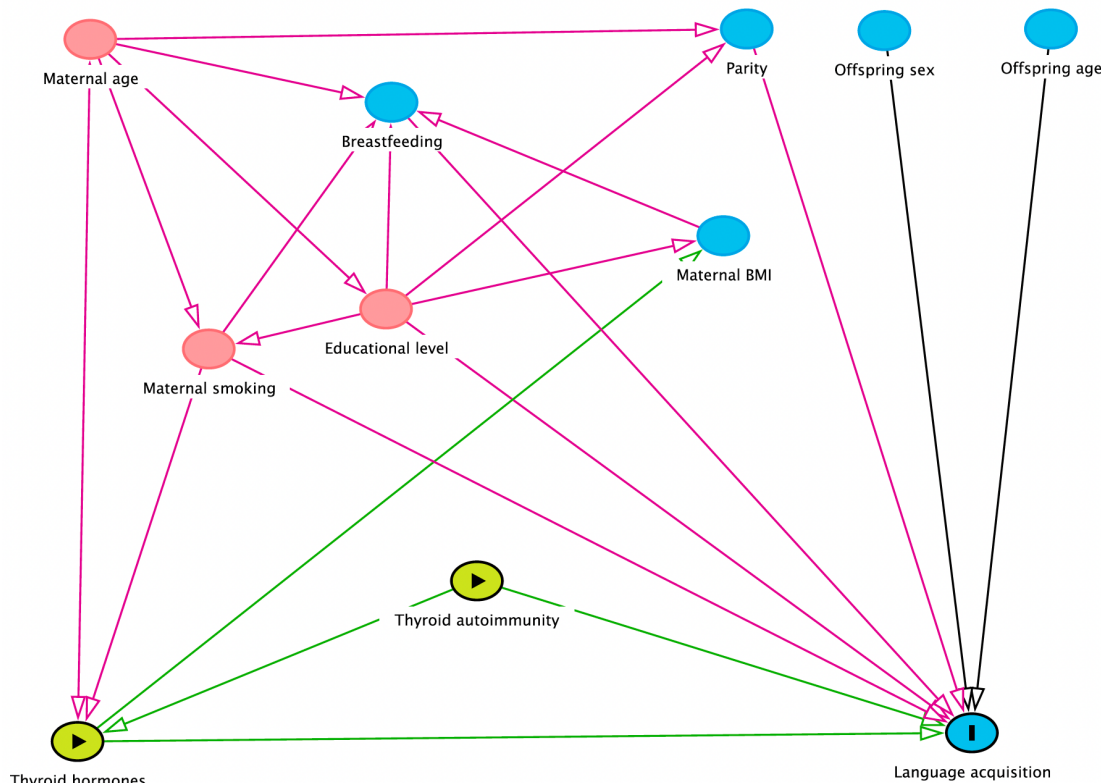


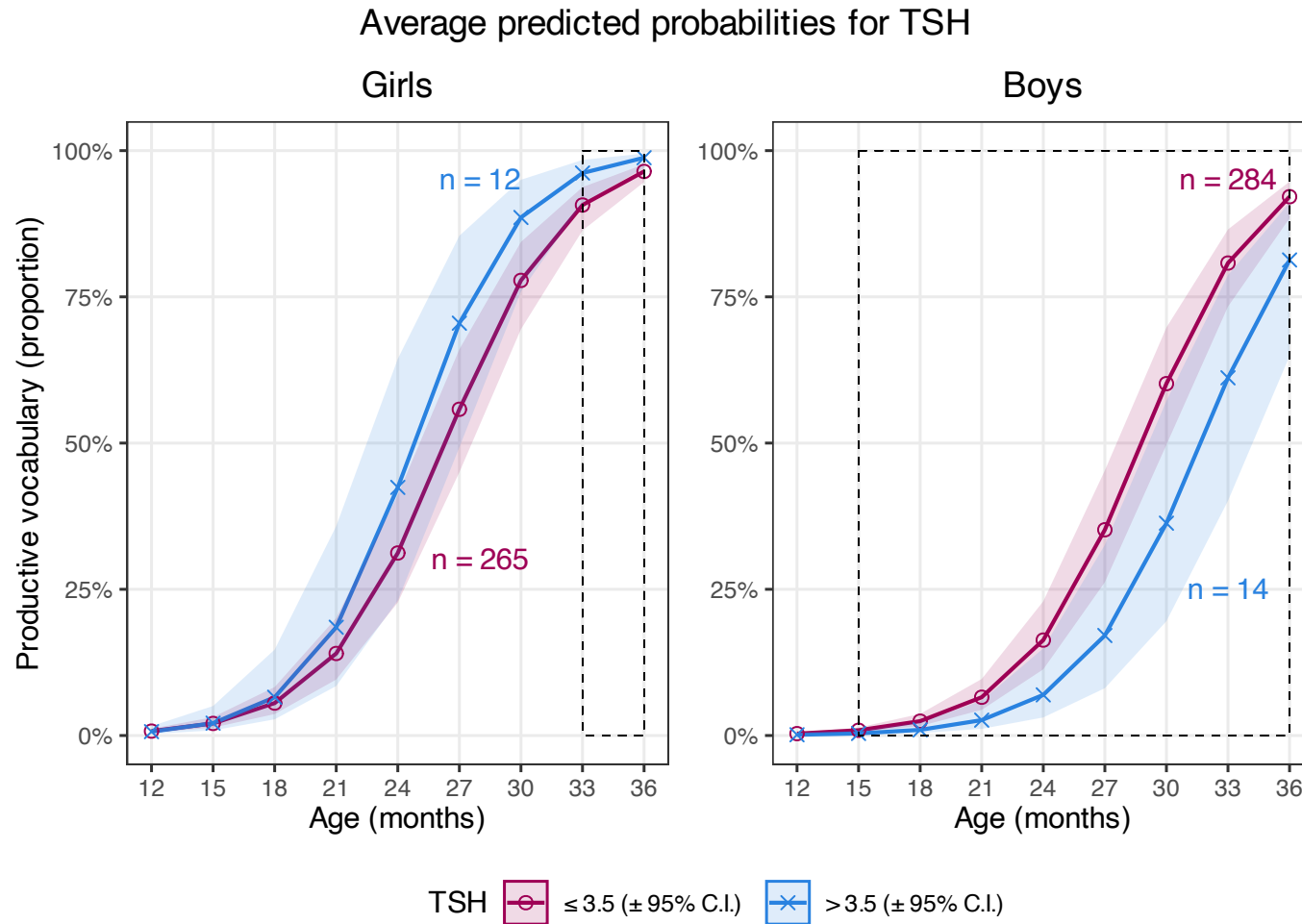
**Supplementary to the article “Thyroid autoimmunity in euthyroid pregnant women is associated with slower productive language acquisition. The Odense Child Cohort Study”.**

**Figure 1S.** Directed acyclic graph (DAG) of the covariates of interest when investigating the association between maternal thyroid status during pregnancy and offspring language acquisition.



Covariates (blue and red circles) are intermediate factors. The red circles affect both exposure and outcome, and the blue circles potentially affect the outcome. The exposures (green circle with an arrow) are thyroid autoimmunity and thyroid hormones, and the outcome is language acquisition (blue circle with an I). The red lines are biasing paths. The green lines are the causal paths.

**Figure S2.** The predicted probabilities of productive vocabulary according to maternal thyrotropin (TSH)  $\leq 3.5$  or  $>3.5$  mIU/L plotted by offspring age. The lines represent the predicted mean trajectories of girls and boys, respectively, with corresponding 95% confidence intervals. The dotted lines show at which age groups the effect was significant.



Note. TSH  $\leq 3.5$  mIU/L ( $\pm 95\%$  C.I.) vs.  $> 3.5$  mIU/L ( $\pm 95\%$  C.I.)

