choice" (6d; .52) and (negatively) "Achieve a major personal goals such as getting more exercise, eating right, …etc.". (12c; -.32).

Finally, Factor 4 was a "Reading Books" factor, reflecting as it did, the propensity to have read books in a variety of genres (e.g., Drama (10b, .52), Biography (10g; .73), and "Classics" (10c, .68).

For the sake of completeness, we also include the five-factor solution below.

Five factors

Note that in the five-factor solution, factor 4 seems identified by just a couple items, life4j and life4k, and one is (barely) a Heywood case.

GEOMIN ROTATED LOADINGS

	1	2	3	4	5
LIFE2A	0.203	0.029	0.023	0.051	-0.029
LIFE2B	0.289	0.279	0.012	0.026	0.006
LIFE2C	0.334	0.538	0.007	-0.039	-0.137
LIFE2D	0.003	0.261	-0.117	0.132	0.304
LIFE2E	0.182	0.251	0.040	0.108	0.160
LIFE2F	-0.091	0.530	-0.203	0.057	0.460
LIFE2G	-0.005	0.630	-0.188	-0.026	0.411

LIFE5A	0.305	0.192	-0.006	-0.068	0.134
LIFE7B	0.231	0.650	-0.035	-0.024	0.035
LIFE7E	0.279	0.341	0.029	0.089	0.101
LIFE3A	0.861	0.036	-0.038	-0.048	-0.014
LIFE3B	0.802	-0.060	-0.038	0.057	0.031
LIFE3C	0.275	-0.136	0.184	0.204	0.071
LIFE3D	0.280	-0.085	0.141	0.210	0.162
LIFE3E	0.341	0.449	0.029	0.150	-0.049
LIFE3F	0.049	-0.007	0.167	0.293	0.585
LIFE3G	-0.046	-0.008	0.208	0.232	0.652
LIFE3H	0.036	0.318	0.042	0.177	0.031
LIFE5B	0.278	0.286	0.029	0.091	-0.051
LIFE5C	0.254	0.320	0.076	-0.079	-0.028
LIFE7A	0.284	-0.001	0.017	-0.049	0.605
LIFE7C	0.337	-0.075	0.047	-0.060	0.655
LIFE7D	0.291	0.210	0.089	-0.008	0.495
LIFE10A	-0.087	0.166	0.154	-0.031	0.000
LIFE10B	0.139	-0.043	0.504	0.094	-0.122
LIFE10C	0.008	-0.033	0.664	0.076	0.033
LIFE10D	0.200	-0.046	0.505	-0.001	-0.148
LIFE10E	0.116	0.010	0.566	0.045	0.148
LIFE10F	-0.033	0.044	0.644	-0.044	0.357
LIFE10G	-0.043	0.025	0.694	-0.098	0.390
LIFE10H	-0.148	0.063	0.540	0.013	0.164
LIFE10I	0.066	0.003	0.522	0.011	-0.048
LIFE10J	-0.020	0.396	0.191	-0.034	0.170
LIFE10K	-0.045	0.227	0.293	-0.033	0.010
LIFE10L	0.010	0.084	0.435	0.037	-0.084
LIFE4H	0.254	0.171	0.013	0.380	0.131
LIFE4I	0.271	0.095	0.085	0.423	0.080
LIFE4J	-0.042	-0.091	-0.020	0.997	-0.005
LIFE4K	-0.053	-0.100	-0.025	1.018	-0.025
LIFE6C	0.241	0.043	-0.084	0.051	0.726
LIFE6D	0.270	-0.057	-0.015	-0.016	0.819
LIFE6E	0.125	0.222	0.064	0.311	0.089
LIFE9A	-0.248	0.223	0.036	0.271	0.143
LIFE9BR	-0.075	0.005	-0.033	0.025	-0.209
LIFE14A	-0.184	0.125	0.237	0.084	-0.057
LIFE14BR	-0.277	0.102	0.090	-0.090	-0.039
LIFE1A	-0.175	0.203	-0.076	0.169	0.171
LIFE3I	0.035	0.398	0.001	0.069	0.336
LIFE3J	0.174	0.599	0.032	0.072	-0.015
LIFE4A	0.275	0.129	-0.055	0.545	-0.048
LIFE4B	0.242	0.032	-0.092	0.572	-0.031
LIFE4C	0.257	0.290	0.023	0.363	0.026
LIFE4D	0.244	0.070	-0.068	0.512	0.100
LIFE4E	0.334	0.195	-0.040	0.300	0.106
LIFE4F	0.039	0.132	0.090	0.435	-0.067
LIFE11C	-0.053	0.321	0.076	-0.113	0.012
LIFE12A	-0.057	0.309	0.096	0.292	-0.073

LIFE12B	-0.019	0.301	0.154	0.249	-0.169
LIFE12C	-0.073	0.289	0.095	0.389	-0.131

Extended Appendix B Table EAB.2

Reproduction of Table 7 with Highlights from Mayer, Panter & Caruso, 2012

TABLE 7.—Correlations between the Test of Personal Intelligence (TOPI) 1.2 and the added criterion measures[a] of Study 3.

Validity Measures[b]	Recognizing Information	Forming Models	Guiding Choices	Systematizing Plans	Total TOPI 1.2
Personality Disorder Symptom Scales					
Maladaptive Agreeableness	–.09	–.16**	–.17**	–.12*	–.16**
Narcissistic Grandiosity	–.26**	–.16**	–.24**	–.23**	–.26**
Narcissism Personality Inventory	–.19**	–.11*	–.15**	–.13**	–.17**
Lifespace Index					
People Pleasing	–.17**	–.19**	–.19**	–.14**	–.21**
Rational Coaching	–.01	–.04	–.01	.10	.04
Confirmed Controlling	–.31**	–.37**	–.38**	–.34**	–.41**
Reading Books	.01	–.04	.01	–.04	–.02
Reading the Mind in the Eyes	.38**	.49**	.50**	.46**	.53**
Interpersonal Competency Questionnaire	.04	.08	.05	.06	.06
Initiating Relationships	–.01	.01	–.01	–.02	–.01
Providing Emotional Support	.12	.18	.13**	.15**	.17**
Asserting Influence	–.01	.06	.06	.02	.04
Self-Disclosure	.01	–.01	–.02	–.02	–.01
Conflict Resolution	.07	.08	.04	.08	.07
MSCEIT Strategic Emotional Intelligence[c]	.54**	.61**	.63**	.58**	.69**
Understand Emotions	.50**	.62**	.64**	.57**	.68**
Changes	.45**	.60**	.59**	.54**	.63**
Blends	.45**	.53**	.57**	.50**	.60**
Manage Emotions	.48**	.46**	.49**	.46**	.55**
Emotion Management	.43**	.41**	.47**	.46**	.51**
Emotional Relations	.43**	.41**	.42**	.39**	.48**

The PILSI 1.0 and 1.1 Items with the Highest Correlations with Personal Intelligence

Extended Appendix B Table EAB.3

Highest Performing Items from the PILSI 1.0 and 1.1

	Note: Grey = original items, unchanged numbering; grey trellis shading, reworking in red	*Study 3 Topi_tot*	*Study 4 Topi_m12*
2d	d. watch yourself doing something to see if you could improve what you were doing?	-.196**	-.106*
2f	f. ask someone for feedback on a project?	-.108**	-.165**
2g	g. ask someone for feedback as to how you were doing?	-.100*	-.103**
3f	f. read about a public figure who serves as a role model to you?	-.271**	-.178**
3g	g. read about a historical figure who serves as a role model to you?	-.249**	-.254**
3i	i. talk to a mentor or advisor to help better understand or improve yourself?	-.196**	-.203**
4f	f. work on a plan involving your future?	.148**	.094*
6c	c. turn down a possible team-member for a class project, and later found out information indicating it was the right choice?	-.352**	-.262**
6d	d. turn down the right roommate for a group living situation and later found out it was the right choice?	-.378**	-.268**
7a	a. tell someone that you aren't interested in understanding yourself?	-.241**	-.144**
7c	c. write a poem that described someone else's personality?	-.329**	-.197**
7d	d. write an e-mail that described someone else's personality in some detail?	-.250**	-.215**

*p<.1; **p<.05

The PILSI 1.0 and 1.1: All Item Correlations with the TOPI in Order of Scale Presentation

	Note: Grey = original items, unchanged numbering; grey trellis shading, reworking in red	*Study 3 Topi_tot*	*Study 4 Topi_m12*
	[Old] 1. Do you have a list of goals	.127**	NI
	[Old] 1. Did you join a social group that allowed you to express a part of yourself you otherwise might not	.100*	NI
Code	**[New] 1. Major. Please indicate the field that is closest to your major:**	**NI**	NI
3	a. drama, literature, or creative writing (but not English or other languages)	NI	NI
2	b. English or other languages	NI	NI
1	c. sociology, anthropology, and/or cultural studies	NI	NI
2	d. experimental and related other areas of research psychology (e.g., perception, biopsychology, cognition, social psychology)	NI	NI
3	e. clinical, counseling and/or personality psychology	NI	NI
1	d. history	NI	NI
1	e. engineering, chemistry, biology, or physics	NI	NI
1	f. business and/or economics, excluding organizational behavior/human resources	NI	NI
2	g. organizational behavior or psychology and/or human resources	NI	NI
1	i. education	NI	NI
1	j. prelaw or premed	NI	NI
1	k. medicine or veterinary school	NI	NI
1	l. other	NI	NI
0	m. Undecided	NI	NI
	Computed valued of 1	NI	.00/didn't work
	SELF OBSERVATION **2. Over the past week, how many times did you (0 times = not at all/never)**		
	[Old 2] remember a dream	-.014	NI
	[Old 2] notice an emotion	.008	NI
	[Old 2] describe an inner feeling	.058	NI
	a. check your horoscope	NI	-.065
	b. "check your gut" to see if doing something felt right to you to do	NI	.006
	c. look in a mirror to think about how you were maturing	NI	-.055
	d. watch yourself doing something to see if you could improve what you were doing?	-.196**	-.106*

	e. hear anything said by others that reflected how they view you (e.g., your reputation?)	n.s.	-.099
	f. ask someone for feedback on a project?	-.108**	-.165**
	g. ask someone for feedback as to how you were doing?	-.100*	-.103**
	h. hear some negative feedback about yourself that you agreed with?	NI	-.249**
	i. hear some negative feedback about yourself that you disagreed with?	NI	-.264**
	PORTRAYING SELF AND OTHERS **3. Over the past week, how many times did you (0 times = not at all/never):**		
	a. imitate someone in their presence, using their voice and gestures, to make a point about the person?	-.156**	-.024
	b. imitate someone who was not there, using their voice and gestures, to entertain someone else?	As above	-.064
	c. Exaggerate something you yourself often do in the presence of others to make fun of yourself with them.	NI	.036
	d. Describe a personality characteristic of yourself (e.g., shy, creative, conventional) to another person?	NI	.016
	e. describe your interests, motivations, values, beliefs, attitudes, or reasons for your behavior to someone else?	.009	.095*
	f. read about a public figure who serves as a role model to you?	-.271**	-.178**
	g. read about a historical figure who serves as a role model to you?	-.249**	-.254**
	h. talk to someone who is a role model for you? (assumes phone not email, assumes number of times shows intensity of communication)	.022	.005
	i. talk to a mentor or advisor to help better understand or improve yourself?	-.196**	-.203**
	j. talk to a friend or relative to help better understand or improve yourself?	.048	-.046
	MAKING CHOICES/SYSTEMATIZING GOALS **4. Over the past week, how many times did you (0 times = not at all/never)**		
	a. Use a personal experience to motivate your behavior?	.083	-.042
	b. Use an ideal image of yourself to motivate yourself to get something done?	.058	.058
	c. share a story from your own past to try to help someone?	.013	.022
	d. use a memory from your life to motivate yourself to get something done?	-.015	.010
	e. use a memory from your life to help you cope with something difficult?	-.047	.003
	f. work on a plan involving your future?	.148**	.094*

	g. tell someone that self-knowledge (or self-understanding) is not very important?	-.043	-.429**
	h. help someone make a decision by identifying what (sounded like what) they most wanted to do?	-.010	-.142**
	[Make Choices for Others]		
	i. suggested to someone who was trying to make a decision which alternative was probably best?	-.009	-.036
	j. decisively make a choice, knowing that the choice reflected your own preferences and values?	.133**	.067
	k. decisively make a choice, knowing that the choice reflected your own preferences and values? [ver 1.1]: rely on someone else to make a key choice (decision) for you because you could not figure out your own preferences?	Repeat of j	-.162*
	[Old] 5. Ask someone whether other people like you (or another person likes you)?	.006	**NI**
	Spend time with a friend or co-worker trying to figure out what makes someone else 'tick?" e.g., do the things they do?	-.025	**NI**
	Spend time with a family member trying to figure out what makes someone else 'tick?" e.g., do the things they do?	-.027	**NI**
	[New] 5. Training and Education		
	Please indicate the amount of training you have had in any of the following areas: (less than one hour/1-10 hours/11-40 hours/more than 40 hours	NI	
	a. peer counseling	NI	-.023
	b. empathic listening	NI	.011
	c. conflict resolution	NI	.024
	d. crisis intervention	NI	-.008
	e. a form of psychotherapy technique such as conducting cognitive-behavioral therapy	NI	-.107
	f. an academic course in acting	NI	.057
	g. being directed as an actor in a play, video, or movie	NI	.148**
	h. a course on writing fiction with an emphasis on character development	NI	.019
	Selection of Others **6. Over the past year how many times did you (0 times = not at all/never/no opportunity):**		
	a. select the right team-member for a project	.002	.010
	b. select the right roommate for a group living situation?	-.037	-.094*
	c. turn down a possible team-member for a class project, and later found out information indicating it was the right choice?	-.352**	-.262**
	d. turn down the right roommate for a group living situation and later found out it was the right choice?	-.378**	-.268**
	e. select someone to make friends with and made a good decision?	-.015	.149*

