Supporting Information

Materials and Methods

Self-reported sensation-seeking items:

1. I like to have new and exciting experiences and feelings even if they are a little frightening.
2. I like doing things just for the thrill of it.
3. I sometimes like to do things that are a little frightening.
4. I'll try anything once.
5. I sometimes do "crazy" things just for fun.
6. I like wild and "crazy" parties.

Self-reported planning items:

1. I tend to begin a new job without much advance planning on how I will do it. (Reversed)
2. I usually think about what I'm going to do before doing it.
3. I often act without thinking. (Reversed)
4. I hardly ever spend much time on the details of planning ahead (Reversed)
5. Before I begin a complicated job, I make careful plans about how I would complete it.
6. I usually act before I think about what I want to do. (Reversed).

Measurement invariance. Traditional chi-square difference tests of measurement invariance are notoriously sensitive to even minor departures from measurement invariance in large samples (Davidov, Meuleman, Cieciuch, Schmidt, & Billiet, 2014). Therefore, even trivial deviations may result in the rejection of the null hypothesis that the parameters of a scale do not differ across groups, thus placing limitations on the kinds of comparisons researchers can make across groups. However, several alternative approaches to testing measurement invariance have been developed to handle seemingly significant—but ultimately trivial—differences among groups, including a new method called 'alignment'.

The alignment approach, explained below, is ideal for the current sample not only because it less conservative than traditional tests, but because it handles small numbers of factor indicators (e.g., as few as three, in some cases) and is well-suited for use with relatively few groups (i.e, fewer than 30), as is the case in our sample (Muthén & Asparouhov, 2014).

In the alignment approach, measurement invariance is minimized using a simplicity function in a way that parallels rotations in exploratory factor analysis (Muthén & Asparouhov, 2014). An iterative, ad-hoc procedure then determines the largest "set" of groups that contains no significant difference on a given parameter. First, pairwise tests establish the largest set of groups that do not differ significantly (using a more conservative *p*-threshold that is adjusted for multiple comparisons). Any two groups that do not differ are "connected."

Second, the average value of the parameter from this invariant group is compared to the value of the parameter of each individual group (whether that group is part of the invariant set or not). If that comparison indicates non-significant differences (i.e., $p > .001$), the group is added (or kept in) to the invariant set. If that comparison indicates significant differences ($p < .001$), the group is removed from (or kept out of) the invariant set. This procedure is repeated until no groups are added or removed for each parameter. Groups that are excluded from the invariant set, therefore, differ from the average value of the invariant group for a given parameter (Muthén & Asparouhov, 2014).

See Tables S1-S2 below for information on which parameters are (non)invariant for self-reported sensation seeking and impulse control.

Results

Reward approach on the IGT. Within the entire sample, change in play frequency on advantageous decks on the Iowa Gambling Task followed a curvilinear age pattern ($b_{age} = 0.15$, SE = 0.05, $p = .007$; $b_{age}^2 = -0.03$, SE = 0.01 p = .005) (see Table S7 and Figure S1, panel A). As described in the main text, we iteratively re-estimated our models with age centered at each year to identify the age at which this construct reached its peak. Reward approach on the IGT peaked at age 21. Analysis of participants following this peak (i.e., a test of linear change among those 22 years and older; N = 1,308) provided no evidence that change in play frequency declined in this age range ($b_{age} =$ -0.20, SE = 0.24, $p = .41$). Thus, changes in reward approach on the IGT are partially consistent with our hypotheses in that reward sensitivity followed a curvilinear trend, but this age pattern did not decline significantly among participants after the ostensible peak.

Chi-square difference testing of country variation indicated that the age-related pattern of reward approach on the IGT differed among countries ($\Delta\chi^2(20) = 44.34$, $p < .05$). Accordingly, we compared the age pattern of each country to the average age pattern of the other ten countries and determined whether the age pattern within individual countries was characterized by a curvilinear, linear, or no age trend. Results of these analyses indicated that China and Italy were the only two countries that differed from the average trajectory of the remaining ten countries (see Table S8 for all results and Figure S2, panel A). Based on visual inspection of these

country-specific age patterns, China followed a prolonged increase in performance, followed by a plateau. In contrast, Italy followed a symmetrical inverted-U pattern.

In addition, the US and India also followed curvilinear age trends. Follow-up analyses indicated that change in play frequency increased linearly with age in Cyprus (b = 0.54, SE = 0.22, p = .01), but there were no age-related trends in any other country (all p's > .15).

Sensation seeking (self-report). Self-reported sensation seeking followed the anticipated ∩-shaped age pattern within the whole sample (b_{age} = 0.24, SE = 0.07, p = .001; b_{age}^2 = -0.07, SE = 0.01, p < .001) (see Table S7 and Figure S1, panel B). Self-reported sensation seeking peaked at age 20. Consistent with our hypothesis, analysis of participants after this peak (i.e., ages 21 to 30; N = 1,477) indicated that sensation-seeking levels decreased significantly across this age range (b = -0.72, SE = 0.27, p = .007).

Chi-square difference testing of country variation indicated that the age-related pattern of self-reported sensation seeking differed among countries ($\Delta\chi^2(20) = 85.96$, $p < .05$). Comparisons individual countries with the average age pattern of the other ten indicated that China, Italy, Kenya, Thailand, Jordan, India, and Cyprus differed significantly (see Table S9 for results of quadratic trends and Figure S2, panel B). Of these, some followed the inverted-U pattern (i.e., China, Kenya, and Thailand), while others increased linearly (Jordan b = 0.70, SE = 0.23, p = .002; India b = 0.88, SE = 0.27, p = .001) or decreased linearly (Italy b = -0.98, SE = 0.22, p = .001; Cyprus b = -0.55, SE = 0.27, p = .04) with age.

Of the remaining countries, Colombia followed a curvilinear pattern, Sweden trended toward a curvilinear pattern, but the US (b = 0.07, SE = 0.19, p = .72) and the Philippines (b = -0.15, SE = 0.19, p = .41) followed no age trend.

Risky driving (Stoplight game). Like the other two measures of sensation seeking, risky driving on the Stoplight game followed a curvilinear age trend in the whole sample (b_{age} = -0.09, SE = 0.06, p = .10; b_{age}^2 = -0.06, SE = 0.01, p <.001) (see Table S7 and Figure S1, panel C). Risky driving peaked relatively early at 17 years. Analysis of the linear effect of age among 18-30 year olds (N = 2,006) indicated a significant decrease in risky driving (b = -0.76, SE = 0.14, p < .001), consistent with expectations.

Chi-square difference testing indicated that the age pattern of risky driving differed significantly among the eleven countries ($\Delta\chi^2(20) = 37.70$, $p < .05$). Follow-up analyses indicated that the age-related pattern for risky driving in Sweden, Colombia, and Jordan differed significantly from that of the other ten countries (in aggregate) (see Table S10 and Figure S2, panel C). Of these three countries, the quadratic age term trended toward significance in Jordan, while risky driving decreased linearly in Colombia (b = -0.44, SE = 0.16, p = .007), and followed no age-related pattern in Sweden (b = 0.05, SE = 0.19, p = .78).

Additionally, China, Italy, the US, and the Philippines also followed curvilinear trends whereas risky driving decreased linearly with age in India (b = -0.60, SE = 0.22, p = .007) but did not change with age in Cyprus (b = -0.31, SE = 0.23, p = .17), Kenya (b = -0.13, SE = 0.20, p = .53), or Thailand (b = 0.11, SE = 0.18, p = .53).

Response inhibition (Stroop Task). Within the full sample, analysis indicated that accuracy on the Stroop task, indexing response inhibition, increased throughout adolescence before plateauing in adulthood (b_{age} = 0.44, SE = 0.02, p <.001; b_{age}^2 = -0.06, SE = 0.01, p <.001) (see Table S7 and Figure S3, panel A). Accuracy on the Stroop Task peaked at age 22. Consistent with our hypothesis, analysis of participants after this peak indicated that accuracy did not change from age 23 to 30 (b = -0.21, SE = 0.15, p = .18; N = 1,120).

Chi-Square difference testing indicated that the curvilinear age trend of Stroop accuracy varied significantly across countries ($\Delta\chi^2(20) = 48.08$, $p < .05$). Four countries differed significantly from the average of the other ten: China, Kenya, the US, and Jordan (see Table S11 and Figure S4, top panel). Jordan, unlike China, Kenya, and the US, followed a trend-level curvilinear age pattern with a notable dip in accuracy among the oldest participants (accuracy among these participants fell at or below accuracy of the youngest participants).

