

## ELECTRONIC SUPPLEMENTARY MATERIAL

**Table S1.** Internal reliability (Cronbach's  $\alpha$ ) for the Big Five and Tsimane-specific Big Two personality factors (Adapted from Table 1, Gurven et al. 2013)

<b>Factor (# items)</b>	<b>Cronbach's <math>\alpha</math></b>
Extraversion (7)	0.77
Neuroticism (7)	0.37
Agreeableness (8)	0.65
Conscientiousness (8)	0.71
Openness (8)	0.59
<i>Pro-sociality</i> (14)	0.88
<i>Industriousness</i> (8)	0.83

**Table S2.** Inter-factor correlations (Spearman's rho) among the personality factors (N=630) (Adapted from Table 4, Gurven et al. 2013)

	Extraversion	Neuroticism	Agreeableness	Conscientious- ness	Openness	Pro-sociality
Extraversion	-	-	-	-	-	-
Neuroticism	-0.408	-	-	-	-	-
Agreeableness	0.534	-0.287	-	-	-	-
Conscientiousness	0.603	-0.444	0.536	-	-	-
Openness	0.602	-0.305	0.497	0.546	-	-
<i>Pro-sociality</i>	0.662	-0.328	0.631	0.424	0.612	-
<i>Industriousness</i>	0.242	-0.274	0.381	0.676	0.293	0.019

All correlations are significant at  $p < 0.01$  level, except between the Tsimane Big Two ( $p = 0.640$ )

**Table S3.** Association between personality factors and age and sex (intercept not shown)

Parameter	<b>Agreeableness</b>		<b>Conscientiousness</b>		<b>Extraversion</b>		<b>Neuroticism</b>		<b>Openness</b>	
	B	P	B	P	B	P	B	P	B	P
Age	0.068	0.694	0.975	<0.0001	0.379	0.096	-0.264	0.124	0.237	0.168
Age <sup>2</sup>	-0.0007	0.650	-0.0102	<0.0001	-0.0037	0.084	0.0031	0.059	-0.0025	0.129
Sex=male	9.900	<0.001	16.646	<0.0001	16.022	<0.0001	-8.723	0.002	11.504	<0.0001
Age*sex	-0.057	0.313	-0.126	0.026	-0.084	0.261	0.0224	0.693	-0.024	0.675
Adj. R <sup>2</sup> (N)	0.11 (630)		0.27 (630)		0.17 (630)		0.13 (630)		0.21 (630)	

Parameter	<b>Prosociality</b>		<b>Industriousness</b>	
	B	P	B	P
Age	-0.033	0.040	0.058	<0.0001
Age <sup>2</sup>	0.0003	0.027	-0.0008	<0.0001
Sex=male	0.884	0.0008	1.048	<0.0001
Age*sex	-0.0087	0.103	-0.005	0.284
Adj. R <sup>2</sup> (N)	0.07 (630)		0.31 (630)	

**TABLE S4.** Association between selected reproductive success measures and personality for men and women (expanded from Table 1)