**Table S1.** Association between early pregnancy maternal thyrotropin (TSH)  $\leq 3.5$  mIU/L vs.  $>3.5$  mIU/L and productive vocabulary in the offspring aged 12-36 months.

Frequency table	
$\leq 3.5$	$>3.5$
95.1%	4.9%

	Girls (n=277)				Boys (n=298)			
	OR	SE	95% CI	p-value	OR	SE	95% CI	p-value
<b>TSH (<math>\leq 3.5</math> mIU/L vs. <math>&gt;3.5</math> mIU/L)</b>								
Intercept	1.00	0.00	(1.00, 1.00)	<b>&lt;0.001</b>	1.00	0.00	(1.00, 1.00)	<b>&lt;0.001</b>
Offspring age	9.89	0.00	(9.78, 10.01)	<b>&lt;0.001</b>	9.61	0.00	(9.50, 9.72)	<b>&lt;0.001</b>
TSH ( $>3.5$ mIU/L)	0.87	0.08	(0.74, 1.02)	0.089	0.82	0.09	(0.69, 0.98)	<b>0.030</b>
Maternal age	0.88	0.10	(0.73, 1.07)	0.208	0.77	0.09	(0.64, 0.92)	<b>0.005</b>
Breastfeeding	1.20	0.08	(1.02, 1.41)	<b>0.030</b>	1.21	0.08	(1.03, 1.42)	<b>0.022</b>
Maternal education (linear)	1.18	0.09	(0.99, 1.41)	0.066	1.01	0.09	(0.84, 1.21)	0.905
Maternal education (quadratic)	1.11	0.09	(0.94, 1.32)	0.226	0.86	0.09	(0.73, 1.02)	0.079
Primi- and multiparous	0.77	0.10	(0.63, 0.93)	<b>0.007</b>	0.93	0.09	(0.77, 1.11)	0.422
Pre-pregnancy BMI ( $<18.5$ )	0.87	0.10	(0.71, 1.07)	0.190	1.09	0.09	(0.91, 1.30)	0.339
Pre-pregnancy BMI ( $>25$ )	1.03	0.09	(0.87, 1.22)	0.710	0.97	0.09	(0.82, 1.15)	0.703
Offspring age $\times$ TSH ( $>3.5$ mIU/L)	1.26	0.02	(1.21, 1.31)	<b>&lt; 0.001</b>	0.99	0.02	(0.95, 1.03)	0.546

*Note.* The association between maternal TSH and the productive vocabulary are estimated by conditional growth models, including effects of time (offspring age) and main effects of covariates. The outputs of the conditional growth models are reported as odds ratios (OR), standard error (SE), and 95% confidence intervals (95% CI). *P*-values  $<0.05$  are significant and marked in bold.

Abbreviations: BMI, body mass index.

**Table S2.** Characteristics of included mother-child dyads compared to non-included mother-child dyads from the Odense child cohort. Data are presented as mean  $\pm$  standard deviation (SD), median (25<sup>th</sup>;75<sup>th</sup> percentile), and numbers, n (%). Differences between included and excluded participants were tested using t-test (parametric data) or Wilcoxon’s rank sum test (non-parametric data) for continuous variables and  $\chi^2$ -test for categorical variables.

