



Supplementary Material

Table S1. Behavioural characteristics by country.

	UK	US	
	<i>N</i> = 146	<i>N</i> = 124	
	Mean	Mean (SEM)	
Three Factor Eating Questionnaire			
Restraint eating	7.54 (.364)	9.44 (.407)*	
Disinhibition	5.59 (.242)	6.31 (.290)	
Trait hunger	6.77 (.292)	5.70 (.293)*	
Barratt's Impulsiveness Scale			
Attentional impulsivity	16.95 (.308)	15.98 (.317)*	
Motor impulsivity	22.10 (.370)	21.18 (.345)	
Non-planning impulsivity	24.68 (.380)	21.87 (.396)	
Sensitivity to Punishment –Sensitiv	ity to Reward Questionna	ire	
Sensitivity to Punishment	12.07 (.425)	12.49 (.484)	
Sensitivity to Reward	12.36 (.304)	11.46 (351)	
Arnett's Inventory of Sensation Seel	cing		
Intensity seeking	24.64 (.353)	23.36 (.385)	
Novelty seeking	27.49 (.366)	25.91 (.362)	

The asterisk (*) indicates a significant cross-country difference (p < .05) for the values within the same row after adjusting for age. Data from participants (UK: n = 2; US: n = 2) opting for the answer phrased as 'I am currently on a diet' at post-recruitment are not presented.

Table S2. Lifestyle characteristics by country.

	UK	US
	<i>N</i> = 146	<i>N</i> = 124
-	N (%)	
Dieting		
Never	93 (63.7)	71 (57.3)
Once or more times in the past	53 (36.3)	53 (42.7)
Breakfast consumption*		
5-7 days/week	116 (79.4)	87 (70.2)
2-4 days/week	23 (15.8)	19 (15.3)
0-1 days/week	7 (4.8)	18 (14.5)
Physical activity level		
Low	13 (8.9)	8 (6.5)
Moderate	51 (34.9)	35 (28.2)
High	82 (56.2)	81 (65.3)
	Mean (SEM)	
Average sleep duration (hours/day)	8.84 (.104)	8.29 (.075)*

SEM, Standard Error of the Mean. All frequencies reported refer to valid percentages. The asterisk (*) indicates a significant cross-country difference (p < .05) for the values within the same row or under the same variable after adjusting for age. Data from participants (UK: n = 2; US: n = 2) opting for the answer phrased as 'I am currently on a diet' at post-recruitment are not presented.

Table S3. Anthropometric characteristics by country.

	UK <i>N</i> = 145	US <i>N</i> = 116		
	Median	(Q1, Q3)		
BMI (kg/m²)	22.1 (20.6, 24.4)	23.6 (21.2, 27.7)		
	Mea	Mean (SEM)¹		
Total body fat (%)	23.7 (.552)	26.1 (.619)		
Fat free mass (kg)	49.41 (.475)	50.77 (.532)		
Waist circumference (cm)	74.9 (.889)	81.5 (.995)*		
Waist circumference to hip circumference ratio	.767 (.006)	.798 (.006)*		

BMI, body mass index; Q1, 25th percentile; Q3, 75th percentile; SEM, Standard Error of the Mean. The asterisk (*) indicates a significant cross-country difference (p < .05) for the values within the same row after adjusting for age. ¹All Mean (SEM) values are the estimated marginal means as they were calculated after considering the effects of sex.

Table S4. Interaction effects of age on phenotypic differences in anthropometric measures

			95%CI			
	B (SE)	β	(Lower Bound,	t	p	R^2
			Upper Bound)			
log10BMI						
Step 1						.004
Constant	1.378 (.013)		(1.353, 1.403)	109.235	.000	
Phenotype	006 (.006)	060	(018, .006)	941	.348	
Step 2						.084
Constant	1.004 (.081)		(.8441, .164)	12.344	.000	
Phenotype	008 (.006)	084	(020, .003)	-1.379	.169	
log ₁₀ Age	.282 (.061)	.284	(.162, .401)	4.648	.000	
Total Body Fat						
Step 1						.377
Constant	16.674 (1.331)		(14.051, 19.296)	12.523	.000	
Phenotype	.137 (.605)	.011	(-1.055, 1.328)	.226	.821	
Sex	11.280 (.923)	.616	(9.461, 13.098	12.218	.000	
Step 2						.410
Constant	-15.671 (8.415)		(-32.246, .905)	-1.862	.064	
Phenotype	134 (.592)	011	(-1.301, 1.033)	226	.821	
Sex	12.090 (.922)	.661	(10.275, 13.906)	13.117	.000	
log10Age	24.069 (6.188)	.195	(11.881, 36.257)	3.890	.000	
Fat Free Mass						
Step 1						.687
Constant	64.653 (1.130)		(62.426, 66.880)	57.190	.000	
Phenotype	-1.150 (.514)	080	(-2.161,138)	-2.238	.026	
Sex	-17.920 (.784)	817	(-19.464, -16.377)	-22.861	.000	
Step 2						.693
Constant	48.277 (7.286)		(33.927, 62.627)	6.626	.000	
Phenotype	-1.287 (.513)	089	(-2.297,276)	-2.509	.013	
Sex	-17.510 (.798)	798	(-19.082, -15.938)	-21.943	.000	
log10Age	12.186 (5.357)	.082	(1.635, 22.738)	2.275	.024	

Waist Circumference							
Step 1						.093	
Constant	84.888 (2.190)		(80.575, 89.202)	38.765	.000		
Phenotype	999 (.995)	061	(-2.958, .961)	-1.004	.316		
Sex	-7.582 (1.518)	304	(-10.573, -4.592)	-4.994	.000		
Step 2						.171	
Constant	18.948 (13.611)		(-7.861, 45.757)	1.392	.165		
Phenotype	-1.551 (.958)	095	(-3.438, .336)	-1.619	.107		
Sex	-5.930 (1.491)	238	(-8.866, -2.994)	-3.978	.000		
log ₁₀ Age	49.070 (10.008)	.292	(29.358, 68.782)	4.903	.000		
Waist to Hip Rat	Waist to Hip Ratio						
Step 1						.149	
Constant	.836 (.014)		(.809, .863)	60.172	.000		
Phenotype	007 (.006)	066	(019, .005)	-1.114	.266		
Sex	062 (.010)	381	(081,043)	-6.471	.000		
Step 2						.178	
Constant	.562 (.089)		(.387, .737)	6.335	.000		
Phenotype	009 (.006)	087	(022, .003)	-1.493	.137		
Sex	055 (.010)	339	(075,036)	-5.708	.000		
log ₁₀ Age	.204. (065)	.185	(.075, .332)	3.124	.002		

BMI, Body Mass Index; CI, Confidence Interval; SE, Standard Error



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