Reproductive Success Measure:	FERTILITY			% OFFSPRING DYING < AGE 15			TOTAL SURVIVING CHILDREN			AGE AT FIRST REPRODUCTION		
	(n=215)			(n=198)			(n=215)			(n=193)		
<i>MEN</i>	b	p	beta	b	p	beta	b	p	beta	b	p	beta
<b>Extraversion</b>	0.066	0.000	0.23	0.044	0.707	0.03	0.060	0.000	0.25	-0.025	0.321	-0.08
<b>Neuroticism</b>	-0.068	0.005	-0.17	-0.136	0.337	-0.07	-0.049	0.013	-0.15	0.053	0.083	0.13
<b>Agreeableness</b>	0.024	0.358	0.06	-0.049	0.745	-0.02	0.025	0.261	0.07	0.013	0.681	0.03
<b>Conscientiousness</b>	0.084	0.002	0.20	-0.117	0.450	-0.06	0.081	0.000	0.25	0.029	0.365	0.08
<b>Openness</b>	0.051	0.029	0.13	0.020	0.887	0.01	0.043	0.029	0.12	-0.034	0.266	-0.08
<i>Pro-sociality</i>	0.392	0.130	0.10	0.640	0.681	0.03	0.330	0.136	0.10	-0.468	0.155	-0.12
<i>Industriousness</i>	0.632	0.063	0.13	-2.597	0.176	-0.11	0.741	0.008	0.18	0.858	0.037	0.17
<i>WOMEN</i>	(n=274)			(n=274)			(n=220)			(n=215)		
<b>Extraversion</b>	-0.009	0.569	-0.04	-0.096	0.364	-0.07	0.009	0.495	0.04	0.001	0.950	0.00
<b>Neuroticism</b>	0.002	0.895	0.01	0.019	0.878	0.01	-0.004	0.784	-0.01	-0.023	0.236	-0.08
<b>Agreeableness</b>	0.014	0.454	0.04	-0.050	0.699	-0.03	0.023	0.175	0.08	0.024	0.245	0.09
<b>Conscientiousness</b>	-0.003	0.890	-0.01	-0.145	0.241	-0.08	0.024	0.126	0.07	0.016	0.413	0.05
<b>Openness</b>	-0.025	0.225	-0.07	-0.090	0.521	-0.05	0.003	0.875	0.01	-0.025	0.275	-0.09
<i>Pro-sociality</i>	-0.325	0.165	-0.09	-1.401	0.365	-0.07	-0.021	0.918	-0.01	-0.175	0.483	-0.05
<i>Industriousness</i>	0.166	0.409	0.05	0.944	0.516	0.05	0.258	0.167	0.08	0.300	0.195	0.10

^p<.1, \*p<.05, \*\*p<.01, \*\*\*p<.001

Models control for age, years of schooling, Spanish fluency, region and time lag of interview

**Table S5.** Does personality predict health? Analogous to Table 3 but includes additional controls for baseline health. “+” indicates significant ( $p<0.05$ ) positive relationship between personality factor and health measure; “-“ indicates significant ( $p<0.05$ ) negative relationship. Double ++ or -- symbol connotes statistical significance after Bonferroni correction ( $p<0.002$ ). Dark shading denotes effect size of  $0.2<\text{partial } r<0.3$ , or  $0.1<\text{partial } r<0.2$  otherwise. Models control for age and time between personality assessment and subsequent clinic visit. CRP and cortisol are logged due to non-normal distribution of raw values. Note: the greatest difference between Table 3 and results shown below is that the positive relationships between BMI and E, O and P disappear after controlling for baseline BMI. This finding is not too surprising, as BMI is more strongly correlated across rounds than any other health measure.

<i>Variable:</i>	Men					(n)	Women					(n)
	E	N	O	P	I		E	N	O	P	I	
lnCortisol	-		--	-		51						106
BMI						165						179
Hb					+	148	-		+			200
lnCRP						93						99
WBC					+	142				-		158
Sed Rate					--	139						169
Eosinophil					+	132						153