	7. Over the past month, how many times did you:		
	a. tell someone that you aren't interested in understanding yourself?	-.241**	-.144**
	b. ask someone for help in trying to better understand yourself?	.016	.030
	c. write a poem that described someone else's personality?	-.329**	-.197**
	d. write an e-mail that described someone else's personality in some detail?	-.250**	-.215**
	e. feel surprised by feedback from someone else about you, or an exam you took or a project you worked on?	.025	-.036
	f. post something on a blog or social network that described someone else's personality in some detail?	NI	-.180**
	g. talk with a friend or family member about a third person so as to better understand how that third person might act or react.	NI	.119**
	h. Initiated a conversation with someone you do not really like in order to better understand the person's point of view.	NI	.028
	i. Prolonged a conversation with someone you do not really like in order to better understand their point of view.	NI	-.019
	[Old 8]		
	discuss or share a personal, secret or confidential issue of your own with a friend	.066	NI
	discuss or share a personal, secret or confidential issue of your own with a friend with a co-worker/colleague?	-.002	NI
	Listen to or discuss a friend's personal issues or provide comfort to the friend	-.037	NI
	Display physical affection to a friend or relative?	-.038	NI
	[New] Setting Boundaries and Facing Conflict **8. Over the past month, how often did you:**		
	a. raise your voice or yell at someone to stop them from doing something wrong	NI	-.084
	b. get drunk or high	NI	-.068
	c. repeat a negative rumor about someone you knew to one or more other people	NI	-.101*
	d. get into a physical fight with someone	NI	-.287**
	e. stopped by the police for a disturbance	NI	-.274**
	f. get into a shouting match with someone	NI	-.126**
	g. stop talking with someone because of a disagreement, argument, or other problem	NI	-.012
	h. analyze the problem with someone's personality with a friend or coworker	NI	.075
	i. stop interacting with a friend online	NI	-.097*
	j.Post negative comments about a friend online	NI	-.281**
	9. In the past year, for how many months did you:		
	a. Work on a project that was a good fit with your personality?	-.013	-.006

	b. Work at a job that was a bad overall fit with your personality?	-.041	-.054
Code	**MEDIA -- Composite** **10. In the past year, how many books you have read in these areas (please estimate):**		
1	a. Science and technology	-.015	.018
3	b. Drama	.005	.118**
2	c. Classics	-.001	.122**
2	d. Romance	-.019	.101*
2	e. Poetry	-.096*	-.030
4	f. Autobiography and/or Memoirs	-.087*	.065
4	g. Biographies	-.121**	-.015
2	h. History	-.007	.016
2	i. Mystery	.035	-.058
1	j. Self Help	-.053	-.109**
1	k. Religion	.027	-.096*
0	l. Other	.108**	-.075
	PI computed algorithm	NI	.084
	11. In the past year, how many weeks (please estimate):		
	a. were you involved as an actor in a theater or video play?	-.026	.033
	b. were you a member of an acting group?	-.026	.020
	c. did you see a psychotherapist for individual therapy where you discussed your thoughts and feelings?	-.006	.018
	d. did you attend group psychotherapy where you discussed your thoughts and feelings?	NI	-.006
	e. did you see a psychologist, psychiatrist, or other health professional about medication for a psychiatric problem?	NI	-.035
	f. did you attend a support group for a problem such as alcohol or drug use?	NI	-.063
	g. did you attend a support group for a problem with eating?	NI	-.128**
	h. did you attend a peer support group for a problem other than drugs, alcohol, or eating?	NI	-.137**
	12. In the past year, how many times did you (please estimate):		
	a. achieve a life goal or an important part of a career-related goal such as finishing a class, or a degree, or another major life project?	-.009	-.044
	b. achieve a major relationship goals such as meeting a promising new partner, becoming engaged or married, or making a new friend?	-.006	.136**
	c. achieve a major personal goal such as getting more exercise, eating right, cultivating a hobby, or exploring a new place?	.002	.063
	13. In the past year, how many times did you (please estimate):		
	a. Make entries in a journal diary?	-.008	.056
	b. Blog or otherwise record in at least a few sentences on-line your personal feelings or reactions to your ongoing life	-.028	.007

	c. took a personality test online to learn about yourself	NI	-.082
	14. Please answer the following questions about courses in relation to the most recent college semester		
	a. Really motivated you to learn and study harder?	.026	.001
	b. Seemed to diminish your motivation or interest in learning?	.018	.007
	c. How many courses did you take over the last semester that you believe increased your motivation to learn?	NI	.068
	d. How many courses did you take over the last semester that you believe reduced your motivation to learn?	NI	.063
	e. How many class projects did you choose (where you were given a choice by the professor) that you were genuinely interested in?	NI	-.074
	[OLD 15 – Facebook] Do you use facebook	-.024	NI
	In general, how often do you update your Facebook page	.043	NI
	How many friends do you have on Facebook?	-.035	NI
	15. Please tell us about some of your possessions. Do you own or keep:		
	a. a photo album or an on-line photo album?	NI	.139**
	b. a copy of your family tree?	NI	-.044
	c. results for yourself from psychological tests?	NI	-.068
	d. letters or important emails from friends or family?	NI	.180**
	e. mementos or physical reminders of people close to you?	NI	.258**
	f. Do you own or keep scrapbooks that you have created	NI	-.015

The PILSI 1.0 and 1.1 and Selected Item Correlations with the TOPI

As part of the development of the PILSI, we examined the correlation of individual PILSI items with scales of personal intelligence used in both studies. The results of those correlations can be seen in Tables 1.1 and Tables 1.2 that follow.

Note that in both tables, lifespace items are marked old, revised, and new.

Old items were in the In PILSI 1.0 only, revised items were revised from PILSI 1.0 to PILSI 1.1, and new items were in the PILSI 1.1 only.

When item were revised, the changes in wording are indicated are in red.

Finally, particularly promising items are bolded.

Table 3.3 and Demographic-Style Questions

Table 1.1 shows the relationship between demographic-style questions and personal intelligence. Other than the list of goals and social group items, we did not include those in our further work owing to a lack of a relevant method to code the information at the time. Since that time, however, our further research has indicated that people higher in personal intelligence may do better in the humanities and social sciences that have people as their topic of study (Mayer & Skimmyhorn, 2017). For that reason, we will retry these items in future scales, coding for that information.

Extended Appendix B Table EAB.3

Demographic-Style Questions

	INITIAL DEMOGRAPHICS		
	Note: Grey = original items, unchanged numbering; grey trellis shading, reworking in red	*Study 3 Topi_tot*	*Study 4 Topi_m12*
	[Old] 1. Do you have a list of goals	.127**	NI
	[Old] 1. Did you join a social group that allowed you to express a part of yourself you otherwise might not	.100*	NI
Code	**[New] 1. Major. Please indicate the field that is closest to your major:**	**NI**	NI
3 new	a. drama, literature, or creative writing (but not English or other languages)	NI	NI
2 new	b. English or other languages	NI	NI
1	c. sociology, anthropology, and/or cultural studies	NI	NI
2	d. experimental and related other areas of research psychology (e.g., perception, biopsychology, cognition, social psychology)	NI	NI
3	e. clinical, counseling and/or personality psychology	NI	NI
1	d. history	NI	NI
1	e. engineering, chemistry, biology, or physics	NI	NI
1	f. business and/or economics, excluding organizational behavior/human resources	NI	NI
2	g. organizational behavior or psychology and/or human resources	NI	NI
1	i. education	NI	NI
1	j. prelaw or premed	NI	NI
1	k. medicine or veterinary school	NI	NI
1	l. other	NI	NI
0	m. Undecided	NI	NI
	Computed valued of 1	NI	??

Supplement Table 4.4 and the Four Areas of Personal Intelligence

Table 4.4 shows the relationships between areas of personal intelligence and personal intelligence.

text between tables

Extended Appendix B Table EAB.4

Personal Intelligence Areas One through Four

	AREAS ONE THROUGH FOUR		
	Note: Grey = original items, unchanged numbering; grey trellis shading, re-edits in red	*Study 3 Topi_tot*	*Study 4 Topi_m12*
	1. IDENTIFYING PERSONALITY-RELEVANT INFORMATION		
	SELF OBSERVATION **2. Over the past week, how many times did you (0 times = not at all/never)**		
	[Old 2] remember a dream	-.014	NI
	[Old 2] notice an emotion	.008	NI
	[Old 2] describe an inner feeling	.058	NI
new	a. check your horoscope	NI	-.065
new	b. "check your gut" to see if doing something felt right to you to do	NI	.006
new	c. look in a mirror to think about how you were maturing	NI	-.055
	d. watch yourself doing something to see if you could improve what you were doing?	**-.196****	**-.106***
new	e. hear anything said by others that reflected how they view you (e.g., your reputation?)	n.s.	-.099
	f. ask someone for feedback on a project?	**-.108****	**-.165****
	g. ask someone for feedback as to how you were doing?	**-.100***	**-.103****
new	h. hear some negative feedback about yourself that you agreed with?	NI	-.249**
new	i. hear some negative feedback about yourself that you disagreed with?	NI	-.264**
	2. FORMING MODELS		
	PORTRAYING SELF AND OTHERS **3. Over the past week, how many times did you (0 times = not at all/never):**		
rev	a. imitate someone in their presence, using their voice and gestures, to make a point about the person?	-.156**	-.024
rev	b. imitate someone who was not there, using their voice and gestures, to entertain someone else?	As above	-.064

rev	c. Exaggerate something you yourself often do in the presence of others to make fun of yourself with them.	NI	.036
rev	d. Describe a personality characteristic of yourself (e.g., shy, creative, conventional) to another person?	NI	.016
orig	e. describe your interests, motivations, values, beliefs, attitudes, or reasons for your behavior to someone else?	.009	.095*
orig	**f. read about a public figure who serves as a role model to you?**	**-.271****	**-.178****
orig	**g. read about a historical figure who serves as a role model to you?**	**-.249****	**-.254****
orig	h. talk to someone who is a role model for you? (assumes phone not email, assumes number of times shows intensity of communication)	.022	.005
orig	**i. talk to a mentor or advisor to help better understand or improve yourself?**	**-.196****	**-.203****
orig	j. talk to a friend or relative to help better understand or improve yourself?	.048	-.046
	3. and 4. MAKING CHOICES AND SYSTEMATIZING GOALS		
orig	***MAKING CHOICES/SYSTEMATIZING GOALS*** **4. Over the past week, how many times did you (0 times = not at all/never)**		
orig	a. Use a personal experience to motivate your behavior?	.083	-.042
orig	b. Use an ideal image of yourself to motivate yourself to get something done?	.058	.058
orig	c. share a story from your own past to try to help someone?	.013	.022
orig	d. use a memory from your life to motivate yourself to get something done?	-.015	.010
orig	e. use a memory from your life to help you cope with something difficult?	-.047	.003
orig	**f. work on a plan involving your future?**	**.148****	**.094***
orig	g. tell someone that self-knowledge (or self-understanding) is not very important?	-.043	-.429**
orig	h. help someone make a decision by identifying what (sounded like what) they most wanted to do?	-.010	-.142**
	[Make Choices for Others]		
orig	i. suggested to someone who was trying to make a decision which alternative was probably best?	-.009	-.036
orig	j. decisively make a choice, knowing that the choice reflected your own preferences and values?	.133**	.067
orig	k. decisively make a choice, knowing that the choice reflected your own preferences and values? [ver 1.1]: rely on someone else to make a key choice (decision) for you because you could not figure out your own preferences?	Repeat of j	-.162*