Additionally, the quadratic age term was significant in Italy, the Philippines, Thailand, Sweden, Colombia, and Cyprus, whereas Stroop performance increased linearly with age in India (b = 0.19, SE = 0.09, p = .03).

Self-reported planning. Within the entire sample, self-reported planning increased linearly with age (b_{age} = 0.27, SE = 0.06, p < .001) (see Table S7 and Figure S3, panel B). The quadratic trend was non-significant (b_{age} = 0.25, SE = 0.07, p < .001; b_{age}^2 = 0.01, SE = 0.01, p = .38).

Chi-square difference testing indicated that the age trend of planning did not differ among countries ($\Delta\chi^2(20) = 25.11$, $p < .05$). Therefore, neither comparisons among countries or country-specific age trends were probed.

Impulse control (Tower of London). Within the whole sample, impulse control, indexed by latency to first move on the Tower of London task, increased curvilinearly with age (b_{age} = 132.00, SE = 9.67, p < .001; b_{age}^2 = -7.63, SE = 2.08, p < .001) (see Table S7 and Figure S3, panel C). Follow-up analyses indicated that impulse control reached a peak at age 27, but did not change from age 28 to 30 (N = 371; b = 99.60, SE = 385.32, p = .80).

Chi-square difference testing indicated that age patterns of latency to first move differed among countries ($\Delta\chi^2(20) = 133.19$, p < .05). Comparisons of each country to the average of the other ten indicated that China, Italy, Kenya, Thailand, the US, Colombia, and Jordan differed significantly from the average (see Table S12 and Figure S4, bottom panel). China, Italy, and the US followed significant curvilinear age patterns, whereas latency to first move increased linearly with age in Thailand (b = 50.68, SE = 20.36, p =

.01) and Colombia (b = 88.26, SE = 26.82, p = .001). No age-related patterns were found in Kenya (b = -9.72, SE = 17.88, p = .59) or Jordan (b = 19.63, SE = 31.88, p = .54). Visual inspection showed that latency to first move increased sharply with age in China relative to the other countries.

Of the remaining countries, latency to first move followed a trending curvilinear age pattern in the Philippines, increased linearly with age in Sweden (b = 109.92, SE = 30.23, p <.001) and Cyprus (b = 114.68, SE = 38.49, p = .003), and marginally so in India (b = 80.50, SE = 44.98, p = .07.

Table S1
Results of Alignment Approach to Measurement Invariance: Self-Reported Sensation Seeking and Impulse Control

Thresholds

Sensation Seeking	Impulse Control
(1) Ch It Ke Ph Th Sw US Co **(Jo)** In Cy	(1) Ch It Ke Ph Th Sw US Co Jo In Cy
(2) Ch It **(Ke)** Ph **(Th)** Sw US Co Jo In Cy	(2) **(Ch)** It Ke Ph **(Th)** Sw US Co Jo In Cy
(3) **(Ch)** It Ke Ph Th Sw US Co Jo In Cy	(3) Ch It Ke Ph Th Sw US Co Jo In Cy
(4) Ch It Ke Ph Th **(Sw)** US **(Co)** Jo In Cy	(4) Ch It Ke Ph Th Sw US Co Jo In Cy
(5) Ch It **(Ke)** Ph Th Sw US Co Jo In Cy	(5) Ch It Ke **(Ph) (Th) (Sw)** US Co **(Jo)** In Cy
(6) **(Ch) (It)** Ke Ph Th Sw US Co Jo In Cy	(6) Ch It Ke Ph Th **(Sw)** US Co **(Jo)** In **(Cy)**

Loadings

Sensation Seeking	Impulse Control
(1) Ch It Ke Ph Th Sw US Co Jo In Cy	(1) Ch It Ke Ph Th Sw US Co Jo In Cy
(2) Ch It Ke Ph Th Sw US Co Jo In Cy	(2) Ch It Ke Ph Th Sw US Co Jo In Cy
(3) Ch It Ke Ph Th Sw US Co Jo In Cy	(3) Ch It Ke Ph Th Sw US Co Jo In Cy
(4) Ch It Ke Ph Th Sw US Co Jo In Cy	(4) Ch It Ke Ph Th Sw US Co Jo In Cy
(5) Ch **(It)** Ke Ph Th Sw US Co Jo In Cy	(5) Ch It Ke Ph Th Sw US Co Jo In Cy
(6) Ch It Ke Ph Th Sw US Co Jo In Cy	(6) Ch **(It)** Ke **(Ph)** Th Sw **(US) (Co)** Jo **(In)** Cy

Note. Ch = China; It = Italy; Ke = Kenya; Ph = Philippines; Th = Thailand; Sw = Sweden; US = United States; Co = Colombia; Jo = Jordan; In = India; Cy = Cyprus. Numbers refer to each of the six items on each scale (see Table S2). Countries shown inside parenthesis and bolded denote that measurement invariance is **not** established in that country for a given parameter, i.e., that they differ significantly ($p < .001$) from the average

value of the set of invariant countries. The percent of non-invariant countries for either scale does not exceed 14% (e.g., 9 of 66 parameters show non-invariance for thresholds on self-reported sensation seeking), well below the 25% cutoff recommended to establish approximate measurement invariance.

Table S2
Alignment Fit Statistics for Self-reported Sensation Seeking and Planning

Measure & Item	Thresholds			Loadings		
	Fit Function Contribution	R^2	Variance	Fit Function Contribution	R^2	Variance
Sensation Seeking						
(1) New/Exciting	-30.34	.67	0.12	-27.05	.36	0.07
(2) Thrill	-29.74	.59	0.17	-30.79	.49	0.20
(3) Frightening	-28.06	.70	0.14	-23.28	.75	0.04
(4) Try Anything	-41.52	.00	0.40	-34.01	.38	0.12
(5) “Crazy” Things	-26.97	.58	0.16	-28.82	.26	0.29
(6) “Crazy” Parties	-39.09	.00	0.34	-31.19	.00	0.17
Impulse Control						
(1) New Project	-25.81	.00	0.09	-32.30	.00	0.16
(2) Think Before Doing	-30.06	.00	0.25	-32.98	.13	0.31
(3) Act Without Thinking	-24.68	.80	0.08	-28.56	.55	0.12
(4) Planning Ahead	-28.42	.72	0.06	-31.69	.37	0.06
(5) Careful Plans	-39.20	.00	0.53	-26.99	.00	0.06
(6) Act Before Thinking	-33.75	.40	0.19	-45.68	.20	0.51

Note. Numbers closer to ‘0’ in the “Fit Function Contribution” column indicate greater invariance. In parallel, R^2 indicates the amount of variance for a given parameter that is explained by differences in factors means and variances. Values closer to ‘1’ indicate greater invariance because it denotes that a large amount of ostensible non-invariance is due only to differences in factor means and variances.

Table S3
Sensation-Seeking Composite Results: Comparisons of Individual Countries to Average of Other Ten (Whole-Sample Standardized Values)

		Estimate	SE	*p*-value	Chi-Square Difference
China	Intercept	8.57	3.70	.02	16.01
	Age	1.94	0.45	<.001	
	Age^2	-0.37	0.07	<.001	
Italy	Intercept	17.82	4.16	<.001	9.50
	Age	-0.76	0.43	.07	
	Age^2	-0.21	0.08	.01	
Kenya	Intercept	-19.63	4.76	<.001	1.77
	Age	1.09	0.52	.04	
	Age^2	-0.22	0.10	.03	
Philippines	Intercept	12.13	3.82	.001	6.81
	Age	-0.69	0.40	.08	
	Age^2	-0.16	0.07	.03	
Thailand	Intercept	14.74	3.95	<.001	0.65
	Age	0.54	0.45	.23	
	Age^2	-0.26	0.08	.002	
Sweden	Intercept	17.53	4.16	<.001	2.08
	Age	-0.31	0.57	.58	
	Age^2	-0.08	0.09	.37	
US	Intercept	20.50	4.10	<.001	2.67
	Age	0.04	0.43	.92	
	Age^2	-0.28	0.08	.001	
Colombia	Intercept	-2.38	4.09	.56	4.11
	Age	-0.26	0.45	.57	
	Age^2	-0.07	0.08	.38	
Jordan	Intercept	-32.23	4.68	<.001	8.40
	Age	1.61	0.57	.01	
	Age^2	-0.12	0.09	.18	
India	Intercept	27.74	5.09	<.001	1.25
	Age	0.97	0.68	.16	
	Age^2	-0.27	0.11	.02	
Cyprus	Intercept	13.53	5.18	.01	2.84
	Age	-0.28	0.61	.65	
	Age^2	-0.01	0.10	.94	

Note. Chi-square differences were based on analyses comparing nested models: A model in which the effects of age and age^2 were constrained to be equal across the individual country and the ten grouped countries was compared to a model in which these effects were allowed to vary. A difference exceeding 5.99 (based on a change of 2 *df*) indicated that the age-pattern for the individual country differed from the remaining countries ($p < .05$). Covariates were constrained to be equal across groups. Age is centered at 18 years.