<b>Maternal characteristics</b>	<b>Included</b>	<b>Excluded</b>	<b>p-value</b>
Maternal age	(n=735)	(n=1843)	
Years, mean $\pm$ SD	30.3 $\pm$ 4.5	30.2 $\pm$ 4.5	0.74
Pre-pregnancy body mass index	(n=735)	(n=1822)	
kg/m <sup>2</sup> , median (25 <sup>th</sup> , 75 <sup>th</sup> percentile)	23.4 (21.3;26.5)	23.3 (21.2;26.3)	0.48
Parity	(n=735)	(n=2081)	
Nulliparous, n (%)	436 (59.3)	977 (47.0)	<b>0.00</b>
Primi- and multiparous, n (%)	299 (47.0)	1104 (53.0)	
Smoking	(n=735)	(n=1812)	
Yes, n (%)	25 (3.4)	121 (6.7)	<b>0.001</b>
No, n (%)	710 (96.6)	1691 (93.3)	
Education	(n=727)	(n=1998)	
Low, n (%)	207 (28.5)	655 (32.8)	0.09
Intermediate, n (%)	373 (51.3)	950 (47.6)	
High, n (%)	147 (20.2)	393 (19.7)	
Ethnicity	(n=725)	(n=1694)	
European, n (%)	708 (96.3)	1592 (94.0)	<b>0.00</b>
Non-European, n (%)	17 (2.3)	102 (6.0)	
Thyroid status	(n=735)	(n=319)	
TPOAb $\geq$ 11.0 (kIU/L), median (25 <sup>th</sup> , 75 <sup>th</sup> percentile)	52.6 (24.0;149.5) (n=88)	75.2 (40.6;221.0) (n=51)	0.72
TPOAb<11.0 (kIU/L)	n=647 (88.0)	n=268 (14.5)	
FT4 (pmol/L), median (25 <sup>th</sup> , 75 <sup>th</sup> percentile)	13.9 (12.9;15.0)	13.7 (12.6;15.2)	0.21
TSH (mIU/L), median (25 <sup>th</sup> , 75 <sup>th</sup> percentile)	1.43 (0.92;2.06)	1.36 (0.86;2.09)	0.73
<b>Offspring characteristics</b>			
Offspring sex	(n=735)	(n=1818)	
Girls, n (%)	352 (47.9)	846 (46.53)	0.53
Boys, n (%)	383 (52.1)	972 (53.5)	
Gestational age	(n=735)	(n=1817)	
Days, median (25 <sup>th</sup> , 75 <sup>th</sup> percentile)	282 (276;288)	281 (273;287)	<b>0.001</b>
Birth weight	(n=734)	(n=1818)	
Gram, mean $\pm$ SD	3567 $\pm$ 473	3507 $\pm$ 557	<b>0.01</b>
Birth length	(n=728)	(n=1804)	
Centimeter, mean $\pm$ SD	52.1 $\pm$ 2.1	51.8 $\pm$ 2.6	<b>0.01</b>
Exclusive breastfeeding	(n=583)	(n=1135)	
Weeks, median (25 <sup>th</sup> , 75 <sup>th</sup> percentile)	33 (16;48)	30 (12;44)	<b>0.01</b>

**Table S3.** Words produced from the MacArthur-Bates Communicative Development Inventories (MB-CDI) at different ages.

Offspring age (months)	All (n=735)		Girls (n=352)		Boys (n=383)		<i>p</i> -value
	n	Words produced Mean (± SD)	n	Words produced Mean (± SD)	n	Words produced Mean (± SD)	
12	544	4.39 (6.38)	258	4.98 (6.62)	286	3.85 (6.12)	<b>0.04</b>
15	534	14.16 (15.12)	261	16.20 (17.06)	272	12.20 (12.72)	<b>0.002</b>
18	537	46.93 (50.71)	257	56.43 (56.29)	279	38.21 (43.29)	<b>&lt;0.001</b>
21	394	152.09 (141.24)	194	181.23 (147.83)	200	123.83 (128.73)	<b>&lt;0.001</b>
24	460	269.36 (174.35)	220	312.97 (179.35)	240	229.39 (159.85)	<b>&lt;0.001</b>
27	385	379.24 (193.30)	182	403.26 (179.49)	203	357.70 (202.92)	<b>0.02</b>
30	337	451.58 (172.13)	149	485.32 (153.56)	188	424.85 (181.24)	<b>&lt;0.001</b>
33	277	521.98 (168.11)	131	546.56 (161.69)	146	499.92 (171.22)	<b>0.02</b>
36	92	577.52 (116.35)	51	589.82 (102.15)	41	562.22 (131.60)	0.27

*P*-value represents the difference between girls and boys.