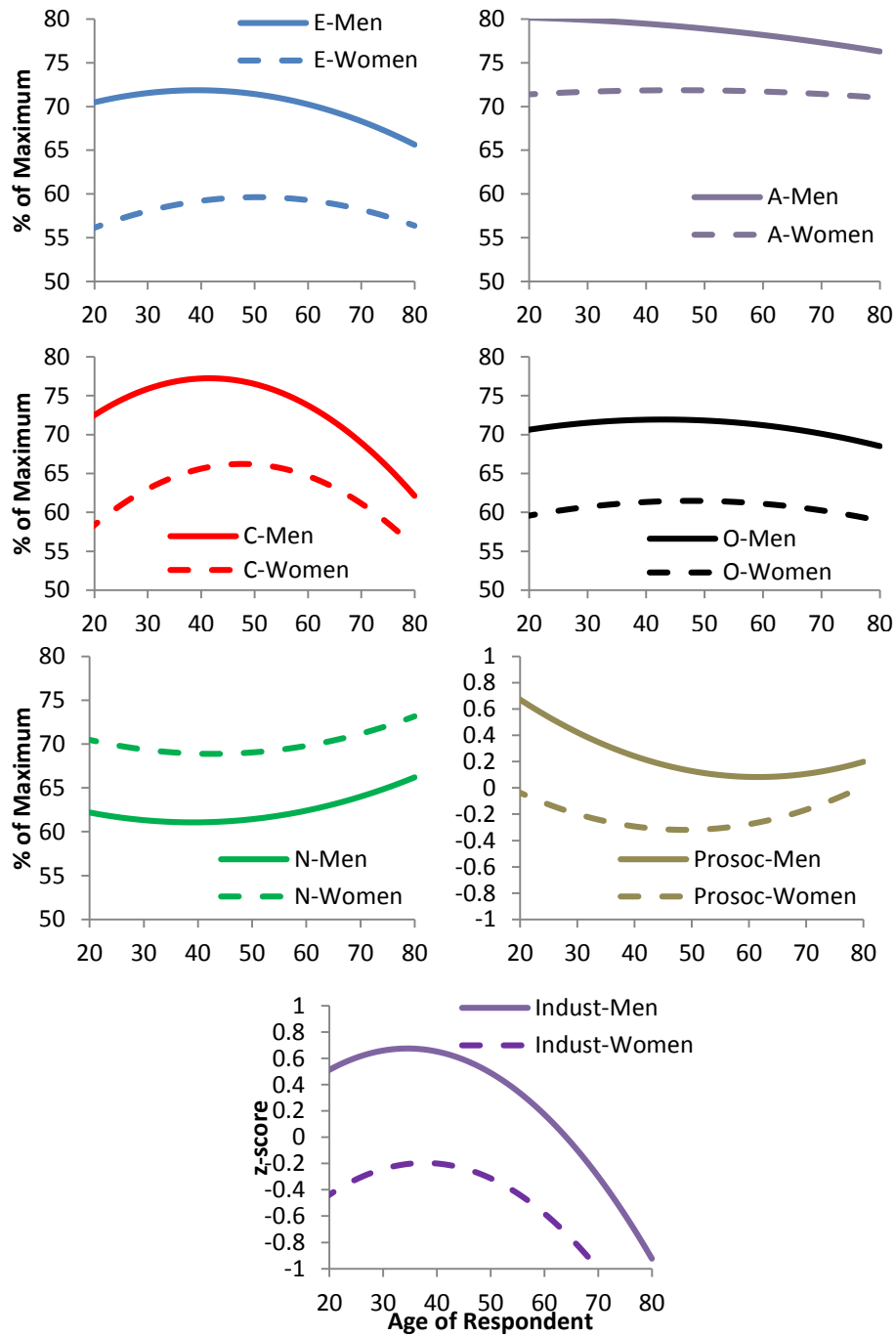
lnCRP=log(C-reactive protein), Hb=hemoglobin, WBC=white blood cells

**TABLE S6.** Relationship between personality and reproductive success by region. Parameter estimates (and p-values) for interaction terms in the six models where these interaction terms were statistically significant at  $p < 0.05$ . No interaction terms were significant at  $p < 0.05$  level for Percentage of Children who Died Before Age 15. Baseline region is Near Town. Graphs using these terms with controls and main effects are illustrated in Figure 2 and S3.