Table S4
Self-Regulation Composite: Comparisons of the Age-Related Patterns for Individual Countries to the Average of Other Ten (Whole-Sample Standardized Values)

		Estimate	SE	*p*-value	Chi-Square Difference
China	Intercept	54.23	4.32	<.001	13.04
	Age	5.32	0.47	<.001	
	Age^2	-0.37	0.08	<.001	
Italy	Intercept	16.80	4.38	<.001	7.79
	Age	3.47	0.43	<.001	
	Age^2	-0.23	0.08	.004	
Kenya	Intercept	-2.42	3.97	<.001	2.86
	Age	2.15	0.47	<.001	
	Age^2	-0.18	0.08	.02	
Philippines	Intercept	23.54	3.89	<.001	0.88
	Age	3.66	0.44	<.001	
	Age^2	-0.32	0.08	<.001	
Thailand	Intercept	-0.12	4.21	.98	2.39 †
	Age	1.95	0.45	<.001	
	Age^2	-0.21	0.09	.02	
Sweden	Intercept	-9.74	3.75	.01	6.82
	Age	2.23	0.48	<.001	
	Age^2	0.00	0.08	.98	
US	Intercept	33.61	4.39	<.001	14.58 †
	Age	4.03	0.45	<.001	
	Age^2	-0.40	0.09	<.001	
Colombia	Intercept	1.59	3.60	.66	0.93
	Age	2.36	0.41	<.001	
	Age^2	-0.18	0.07	.01	
Jordan	Intercept	-31.57	5.30	<.001	34.12 †
	Age	-0.81	0.64	.20	
	Age^2	0.04	0.10	.67	
India	Intercept	5.56	5.02	.27	7.36 †
	Age	0.99	0.61	.10	
	Age^2	-0.10	0.11	.38	
Cyprus	Intercept	4.58	4.70	.33	2.30 †
	Age	1.72	0.68	.01	
	Age^2	-0.09	0.12	.46	

Note. Chi-square differences were based on analyses comparing nested models: A model in which the effects of age and age^2 were constrained to be equal across the individual country and the ten grouped countries was compared to a model in which these effects were allowed to vary. A difference exceeding 5.99 (based on a change of 2 *df*) indicated that the age-pattern for the individual country differed from the remaining countries ($p < .05$). Covariates were constrained to be equal across groups. †Indicates that Wald test of parameter differences was used because of negative chi-square changes obtained from comparing the nested and comparison models. Age is centered at 18 years.

Table S5.
Sensation-Seeking Composite: Quadratic Age Trends (Within-Country Standardized Values)

		Estimate	SE	*p*-value
China	Intercept	14.64	3.79	<.001
	Age	1.93	0.49	<.001
	Age^2	-0.37	0.08	<.001
Italy	Intercept	9.08	4.39	.04
	Age	-0.48	0.47	.30
	Age^2	-0.26	0.08	.001
Kenya	Intercept	8.73	4.58	.06
	Age	1.31	0.50	.009
	Age^2	-0.23	0.09	.01
Philippines	Intercept	5.55	4.22	.19
	Age	-0.84	0.47	.07
	Age^2	-0.18	0.08	.03
Thailand	Intercept	9.32	4.28	.03
	Age	0.67	0.52	.20
	Age^2	-0.26	0.09	.005
Sweden	Intercept	2.78	4.39	.53
	Age	-0.05	0.60	.93
	Age^2	-0.08	0.10	.44
US	Intercept	10.66	4.35	.01
	Age	-0.06	0.46	.90
	Age^2	-0.29	0.09	.001
Colombia	Intercept	2.20	4.38	.62
	Age	-0.23	0.48	.64
	Age^2	-0.07	0.09	.47
Jordan	Intercept	4.96	4.70	.29
	Age	1.52	0.61	.01
	Age^2	-0.12	0.09	.18
India	Intercept	9.68	4.55	.03
	Age	0.96	0.61	.12
	Age^2	-0.28	0.10	.006
Cyprus	Intercept	0.25	5.26	.96
	Age	-0.31	0.65	.63
	Age^2	0.00	0.10	.97

Note. All effects, including covariates, were free to vary across groups. Age is centered at 18 years.

Table S6.
Self-Regulation Composite: Quadratic Age Trends (Within-Country Standardized Values)

		Estimate	SE	*p*-value
China	Intercept	15.41	4.21	<.001
	Age	4.54	0.53	<.001
	Age^2	-0.31	0.08	<.001
Italy	Intercept	15.23	4.30	<.001
	Age	3.61	0.44	<.001
	Age^2	-0.22	0.08	.005
Kenya	Intercept	4.88	4.21	.25
	Age	1.55	0.49	.001
	Age^2	-0.12	0.08	.14
Philippines	Intercept	16.21	3.76	<.001
	Age	3.43	0.48	<.001
	Age^2	-0.33	0.08	<.001
Thailand	Intercept	10.90	5.53	.049
	Age	3.06	0.60	<.001
	Age^2	-0.18	0.12	.13
Sweden	Intercept	0.67	4.23	.87
	Age	2.88	0.54	<.001
	Age^2	-0.03	0.09	.72
US	Intercept	23.80	4.24	<.001
	Age	3.97	0.44	<.001
	Age^2	-0.44	0.09	<.001
Colombia	Intercept	9.34	3.93	.02
	Age	2.57	0.46	<.001
	Age^2	-0.13	0.08	.098
Jordan	Intercept	-4.55	4.87	.35
	Age	-1.19	0.64	.06
	Age^2	0.10	0.10	.29
India	Intercept	2.29	4.51	.61
	Age	0.92	0.56	.099
	Age^2	-0.06	0.10	.58
Cyprus	Intercept	2.26	4.84	.64
	Age	2.42	0.82	.003
	Age^2	-0.13	0.12	.29

Note. All effects, including covariates, were free to vary across groups. Age is centered at 18 years.

Table S7
Results for Six Component Measures in the Whole Sample

					95% CI	
		Estimate	SE	p-value	LB	UB
IGT	Age	0.15	0.05	.01	0.04	0.25
	Age^2	-0.03	0.01	.01	-0.05	-0.01
	Par. Ed.	0.12	0.11	.25	-0.10	0.33
	WASI	0.19	0.03	<.001	0.13	0.25
SR SS	Age	0.24	0.07	.001	0.11	0.38
	Age^2	-0.07	0.01	<.001	-0.09	-0.04
	Par. Ed.	0.73	0.14	<.001	0.45	1.00
	WASI	-0.02	0.04	.63	-0.09	0.05
Stoplight	Age	-0.09	0.06	.10	-0.21	0.01
	Age^2	-0.06	0.01	<.001	-0.07	-0.04
	Par. Ed.	-0.14	0.11	.19	-0.35	0.07
	WASI	0.15	0.03	<.001	0.09	0.21
Stroop	Age	0.44	0.03	<.001	0.38	0.50
	Age^2	-0.06	0.01	<.001	-0.07	-0.05
	Par. Ed.	-0.19	0.05	<.001	-0.30	-0.09
	WASI	0.20	0.02	<.001	0.17	0.24
SR Planning	Age	0.27	0.06	<.001	0.15	0.39
	Age^2	.	.	.	.	.
	Par. Ed.	-0.13	0.13	.33	-0.38	0.14
	WASI	0.22	0.03	<.001	0.15	0.28
ToL	Age	132.00	9.67	<.001	112.77	151.03
	Age^2	-7.63	2.08	<.001	-11.71	-3.62
	Par. Ed.	1.70	20.58	.93	-41.27	41.00
	WASI	62.43	5.37	<.001	51.95	73.13

Note. Par. Ed. = Parent Education; SR SS = Self-Reported Sensation Seeking; SR Planning = Self-Reported Planning; ToL = Tower of London. All coefficients are in the raw metric of the dependent variable. The quadratic age term was non-significant for self-reported planning. Age is centered at 18 years.