**Table S4.** The average predicted probability of producing words within the MB-CDI according to maternal thyroid peroxidase antibody (TPOAb) status by offspring age (Model 1). The effect of the predictor is considered significant when the predicted probability point estimate for one group is not included within the 95% confidence interval range of the other group. Abbreviations: CI, confidence interval; SE, standard error.

TPOAb (<11.0 vs. ≥11.0 kIU/L)	Offspring age	Girls				Boys			
		Predicted probability	SE	Lower CI	Upper CI	Predicted probability	SE	Lower CI	Upper CI
<11.0	12	0.008	0.150	0.006	0.010	0.003	0.159	0.002	0.004
<11.0	15	0.021	0.150	0.016	0.028	0.009	0.159	0.006	0.012
<11.0	18	0.057	0.150	0.043	0.075	0.024	0.159	0.017	0.032
<11.0	21	0.147	0.150	0.114	0.187	0.064	0.159	0.048	0.085
<11.0	24	0.327	0.150	0.266	0.394	0.161	0.159	0.123	0.207
<11.0	27	0.579	0.150	0.506	0.648	0.350	0.159	0.283	0.423
<11.0	30	0.795	0.150	0.743	0.839	0.602	0.159	0.525	0.673
<11.0	33	0.916	0.150	0.891	0.936	0.809	0.159	0.756	0.853
<11.0	36	0.969	0.150	0.959	0.977	0.922	0.159	0.879	0.942
≥11.0	12	0.005	0.265	0.003	0.009	0.003	0.287	0.002	0.005
≥11.0	15	0.013	0.264	0.008	0.022	0.007	0.287	0.004	0.013
≥11.0	18	0.034	0.264	0.021	0.056	0.019	0.286	0.011	0.033
≥11.0	21	0.084	0.263	0.052	0.133	0.048	0.286	0.028	0.081
≥11.0	24	0.192	0.263	0.124	0.285	0.117	0.286	0.070	0.188
≥11.0	27	0.381	0.263	0.269	0.508	0.258	0.286	0.165	0.378
≥11.0	30	0.615	0.264	0.488	0.728	0.476	0.286	0.342	0.614
≥11.0	33	0.806	0.264	0.712	0.874	0.704	0.287	0.576	0.807
≥11.0	36	0.915	0.264	0.865	0.948	0.862	0.287	0.780	0.916

Abbreviations: CI, confidence interval; SE, standard error.

**Table S5.** The difference in the number of words produced at 30 months stratified for sex, when comparing offspring of TPOAb positive and negative mothers, and offspring at maternal FT4 levels <20% and >80% percentiles.

	<b>Girls</b>	<b>Boys</b>
	Words produced Mean ( $\pm$ SD)	Words produced Mean ( $\pm$ SD)
<b>TPOAb</b>		
<11.0 kIU/L	498 (152.6)	423 (167.3)
$\geq$ 11.0 kIU/L	417 (146.3)	409 (273.3)
<b>FT4</b>		
<20% percentile	486 (145.7)	428 (170.9)
>80% percentile	471 (155.8)	393 (138.0)

**Abbreviations:** FT4, free thyroxine; SD, standard deviation; TPOAb, thyroid peroxidase antibodies.

**Table S6.** Predicted probabilities of producing words within the MB-CDI at the 5<sup>th</sup>, 50<sup>th</sup>, 95<sup>th</sup>, and 99<sup>th</sup> percentile of thyroid peroxidase antibodies (TPOAb) by offspring age (Model 2). The effect of the predictor is considered significant when the predicted probability point estimate for one group is not included within the 95% confidence interval (CI) range of the other group. Abbreviations: SE, standard error.