	[Old] 5. Ask someone whether other people like you (or another person likes you)?	.006	**NI**
	Spend time with a friend or co-worker trying to figure out what makes someone else 'tick?" e.g., do the things they do?	-.025	**NI**
	Spend time with a family member trying to figure out what makes someone else 'tick?" e.g., do the things they do?	-.027	**NI**
	[New] 5. Training and Education		
	Please indicate the amount of training you have had in any of the following areas: (less than one hour/1-10 hours/11-40 hours/more than 40 hours	NI	
new	a. peer counseling	NI	-.023
new	b. empathic listening	NI	.011
new	c. conflict resolution	NI	.024
new	d. crisis intervention	NI	-.008
new	e. a form of psychotherapy technique such as conducting cognitive-behavioral therapy	NI	-.107
new	f. an academic course in acting	NI	.057
new	g. being directed as an actor in a play, video, or movie	NI	.148**
new	h. a course on writing fiction with an emphasis on character development	NI	.019
rev	**Selection of Others** **6. Over the past year how many times did you (0 times = not at all/never/no opportunity):**		
orig	a. select the right team-member for a project	.002	.010
orig	b. select the right roommate for a group living situation?	-.037	-.094*
orig	**c. turn down a possible team-member for a class project, and later found out information indicating it was the right choice?**	**-.352****	**-.262****
orig	**d. turn down the right roommate for a group living situation and later found out it was the right choice?**	**-.378****	**-.268****
orig	e. select someone to make friends with and made a good decision?	-.015	.149*
orig	**7. Over the past month, how many times did you:**		
orig	**a. tell someone that you aren't interested in understanding yourself?**	**-.241****	**-.144****
orig	b. ask someone for help in trying to better understand yourself?	.016	.030
orig	**c. write a poem that described someone else's personality?**	**-.329****	**-.197****
orig	**d. write an e-mail that described someone else's personality in some detail?**	**-.250****	**-.215****
orig	e. feel surprised by feedback from someone else about you, or an exam you took or a project you worked on?	.025	-.036
new	f. post something on a blog or social network that described someone else's personality in some detail?	NI	-.180**
new	g. talk with a friend or family member about a third person so as to better understand how that third person might act or react.	NI	.119**

new	h. Initiated a conversation with someone you do not really like in order to better understand the person's point of view.	NI	.028
new	i. Prolonged a conversation with someone you do not really like in order to better understand their point of view.	NI	-.019
	[Old 8]		
old	discuss or share a personal, secret or confidential issue of your own with a friend	.066	NI
old	discuss or share a personal, secret or confidential issue of your own with a friend with a co-worker/colleague?	-.002	NI
old	Listen to or discuss a friend's personal issues or provide comfort to the friend	-.037	NI
old	Display physical affection to a friend or relative?	-.038	NI
	[New] Setting Boundaries and Facing Conflict **8. Over the past month, how often did you:**		
new	a. raise your voice or yell at someone to stop them from doing something wrong	NI	-.084
new	b. get drunk or high	NI	-.068
new	c. repeat a negative rumor about someone you knew to one or more other people	NI	-.101*
new	d. get into a physical fight with someone	NI	-.287**
new	e. stopped by the police for a disturbance	NI	-.274**
new	f. get into a shouting match with someone	NI	-.126**
new	g. stop talking with someone because of a disagreement, argument, or other problem	NI	-.012
new	h. analyze the problem with someone's personality with a friend or coworker	NI	.075
new	i. stop interacting with a friend online	NI	-.097*
new	j.Post negative comments about a friend online	NI	-.281**
orig	**9. In the past year, for how many months did you:**		
orig	a. Work on a project that was a good fit with your personality?	-.013	-.006
orig	b. Work at a job that was a bad overall fit with your personality?	-.041	-.054
	AUGMENTED MODEL 1		
Code	**MEDIA -- Composite** **10. In the past year, how many books you have read in these areas (please estimate):**		
1 orig	a. Science and technology	-.015	.018
3 orig	b. Drama	.005	.118**
2 orig	c. Classics	-.001	.122**
2 orig	d. Romance	-.019	.101*
2 orig	e. Poetry	-.096*	-.030
4 orig	f. Autobiography and/or Memoirs	-.087*	.065
4 orig	g. Biographies	-.121**	-.015

2 orig	h. History	-.007	.016
2 orig	i. Mystery	.035	-.058
1 orig	j. Self Help	-.053	-.109**
1 orig	k. Religion	.027	-.096*
0 orig	l. Other	.108**	-.075
	AUGMENTED MODEL 2		
orig	**11. In the past year, how many weeks (please estimate):**		
orig	a. were you involved as an actor in a theater or video play?	-.026	.033
orig	b. were you a member of an acting group?	-.026	.020
orig	c. did you see a psychotherapist for individual therapy where you discussed your thoughts and feelings?	-.006	.018
new	d. did you attend group psychotherapy where you discussed your thoughts and feelings?	NI	-.006
new	e. did you see a psychologist, psychiatrist, or other health professional about medication for a psychiatric problem?	NI	-.035
new	f. did you attend a support group for a problem such as alcohol or drug use?	NI	-.063
new	g. did you attend a support group for a problem with eating?	NI	-.128**
new	h. did you attend a peer support group for a problem other than drugs, alcohol, or eating?	NI	-.137**
	AUGMENTED MODEL 3: Goals and Choices Again		
orig	**12. In the past year, how many times did you (please estimate):**		
orig	a. achieve a life goal or an important part of a career-related goal such as finishing a class, or a degree, or another major life project?	-.009	-.044
orig	b. achieve a major relationship goals such as meeting a promising new partner, becoming engaged or married, or making a new friend?	-.006	.136**
orig	c. achieve a major personal goal such as getting more exercise, eating right, cultivating a hobby, or exploring a new place?	.002	.063
orig	**13. In the past year, how many times did you (please estimate):**		
orig	a. Make entries in a journal diary?	-.008	.056
orig	b. Blog or otherwise record in at least a few sentences on-line your personal feelings or reactions to your ongoing life	-.028	.007
	c. took a personality test online to learn about yourself	NI	-.082
orig	**14. Please answer the following questions about courses in relation to the most recent college semester**		
orig	a. Really motivated you to learn and study harder?	.026	.001
orig	b. Seemed to diminish your motivation or interest in learning?	.018	.007
new	c. How many courses did you take over the last semester that you believe increased your motivation to learn?	NI	.068
new	d. How many courses did you take over the last semester that you believe reduced your motivation to learn?	NI	.063

new	e. How many class projects did you choose (where you were given a choice by the professor) that you were genuinely interested in?	NI	-.074
old	**[OLD 15 – Facebook]** Do you use facebook	-.024	NI
old	In general, how often do you update your Facebook page	.043	NI
old	How many friends do you have on Facebook?	-.035	NI
	AUGMENTED MODEL 4: Goals and Choices Again		
	15. Please tell us about some of your possessions. Do you own or keep:		
	a. a photo album or an on-line photo album?	NI	.139**
	b. a copy of your family tree?	NI	-.044
	c. results for yourself from psychological tests?	NI	-.068
	d. letters or important emails from friends or family?	NI	.180**
	e. mementos or physical reminders of people close to you?	NI	.258**
	f. Do you own or keep scrapbooks that you have created	NI	-.015

old: In PILSI 1.0 only,
rev: Revised from PILSI 1.0 to PILSI 1.1,
new: New to the PILSI 1.1

text between tables

Factor Structures of the PILSI 1.0 and 1.1 in Brief

1. There were four factors:

- Factor I: self-monitoring, modeling of others, decisive judgments as to the character of others *r* = -.19 with the TOPI
- Factor II: using personal experiences for self-motivation, work on future plans, listening to others, make fun of others (the latter items loading higher on factor III). This factor was unrelated, *r* = .06 with the TOPI
- Factor III: imitating others to criticize them, decisive judgment as to the character of others (the latter had higher loadings Factor 1) *r* = -.43 with the TOPI
- Factor IV: Reading books, unrelated, *r* = -.02 with the TOPI

Factor-Identified Themes of the PILSI 1.0 and 1.1 and their Correlations with Personal Intelligence

By far, negatively correlated items outnumbered positively correlated item

Among negatively correlated themes

- effortful self-monitoring (example: 2d "Watch yourself doing something to see if you could improve what you were doing?")
- asking for advice (example: 2f ask someone for feedback on a project?)
- identifying role models (example: 2g. read about a historical figure who serves as a role model to you?)
- items reflecting decisive, possibly black-and-white judgments of personality (example 6c. turn down a possible team-member for a class project, and later found out information indicating it was the right choice)
- (possibly) bad behavior items 7d. write an e-mail that described someone else's personality in some detail?

Among positively correlated themes

- Some "connective/supportive" items exhibited *positive* correlations with personal intelligence
- Some goal-setting items exhibited *positive* correlations with personal intelligence (example: 4f. work on a plan involving your future?)
- figuring out others with demonstrable investigative process (example 4g. talk with a friend or family member about a third person so as to better understand how that third person might act or react).

- Possessions reflecting connectedness (Example: Augmented 4d. letters or important emails from friends or family?; e. mementos or physical reminders of people close to you?)

Extended Appendix C. Report on the PILSI 1.0 and 1.1 as a Poster for the Association for Research in Personality

Overview of Studies

Studies labeled 1 and 2 here also have been used for other purposes.

ARP Poster Study 1

Study 1, reported here, is in fact a focused looked at a narrow slice of data from a broader study: Study 3, of Mayer, Panter, and Caruso (2012). That article briefly reports a first lifespace scale of personal intelligence, studied in more depth here. In the 2012 article, it was used as a criterion scale for the first trial of the original Test of Personal Intelligence, Version 2 (the TOPI 1.2, as it was originally referred to).

Quoting from the original 2012 article regarding the Study 3 sample:

Method

Participants. Participants were 385 undergraduate students from the University of North Carolina; consenting students completed the scale online. More people clicked into the survey than took it. For that reason, the sample was defined as those who completed the TOPI, most of whom also completed the remaining scales. This included 385 participants (52.8%women, 47.2% men), who described themselves as ethnically diverse, including Asian/Pacific Islanders (7.3%), Black (13.8%), Hispanic/Latino (8.1%), multiracial (1.6%), Native American (1.6%), and White (73.2%); a participant could endorse more than one category and so the numbers sum to slightly more than 100%. (Mayer et al., 2012, p. 132)

ARP Poster Study 2

Study 2, reported here, is an examination of selected data from a sample that also took the TOPI-MINI 12, a short-form ability measure of personal intelligence, and the SEPI-120, a long-form scale on which participants are asked to self-estimate their ability at personal intelligence. The Study 2 sample, also known as the “Alternative measures” sample, was collected through 2011 and 2012, with the completed data first examined at the conclusion of the Spring semester, 2012. Portions of the study (excluding the lifespace data here) first were published as Study 2 of Mayer, Caruso, and Panter (2021).

Quoting from the first published report of data from the “Alternative Measures” sample:

> *4.2.1.Participants* The Study 2 sample consisted of 383 college students enrolled at a large, northeastern university (261 women, 106 men, and 16 unspecified/missing) retained after screening for non-responsiveness (see Technical Supplement, Chapter 6, for details), with most respondents between the ages of 18 and 22 years. The tests of hypotheses varied between using *N* =352 and 365 depending upon the completeness of the individual's responses. (Mayer et al., 2021, p. 6)

We conducted two correlational studies relating personal intelligence to lifespace data.

Participants

College students in a large New England university completed a lifespace survey and measure of personal intelligence in Studies 1 and 2 (Ns = 384 and 356).

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 lifespace-reported activities.

2.Lifespacereports 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).

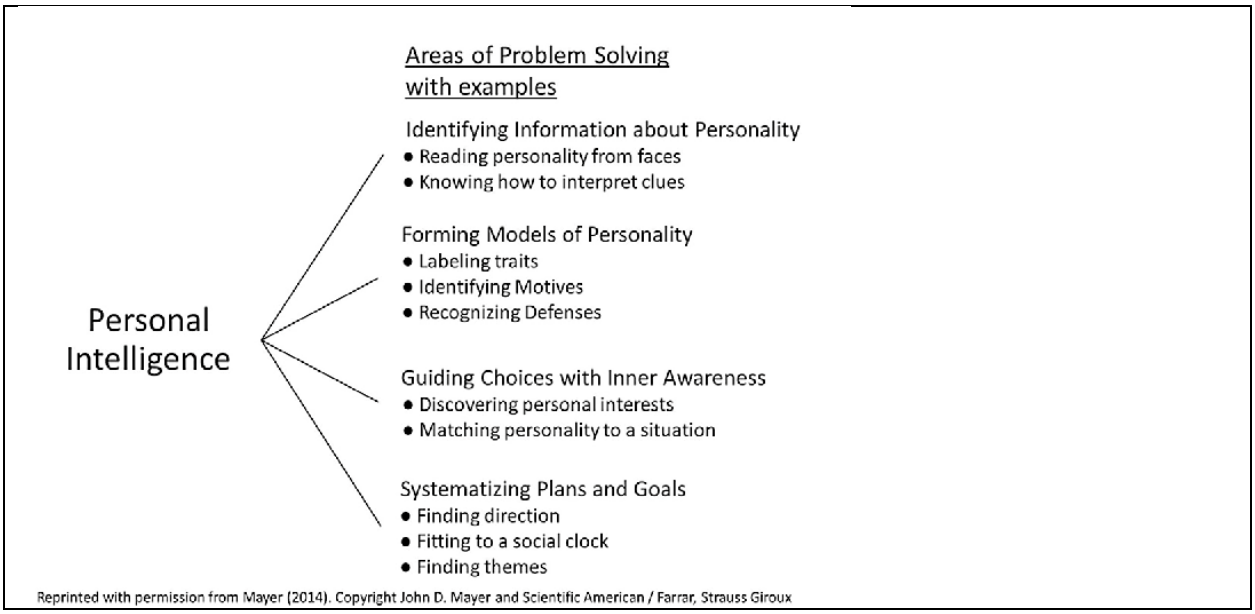
Methods

Personal Intelligence Lifespace Inventory (PILSI) Versions 1.0 and 1.1

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

The figure employed in the ARP poster referred mistakenly to the PILSI 2 and 3 organizations. A more careful review of our notes indicates that the pilot PILSI versions used an organization of items into four areas related to personal intelligence itself.