Table S8
Iowa Gambling Task: Comparisons of Quadratic Age Trends Among Countries

		Estimate	SE	*p*-value	Chi-Square Difference
China	Intercept	10.82	1.42	<.001	15.05
	Age	0.76	0.17	<.001	
	Age^2	-0.06	0.03	.047	
Italy	Intercept	15.79	1.63	<.001	6.24
	Age	0.36	0.16	.03	
	Age^2	-0.10	0.03	.001	
Kenya	Intercept	2.91	1.73	.09	0.11
	Age	0.10	0.22	.65	
	Age^2	-0.02	0.04	.61	
Philippines	Intercept	9.02	1.31	<.001	0.49
	Age	0.04	0.16	.78	
	Age^2	-0.02	0.03	.48	
Thailand	Intercept	5.56	1.28	<.001	3.38
	Age	-0.13	0.16	.41	
	Age^2	-0.03	0.03	.36	
Sweden	Intercept	10.76	1.53	<.001	4.50
	Age	-0.27	0.20	.19	
	Age^2	-0.01	0.04	.82	
US	Intercept	12.40	1.58	<.001	3.56
	Age	-0.03	0.18	.85	
	Age^2	-0.06	0.04	.09	
Colombia	Intercept	2.92	1.65	.08	4.42
	Age	-0.03	0.18	.87	
	Age^2	0.03	0.03	.37	
Jordan	Intercept	-2.10	1.64	.20	3.14
	Age	0.04	0.21	.85	
	Age^2	0.02	0.03	.33	
India	Intercept	7.22	1.40	<.001	3.31
	Age	0.38	0.22	.09	
	Age^2	-0.08	0.03	.01	
Cyprus	Intercept	13.51	1.69	<.001	5.95
	Age	0.61	0.26	.02	
	Age^2	-0.02	0.04	.57	

Note. Chi-square differences were based on analyses comparing nested models: A model in which the effects of age and age^2 were constrained to be equal across the individual country and the ten grouped countries was compared to a model in which these effects were allowed to vary. A difference exceeding 5.99 (based on a change of 2 *df*) indicated that the age-pattern for the individual country differed from the remaining countries ($p < .05$). Covariates were constrained to be equal across groups. Age is centered at 18 years.

Table S9
Self-Reported Sensation Seeking: Comparisons of Quadratic Age Trends Among Countries

		Estimate	SE	*p*-value	Chi-Square Difference
China	Intercept	53.02	1.98	<.001	9.76
	Age	0.85	0.23	<.001	
	Age^2	-0.14	0.04	<.001	
Italy	Intercept	55.12	2.18	<.001	42.71
	Age	-1.06	0.22	<.001	
	Age^2	0.05	0.04	.23	
Kenya	Intercept	51.97	1.67	<.001	8.65
	Age	0.85	0.20	<.001	
	Age^2	-0.11	0.03	<.001	
Philippines	Intercept	68.08	1.76	<.001	3.91
	Age	-0.11	0.19	.56	
	Age^2	-0.03	0.04	.36	
Thailand	Intercept	68.01	1.84	<.001	7.19
	Age	0.45	0.20	.02	
	Age^2	-0.17	0.04	<.001	
Sweden	Intercept	63.62	1.90	<.001	0.90
	Age	0.05	0.25	.84	
	Age^2	-0.07	0.04	.08	
US	Intercept	65.19	2.03	<.001	0.21
	Age	0.15	0.20	.44	
	Age^2	-0.06	0.04	.11	
Colombia	Intercept	60.72	1.96	<.001	1.58
	Age	0.40	0.22	.06	
	Age^2	-0.11	0.04	.005	
Jordan	Intercept	62.13	2.21	<.001	7.25
	Age	0.82	0.25	.001	
	Age^2	-0.06	0.04	.15	
India	Intercept	64.41	2.29	<.001	10.07
	Age	1.04	0.31	.001	
	Age^2	-0.06	0.05	.23	
Cyprus	Intercept	59.37	2.32	<.001	6.64
	Age	-0.57	0.30	.06	
	Age^2	0.01	0.05	.90	

Note. Chi-square differences were based on analyses comparing nested models: A model in which the effects of age and age^2 were constrained to be equal across the individual country and the ten grouped countries was compared to a model in which these effects were allowed to vary. A difference exceeding 5.99 (based on a change of 2 *df*) indicated that the age-pattern for the individual country differed from the remaining countries ($p < .05$). Covariates were constrained to be equal across groups. Age is centered at 18 years.

Table S10
Stoplight Task: Comparisons of Quadratic Age Trends Among Countries

		Estimate	SE	*p*-value	Chi-Square Difference
China	Intercept	48.09	1.43	<.001	1.03
	Age	-0.15	0.18	.40	
	Age^2	-0.08	0.03	.01	
Italy	Intercept	47.73	1.19	<.001	1.35
	Age	-0.02	0.14	.87	
	Age^2	-0.08	0.03	.001	
Kenya	Intercept	39.15	1.92	<.001	0.15
	Age	0.00	0.22	.99	
	Age^2	-0.06	0.04	.12	
Philippines	Intercept	40.33	1.53	<.001	4.78
	Age	-0.41	0.16	.01	
	Age^2	-0.06	0.03	.04	
Thailand	Intercept	45.96	1.67	<.001	3.75
	Age	0.12	0.18	.51	
	Age^2	-0.01	0.04	.72	
Sweden	Intercept	45.66	1.37	<.001	6.77
	Age	0.04	0.18	.84	
	Age^2	0.01	0.04	.85	
US	Intercept	45.35	1.42	<.001	1.66
	Age	-0.06	0.14	.68	
	Age^2	-0.09	0.03	.003	
Colombia	Intercept	42.57	1.26	<.001	9.86
	Age	-0.44	0.16	.005	
	Age^2	0.00	0.03	.91	
Jordan	Intercept	27.09	1.68	<.001	6.47
	Age	0.37	0.19	.06	
	Age^2	-0.06	0.03	.052	
India	Intercept	55.32	1.99	<.001	2.20
	Age	-0.44	0.26	.09	
	Age^2	-0.06	0.04	.16	
Cyprus	Intercept	45.47	1.97	<.001	0.14
	Age	-0.18	0.24	.46	
	Age^2	-0.04	0.05	.38	

Note. Chi-square differences were based on analyses comparing nested models: A model in which the effects of age and age^2 were constrained to be equal across the individual country and the ten grouped countries was compared to a model in which these effects were allowed to vary. A difference exceeding 5.99 (based on a change of 2 *df*) indicated that the age-pattern for the individual country differed from the remaining countries ($p < .05$). Covariates were constrained to be equal across groups. Age is centered at 18 years.

Table 11
Stroop Task: Comparisons of Quadratic Age Trends Among Countries

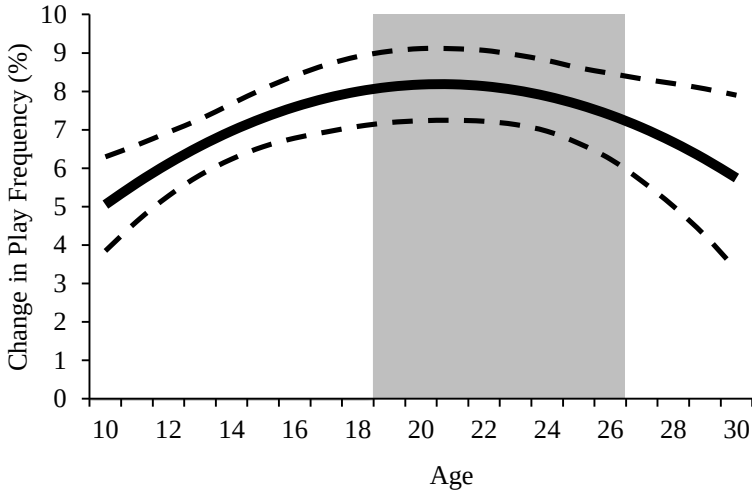
		Estimate	SE	*p*-value	Chi-Square Difference
China	Intercept	94.55	0.56	<.001	8.02
	Age	0.66	0.09	<.001	
	Age^2	-0.07	0.01	<.001	
Italy	Intercept	95.54	0.50	<.001	5.12
	Age	0.32	0.07	<.001	
	Age^2	-0.04	0.01	<.001	
Kenya	Intercept	86.08	1.09	<.001	6.32
	Age	0.76	0.14	<.001	
	Age^2	-0.07	0.02	.002	
Philippines	Intercept	93.61	0.62	<.001	1.55
	Age	0.53	0.09	<.001	
	Age^2	-0.07	0.02	<.001	
Thailand	Intercept	95.00	0.62	<.001	1.77
	Age	0.36	0.08	<.001	
	Age^2	-0.04	0.01	.003	
Sweden	Intercept	94.14	0.60	<.001	2.19
	Age	0.36	0.09	<.001	
	Age^2	-0.04	0.02	.02	
US	Intercept	95.42	0.60	<.001	8.62
	Age	0.60	0.09	<.001	
	Age^2	-0.09	0.02	<.001	
Colombia	Intercept	92.20	0.69	<.001	2.99
	Age	0.58	0.09	<.001	
	Age^2	-0.06	0.01	<.001	
Jordan	Intercept	85.33	1.26	<.001	8.56
	Age	0.05	0.15	.76	
	Age^2	-0.04	0.03	.09	
India	Intercept	92.76	0.72	<.001	5.57
	Age	0.25	0.10	.01	
	Age^2	-0.02	0.02	.14	
Cyprus	Intercept	93.76	0.74	<.001	1.82
	Age	0.33	0.13	.008	
	Age^2	-0.06	0.02	.003	