TPOAb (kIU/L)	Offspring age	Girls				Boys			
		Predicted probability	SE	Lower CI	Upper CI	Predicted probability	SE	Lower CI	Upper CI
5 <sup>th</sup> percentile	12	0.008	0.149	0.006	0.010	0.003	0.158	0.002	0.004
5 <sup>th</sup> percentile	15	0.021	0.148	0.016	0.028	0.008	0.158	0.006	0.011
5 <sup>th</sup> percentile	18	0.056	0.148	0.043	0.074	0.023	0.158	0.017	0.031
5 <sup>th</sup> percentile	21	0.143	0.148	0.111	0.182	0.062	0.158	0.046	0.083
5 <sup>th</sup> percentile	24	0.317	0.148	0.258	0.383	0.157	0.158	0.120	0.202
5 <sup>th</sup> percentile	27	0.564	0.148	0.492	0.634	0.342	0.158	0.276	0.415
5 <sup>th</sup> percentile	30	0.783	0.148	0.730	0.829	0.593	0.158	0.516	0.665
5 <sup>th</sup> percentile	33	0.910	0.148	0.883	0.931	0.803	0.158	0.749	0.847
5 <sup>th</sup> percentile	36	0.966	0.149	0.955	0.974	0.919	0.158	0.893	0.939
50 <sup>th</sup> percentile	12	0.007	0.149	0.005	0.010	0.003	0.158	0.002	0.004
50 <sup>th</sup> percentile	15	0.020	0.149	0.015	0.027	0.008	0.158	0.006	0.011
50 <sup>th</sup> percentile	18	0.054	0.149	0.041	0.071	0.023	0.158	0.017	0.031
50 <sup>th</sup> percentile	21	0.137	0.149	0.106	0.175	0.062	0.158	0.046	0.082
50 <sup>th</sup> percentile	24	0.307	0.149	0.249	0.372	0.154	0.158	0.118	0.199
50 <sup>th</sup> percentile	27	0.553	0.149	0.480	0.624	0.336	0.158	0.271	0.408
50 <sup>th</sup> percentile	30	0.776	0.149	0.721	0.822	0.584	0.158	0.507	0.657
50 <sup>th</sup> percentile	33	0.906	0.149	0.878	0.928	0.796	0.158	0.741	0.842
50 <sup>th</sup> percentile	36	0.964	0.149	0.953	0.973	0.915	0.158	0.888	0.937
95 <sup>th</sup> percentile	12	0.006	0.179	0.004	0.009	0.003	0.187	0.002	0.005
95 <sup>th</sup> percentile	15	0.017	0.178	0.012	0.024	0.008	0.186	0.006	0.012
95 <sup>th</sup> percentile	18	0.046	0.178	0.033	0.063	0.023	0.186	0.016	0.032
95 <sup>th</sup> percentile	21	0.118	0.178	0.086	0.159	0.059	0.186	0.042	0.082
95 <sup>th</sup> percentile	24	0.272	0.178	0.209	0.346	0.144	0.186	0.105	0.195
95 <sup>th</sup> percentile	27	0.511	0.178	0.424	0.597	0.313	0.186	0.240	0.396
95 <sup>th</sup> percentile	30	0.745	0.178	0.673	0.805	0.551	0.186	0.460	0.639
95 <sup>th</sup> percentile	33	0.891	0.178	0.852	0.920	0.769	0.187	0.697	0.827
95 <sup>th</sup> percentile	36	0.958	0.178	0.941	0.970	0.900	0.187	0.861	0.928
99 <sup>th</sup> percentile	12	0.003	0.399	0.002	0.008	0.004	0.413	0.002	0.008
99 <sup>th</sup> percentile	15	0.010	0.398	0.004	0.021	0.009	0.412	0.004	0.019
99 <sup>th</sup> percentile	18	0.027	0.397	0.012	0.056	0.021	0.411	0.010	0.046
99 <sup>th</sup> percentile	21	0.072	0.397	0.034	0.144	0.051	0.411	0.023	0.107
99 <sup>th</sup> percentile	24	0.178	0.397	0.091	0.320	0.117	0.412	0.056	0.228
99 <sup>th</sup> percentile	27	0.378	0.397	0.219	0.570	0.246	0.412	0.127	0.423
99 <sup>th</sup> percentile	30	0.631	0.397	0.440	0.788	0.446	0.413	0.264	0.645
99 <sup>th</sup> percentile	33	0.828	0.397	0.688	0.913	0.666	0.415	0.469	0.818
99 <sup>th</sup> percentile	36	0.931	0.398	0.861	0.967	0.831	0.417	0.685	0.918