The organization of the PILSI pilot scales 1.0 and 1.1 organized items according to this four-fold diagram:



Supplement Figure 5.1

Results

We conducted a very exploratory factor analysis of the lifespace 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.

Reproduction of Table 1 from the Association of Research in Personality Poster

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

PILSI Items	Factors			
[Question Stem]: Over the past week, how many times did you:	1	2	3	4
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?				
tell someone that you aren't interested in understanding yourself?	.53		.41	
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."

Reproduction of Table 2 from the Association of Research in Personality Poster

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

PILSI Items	Criterion Correlations	
[Question Stem]: Over the past week, how many times did you:	Study 3 TOPI 2	Study 4 TOPI MINI
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**

Extended Appendix D. Overview of the Large-Factor PILSI 2, 3, and 3R Factor Analyses

The factor analyses of the PILSI scales that we conducted can be divided into two broad approaches: The first was a "Quick-Look" set of factor analyses of the PILSI 2 and 3 that were conducted as the scale was developed across studies. The second approach was the optimized, small-factor approach that we applied after the datasets from all three studies (PILSI 2, 3, and 3R) had been collected and screened.

Quick-Look Large Factor Analyses

The Quick-Look factor analyses were conducted with the PILSI 2 and PILSI 3 with three purposes in mind:

- To preview the kinds of factors that might emerge from the PILSI.
- To suggest additions of items, or reorganizations, or removals of items to improve the scale.
- To flag any measurement issues with the scale that could impede subsequent factor analyses and that required correction.

Because the Quick-Look factor analyses were "first looks" we placed a premium on obtaining a general sense of the scales, simply hoping to detect any robust factors that emerged. All analyses were exploratory, ranging up to about 8, 9, or 10 factors. We did not try to fit the factor models to the data with any precision, but rather focused on interpretable factors that emerged early on that might be related to personal intelligence, and what items might be added to the scale to further understand lifespace features related to it.

We regarded the PILSI 3R as a finished version of the long-form of the scale and rather than apply an Quick-Look factor analysis to it, we moved on to factor analyses that were closer to optimal for all three studies, scales, and datasets.

Quick-Look Large Factor Analyses of the PILSI 2

Fits of the first 10 factors with Heywood Cases Removed

Note that each of our studies yielded results with Heywood cases (related to non-positive definite or NPD correlation matrices). Regarding such cases Lorenzo-Seva and Ferrando wrote:

> "Prevention is the best way to avoid, insofar as this is possible, the problems of NPDs when working with polychoric matrices. Careful selection of the variables (items in our case) and data collection is crucial in any EFA design, and the problem dealt with here might well arise (or be considerably aggravated) from a failure to meet good standards. As described above, redundant or repeated items, non-informative items, and items that all the individuals tend to respond to in the same way must be avoided. And, as for data collection, pairwise deletion should also be avoided whenever possible. Provided that the recommendations above are met, the problem of NPDs is mainly a problem of sampling error." (Lorenzo-Seva & Ferrando, 2021, p. 143)

We first examined as series of Exploratory Factor Analyses in Mplus, from 1 to 10 factors. These analyses used a wlsmv to match the categorical nature of the bins, and extraction with a facparsim rotation (often superior for large number of items). Supplement Table 13-1 shows the fit for the factor solutions from 1 to 10 factors. We removed two survey items (of 103 items to start) because they regularly appeared as Heywood cases across several solutions (that is, exhibited factor loadings greater than r = 1.0).

Buffer text between tables

Extended Appendix D Table EAD.1

Fit Statistics Exploratory Factor Analysis of the Variables for the PILSI-Version 2, N=1186 "Heywoods Removed"[a,b,c] **sample-corrected fully on 7/17/2021**

Model	Free Paramss.	Fit Indices						Correlations *(Magnitude)*	Other (NA)
		χ^2	df	RMSEA	CFI	TLI	SRMR		
One-factor	101	14111.10	4949	.040	.529	.519	.115	NA	
Two-factor	201	11654.63	4849	.034	.650	.635	.104	.25	
Three-factor	300	10387.31	4750	.032	.710	.692	.091	.15 to .23	
Four-factor	398	8902.25	4652	.028	.781	.763	.083	.08 to .22	
Five-factor	495	8063.94	4555	.025	.819	.800	.076	.04 to .22	

Six-factor	591	7232.25	4459	.023	.857	.838	.071	-.01 to .21
Seven-factor	~ ~ ~ ~ NA[d] ~ ~ ~ ~							
Eight factor	780	6307.00	4270	.020	.895	.876	.062	.01 to .29
Nine factors	~ ~ ~ ~ NA ~ ~ ~ ~							
Ten factors	~ ~ ~ ~ NA ~ ~ ~ ~							

a. Note: All FAs began with variable LBP3 and concluded with LGC32;
b. These results have been conformed to the *N* = 1186 dataset;
c. items lbp7 lsna24 were removed to eliminate Heywood cases
d. NA reflects factor solutions that could not be obtained although we allowed for ½ million iterations (500,000) per extraction.

buffer text between tables

As is most often the case, although not always, the fit improved regularly from one to eight factors—but really started to asymptote at about four factors—if not before at two or three. The improvement past that point was steady but small.

Nonetheless, we expected to use customary approaches to factor analysis, and to extract somewhere between four and eight factors (given that the nine- and ten-factor solutions were unavailable).

The (Poorly-Fitting) Four-Factor Solution

Supplement Table 13-2 indicates the four factor solution we obtained and, in the right-most column, the item correlations with the TOPI. Supplement Table 13-3 indicates the eight-factor solution.

The Four-Factor Solution. One of the advantages was the presence of some clearly interpretable factors. In the case of the four factor solution, these included "Meaningful Relationships," which loaded items such as 'shared a personal, confidential issue with a friend' *r* = .53, and possessed 'letters, lengthy e-mails…from friends or family that are important?'. The second factor was 'Agonistic-Disagreeable Behavior', and included such behaviors as 'got into a fight with someone' *r* = .76. The third factor appeared to be a composite of pantry items and alcohol use, for example, owning beans and beverages *r* = .43 and .60, and going to a bar *r* = .53. The fourth factor might be called Impersonal/Non-specific Identification' and included an interest in biography, for example, 'Read…about a public figure who serves as a role model" *r* = .74, as well as a touch of judgementalism.

The Eight-Factor Solution. For the 8-factor solution, factor 1 (Meaningful Relationships) was much the same, Factor 2 was Food Ownership, Factor 3 was Agonistic Behavior, but split also into Factor 4, which represented judgmentalism (e.g., spoke badly about someone), Factor 5 was Impersonal Identification, Factor 6 represented Reading in general (e.g., reading drama and literature), Factor 7 was an "Instrumental about People" factor that involved making decisions

and seeking advice related to handling others, and Factor 8 was an 'Academic Cheating' factor, e.g., 'Copied part of another student's paper" *r* = .67.

The problems with these customarily low and "big" factors were evident almost immediately: First, they fit poorly. Second, collectively, they utilized only about 45 items each--half of the items of the full survey. Third—and this was decisive to us—Some of the bigger factors combined items that were both positively and negatively correlated with the TOPI, suggesting that they would wash out as lifespace indicators useful for our purpose. For example, Factor 1 of the 4-factor solution had items that correlated from *r* = .06 to -.19 with the TOPI. Moreover, the TOPI correlations appeared reasonably independent of the factor loadings. To be fair, Factor 2 was a bit better, with many of the items loading negatively *r* = -.15 to -.20, but some items were still exhibiting correlations far closer to zero.

Extended Appendix D Table EAD.2

The Four-Factor Exploratory Factor Analysis Solution for the PILSI-2 *N* = 1186—and Correlations with the TOPI

	Item Paraphrase or Other Indication of Item Content	1	2	3	4	TOPI
LSGA2B	Letters, lengthy e-mails or similar written or recorded messages from friends or family that are important?	**0.53**	-0.59	0.13	0.03	0.06
LSNA7B	Shared a personal, confidential issue of your own with a friend.	**0.53**	0.07	0.11	0.08	-0.02
LSNA11B	Discussed another person with a friend or family member so as to better understand how that person might act or react.	**0.53**	0.00	0.09	0.14	0.05
LSNB3B	Communicate with a friend or relative to ask for advice to improve yourself?	**0.52**	-0.03	0.01	0.21	0.04
LSNA12B	Described your interests, motives, values, feelings, or other reasons for your behavior to someone else.	**0.52**	-0.03	0.03	0.21	0.04
LSNA8B	Selected someone to make friends with and felt it was a good decision.	**0.49**	0.33	-0.20	0.03	-0.10
LSND1B	Helped someone make a decision because the choice was really what they wanted to do?	**0.47**	0.07	0.06	0.20	0.01
LSGA3B	Mementos or physical reminders of people close to you?	**0.47**	-0.60	0.14	0.05	0.08
LSND3B	Turned down a possible roommate for a group living situation and later found out it was the right choice.	**0.46**	0.01	0.23	0.14	-0.19
LSNA21B	Spoke badly about someone	**0.45**	-0.02	0.27	0.06	0.06
LSNA6B	Accepted help from someone	**0.42**	0.12	-0.10	0.08	0.00
LSGA1B	About how many printed and digital photos of friends and family do you have readily accessible?	**0.40**	-0.36	0.10	0.02	-0.01
LSNC10B	Accomplish a major relationship goal such as meeting a promising new partner, becoming engaged or married, or making a new friend?	**0.40**	0.21	-0.17	0.11	-0.03
LSNA15B	Got into an argument with someone who insulted you or a friend.	0.21	**0.60**	**0.42**	-0.06	-0.17

LSNA16B	Got into a fight with someone who insulted you or a friend (in person or online).	0.17	**0.76**	0.40	-0.05	-0.20
LSND5B	Realized that someone you knew had a character flaw much worse than you had suspected before.	0.10	**0.53**	0.09	**0.43**	-0.02
LGC12B	How many times last week did you:	0.10	0.11	0.49	0.02	-0.03
LSNA17B	Got into a fight with someone to ensure they did something you wanted.	0.10	**0.44**	0.28	0.11	-0.15
LSNC7B	Recommend a biographical movie or book to someone because the person who was depicted could serve as a good role model for others?	0.09	0.15	0.04	**0.44**	-0.13
LSNC8B	Receive feedback from a director when rehearsing a play	0.08	0.38	0.08	**0.42**	-0.07
LSNB1B	Read or watched a video about a public figure who serves as a role model for you?	0.08	-0.13	-0.29	**0.74**	-0.04
LSNB2B	Read or watched a video about a(n) historical figure who serves as a role model for you?	0.06	0.03	-0.13	**0.55**	-0.11
LBP6B	Have trouble sleeping because of physical pain?	0.04	-0.34	**0.42**	0.18	0.02
LSNC5B	Read about pub. figure who serves as role model	0.03	-0.07	-0.27	**0.81**	-0.05
LGC6B	Attended support group for eating disorders	0.02	0.37	**0.43**	0.04	-0.02
LSBC4B	beverages (alcoholic, such as cans of beer, bottles of wine, gin, etc.)	-0.01	-0.05	**0.55**	-0.09	-0.03
LSNB4B	Tell someone that self-knowledge (or self-understanding) is not very important?	-0.02	**0.47**	0.07	0.28	-0.22
LGC10B	Glanced at classmate's quiz exam to decide on answer	-0.03	0.13	**0.49**	-0.01	-0.05
LBP9B	Fast all day?	-0.05	-0.16	**0.51**	0.08	0.04
LGC11B	Showed up for class after drinking alcohol	-0.05	**0.51**	0.25	0.05	-0.15
LSND8B	Wrote a poem that described someone else's personality.	-0.07	0.35	0.27	**0.53**	-0.13
LSBC2B	beans (bags, cans)	-0.08	0.03	**0.43**	-0.02	-0.05
LSBC3B	beverages (non-alcoholic, such as milk, soda)	-0.11	-0.17	**0.60**	0.06	-0.06
LGC1B	Attended support group for eating disorder	-0.12	0.36	**0.45**	0.31	-0.10
LSGB5B	Go to a bar?	-0.13	-0.09	**0.53**	0.06	-0.08
LGC2B	How many times last week did you:	-0.13	**0.42**	**0.46**	0.32	-0.10
LSND9B	Wrote an e-mail that described someone else's personality in some detail.	-0.13	**0.56**	0.16	**0.43**	-0.21
LGC16B	Obtained a paper online or from anth student/claimed as ownl	-0.14	0.32	0.58	-0.08	-0.07
LSNC3B	Reading/listening about fictional characters on books/podcasts	-0.20	-0.19	0.06	**0.75**	0.00
LSNC6B	Read drama, literature or other creative works'	-0.21	-0.21	-0.06	**0.95**	0.03
LSNC1B	Read drama, lit, creative works abt fictional characteris & their lives?	-0.22	-0.25	-0.05	**0.91**	0.01

The (Poorly-Fitting) Eight-Factor Solution

Supplement Table 13-3 indicates the eight-factor solution.