Note. Chi-square differences were based on analyses comparing nested models: A model in which the effects of age and age^2 were constrained to be equal across the individual country and the ten grouped countries was compared to a model in which these effects were allowed to vary. A difference exceeding 5.99 (based on a change of 2 *df*) indicated that the age-pattern for the individual country differed from the remaining countries ($p < .05$). Covariates were constrained to be equal across groups. Age is centered at 18 years.

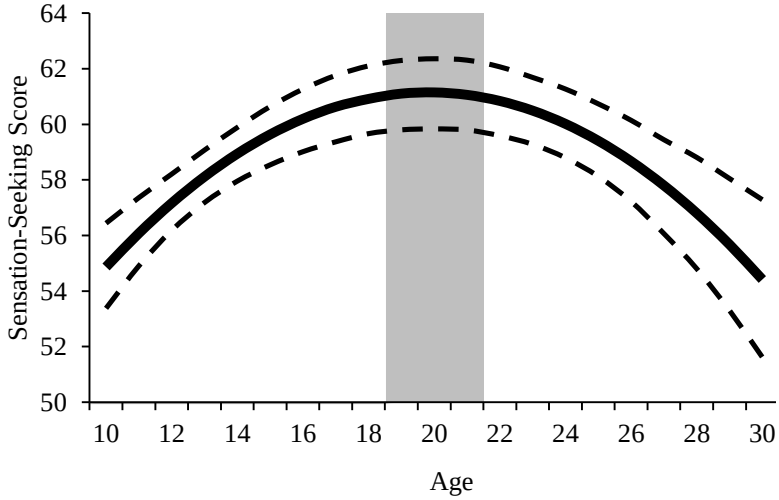
Table S12
Tower of London Task: Comparisons of Quadratic Age Trends Among Countries

		Estimate	SE	*p*-value	Chi-Square Difference
China	Intercept	8604.72	405.11	<.001	43.20
	Age	392.36	39.41	<.001	
	Age^2	-26.98	7.59	<.001	
Italy	Intercept	6304.69	371.15	<.001	8.23
	Age	219.90	33.43	<.001	
	Age^2	-12.39	6.60	.06	
Kenya	Intercept	5033.93	176.47	<.001	53.87
	Age	-21.31	19.82	.28	
	Age^2	4.72	3.43	.17	
Philippines	Intercept	6403.24	349.42	<.001	1.65
	Age	164.82	32.16	<.001	
	Age^2	-13.85	7.10	.051	
Thailand	Intercept	3327.16	218.45	<.001	16.18
	Age	51.05	20.24	.01	
	Age^2	-2.02	4.57	.66	
Sweden	Intercept	4497.96	256.20	<.001	2.92
	Age	108.52	28.02	<.001	
	Age^2	0.36	5.80	.95	
US	Intercept	6969.25	389.09	<.001	6.67
	Age	208.89	38.13	<.001	
	Age^2	-17.66	8.01	.03	
Colombia	Intercept	5337.78	272.54	<.001	6.37
	Age	86.31	26.34	.001	
	Age^2	1.45	5.01	.77	
Jordan	Intercept	4351.27	249.85	<.001	24.13
	Age	-23.90	35.80	.50	
	Age^2	1.26	5.49	.82	
India	Intercept	5983.42	388.20	<.001	0.85
	Age	112.10	45.89	.02	
	Age^2	-11.65	8.97	.19	
Cyprus	Intercept	5197.14	298.41	<.001	2.32
	Age	107.17	33.93	.002	
	Age^2	2.05	7.04	.77	

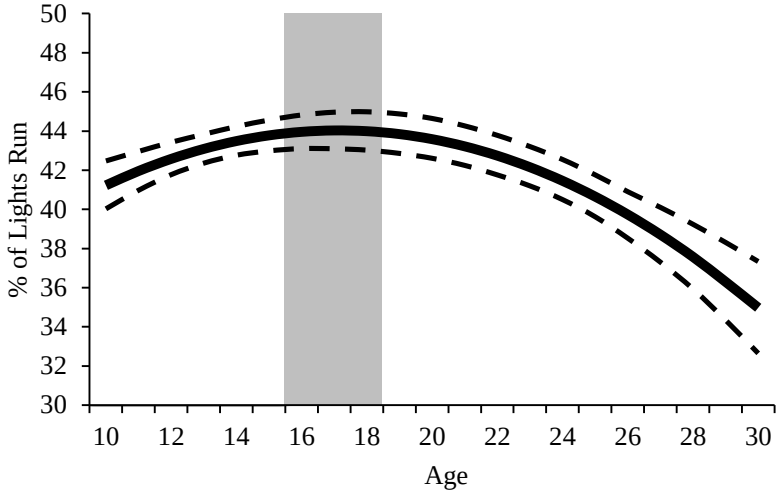
Note. Chi-square differences were based on analyses comparing nested models: A model in which the effects of age and age^2 were constrained to be equal across the individual country and the ten grouped countries was compared to a model in which these effects were allowed to vary. A difference exceeding 5.99 (based on a change of 2 *df*) indicated that the age-pattern for the individual country differed from the remaining countries ($p < .05$). Covariates were constrained to be equal across groups. Age is centered at 18 years.



