

THE INDIVIDUALISM-COLLECTIVISM INTERPERSONAL ASSESSMENT INVENTORY (ICIAI):

Scoring Key

General IC Indices

We have used the ICIAI to produce general indices of IC scores for each social group and rating domain by simply averaging across all 19 items within each social group and domain. Item 17 should be reverse coded prior to averaging. This procedure produces eight scores -- one for each social group (4) and rating domain (2).

Scale Scores

In addition to general IC indices, four scale scores can be produced for each social group and rating domain. The scale names, items, and item numbers are given below in the following table:

Scale	Item Number	Item
Social Harmony	4	Respect and honor their traditions and customs
	5	Be loyal to them
	8	Respect them
	9	Compromise your wishes to act in unison with them
	10	Maintain harmonious relationships with them
	11	Nurture or help them
	12	Maintain a stable environment (e.g., maintain the status quo) with them
	16	Cooperate with them
Social Identification	17	Communicate verbally with them (reverse code first)
	14	Be like or similar to them
	15	Accept awards, benefits, or recognition based only on age or position rather than merit from them
	18	Save "face" for them
Self-Control	19	Follow norms established by them
	1	Maintain self-control toward them
	13	Exhibit "proper" manners and etiquette, regardless of how you really feel, toward them
Social Sharing of Recognition	2	Share credit for their accomplishments
	3	Share blame for their failures
	6	Sacrifice your goals for them
	7	Sacrifice your possessions for them

To produce scores for each the scales, simply average the items associated with that scale, separately for each social group and rating domain. Again, Item 17 should be reverse coded prior to averaging. This procedure results in 32 scores per individual: four scale scores x 2 rating domains x 4 social groups.

Rationale for the Scoring Key

Data from several studies conducted by our laboratory using the ICIAI were aggregated into a single data set for analyses. The total n for these analyses was 1152, and consisted of 526 Americans, 161 Russians, 130 Japanese, 128 Koreans, and smaller numbers of individuals from a variety of countries in Asia, Europe, and Latin and South America. All were undergraduate university students. Average age of the entire sample was 21.96 years. All subjects completed the original version of the ICIAI, which had 25 items for each of the four social groups in both rating domains.

Eight principal components factor analyses were performed on the 25 items, separately for each social group and rating domain. We considered items to load reliably on factors if they met the following criteria: (1) the factor loading for that item was greater than or equal to 0.4; and (2) the item loaded consistently on at least six of the eight analyses. All items not meeting these two criteria were excluded from further consideration. Scale scores were then produced by averaging across all items for that scale. Item #17 loaded negatively on the first factor, and thus was reverse keyed prior to averaging. We then computed Cronbach's alpha, standardized item alphas, and item-total correlations for each of the 32 scale scores (four scales x four social groups x 2 rating domains). We then applied a third criterion to the items to be considered loading on each scale, excluding items that had item-total correlations less than or equal to 0.30. Alphas and item-total correlations were recomputed for the final set of items.

The final alphas were well within the range of acceptability, ranging from a low of .4948 to a high of .9117; average alpha = .699, average standardized alpha = .703 (scales with fewer items had lower reliabilities). In general, the item-total correlations were also quite high. The items loading consistently across the factors are given in Table 1, along with their eigenvalues and percent of total variance accounted for. The results of the alpha computations and item-total correlations are provided in Table 2.

Table 1
Factor Loadings for Items Meeting Criteria

Factor 1: Social Harmony

Value Items	Family	Friends	Colleagues	Strangers
Honor Tradition	.659	.610	.562	.424
Loyalty	.765	.634	***	.435
Respect Elder	.695	.509	.595	.518
Compromise	.625	.457	.465	.501
Harmony	.821	.749	.739	.730
Nurturing	.772	.695	.652	.721
Status quo	.540	.447	.599	.627
Cooperation	.729	.619	.682	.663
Verbal Communication	-.745	-.659	-.670	-.632
eigenvalue	9.59	6.46	7.05	7.30
% of variance accounted for	38.4	25.9	28.2	29.2

Behavior Items	Family	Friends	Colleague	Strangers
Honor Tradition	.697	.561	.548	.537
Loyalty	.771	.716	.597	.498
Respect Elder	.644	.408	.547	***
Compromise	.508	.420	.465	***
Harmony	.796	.724	.739	***
Nurturing	.744	.731	***	.719
Status quo	.587	.534	.635	***
Cooperation	.726	.650	.738	.614
Verbal Communication	-.718	-.620	-.660	-.573
eigenvalue	10.14	7.19	8.17	7.87
% of variance accounted for	40.6	28.7	32.7	31.5

Factor 2 : Social Identification

Value Items	Family	Friends	Colleague	Strangers
Similarity	.562	.659	.653	.640
Position Awards	.553	.600	.690	.548
Save Face	.606	.451	.556	.558
Follow Norms	.690	.735	.713	.670
eigenvalue	2.16	2.47	2.04	2.02
% of variance accounted for	8.7	9.9	8.2	8.1

Behavior Items	Family	Friends	Colleague	Strangers
Similarity	.659	.658	.667	.481
Position Awards	.675	.468	***	.680
Save Face	.525	.517	.504	.595
Follow Norms	.673	.753	.689	.701
eigenvalue	1.76	2.01	2.00	1.89
% of variance accounted for	7.1	8.0	8.0	7.6