The problems mostly repeated from the four-factor solution—although with some evident improvement.

First, and once again, the fit was still poor, though better. Second, once again, the solution utilized only about 45 items each--half of the items of the full survey. Third—once again--some of the bigger factors combined items that were both positively and negatively correlated with the TOPI, suggesting that they would wash out as lifespace indicators useful for our purpose. For example, Factor 4 of the 8-factor solution was mostly a wash, with items that correlated from *r* = .07 to -.05 with the TOPI. Factor 7 *was* promising, with most items exhibiting healthy negative correlations with the TOPI in the *r* = -.13 to -.24 range, but other sizeable factors were a wash with regard to predicting the TOPI.

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Extended Appendix D Table EAD.3

The Eight-Factor Exploratory Factor Analysis Solution for the PILSI-2 *N* = 1186—and Correlations with the TOPI

Item Label	PILSI Item	Factor Number								*r* with TOPI
		1	2	3	4	5	6	7	8	
LSGA1B	About how many printed and digital photos of friends and family do you have readily accessible?	**0.67**	0.01	-0.07	-0.23	0.02	-0.08	0.08	0.00	-0.01
LSGA2B	Letters, lengthy e-mails or similar written or recorded messages from friends or family that are important?	**0.89**	-0.01	-0.15	-0.28	-0.06	-0.03	0.03	0.00	0.06
LSGA3B	Mementos or physical reminders of people close to you?	**0.85**	0.01	-0.18	-0.30	-0.06	0.01	0.06	-0.01	0.08
LSNA1B	Spoke with a friend who was distressed and listened to their concerns for a few minutes or more.	**0.43**	-0.01	0.18	0.18	0.11	0.05	-0.29	-0.01	0.02
LSGB5B	Go to a bar?	0.01	**0.65**	0.08	-0.12	0.18	-0.07	-0.08	-0.01	-0.08
LSBC2B	beans (bags, cans)	-0.10	**0.54**	0.11	-0.09	0.24	-0.12	-0.12	0.23	-0.05
LSBC3B	beverages (non-alcoholic, such as milk, soda)	0.10	**0.66**	-0.02	-0.11	0.11	-0.02	-0.10	0.08	-0.06
LSBC4B	beverages (alcoholic, such as cans of beer, bottles of wine, gin, etc.)	0.10	**0.57**	0.09	-0.07	0.07	-0.15	-0.12	0.25	-0.03
LSNA8B	Selected someone to make friends with and felt it was a good decision.	0.26	-0.25	**0.42**	0.07	0.21	-0.13	0.13	-0.09	-0.10
LSNA15B	Got into a fight with someone who insulted you or a friend (in person or online).	0.11	0.39	**0.61**	0.07	0.02	-0.03	0.24	0.02	-0.17
LSNA16B	Got into a fight with someone to ensure they did something you wanted.	0.04	0.35	**0.74**	0.11	-0.08	0.05	0.30	0.02	-0.20
LSNA17B	Got yourself into trouble when you were drunk or high.	0.12	0.22	**0.44**	0.00	-0.04	0.15	0.21	0.08	-0.15
LSNA18B	Stopped interacting with a friend online and/or no longer responded to calls or messages from them on your phone.	0.13	-0.02	-0.10	**0.45**	0.10	-0.06	0.18	-0.01	-0.03
LSNA19B	Didn't speak w/friend after fight	0.10	0.08	-0.02	**0.55**	-0.03	-0.06	0.17	-0.08	0.01

LSNA21B	Spoke badly about someone you observed, but who hadn't done anything bad to you directly.	0.19	0.06	0.03	**0.46**	0.08	0.02	-0.23	0.15	0.06
LSNA22B	"Take a break" from someone	0.10	0.00	-0.02	**0.53**	0.08	0.01	0.14	-0.05	-0.02
LSNA23B	Told someone 'just how you felt abt them'	0.07	0.11	0.15	**0.44**	0.02	-0.05	0.11	-0.12	-0.04
LSNB7B	Heard s.t. From s.o else about you & were surprised	0.08	0.02	0.13	**0.44**	0.15	0.13	0.05	0.01	0.00
LSNB8B	Heard neg. Feedbk about self u agreed with	0.05	0.05	0.10	**0.49**	0.06	0.15	0.02	0.02	0.02
LSNB9B	Heard neg. Feedbk about self u disagreed with'	-0.03	0.04	0.11	**0.49**	0.14	0.05	0.08	0.02	-0.05
LSND3B	Described someone's serious character flaw to a friend or friends.	0.21	0.00	0.00	**0.45**	0.13	0.07	-0.14	0.17	0.07
LSND4B	Realized that someone you knew had a character flaw much worse than you had suspected before.	0.15	0.03	-0.01	**0.45**	0.12	0.07	0.05	0.13	-0.02
LSNB1B	Read or watched a video about a public figure who serves as a role model for you?	-0.02	0.06	-0.21	-0.17	**0.87**	0.03	-0.08	0.00	-0.04
LSNB2B	Read or watched a video about a(n) historical figure who serves as a role model for you?	-0.04	0.04	-0.05	-0.06	**0.60**	0.19	0.08	-0.12	-0.11
LSNC5B	Read about pub. Figure who serves as role model	-0.09	0.09	-0.16	-0.16	**0.86**	0.15	-0.03	0.02	-0.05
LSNC1B	Read drama, lit, creative works about fictional characters & their lives?	0.01	-0.08	-0.07	-0.11	0.08	**0.93**	-0.11	-0.08	0.01
LSNC3B	Reading/listening about fictional characters on books/podcasts	0.00	0.05	-0.16	-0.08	0.16	**0.75**	0.01	-0.07	0.00
LSNC6B	Read drama, literature or other creative works'	-0.04	-0.08	-0.05	-0.07	0.15	**0.95**	-0.10	-0.09	0.03
LGC2B	Attend a peer support group for a problem with eating, drugs, alcohol, or gambling?	0.11	0.15	0.22	0.14	-0.27	**0.46**	0.34	0.32	-0.12
LSNB4B	Communicate with a friend or relative to ask for advice to improve yourself?	-0.06	0.08	0.28	0.05	0.16	0.14	**0.46**	-0.08	-0.22
LSND5B	Turned down or avoided a possible team-member for a class project, and later found out information indicating it was the right choice.	0.01	-0.01	0.23	0.19	0.26	0.21	**0.51**	0.03	-0.24
LSND6B	Turned down a possible roommate for a group living situation and later found out it was the right choice.	0.13	0.01	0.17	0.13	0.06	-0.04	**0.46**	0.03	-0.19
LSND8B	Wrote a poem that described someone else's personality.	0.17	0.14	0.14	-0.04	0.09	**0.44**	**0.51**	-0.04	-0.13
LSND9B	Wrote an e-mail that described someone else's personality in some detail.	-0.02	0.08	0.21	-0.02	0.15	0.27	**0.59**	0.12	-0.21
LSND10B	Changed to a different section of a course because your first instructor didn't match your learning approach.	0.14	-0.04	0.17	-0.06	-0.02	0.14	**0.42**	0.14	-0.16

LGC3B	Attend a support group for a problem that a person close to you experienced (but that you were not directly experiencing at the time)?	0.15	0.07	-0.06	0.07	-0.30	0.39	**0.56**	0.26	-0.05
LGC6B	How many times last week did you:	-0.03	0.26	0.20	0.15	0.05	0.00	0.21	**0.42**	-0.02
LGC7B	Insulted based on race/ethnicity	-0.02	0.04	0.20	0.17	-0.17	0.19	0.05	**0.51**	-0.01
LGC8B	Brough cheat sheet to quiz/exam	-0.07	0.27	0.12	-0.04	0.08	0.19	0.06	**0.44**	-0.08
LGC9B	Glanced at classmate's quiz exam to decide on answer	-0.03	0.09	0.10	0.08	0.12	0.06	-0.16	**0.59**	-0.02
LGC10B	Showed up for class after drinking alcohol	0.00	0.35	0.09	0.09	-0.03	0.07	-0.06	**0.40**	-0.05
LGC11B	Obtain part or all of a test in advance?	-0.05	0.04	0.26	0.03	0.04	0.08	0.26	**0.42**	-0.15
LGC13B	Copy part of another student's paper?	0.03	0.13	-0.04	-0.02	0.28	-0.10	0.16	**0.67**	-0.03
LGC14B	Copied material into your own paper for a course?	0.07	0.02	0.03	0.04	0.14	-0.11	0.06	**0.54**	
LGC15B	Surf the internet or texted during an online or in-person class meeting?	0.07	-0.01	-0.07	0.14	0.03	-0.02	-0.34	**0.43**	0.15
LGC16B	Obtained a paper online or from another student/claimed as own	0.15	0.26	-0.04	-0.12	-0.04	-0.07	0.17	**0.76**	-0.07

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Quick-Look Large Factor Analyses of the PILSI 3

First Exploratory Factor Analysis of the PILSI3

Note, this first EFA is in the PLUS-PILSI3-EFA-I folder

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Extended Appendix D Table EAD.4

First Exploratory Factor Analysis for the PILSI-3, *N* = 416

Model	Free Params.	Fit Indices						Correlations	Heywood Cases
		χ^2	df	RMSEA	SRMR	CFI	TLI		
One-factor	102	13378.79	5049	.063	.247	.319	.306		
Two-factor	203	11251.96	4948	.055	.222	.485	.464	-.071	lsna17
Three-factor	303	9896.34	4848	.050	.199	.588	.566	-.09 to .08	lgc31, lgc29
Four-factor	402	8760.74	4749	.045	.195	.672	.644	.02 to .12	Lgc31
Five-factor	500	8052.87	4651	.042	.193	.722	.692	-.01 to .11	yes
Six-factor	597	7432.72	4554	.039	.185	.765	.734	-.15 to .15	
Seven-factor	693	6959.54	4458	.037	.176	.796	.764	-.13 to .13	

Number of dependent variables were 102; number of observations, *N* = 416

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The results seemed to "make sense" in that certain factors showed up across several solutions that we explored. These included a "good behavior" factor, a "bad behavior" factor, a "general interaction" factor, and others. That said, the fits were uniformly unsatisfactory.

Mitigation Step 1: Initial Attempt at Reduction of Heywood Cases and Other Warnings and Second Exploratory Factor Analysis of the PILSI:

Note, this second EFA is in the PLUS-PILSI3-EFA-II folder

To address the issue of fit, we went back to the warnings issued: A very large number of them related to lgc21 to lgc32—group memberships—that had very high correlations among themselves and with other variables, excepting lgc24, which concerned the number sports outing clubs students belonged to. To see whether these lgc variables were affecting the solutions and fits unduly, we removed lgc21 through lgc23 (3 variables), and lgc25 through lgc32 (8 variables) and reran the analyses with 90 rather than 102 variables. We further removed LSNA17, "Times: Were stopped by the police for a disturbance when you were drunk or high" which was a Heywood case in multiple solutions.

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Extended Appendix D Table EAD.5

Second Exploratory Factor Analysis for the PILSI-3 (Omitting 10 lgc items and lsna17); 90 Items Remain

Model	Free Params.	Fit Indices					
		χ^2	df	RMSEA	SRMR	CFI	TLI
One-factor	90	8888.653	3915	.055	.176	.460	.448
Two-factor	179	7021.036	3826	.045	.169	.653	.637
Three-factor	267	6386.288	3738	.041	.137	.712	.692
Four-factor	354	5736.696	3651	.037	.124	.773	.752
Five-factor	440	5218.613	3565	.033	.113	.820	.798
Six-factor	525	4861.984	3480	.031	.107	.850	.827
Seven-factor	609	4558.706	3396	.029	.105	.874	.851
Eight-factor	692	4273.953	3313	.026	.103	.896	.874
Nine-factor	--	--	--	--	--	--	--
Ten factors	855	3881.046	3150	.024	.091	.921	.899

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The results from the EFA seemed to "make sense" in that certain factors showed up across several solutions that we explored. These included a "good behavior" factor, a "bad

behavior" factor, a "general interaction" factor, and others. That said, the fits were uniformly unsatisfactory.

