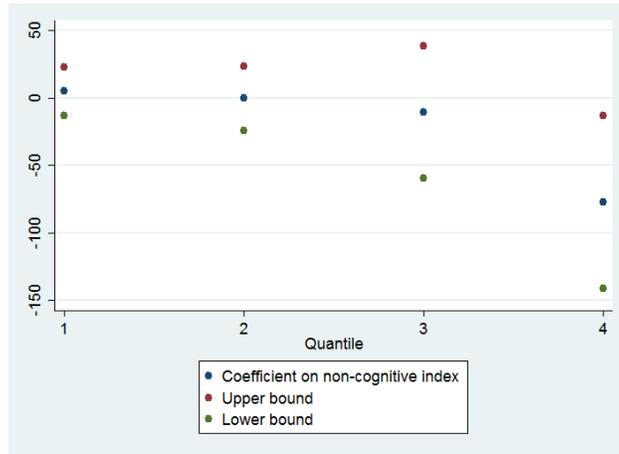


# On-line appendix (not for publication)

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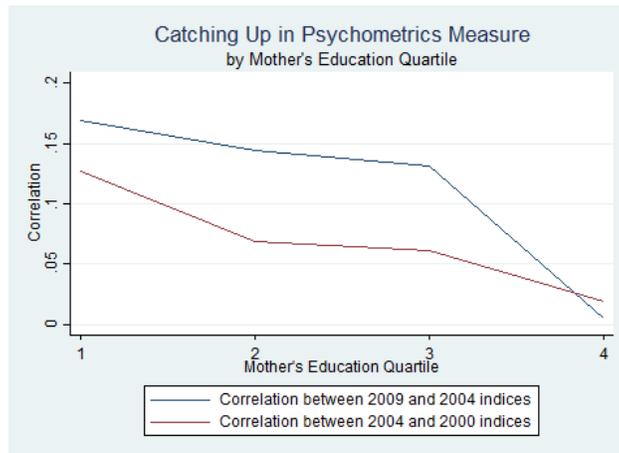
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Figure B1: Parental response to non-cognitive characteristics by quantile of maternal education



Notes: This graph shows the estimated coefficients in regressions of total educational expenditure on the non-cognitive indices of interest, including the full set of child-level controls included in the main specification as well as household fixed effects, estimated by quantile of maternal education. The upper and lower bounds correspond to the 95% confidence interval for the estimated coefficients.

Figure B2: Correlation in non-cognitive characteristics over time by quantile of maternal education



Notes: This graph shows the estimated correlation between the summary non-cognitive indices as measured in 2000 and 2004, and the non-cognitive index in 2004 and self-esteem as measured in 2009, by quantile of maternal education.

Table B1: Parental allocations and non-cognitive characteristics: Reporting the full set of interaction terms

	Total (1)	Discretionary (2)	Tuition (3)	Supplies (4)	Transportation (5)	Food (6)	Tutoring (7)	Other (8)
Index	40.842** (18.685)	27.253* (15.171)	13.589 (8.892)	.272 (1.377)	6.244** (2.837)	15.400 (11.858)	1.930** (.934)	3.407* (1.856)
Index x mother educ.	-11.680** (5.069)	-8.971** (4.273)	-2.708 (2.085)	.380 (.472)	-1.650** (.688)	-6.560** (3.099)	-7.705** (.315)	-.436 (.454)
Achievement	18.769 (20.504)	14.554 (11.722)	4.215 (10.902)	1.106 (2.428)	-.249 (2.797)	6.831 (5.775)	1.734* (1.013)	5.133 (3.143)
Achievement int.	.879 (4.206)	.525 (2.719)	.354 (2.028)	.639 (.743)	.451 (.700)	.102 (1.479)	-.213 (.235)	-.455 (.313)
Height-for-age	-9.486 (13.830)	-14.092 (11.378)	4.606 (6.786)	-1.531 (1.505)	-.830 (1.967)	-12.463 (8.866)	.676 (.809)	.056 (1.413)
Height-for-age int.	2.450 (3.876)	2.889 (2.621)	-.439 (1.944)	.301 (.485)	.247 (.568)	2.042 (1.759)	.198 (.200)	.101 (.256)
Sibling parity	-41.180 (44.340)	-11.021 (22.955)	-30.159 (30.582)	-4.621 (6.034)	-5.707 (6.100)	3.473 (19.122)	-3.167 (3.807)	-.998 (5.661)
Sibling parity int.	4.240 (13.276)	6.826 (9.942)	-2.587 (5.672)	-1.026 (1.849)	2.007 (2.215)	5.042 (7.274)	.440 (.632)	.362 (1.137)
Gender	-382.527 (534.991)	-316.787 (393.315)	-65.740 (220.920)	69.843 (61.332)	2.453 (84.624)	-316.542 (296.165)	-40.963 (28.491)	-31.578 (52.302)
Gender int.	-9.592 (8.156)	-6.447** (3.134)	-3.145 (6.045)	-1.287 (.936)	-.669 (1.002)	-4.064** (1.933)	-.062 (.268)	-.365 (.608)
Obs.	776	776	776	776	776	776	776	776
Mean (dep. var.)	276.748	104.052	172.696	38.164	12.011	37.679	6.218	9.98
St. dev. (dep. var.)	286.515	174.218	161.381	38.785	40.065	109.107	17.357	28.532