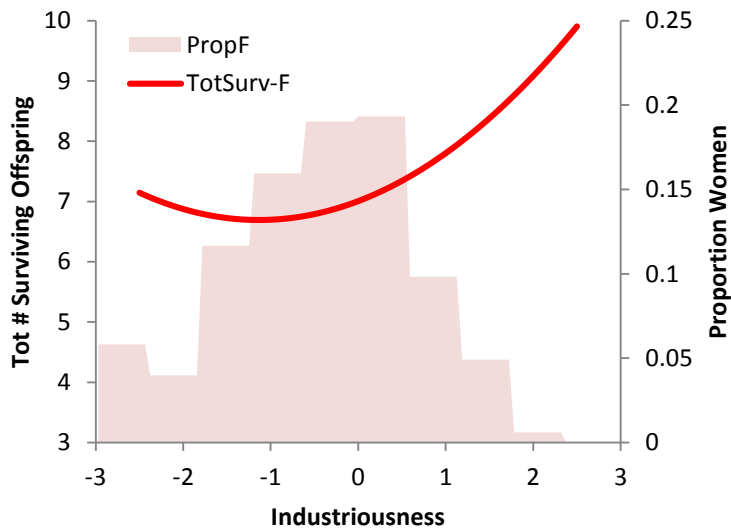
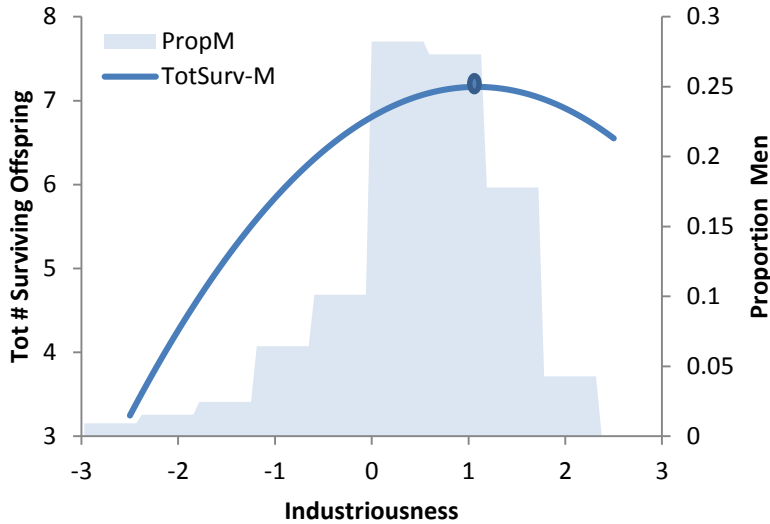
Personality factor	Region (vs. near town)	Personality*Region interaction B (p)		
		AGE AT FIRST REPRODUCTION	TOTAL SURVIVING CHILDREN	FERTILITY
<u>Women</u>				
Neuroticism	Downriver	-0.09 (0.1488)		
	Forest	-0.201 (0.0004)		
	Upriver	-0.05 (0.3132)		
Pro-sociality	Downriver		-0.076 (0.916)	
	Forest		-1.264 (0.027)	
	Upriver		-0.996 (0.0294)	
Extraversion	Downriver			-0.115 (0.0214)
	Forest			-0.074 (0.0759)
	Upriver			-0.021 (0.5654)
Industriousness	Downriver			-1.268 (0.024)
	Forest			-0.915 (0.094)
	Upriver			-0.279 (0.5864)
<u>Men</u>				
Industriousness	Downriver	-0.13 (0.916)		
	Forest	-1.879 (0.0561)		
	Upriver	-1.833 (0.0423)		
Pro-sociality	Downriver	0.534 (0.5923)		
	Forest	2.4684 (0.0079)		
	Upriver	0.9239 (0.2331)		

<sup>a</sup>All models control for age, years of schooling, Spanish fluency and main effects of personality factor and region. Models of total surviving children additionally control for the temporal lag in data collection between demography and personality

**Figure S1.** Big Five personality factors by sex and age. See Table S3 for model parameters and statistics.



**Figure S2.** Intermediate optimum for Industriousness in (a) men and (b) women with respect to total number of offspring surviving to age 15. Shaded area is the distribution of normalized I factor scores, (mean=0.39 and -0.42 median=0.49 and -0.31, for men and women respectively). Parameter estimates for Industriousness (Men: 0.66,  $p=0.018$ ; Women: 0.55,  $p=0.020$ ) and Industriousness<sup>2</sup> (Men: -0.31,  $p=0.092$ ; Women: 0.24,  $p=0.055$ ) from regressions that control for age, region, Spanish fluency and years of schooling.





**Figure S3.** The relationship between personality and fitness varies among regions, continued from Figure 1. A) Industriousness and fertility among women; B) Prosociality and total number of surviving children among women; C) Prosociality and age at first reproduction among men. All models control for age, Spanish fluency and schooling. Dashed lines refer to regions that were not significantly different from the baseline level (near town).