Mitigation Step 2. A Focus on the LGC Variables

Note: This is the MPLUS-PILSI3-LGCItems folder

Removing the LGC variables, as we had done in Mitigation Step 1, seemed counterproductive as an approach. For that reason, we backtracked and examined the LGC variables by themselves, both conceptually, and in a factor analysis. Based on our examination, we took two steps: (a) First, we moved four items to a new area of the lifespace inventory where they seemed to belong, and (b) We grouped together items that were highly conceptually related into composites (the rationale for this is explained below).

Step 2A. Moving Items that Better Belonged Elsewhere

We noted that four items below appeared to have more to do with interactions with other people than with group membership. We therefore moved them to the interaction portion of the survey, and assigned them their own small block, coded by 'lsnf'.

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lgc6	**2**		Times: Insulted someone based on their religion?	reassign lsnf1
lgc11	**5**	**2**	Times: Obtained part or all of a test in advance?	reassign lsnf2
lgc13	**4**		Times: Copied part of another student's paper?	reassign lsnf3
lgc15		**1**	Times: Surfed the internet during class or texted during class?	reassign lsnf4

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The associated SPSS code was this:

comment relabel lgc6, 11, 13, and 15 as lsnf6, lsnf11, lsnf13 and lsnf15 to indicate they reflect interactions.
rename variables (lgc6, lgc11, lgc13, lgc15 = lsnf6, lsnf11, lsnf13, lsnf15).

Step 2B. Part 1. Observations when Examining Highly Correlated Items

The second step we took was to group together items that were highly conceptually related into composites. The factor analysis flagged a number of variables that correlated $r >$ .99 or $r <$ -.99 with one another, indicating that if one checked a particular variable, one almost invariably selected the other, or, in the case of the negative correlation, if one selected an answer in one instance, it precluded selecting a second variable.

Supplement Table 13.6 shows some of the item pairs flagged by the output:

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Extended Appendix D Table EAD.6

Summary of Warnings of Extremely High Item Correlation

Flagged correlation	Item pairs with issue
1.00	lgc3 and lgc2
-.99	lgc21 and lgc1, lgc2, lgc6
.99	lgc22, lgc18
-.99	lgc25 with lgc1, 2, 3, 6, 13, 22
-.99	lgc26 with lgc1, 2, 3, 6, 11, 13, 22, 23, 25
-.99	lgc27 with lgc1, 2, 6, 25, 26
-.99	lgc28 with lgc1, 2, 22
-.99	lgc29 with lgc26
-.99	lgc30 with lgc3, 6, 22
-.99	lgc31 with lgc1, 2, 3, 6, 13, 23, 24, 25, 29
-.99 and/or empty cell	lgc32 with lgc1, lgc2, 6, 22, 23, 26, 27, 29, 31

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An example of a near-perfect correlation was between LGC2 and LGC3 *r* = 1.00 presumably, with a bit of rounding. The two items lead off Supplement Table 10.4, with two other examples below them.

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Extended Appendix D Table EAD.7

Three Couplets of Highly Correlated Item Responses

Variable Name	Item Stem
	Couplet Example 1
lgc2	Times Attended a peer support group for a problem with drugs, alcohol, or gambling?
lgc3	Times: Attended a support group for a problem experienced by a person close to you?
	Couplet Example 2
lgc6	Times: Insulted someone based on their religion?
lgc25	A club focused on a National or Ethnic Identity (Middle Eastern Cultural Association, Native American Cultural Association) (lgc25)
	Couplet Example 3
lgc25	A club focused on a National or Ethnic Identity (Middle Eastern Cultural Association, Native American Cultural Association) (lgc25)
lgc22	Reserve Officer Training Corps (e.g., Army or Air Force ROTC) (lgc22)

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When it came to support groups (Supplement Table 10.4, couplet example 1), in other words, in for a nickel, in for a dime—just about 100% of the time if you were in one, you often were in another.

A contrasting example, i.e., r = -1.00 is shown in Couple Example 3 (Supplement Table 10.4), which juxtaposes membership in a national or ethnic identity group and membership in ROTC. Note that although these were negatively correlated in our data, they surely were not logically exclusive of one another. Members of ethnic groups often serve in the armed forces; the armed forces are, in fact, reasonably representative of the diversity of the population. The fact that these were mutually exclusive in our dataset does not mean that they are mutually exclusive more generally.

Rather than simply combine variables based on their correlations, therefore, it seemed more appropriate to build reasonable conceptual categories from them. Here is a more complete list of what we were up against

Step 2B. Part 2. Combining Highly Correlated Items

We continued, then, by examining the list of problematically-correlated items, and then combining small sets of them that seemed related. Below is a list of the remaining LGC items (after shifting four of them to their own section in the PILSI). We used the same process we used with the LGC items to review items from other areas of the survey (but LGC was most problematic)

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Extended Appendix D Table EAD.8

Remaining LGC Items After Removing Items That Better Belonged Elsewhere

lgc1	Times: Attended a support group for a problem with eating?
lgc2	Times: Attended a peer support group for a problem with drugs, alcohol, or gambling?
lgc3	Times: Attended a support group for a problem experienced by a person close to you?
lgc17	Most similar to major…5. Theater, drama, creative writing
lgc18	Most similar to major…5. Psychology, English, Literature
lgc20	An honors program (e.g., university, school, or department) (lgc20)
lgc21	A scientific or literary organization related to your interests (e.g., Aviation club, French club, Lab Science Society) (lgc21)
lgc22	Reserve Officer Training Corps (e.g., Army or Air Force ROTC) (lgc22)
lgc23	A Greek house (e.g., fraternity or sorority) (lgc23)
lgc24	A Sports or Outing club (e.g., Half Marathon Club, Judo Club, Club Volleyball, New Hampshire Outing club) (lgc24)
Lgc25	A club focused on a National or Ethnic Identity (Middle Eastern Cultural Association, Native American Cultural Association) (lgc25)
lgc26	A political club (e.g., Young Americans for Liberty, Young Democratic Socialists of America) (lgc26)

lgc27	A music- and arts-performance club (e.g., New Hampshire Notables, Off the Clef, Improv Club) (lgc27)
lgc28	A club with a social and/or environmental mission (e.g., Organic Garden Club, Project Sunshine, Senior Smiles) (lgc28)
lgc29	A dance or arts performance club (e.g., Sisters in Step, Sketched Out Comedy Troupe) (lgc29)
lgc30	A leadership or governance organization (e.g., Stoke Hall Council, Student Senate) (lgc30)
lgc31	An organization for a sexual identity or identities (e.g., Trans UNH) (lgc31)
lgc32	A religious organization or club (e.g., Intervarsity Christian Fellowship, Muslim Students Association) (lgc32)

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These were grouped conceptually rather than according to correlation (i.e., factor) for one of several reasons:

- "Or" groupings, i.e., given a student's time they often might need to make an "or" decision, i.e., I can be an activist for a social mission or join student governance—but don't have time for both.
- "Overlap" groupings, i.e., group memberships that spanned more than one item (i.e., descriptions of support groups that were interconnected, or for which the descriptions overlapped and might be checked twice)
- "Measured-Twice" groupings, in which we knowingly asked the same question in two different ways to ensure we obtained a reasonable answer.

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Supplement Table 13.9

Conceptual Grouping of Related Items and their Correspondent SPSS Code

Rationale for group	Conceptual Grouping of Related Items	Relevant SPSS Code for Item Combinations
Overlap	Support group items	Compute lgcsuppgrp = sum (lgc1, lgc2, lgc3).
Measured Twice	People-v-thing centered major	Compute lgcpeopmjr = sum(lgc17, lgc18).
Overlap/Or	Groups reflecting academic engagement	Compute lgcacdengm = sum(lgc20, lgc21).
Overlap/Or	Arts-related performance group	Compute lgcprfarts = sum(lgc27, lgc29).
Overlap/Or	Governance socio-political mission	Compute lgcpolitic = sum(lgc26, lgc28, lgc30).
Overlap/Or	Outdoor/environmental groups	Compute lgcoutdoor = lgc24.
Or	Religious/national/ethnic identity. + sexual?	Compute lgcidentity = sum(lgc25, lgc31, lgc32).
Or	Total institutions requiring deeper commitments: ROTC, frat, sorority	Compute lgctotinst = sum(lgc22, lgc23).

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Mitigation Step 3. Applying Item Combination Procedures to Mitigate High Correlations in the Rest of the Survey

Other items in addition to the LGC group exhibited similar issues. To address those, we used the same logic to group together several of those. The mitigations are indicated in the next table.

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Supplement Table 13.10

Conceptual Grouping of Related Items and their Correspondent SPSS Code

Rationale for group	Identified Items	Item Group Name	SPSS Code[b]
Overlap	Lsna15, lsna16, lsna17	Destructive Interactions	COMPUTE lsna1567=SUM(lsna15, lsna16, lsna17).
Overlap	Lsna18, lsna21, lsna24	Negative Interactions	compute lsna18214 = sum(lsna18, lsna21, lsna24).
Measured Twice[a]	Lsne1, lsne2, and lsne3[a]	Checking the time/calendar re. and assignment	compute lsne123 = sum(lsne1, lsne2, lsne3).
[a]comment for lsne123, the resulting variable had > 10 variables. In order to keep it categorical, variables were reassigned to categories, keeping values in the midrange apart, but then condensing values moving upward. recode lsne123 (1, 2 = 1), (3, 4 = 2), (4 = 4), (5, 6 = 5), (7, 8 = 6), (9 = 9) (10 = 10), (11 = 11), (12, 13 = 12), (14, 15, 16, 17, 18 = 13). b. *Additional relevant code:* frequencies variables = lsne123. formats lsna1567, lsna18214, lsne123 (f3.0). recode lsna1567, lsna18214, lsne123 (sysmis = -99). EXECUTE.			

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Supplement Table 13.11

The Destructive Interactions Group By Item

Variable Name	Factor Assign	New Items/ Factor Assgn	Content
lsna15	**2**		Times: Got into a physical fight with someone who insulted you or a friend.
Lsna16	**2**		Times: Got into a physical fight with someone to ensure they did something you wanted
lsna17	**2**		Times: Were stopped by the police for a disturbance when you were drunk or high.

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Note, this first EFA is in the PLUS-PILSI3-EFA-V folder

Lsna18, 21, 24 /bad interactions

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Supplement Table 13.12

The Negative Interactions Group By Item

Variable Name	Factor Assign	New Items/ Factor Assgn	Content
lsna18			Times: Stopped interacting with a friend online.
lsna21	**1**		Times: Spoke badly about someone who didn't treat you well.
lsna24	**1**	**2**	Times: Posted negative comments about someone you know online

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Supplement Table 13.13

The Time-Conscious Tasks Group By Item

Variable Name	Factor Assign	New Items/ Factor Assgn	Content
lsne1		**6**	Times: Check or double-check the calendar to make sure you had enough time left to complete a an assignment?
lsne2		**6**	Times: Carefully check over a task you completed and then revised part of it before deciding you were finished?
lsne3		**6**	Times: Make a plan first thing in the morning for what you wanted to accomplish?

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Of interest as well, we also judged that a few problematic items were insufficiently related re. any of the decision rules, to be combined. These are indicated below, and were left as-is.

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Supplement Table 13.14

lsnd8	**5**		Times: Wrote a poem that described someone else's personality.
lsnd10	**5**		Times: Changed to a different section of a course because your first instructor didn't match your learning approach.
lsgb10		**6**	How many times: Use the campus cafeteria and/or dining hall?

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Third and Fourth Exploratory Factor Analysis

We did not record the results of the third exploratory factor analysis in full because a spot-check indicated that several Heywood cases still resulted, chiefly involving the "Identity" the "Performing Arts" composite, both from the LGC set, and the variable lsnb10, "Times: Relied on someone to make a key decision for you because you could not figure out your own preferences?". After those three variables were removed, however, we were able to fit factor models with far fewer Heywood cases. These are indicated below

Fifth Exploratory Factor Analysis

In the Fifth (termed Phase V at the time) EFA we finally were able to arrive at analyses in which we had removed most of the warnings and deleted Heywood cases. The results can be seen below.