Notes: The dependent variables are educational expenditure per semester per child in the specified category; total expenditure is the sum of all categories, and discretionary expenditure is the sum of all categories excluding tuition. The independent variables are an average non-cognitive index, and the non-cognitive index interacted with age and gender. A higher non-cognitive index is indicative of fewer non-cognitive challenges. All specifications include controls for sibling parity, gender, sibling gender, height-for-age and cognitive skills measured contemporaneously with non-cognitive characteristics, sibling parity, gender, age, height-for-age and achievement scores interacted with maternal education, year-of-birth and household fixed effects, and standard errors clustered at the county level. Asterisks indicate significance at the 10, 5 and 1 percent levels.

Table B2: Parental allocations and non-cognitive characteristics: Alternate specifications

	Total (1)	Discretionary (2)	Tuition (3)	Supplies (4)	Transportation (5)	Food (6)	Tutoring (7)	Other (8)
<b>Panel A: Results conditional on grade fixed effects</b>								
Index	35.193** (14.843)	21.842* (12.639)	13.350 (8.363)	-.770 (1.369)	5.028** (2.292)	12.859 (10.312)	1.425 (.971)	3.300** (1.548)
Index x mother educ.	-8.844* (4.759)	-7.082* (3.828)	-1.762 (2.244)	.653 (.481)	-1.186* (.653)	-5.628** (2.832)	-.521 (.336)	-.399 (.359)
<b>Panel B: Results employing percentile measures</b>								
Index	87.137 (55.541)	60.426 (45.606)	26.711 (23.823)	-.119 (4.251)	13.106* (7.936)	33.900 (34.840)	3.850 (2.681)	9.689 (6.140)
Index x mother educ.	-25.784* (13.769)	-20.853* (11.900)	-4.931 (5.289)	1.104 (1.324)	-3.491* (1.944)	-14.704* (8.508)	-1.770** (.813)	-1.991 (1.343)
<b>Panel C: Results employing log expenditure</b>								
Index	.070** (.033)	.310*** (.112)	.041 (.035)	.225* (.123)	.488** (.236)	.513 (.340)	.244 (.180)	.084 (.082)
Index x mother educ.	-.014* (.008)	-.066** (.029)	-.004 (.007)	-.049* (.028)	-.111** (.048)	-.122* (.067)	-.065* (.037)	-.002 (.030)
<b>Panel D: Results employing wild bootstrap</b>								
Index	40.842* (.060)	27.253 (.100)	13.589* (.080)	.272 (.720)	6.24 (.200)	15.400 (.260)	1.930 (.160)	3.407 (.200)
Index x mother educ.	-11.680* (.080)	-8.971* (.080)	-2.708 (.280)	.380 (.640)	-1.650* (.080)	-6.560 (.100)	-.705 (.140)	-.436 (.400)
<b>Panel E: Results employing clustering at the village level</b>								
Index	40.842** (15.969)	27.253** (10.909)	13.589 (8.557)	.272 (1.633)	6.244*** (2.333)	15.400* (8.219)	1.930** (.953)	3.407 (2.436)
Index x mother educ.	-11.680*** (4.478)	-8.971*** (3.330)	-2.708 (2.059)	.380 (.390)	-1.650*** (.633)	-6.560*** (2.451)	-.705** (.289)	-.436 (.548)
Obs.	776	776	776	776	776	776	776	776