(A) Reward Approach on Iowa Gambling Task

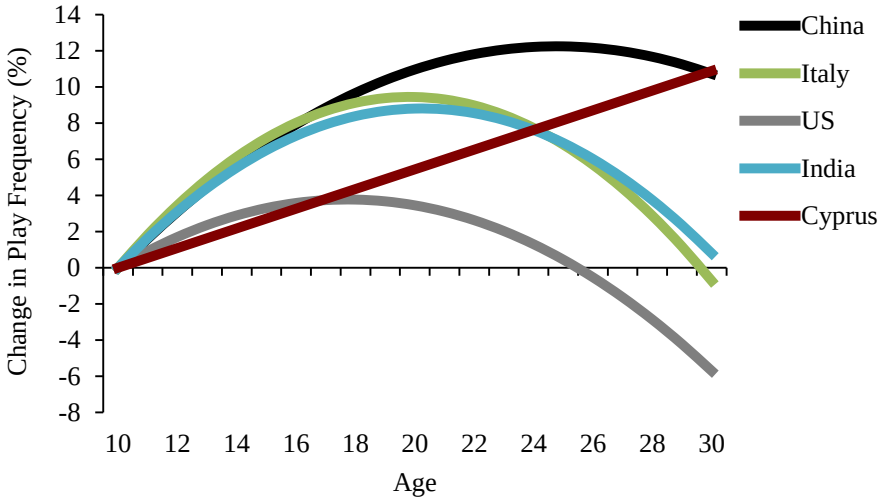


(B) Self-Reported Sensation Seeking

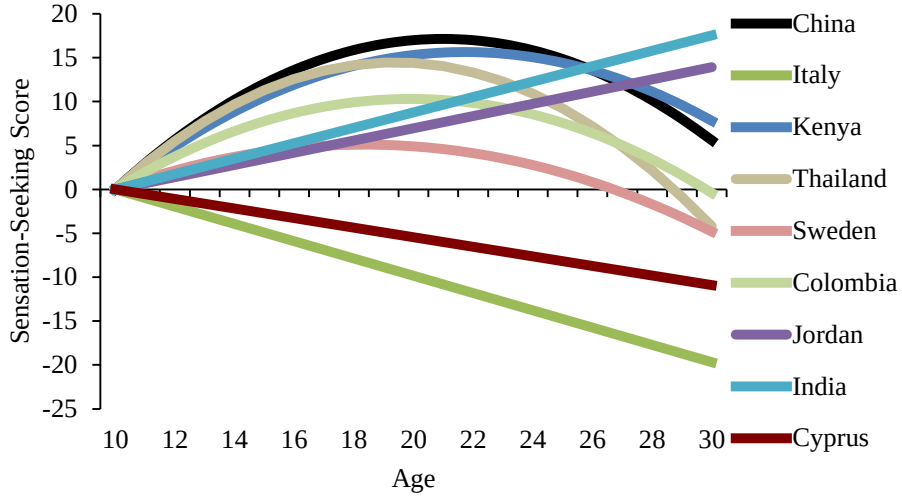


(C) Risky Driving on the Stoplight Game

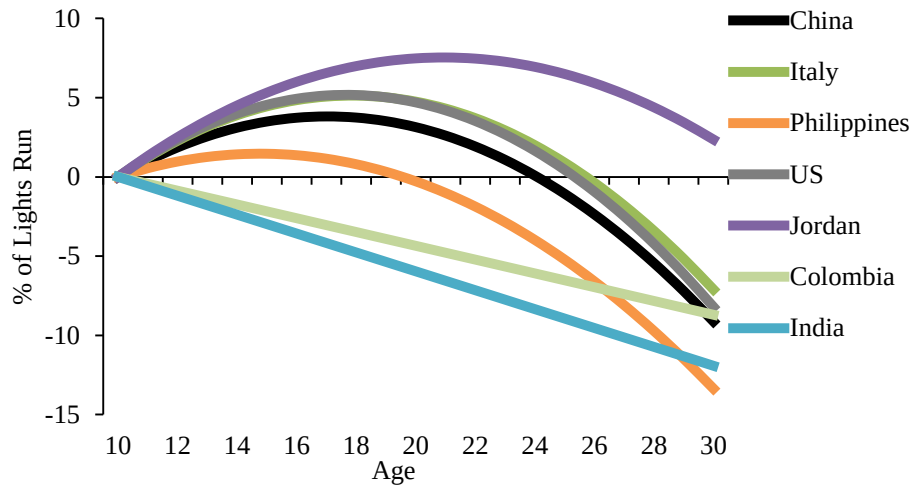
Figure S1. Age patterns within the whole sample for each sensation-seeking component. Grey shading denotes a plateau/peak as described in the main text. Dashed lines indicate 95% confidence bands.



(A) Reward Approach on Iowa Gambling Task

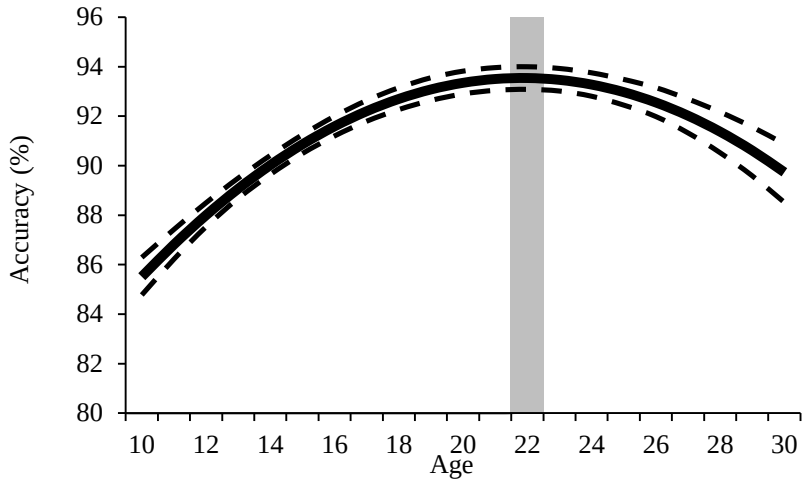


(B) Self-Reported Sensation Seeking

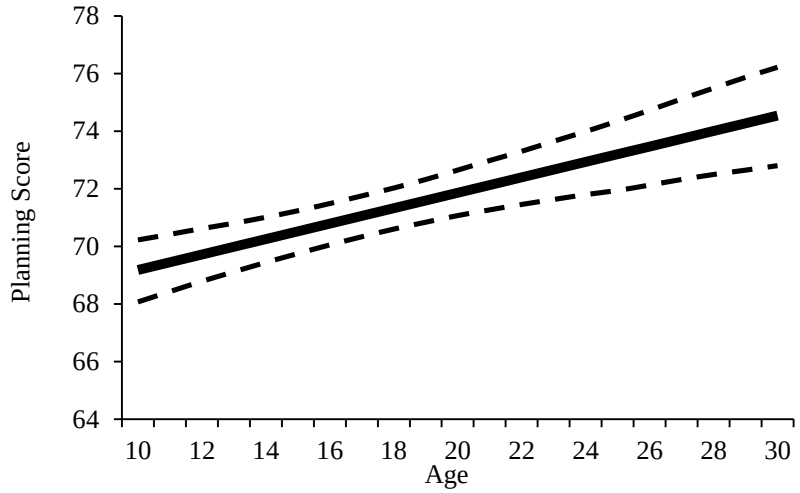


(C) Risky Driving on the Stoplight Game

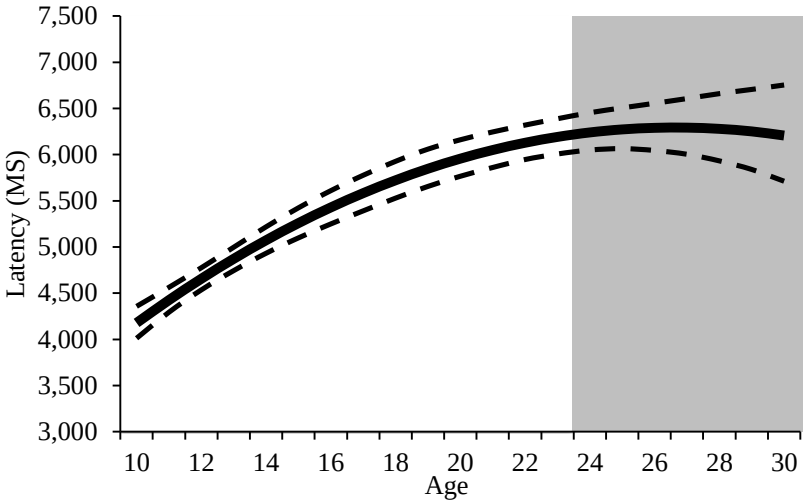
Figure S2. Age patterns of each sensation-seeking measure by country (significant age trends only). Age trends have been centered on the value of the youngest age (10 years) in each country to show relative differences in development.



(A) Response Inhibition on Stroop Task



(B) Self-Reported Planning



(C) Impulse Control on Tower of London

Figure S3. Age patterns within the whole sample for each self-regulation component. Grey shading denotes a plateau/peak as described in the main text. Dashed lines indicate 95% confidence bands.