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Supplement Table 13.15

Exploratory Factor Analysis of the LGC Variables for the PILSI-3

Model	Free Params.	Fit Indices						Correlations	Heywood Cases
		χ^2	df	RMSEA	CFI	TLI	SRMR		
One-factor	83	7220.98	3320	.053	.571	.560	.135	--	none
Two-factor	165	5418.56	3238	.040	.760	.748	.119	.19	none
Three-factor	246	4735.22	3157	.035	.826	.813	.091	.10 to .15	none
Four-factor	326	4240.50	3077	.030	.872	.858	.084	.02 to .25	none
Five-factor	405	3921.68	2998	.027	.898	.885	.079	.01 to .31	none
Six-factor	483	3681.93	2920	.025	.916	.902	.074	.01 to .29	none
Seven-factor	560	3468.83	2843	.023	.931	.918	.072	.00 to .26	none
Eight factor	--	--	--	--	--	--	--	--	--
Nine factors	711	3133.09	2692	.020	.951	.939	.066	.02 to .23	--[a]
Ten factors	785	3003.23	2618	.019	.958	.945	.061	-.01 to .19	lsna1567

Number of dependent variables were 83; number of observations, *N* = 416

[a]One variable loaded *r* = 1.00 in the 9-factor solution

The eighth factor did not converge

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Interpretation of the Seven-Factor Solution of the PILSI-3

We anticipated six factors, but we began our interpretation with the (slightly) better-fitting seven factor solution in case a further coherent factor might have emerged.

The seven-factor solution with the 83 remaining items (some composites) looked like this:

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Supplement Table 13.16

A Seven-Factor Exploratory Factor Analysis of 83 Remaining Items After the Removal of Heywood Cases and With Loadings > |.35| in Bold

Item Label	Item Content (Some Paraphrased)	Factors

		1	2	3	4	5	6	7
LBP3	Need to lie down for headache?	0.36	0.08	0.00	0.09	0.14		0.03
LBP11	On a typical day...times...you aware of: noticing tension in your body?	**0.89**	-0.02	-0.01	-0.11	-0.01	-0.08	-0.04
LBP12	On a typical day...times...you aware of: trying to relax tension in your body?	**0.86**	0.04	0.06	-0.05	-0.06	-0.01	-0.08
LBP4	*A* chronic pain you had?	**0.54**	0.09	-0.08	-0.03	0.20	-0.19	-0.10
LBP6	Have trouble sleeping because of physical pain?	**0.51**	0.07	0.10	-0.02	0.18	-0.26	-0.03
LBP14	On a typical day...times...you aware of: focusing on your breath to calm down?	**0.44**	0.20	-0.02	-0.04	-0.07	0.13	0.04
LBP5	Wonder if you needed to see a doctor about an ailment?	**0.42**	0.13	-0.09	0.00	0.07	-0.18	-0.02
LBP10	On a typical day...times...you aware of: your heartbeat?	**0.35**	0.08	0.02	-0.09	-0.17	0.01	0.06
LSND1	Times: Spend time learning about science and/or engineering or mathematics from books, podcasts, or videos?	0.30	0.00	0.12	0.07	-0.08	-0.01	0.36
LBP13	On a typical day...times...you aware of: your muscle strength or of moving a specific muscle?	0.27	0.13	-0.08	-0.04	-0.24	0.27	-0.10
LSNA10	Times: Selected someone to make friends with and made a good decision.	0.25	0.04	0.04	0.33	0.14	0.26	0.05
Var name unknown	Checking time/calendar for assignment	0.24	0.18	0.12	0.14	**-0.38**	0.22	-0.12
LSNC11	Times: Spend time watching fictional characters and their lives (in movies or videos)?	0.23	0.02	0.02	0.14	-0.18	-0.08	**0.49**
LSND2	Times: Read about a public figure who serves as a role model for you?	0.22	0.06	0.01	-0.16	0.39	**0.35**	0.27
LSNA11	Times: Thought over a polite way to set a limit on helping someone meet their needs, so as protect your time and energy.	0.21	0.07	0.03	0.33	0.02	0.18	0.23
LSNC4	Times: Told someone that you weren't interested in understanding yourself?	0.21	0.16	-0.03	0.15	-0.24	**0.46**	-0.01
LSND8	Times: Described someone's serious character flaw to a friend or friends.	0.20	0.12	0.13	0.12	-0.25	0.25	-0.13
	Negative interactions	0.20	0.10	0.01	0.14	-0.08	-0.13	**0.51**
	Politics	0.20	-0.03	0.04	0.12	-0.21	0.15	-0.22
LSNE5	Times: Posted something on social media that described someone else's personality in some detail.	0.20	-0.18	-0.13	-0.24	**0.37**	0.13	**0.66**
LSNA27	Times: Raised your voice because someone wouldn't listen.	0.19	0.07	0.02	0.06	0.01	0.04	**0.35**
LSNA26	Times: Stopped interacting with a friend online.	0.19	0.25	-0.06	0.30	0.04	0.20	0.16
LBP9	Fast all day?	0.19	0.03	-0.04	0.20	0.12	-0.18	0.17
LBP8	Skip a meal?	0.19	0.10	-0.16	0.18	-0.09	-0.21	0.29

LSNC2	Times: Told someone that self-knowledge (or self-understanding) is not very important?	0.17	0.21	0.08	0.14	-0.20	**0.35**	0.04
LSNA12	Times: Discussed another person with a friend or family member so as to better understand how that other person might act or react.	0.16	0.23	0.04	**0.37**	-0.13	0.07	0.22
LSGA3	How many: Mementos or physical reminds of people close to you?	0.15	**0.79**	-0.31	-0.05	0.02	-0.18	-0.10
LSNA13	Times: Described your interests, motivations, values, beliefs, attitudes, or reasons for your behavior to someone else.	0.15	0.09	-0.02	**0.35**	0.19	0.19	0.07
LSNA7	Times: Spoke with a friend who was distressed and listened to their concerns for a few minutes or more.	0.15	0.23	-0.06	**0.53**	0.06	-0.02	0.18
LSNA14	Times: Changed your plans at the last minute because you sensed that your friend would benefit from your help.	0.15	0.14	-0.07	-0.03	-0.11	0.09	0.30
LSNB3	Times: Laughed with a friend.	0.15	0.16	-0.09	0.08	0.06	0.09	0.24
LSND7	Times: Selected the right roommate for a group living situation.	0.14	0.06	0.09	0.03	0.22	0.02	0.13
LSNE6	Times: Wrote a poem that described someone else's personality.	0.13	-0.05	-0.02	0.11	0.05	0.19	**0.54**
LSNE4	Times: Turned down a possible roommate for a group living situation and later found out it was the right choice.	0.13	0.13	0.00	0.03	0.09	0.22	0.02
LSNA4	Times: Told someone who was upset that you had felt that way before.	0.13	0.12	-0.04	**0.86**	0.04	-0.09	-0.06
LSNA1	vegetables (canned, fresh, packaged) (lsbc13)	0.12	0.13	0.03	**0.81**	-0.04	-0.11	-0.02
LSNB10	Times: Read about a(n) historical figure who serves as a role model for you?	0.11	0.06	-0.02	0.07	**-0.36**	0.28	-0.05
LSNA25	Times: Were stopped by the police for a disturbance when you were drunk or high.	0.11	**0.37**	-0.25	-0.22	0.08	**0.43**	0.02
LSBC13	sweets (boxes of candy, ice cream, brownies) (lsbc12)	0.11	0.24	**0.69**	-0.08	0.03	0.04	-0.21
	Acadm ach	0.10	-0.09	0.22	0.21	-0.03	0.21	-0.26
	Support groups	0.10	-0.03	-0.08	-0.09	**0.42**	**0.40**	**0.36**
LSND9	times: Realized that someone you knew had a character defect much worse than you had suspected before.	0.09	0.06	0.09	0.17	-0.12	0.17	-0.26
LSGB5	How many times: Go to a bar or liquor store?	0.09	-0.02	0.03	-0.09	0.01	0.05	0.29
LSND4	Times: Worked on a plan involving your future?	0.09	-0.03	0.04	0.06	0.21	0.14	0.31
LSNA24	Times: Got into a physical fight with someone to ensure they did something you wanted	0.09	**0.37**	-0.29	-0.11	-0.04	**0.36**	-0.09
LSNA2	Times: Spoke with a friend who was distressed and listened to their concerns for a few minutes or more.	0.08	0.19	-0.02	**0.56**	0.04	-0.03	-0.01
LSBC2	bakery items (bread, bagels, crackers) (lsbc1)	0.08	0.30	**0.56**	-0.04	0.15	0.04	-0.02

LSNC7	Times: Relied on someone to make a key decision for you because you could not figure out your own preferences?	0.08	0.19	-0.11	**0.46**	-0.01	0.34	0.02
LSNA3	Times: Told a friend how much you valued them.	0.08	0.17	0.00	**0.54**	0.03	-0.07	0.08
LSND6	Times: Helped someone make a decision because the choice was really what they wanted to do?	0.08	-0.07	0.02	0.03	**0.62**	**0.54**	0.25
LSBC6	dairy (yogurt, cheese) (lsbc5)	0.07	0.18	**0.42**	-0.02	0.06	0.15	-0.13
LSNA21	Times: Got into a physical fight with someone who insulted you or a friend.	0.07	0.26	-0.02	**0.43**	-0.06	0.11	0.19
LSND10	Times: Realized that someone you knew had a character defect much worse than you had suspected before.	0.05	0.07	0.09	0.03	0.02	0.17	-0.11
LSND3	Times: Recommend a biographical movie or book to someone who might benefit from reading the life story?	0.04	0.12	0.08	0.05	0.34	0.30	0.19
	Destructive interactions	0.04	0.04	-0.09	-0.06	**0.61**	**-0.41**	0.15
LSBC4	beverages (non-alcoholic such as milk, soda) (lsbc3)	0.04	0.19	**0.35**	-0.06	0.03	-0.11	0.28
	Total Institutions	0.03	0.05	0.16	0.00	0.01	-0.03	0.14
LSNB2	Times: Posted negative comments about someone you know online	0.03	0.00	0.04	0.09	**0.60**	0.18	0.19
LSNB11	Times: Talked to a friend or relative to help better understand or improve yourself?	0.03	0.19	-0.07	-0.05	0.08	**0.40**	-0.11
LSND5	Times: Decisively make a choice that clearly reflected your own preferences and values?	0.03	-0.12	0.00	-0.14	0.15	**0.82**	0.21
LSNE7	Times: Written an e-mail that described someone else's personality in some detail.	0.03	0.09	0.02	0.04	-0.08	0.30	**0.54**
LSNC9	Times: Bought something you saw a celebrity endorse?	0.02	-0.04	0.01	0.12	0.04	0.22	0.22
LSBC7	fish (lsbc6)	0.02	**0.35**	**0.55**	-0.10	0.09	0.06	-0.17
LSBC5	beverages (alcoholic such as cans of beer, bottles of wine, gin, etc.) (lsbc4)	0.02	0.28	**0.56**	-0.13	-0.10	-0.10	0.02
LSGA2	How many: Letters or other important texts or posts from friends or family that are important?	0.02	**0.83**	-0.34	0.01	0.02	-0.15	-0.11
LSBC8	fruits (lsbc7)	0.02	0.15	**0.70**	-0.08	-0.03	0.04	-0.02
	Outdoor	0.02	0.02	0.12	0.00	0.02	0.00	-0.03
LSNB5	Times: Read about a public figure who serves as a role model for you?	0.01	0.18	0.00	0.04	**-0.41**	-0.09	0.17
LSGA1	How many: A photo album or on-line photo album	0.00	**0.60**	-0.17	0.01	-0.04	-0.10	-0.02
LSBC11	nuts (bags or containers) (lsbc10)	0.00	0.32	**0.56**	-0.02	0.06	-0.03	-0.02
LSBC10	noodles (Ramen, spaghetti) (lsbc9)	-0.01	**0.35**	**0.38**	-0.02	0.29	0.08	-0.09
LSGB2	How many times: Go to a workplace for part-time or full-time work?	-0.01	-0.03	0.00	-0.04	0.17	0.14	-0.08
LSBC9	meats (lsbc8)	-0.02	0.32	0.39	-0.01	0.07	-0.05	0.14

LSNA8	Times: Discussed and/or shared a personal, confidential issue of your own with a friend	-0.03	0.09	0.09	0.24	**0.50**	0.18	-0.05
LSNB1	Times: Spoke badly about someone who didn't treat you well.	-0.03	-0.04	0.06	0.07	**0.60**	0.24	0.24
LSNA18	Times: Gotten into an argument with someone who insulted you or a friend	-0.04	0.19	0.06	0.33	-0.14	0.13	0.06
LSGB12	How many times: Use the campus cafeteria and/or dining hall?	-0.04	0.21	-0.01	0.08	-0.12	-0.17	**0.38**
	People major	-0.07	0.08	-0.08	0.08	0.19	-0.04	0.00
LSNF6	Times: Changed to a different section of a course because your first instructor didn’t match your learning approach.	-0.08	0.14	-0.02	0.10	**-0.45**	-0.06	**0.36**
LSBC1	How many times: Check online Facebook, Instagram, and other social media?	-0.09	0.37	**0.52**	-0.15	-0.03	-0.02	0.12
LSBC3	beans (bags, cans) (lsbc2)	-0.10	0.17	**0.51**	-0.12	-0.11	0.03	0.25
LSBC12	soups (lsbc11) f	-0.12	0.25	**0.39**	-0.05	0.00	0.00	0.27
LSNB4	Times: Sought advice from a friend.	-0.22	0.18	-0.05	-0.06	**0.37**	0.31	0.28

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One Possible Interpretation of the Seven Factors

Factor 1: Body monitoring and body sense

Factor 2: Connective objects; mementos (probably correlated positively with TOPI)

Factor 3: Food (generally)

Factor 4: Intimate, supportive, connection (probably correlated positively with TOPI)

Factor 5: Destructive interactions (probably correlated negatively with TOPI)

Factor 6: Self-help, decisive, no interest in self-knowledge, etc.. (probably correlated negatively with TOPI)

Factor 7: Wrote about someone’s personality (e-mail, etc.).