Factor 3 : Self-Control

Value Items	Family	Friends	Colleague	Strangers
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Self-Control	.695	.573	.515	.656
Correct Behavior	.764	.659	***	.681
eigenvalue	1.31	1.49	1.63	1.61
% of variance accounted for	5.2	6.0	6.5	6.4

Behavior Items	Family	Friends	Colleague	Strangers
Self-Control	.693	.572	***	.724
Correct Behavior	.742	.751	***	.736
eigenvalue	1.47	1.58	1.41	1.59
% of variance accounted for	5.9	6.3	5.6	6.4

Factor 4 : Social Sharing of Recognition

Value Items	Family	Friends	Colleague	Strangers
Sharing Credit	.622	.513	***	.729
Share Blame	.765	.641	***	.750
Sacrifice goal	.535	.713	.694	***
Sacrifice possessions	***	.667	.719	.554
eigenvalue	1.13	1.31	1.36	1.32
% of variance accounted for	4.5	5.2	5.4	5.3

Behavior Items	Family	Friends	Colleague	Strangers
Sharing Credit	.587	.564	.703	***
Share Blame	.738	.677	.669	***
Sacrifice goal	.630	.688	***	.446
Sacrifice possessions	.627	.693	***	.440
eigenvalue	1.05	1.42	1.23	1.13
% of variance accounted for	4.2	5.7	4.9	4.5

As seen in Table 1, only 19 of the original 25 items met inclusion criteria. Examination of the items loading on each factor led us to label the factors thus:

- Social Harmony
- Social Identification
- Self-Control
- Social Sharing of Recognition

Table 2
Alpha Coefficients and Item-Total Correlations

Factor 1: Social Harmony

Value Items	Family	Friends	Colleague	Stranger
alpha	.9058	.8155	.8315	.8432
standardized item alpha	.9093	.8272	.8352	.8438
Honor Traditions	.6629	.5551	.5061	.4867
Loyalty	.7093	.5045	.5458	.5119
Respect Elder	.7033	.4442	.4780	.4883
Compromise	.6547	.4936	.4522	.5308
Harmony	.7949	.6627	.6708	.6674
Nurturing	.7155	.5678	.5596	.5863
Status quo	.5537	.4242	.5363	.5715
Cooperation	.7426	.5777	.5881	.6266
Verbal Communication	.6497	.5104	.5408	.5489

Behavior Items	Family	Friends	Colleague	Stranger
alpha	.9104	.8358	.8606	.8485
standardized item alpha	.9117	.8458	.8631	.8493
Honor Traditions	.7067	.5577	.5659	.5324
Loyalty	.7339	.5770	.5847	.5113
Respect Elder	.6818	.4570	.5374	.5154
Compromise	.6305	.5266	.5430	.5438
Harmony	.7823	.6732	.6728	.6454
Nurturing	.7252	.6189	.6038	.5900
Status quo	.6224	.5189	.6024	.5848
Cooperation	.7312	.6001	.6483	.6409
Verbal Communication	.6312	.4859	.5554	.5367

Factor 2: Social Identification

Value Items	Family	Friends	Colleague	Stranger
alpha	.7211	.6576	.6871	.6653
standardized item alpha	.7236	.6572	.6874	.6676
Similarity	.5820	.4690	.4646	.4133
Position Awards	.4852	.4551	.4371	.3876
Save Face	.3899	.3112	.4198	.4657
Follow norms	.6053	.5337	.5631	.5398

Behavior Items	Family	Friends	Colleague	Stranger
alpha	.7259	.6399	.6696	.6609
standardized item alpha	.7294	.6479	.6721	.6608
Similarity	.5645	.4335	.4751	.4035
Position Awards	.5071	.3967	.3653	.3710
Save Face	.4058	.3320	.4223	.4633
Follow norms	.6080	.5462	.5511	.5397

Factor 3: Self-Control

Value Items	Family	Friends	Colleague	Stranger
alpha	.6524	.5107	.4948	.5314
standardized item alpha	.6538	.5169	.4969	.5314
Self-control	.4857	.3485	.3306	.3619
Correct behavior	.4857	.3485	.3306	.3619
Behavior Items	Family	Friends	Colleague	Stranger
alpha	.6625	.5343	.5414	.6192
standardized item alpha	.6626	.5356	.5433	.6192
Self-control	.4954	.3657	.3729	.4485
Correct behavior	.4954	.3657	.3729	.4485

Factor 4: Social Sharing of Recognition

Value Items	Family	Friends	Colleague	Stranger
alpha	.7125	.6523	.6398	.6704
standardized item alpha	.7212	.6533	.6437	.6853
Share Credit	.4932	.3946	.3721	.5091
Share Blame	.4113	.3824	.4308	.5006
Sacrifice Goal	.5626	.4979	.4713	.4326
Sacrifice Possession	.5584	.4605	.4119	.4214
Behavior Items	Family	Friends	Colleague	Stranger
alpha	.7630	.7071	.7073	.6912
standardized item alpha	.7648	.7092	.7102	.7081
Share Credit	.5390	.4361	.4162	.4814
Share Blame	.4749	.4722	.5222	.5401
Sacrifice Goal	.6299	.5504	.5733	.5089
Sacrifice Possession	.6124	.5239	.4714	.4266

In total, these results provide considerable support for the internal reliability of the ICIAI scale scoring procedures outlined in this document.