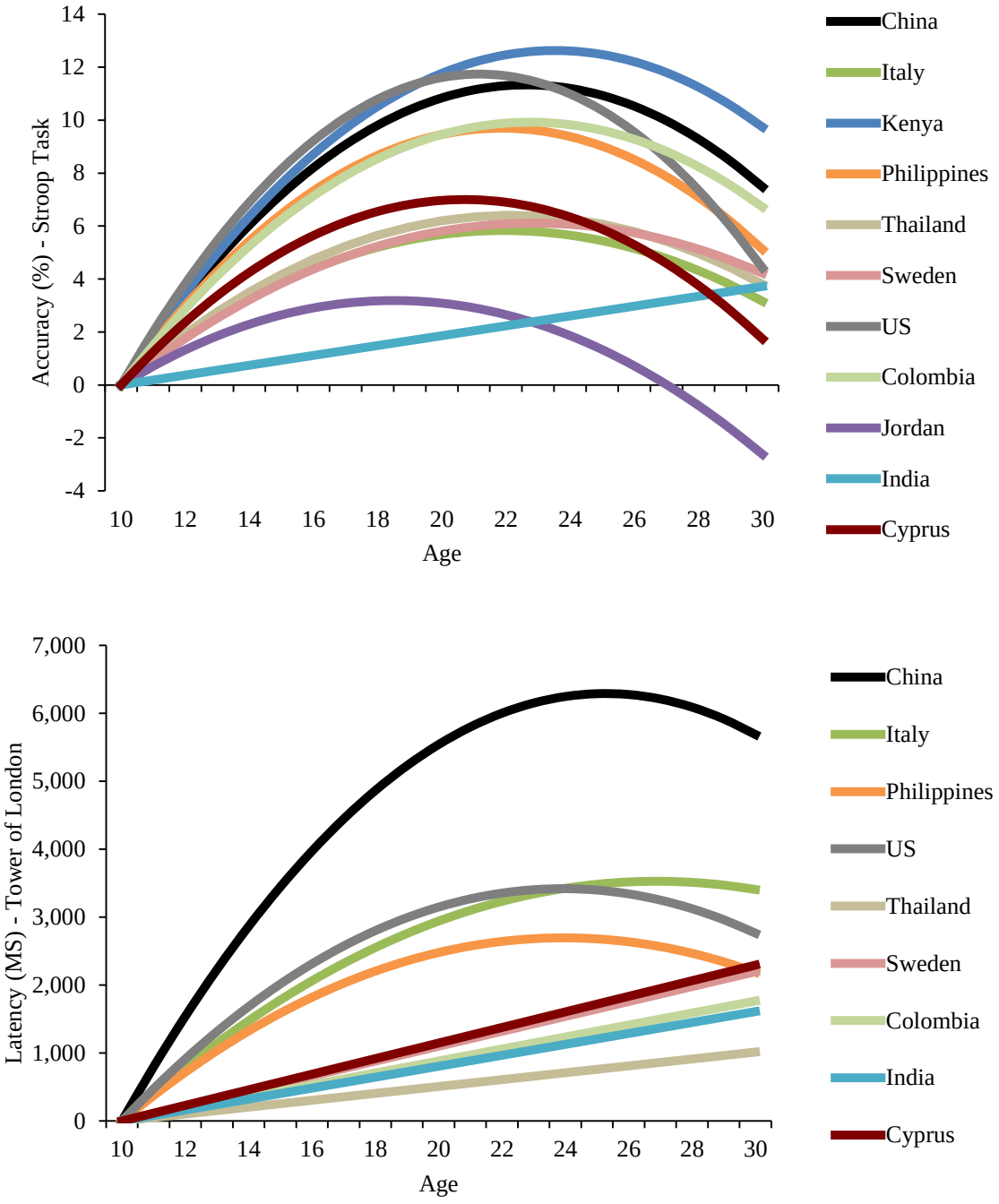
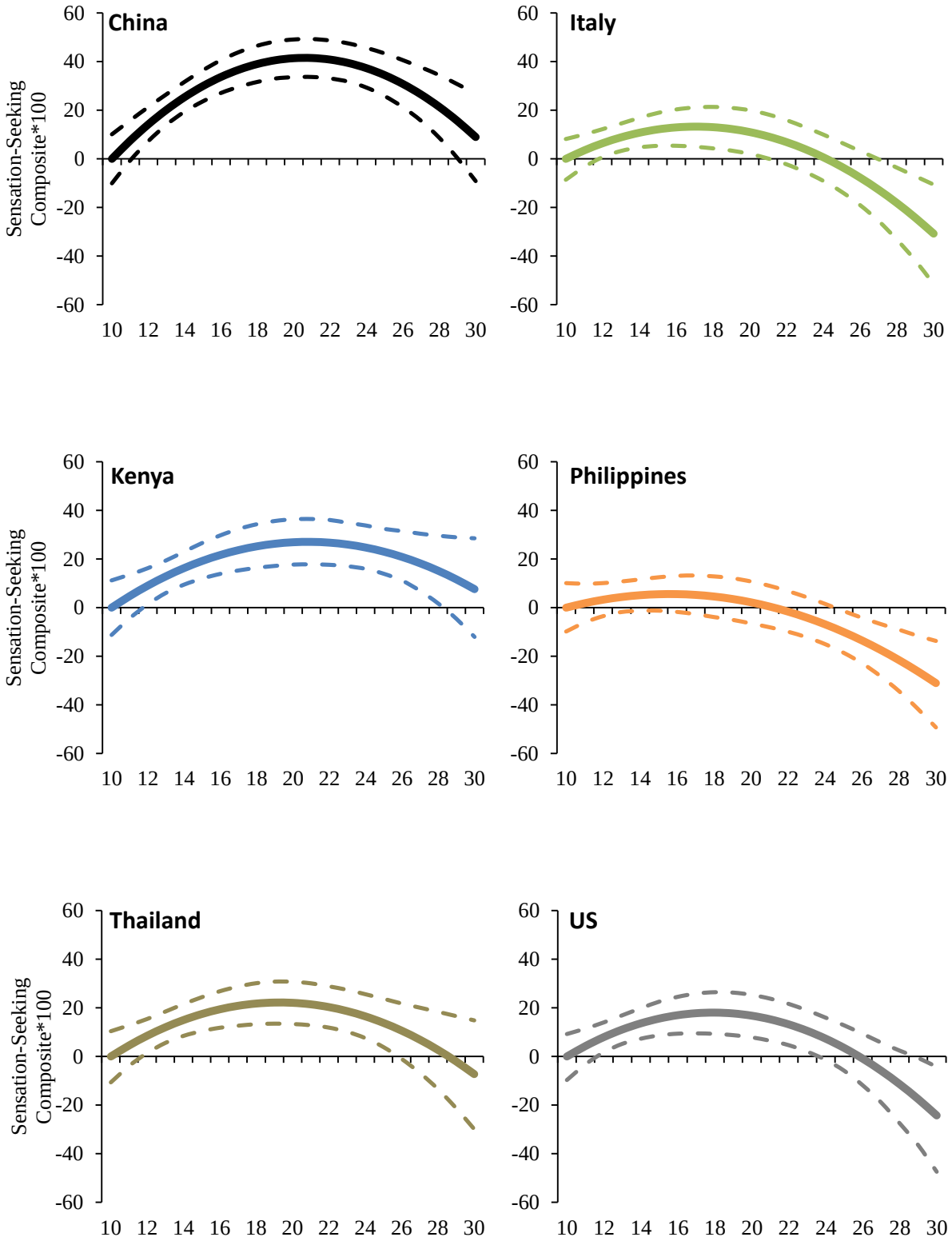


Figure S4. Age patterns of response inhibition on the Stroop task (top) and impulse control on the Tower of London (bottom) by country (significant age trends only). Age trends have been centered on the value of the youngest age (10 years) in each country to show relative differences in development.


China
Italy
Kenya
Philippines
Thailand
US
Sensation-Seeking Composite*100
60
40
20
0
-20
-40
-60
10 12 14 16 18 20 22 24 26 28 30