Extended Appendix E. Error-Checking Phases of Note

Error-checking was ongoing throughout the research and article development stage. Most of the corrections fell under the heading of "General Corrections" below. In addition, we note two further reviews of the data that entailed more systematic checks and changes across the data sets. These were (a) the removal of several 17-year-olds from the original data files about one year into the project and (b) the systematic checking of datafiles and revisions of several tables to ensure that one of the PILSI 3R items was correctly included in data analyses and reported in the final paper. These more elaborate checks are described below.

General Corrections

General checks and corrections were ongoing throughout the research process. Some of these are noted in the Technical Supplement as side notes to the tables. In addition, there was a "sweep" check for accuracy of the primary table entries appearing in the final version of the paper toward the end of the review process.

Removal of 17-year-old participants

1. The removal of several participants from the PILSI 2 and PILSI 3R datasets as per the IRB (they were 17-year-olds) is outlined in Chapter 1 of the Technical Supplement

Correction of the PILSI-3R

In an e-mail of 9/25/2023, an undergraduate research assistant involved in the project, Madeleine Tveter, noted an anomaly that required some further checks. She was helping prepare a version of the PILSI 3R based on the results of its performance, trimming the scale to ensure just the operative items (those on the 15 scales) were included, when she noticed and flagged an issue around two Personal Intelligence Lifespace Inventory (PILSI) items, lsgb5 and lsgb7. She noted:

There were, however, 2 items that were labeled differently on the two files. I do not know if it is relevant but they were;

Posted something on social media that described someone else's personality in some detail.

This one was labeled as Lsnd5 in "Items included in Analysis" , and as Lsnd7 in

"PILSI-3R as administered".
The other one was;
Go to a Bar?
This one was labeled as Lsgb7 in "Items included in Analysis" , and as Lsgb5 in "PILSI-3R as administered".

I (JDM) reviewed the issue, going through the following steps (which readers may wish to skip, and jump directly to the summary):

Step 1. I examined the SPSS code for the Qualtrics download of the data from the PILSI-3R and verified that both lsnd5 and lsnd7 had been administered. Both the SPSS datafile and the PILSI-3R download agreed that the two items were as follows:

lsnd5: "Turned down or avoided a possible team-member for a class project and later found out information indicating it was the right choice.

lsnd7: " Posted something on social media that described someone else's personality in some detail.

Step 2. I checked my "sent" folder to double check that you were working from a document named "ItemsIncludedinAnalyses-2023-09-13". The file had copied into it "Supplement Table 4.2" which contained the list of the 15 PILSI scales with the variable names that made up each scale. *That* table, Supplement Table 4.2, contained the following information about the scale "Core VIII. Confident Judge":

A. First, the code (15, 12, 13), which indicated that the factor on which the scales were based were, respectively, the 15th, 12th, and 13th factors of the PILSI 2, PILSI 3, and PILSI 3R.

B. Second, the table contained the following rows for Factor Core VIII. Confident Judge (with lsnd5 highlighted):

	Core VIII. Confident Judge (15, 12 ,13) ✓			
Lsnd5	Posted something on social media that described someone else's personality in some detail.	.318	.411	.289
Lsnd6	Turned down a possible roommate for a group living situation and later found out it was the right choice.	.465	--	.628
Lsnd8	Wrote a poem that described someone else's personality.	.449	.405	.495
Lsnd9	Wrote an e-mail that described someone else's personality in some detail.	.515	.677	.232

lsnd10	Changed to a different section of a course because your first instructor didn't match your learning approach	.508	.411	.041

Step 3. **First Error Confirmed.** The Core VIII Confident Judge item lsnd5 was mis-listed: the item was, indeed, "Turned down or avoided a possible team-member for a class project, and later found out information indicating it was the right choice.", as verified both in the Qualtrics download and SPSS datafile.

> **Mitigation Required/Implemented:** The "lsnd5" row in the Technical Supplement Table 4.2 and the corresponding table in the paper will need to replace the "Posted something…" text with the proper item text.

Step 4. I further checked for a deeper possible error: that the original factor extracted from the PILSI-3R actually contained lsnd7 rather than lsnd5. To do this, I first located an earlier version of the Mplus factor output for the analysis and checked it against the source table for Table 4.2. The source table was "Table 4.1" in the section "Identification of Recurrent Factors Across Scales". This table listed the near-20 factor solutions for each of the three 2nd generation PILSI scales. In the source table, the "Core VIII" scale was identified as Factor 13 (leftmost column) on the PILSI-3R, and the relevant noted characteristics of the factor are noted in the top row above:

Survey Factor Number	PILSI 2* Items are "b" series (binned)	PILSI 3	PILSI 3R	Congruence of 2/3rds or more items*	Final Item List	
					Core	**Expansion**
13	lsnb8b .561, lsnb9b .620, lgc6b .436, lgc7b .577 ✓	lsne1 .604, lsne2 .644, lsne3 .619, lsne4 .444 (lsne5 .256, lsne6 .262, lsne7 .163) ✓	(lsnd2 .436), (lsnd5 .289), lsnd6 .628, lsnd8 .495, (lsnd9 .232), (lsnd10 .041), lgc23 .495 ✓	15-12-13 [CORE #8]	C8: lsnd5, lsnd6, lsnd7, lsnd8, lsnd9, lsnd10 ✓	
Mitigation/Correction:						
14	lsnd3b .635, lsnd4b .602, (lsnd5b .`318) lsnd6b .465 (lsna21 .318) (lsnd9 .397) ✓	lsbc4 .455, lgc6 .972, (lsgb5 .357) ✓	(lsnd2 .433), (lsnd5 .284), lsnd6 .626, lsnd8 .504, (lsnd9 .235), (lsnd10 .036), lgc23 .494; ***note*** *lsnd7 .040*✓	15-12-13 [CORE #8]	C8: lsnd5, lsnd6, lsnd7, lsnd8, lsnd9, lsnd10 ✓	

Step 5. I noted that there was no "lsnd7" listed for Factor 13, even though it was included in the final item list. To check the lsnd7 factor loading, I returned to the original Mplus output.

Step 6. Second Error Confirmed. I noted a further discrepancy after finding the output for the PILSI 3R 20-factor EFA on which the table was based: Factor 13 was different than that listed in the table. It was unclear whether I was using the wrong output or whether the table was in error.

Step 7. I reran the 11-to-20 factor EFA for the PILSI 3R on the *N* = 696 corrected datafile to determine whether that the output I had initially was correct (that file had be run on *N* = 698, mistakenly including 2 17-year-olds who were later removed). The corrected output matched the original output throughout, albeit the item factor loadings were sometimes off by up to about .005 in some instances likely due to the removal of the two participants. It turned out that the error in the table was fairly simple: Somehow, for the PILSI 3R column, factors 13 and 14 had been reversed.

> **Mitigation Required/Implemented:** The PILSI 3R column of Table 4.1 for the 13-factor and 14-factor solutions will need to be exchanged, along with any contingent notes on them in the right-most columns. Implemented 9/8/23
>
> **Mitigation Required/Implemented:** The revised factor loadings of all the items should replace the original factor loadings (the differences were trivial throughout, e.g., +/-.005, and did not impact any decision-making). Implemented 9/8/23

Step 8. Check to see whether the actual computations of Factor-Scale VIII, Confident Judge, was consistent in terms of items included across software analyses. The computational formulae are below. The scale was consistent throughout in omitting lsnd7.

Buffer text

```
STUDY PILSI-2
compute pains = sum(zlbp3b, zlbp4b, zlbp5b, zlbp6b).
compute skpfd = sum(zlbp8b, zlbp9b).

compute relsg = sum(zlsga1b, zlsga2b, zlsga3b).
compute icomm = sum(zlsna1b, zlsna2b, zlsna3b, zlsna4b).
compute confl = sum(zlsna14b, zlsna15b, zlsna16b, zlsna17b).
compute imprs = sum(zlsnb1b, zlsnb2b).
compute crtev = sum(zlsnd3b, zlsnd4b, zlsna21).
compute unrfj = sum(zlsnd5b, zlsnd6b, zlsnd8b, zlsnd9b, zlsnd10b).
compute supgr = sum(zlgc2b, zlgc3b).
compute humnt = sum(zlgc17, zlgc18).

STUDY PILSI-3

compute pains = sum(zlbp3, zlbp4, zlbp5, zlbp6).
compute skpfd = sum(zlbp8, zlbp9).
```

```
compute relsg = sum(zlsga1, zlsga2, zlsga3).
compute icomm = sum(zlsna1, zlsna2, zlsna3, zlsna4).
compute confl = sum(zlsna14, zlsna27, zlsna15, zlsna16, zlsna17).
compute imprs = sum(zlsnb1, zlsnb2).
compute crtev = sum(zlsnd3, zlsnd4, zlsna21).
compute unrfj = sum(zlsnd5, zlsnd6, zlsnd8, zlsnd9, zlsnd10).
compute supgr = sum(zlgc2, zlgc3).
compute humnt = sum(zlgc17, zlgc18).

comment substance cannot be computed in the PILSI3compute bdysn = sum(zlbp11,
zlbp12).
comment compute s_substance = sum(zlsga8, zlsga12, zlsgb7).
compute bdysn = sum(zlbp11, zlbp12).
compute compn = sum(zlsna7, zlsna25, zlsna26, zlsnb3).
compute planf = sum(zlsne1, zlsne2, zlsne3, zlsne4, zlsne5).
compute incur = sum(zlsnb4, zlsnb5).

STUDY PILSI-3R

compute pains = sum(zlbp3, zlbp4, zlbp5, zlbp6).
compute skpfd = sum(zlbp8, zlbp9).
compute relsg = sum(zlsga1, zlsga2, zlsga3).
compute icomm = sum(zlsna1, zlsna2, zlsna3, zlsna4).
compute confl = sum(zlsna14, zlsna27, zlsna15, zlsna16, zlsna17).
compute imprs = sum(zlsnb1, zlsnb2).
compute crtev = sum(zlsnd3, zlsnd4, zlsna21).
compute unrfj = sum(zlsnd5, zlsnd6, zlsnd8, zlsnd9, zlsnd10).
compute supgr = sum(zlgc2, zlgc3).
compute humnt = sum(zlgc17, zlgc18).
```

Step 9. Third Discrepancy Noted. Given the code actually employed across studies and the borderline loadings of lsnd7 across the three factors (.263, .405, and .040), the inclusion of lsnd7 in the item list of Supplement Table 4.1 (the only place it appeared) was, at best, a borderline choice, and, alternatively, an error, and the lsnd7 item should be removed from Factor VIII. By comparison, the comparable values for lsnd5 were somewhat better at .449, .411, and .284.

> **Mitigation Required/Implemented:** Lsnd7 should be removed from Supplement Table 4.1 (so as to conform it to the revised tables and the preexisting computer statements above). 9/9/2023.

Summary

First, in the original side-by-side comparison of factor solutions, the full item list to be included in “Core VIII, Confident Judgments” was lsnd5, lsnd6, lsnd7, lsnd8, lsnd9, lsnd10. Among those items, lsnd7 was arguably the least-good performer and appeared to have been dropped along the way because the SPSS code for the factor-based scale never seemed to have included it. The currently “approved” item list for that factor is therefore zlsnd5, zlsnd6, zlsnd8, zlsnd9, zlsnd10.

Second, the actual item stem was confused between lsnd5 and lsnd7. The correct item content for lsnd5, which was included, was “Turned down or avoided a possible team-member for a class project and later found out information indicating it was the right choice.”

Mitigation Required/Implemented: The “lsnd5” row in the Technical Supplement Table 4.2 and the corresponding table in the paper will need to replace the “Posted something…” text with the proper item text. That correct item text was: “Turned down or avoided a possible team-member for a class project and later found out information indicating it was the right choice.” (Implemented 9/9/2023)

Mitigation Required/Implemented: Factor loadings for PILSI 3R items should be updated in Supplement Table 4.2 to match the rerun output; (Implemented 9/9/2023); these updated values then should be transferred to the main paper. (Implemented 9/9/2023).

End of Technical Supplement