Notes: The dependent variable is educational expenditure in the specified category, and the independent variables are the non-cognitive index and the non-cognitive index interacted with maternal education. A higher internalizing or externalizing index is indicative of fewer non-cognitive challenges. All specifications include controls for sibling parity, gender, sibling gender, height-for-age and cognitive skills measured contemporaneously with non-cognitive characteristics, sibling parity, gender, age, height-for-age and achievement scores interacted with maternal education, year-of-birth and household fixed effects, and standard errors clustered at the county level. In Panel A, grade fixed effects are also included; in Panel B, the non-cognitive index is reformulated as a percentile rank measure; in Panel C, we employ the log of educational expenditure as the dependent variable; zero expenditure is replaced with .01 to avoid truncation of the sample; in Panel D, we report p-values estimated with the wild bootstrap. Standard errors are clustered at the level of the county.

Table B3: Parental allocations and non-cognitive characteristics: Maternal education and bargaining power

	Total (1)	Discretionary (2)	Tuition (3)	Supplies (4)	Transportation (5)	Food (6)	Tutoring (7)	Other (8)
<b>Panel A: Households including parents of similar education levels</b>								
Index	44.015* (24.376)	28.226* (17.042)	15.790 (12.071)	-.368 (1.863)	5.550 (3.921)	22.546* (12.274)	.214 (1.212)	.283 (1.439)
Index x mother educ.	-11.093* (6.398)	-4.583 (4.513)	-6.510 (4.061)	1.454* (.774)	-2.069*** (.782)	-4.520 (3.287)	-.022 (.384)	.574 (.664)
Obs.	304	304	304	304	304	304	304	304
<b>Panel B: Full sample employing the difference in parental education</b>								
Index	-9.288 (14.398)	-11.075 (10.349)	1.787 (4.921)	1.787 (1.662)	-.577 (1.481)	-12.404* (7.510)	-1.177 (.911)	1.296 (1.387)
Index x dif. educ.	-6.251** (3.083)	-5.337** (2.302)	-.914 (1.628)	-.201 (.267)	-.287 (.380)	-3.566* (1.871)	-.438** (.199)	-.845* (.454)
Obs.	766	766	766	766	766	766	766	766

Notes: The dependent variable is educational expenditure in the specified category, and the independent variables are the non-cognitive index and the index interacted with maternal education, in Panel A, and the difference between maternal and paternal education, in Panel B. In Panel A, the sample is restricted to exclude households in which the within-household difference between maternal and paternal education is below the 25th percentile or above the 75th percentile. In Panel B, the average difference in education is -2.8 years. For the ease of interpretation, the difference between maternal and paternal education has been demeaned, so that it is centered around 0. A higher internalizing or externalizing index is indicative of fewer non-cognitive challenges. All specifications include controls for sibling parity, gender, sibling gender, height-for-age and cognitive skills measured contemporaneously with non-cognitive characteristics, sibling parity, gender, age, height-for-age and achievement scores interacted with maternal education, year-of-birth and household fixed effects, and standard errors clustered at the county level. Standard errors are clustered at the level of the county.

Table B4: Absolute difference in child characteristics and parental education

	Height		Achievement		Internalizing		Externalizing	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mother educ.	-.014 (.015)		.378* (.228)		-.001 (.018)		-.014 (.015)	
Father educ.		-.003 (.010)		.226 (.247)		.010 (.014)		.001 (.014)
Obs.	566	562	566	562	566	562	566	562

Notes: The dependent variables are the differences between the specified covariates (height-for-age, achievement test scores, internalizing index scores, and externalizing index scores) for the first-born and second-born children. The independent variables are maternal and parental education. Asterisks indicate significance at the 10, 5 and 1 percent level.