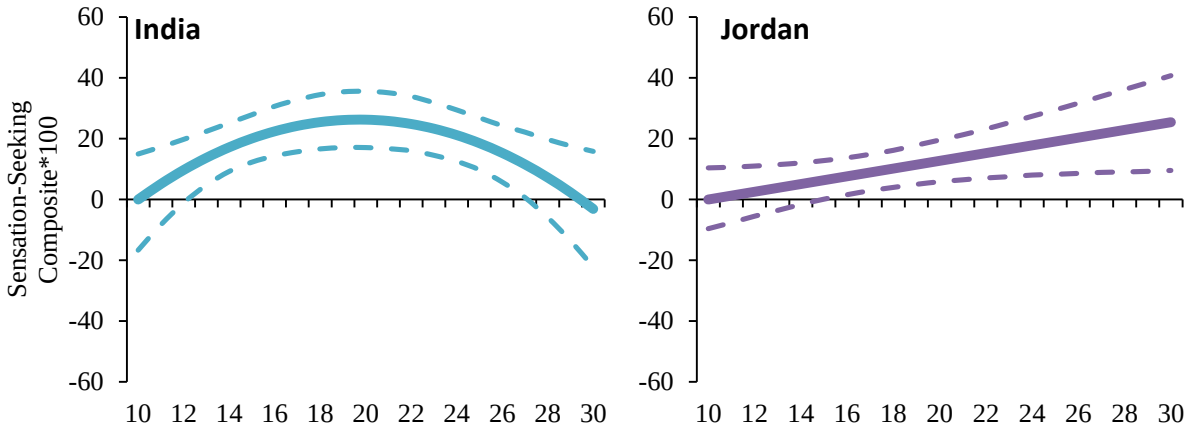
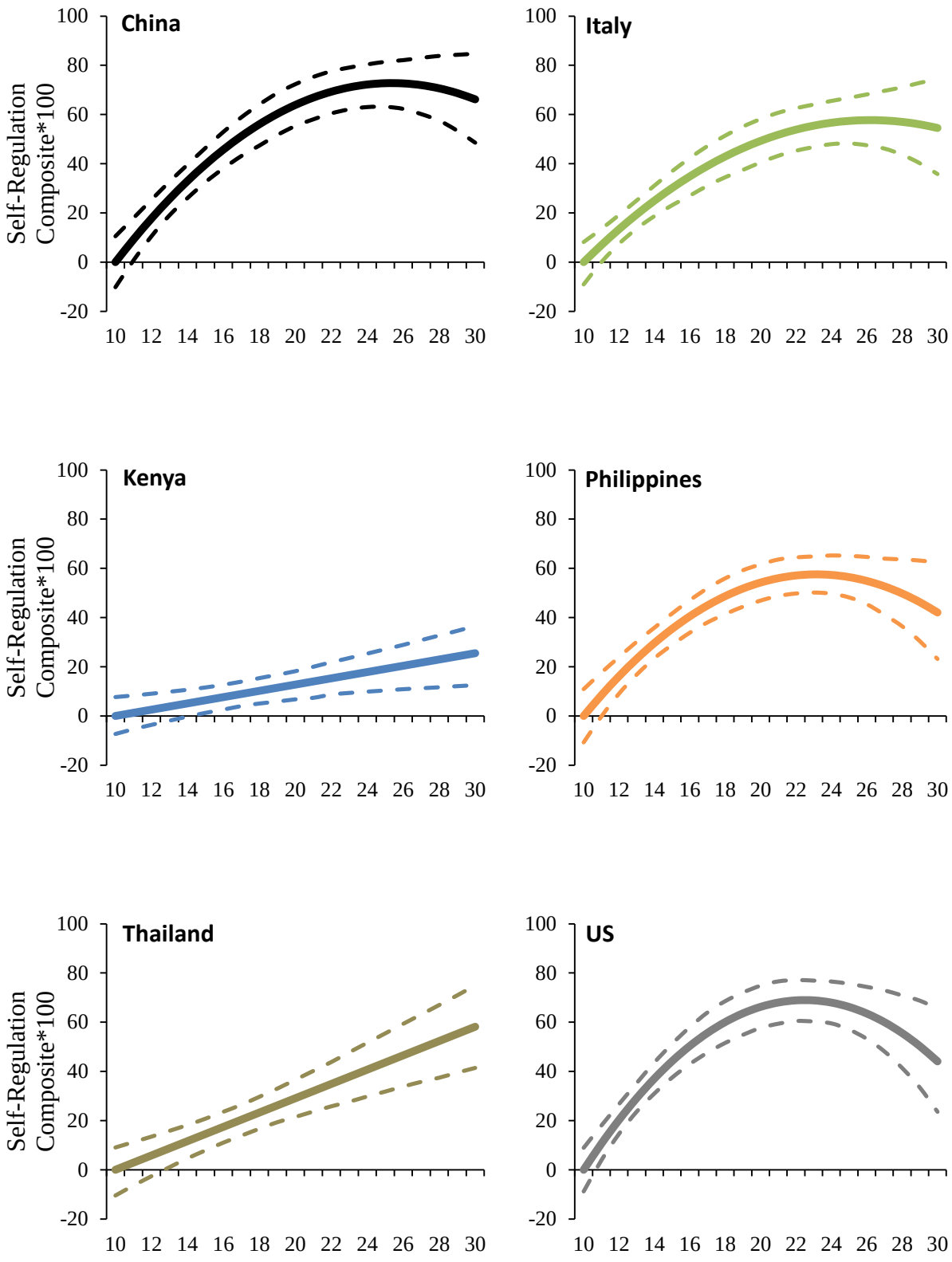


Figure S5. Within-country standardized age differences in scores on the sensation-seeking *composite*. Dotted lines denote 95% confidence intervals. Composite scores were multiplied by 100 and centered at each country's mean at age 10. X-axis shows age. Countries in which there were no significant age trends are not shown.


China
Italy
Kenya
Philippines
Thailand
US
Self-Regulation Composite*100
100
80
60
40
20
0
-20
10 12 14 16 18 20 22 24 26 28 30

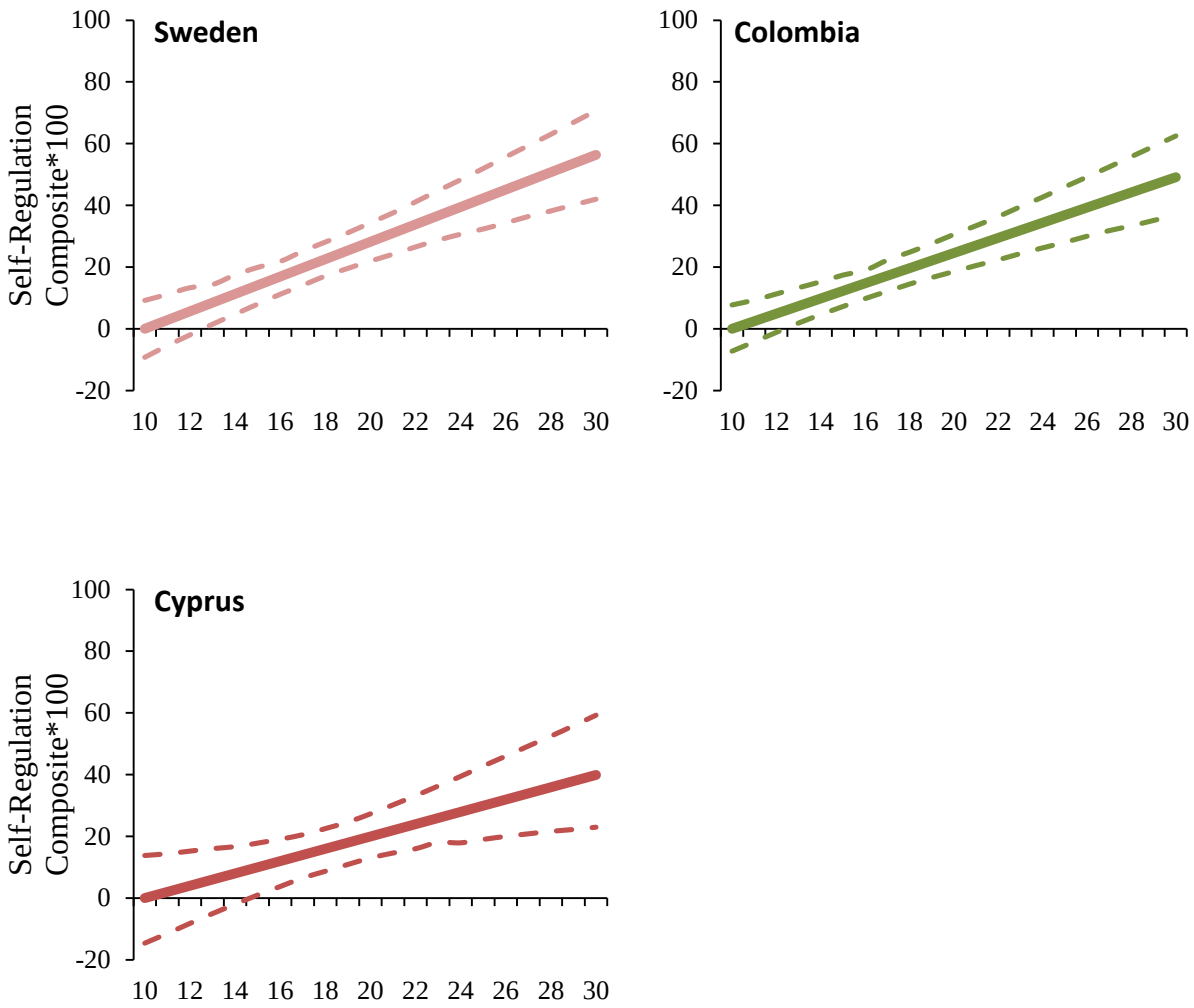


Figure S6. Within-country standardized age differences in scores on the self-regulation *composite*. Dotted lines denote 95% confidence intervals. Composite scores were multiplied by 100 and centered at each country's mean at age 10. X-axis shows age. Countries in which there were no significant age trends are not shown.