**Table S7.** Predicted probabilities of producing words within the MB-CDI according to maternal free thyroxine (FT4) levels in early pregnancy by offspring age (Model 3). The effect of the predictor is considered significant when the predicted probability point estimate for one group is not included within the 95% CI range of the other group. Abbreviations: CI, confidence interval; SE, standard error.

FT4 (<20% vs. >80%)	Offspring age	Girls				Boys			
		Predicted probability	SE	Lower CI	Upper CI	Predicted probability	SE	Lower CI	Upper CI
<20%	12	0.005	0.300	0.003	0.008	0.003	0.262	0.002	0.005
<20%	15	0.013	0.299	0.007	0.023	0.008	0.262	0.005	0.014
<20%	18	0.036	0.299	0.021	0.064	0.024	0.261	0.014	0.039
<20%	21	0.098	0.299	0.057	0.164	0.066	0.261	0.041	0.105
<20%	24	0.239	0.299	0.149	0.361	0.171	0.261	0.110	0.256
<20%	27	0.476	0.299	0.336	0.620	0.376	0.261	0.266	0.502
<20%	30	0.724	0.299	0.593	0.825	0.638	0.261	0.514	0.747
<20%	33	0.883	0.300	0.808	0.932	0.838	0.261	0.756	0.896
<20%	36	0.956	0.300	0.924	0.975	0.938	0.262	0.900	0.962
>80%	12	0.006	0.261	0.003	0.009	0.002	0.289	0.001	0.004
>80%	15	0.015	0.260	0.009	0.025	0.007	0.288	0.004	0.012
>80%	18	0.040	0.260	0.024	0.065	0.019	0.288	0.011	0.033
>80%	21	0.102	0.260	0.064	0.158	0.052	0.288	0.030	0.088
>80%	24	0.235	0.260	0.156	0.338	0.136	0.288	0.082	0.216
>80%	27	0.455	0.260	0.334	0.581	0.309	0.288	0.203	0.440
>80%	30	0.693	0.260	0.576	0.790	0.560	0.288	0.420	0.691
>80%	33	0.860	0.260	0.787	0.911	0.784	0.288	0.674	0.864
>80%	36	0.943	0.261	0.909	0.965	0.912	0.288	0.854	0.948

**Table S8.** Predicted probabilities of productive vocabulary scores at the 5<sup>th</sup>, 50<sup>th</sup>, and 95<sup>th</sup> percentile of maternal free thyroxine (FT4) in early pregnancy by offspring age (Model 4). The effect of the predictor is considered significant when the predicted probability point estimate for one group is not included within the 95% CI range of the other group. Abbreviations: CI, confidence interval; SE, standard error.

FT4 (pmol/L)	Offspring age	Girls				Boys			
		Predicted probability	SE	Lower CI	Upper CI	Predicted probability	SE	Lower CI	Upper CI
5 <sup>th</sup> percentile	12	0.008	0.203	0.005	0.011	0.003	0.201	0.002	0.005
5 <sup>th</sup> percentile	15	0.021	0.202	0.015	0.032	0.009	0.201	0.006	0.014
5 <sup>th</sup> percentile	18	0.060	0.202	0.041	0.087	0.026	0.200	0.017	0.037
5 <sup>th</sup> percentile	21	0.156	0.202	0.111	0.216	0.068	0.200	0.047	0.097
5 <sup>th</sup> percentile	24	0.350	0.202	0.266	0.445	0.166	0.200	0.119	0.228
5 <sup>th</sup> percentile	27	0.610	0.202	0.513	0.699	0.355	0.200	0.271	0.449
5 <sup>th</sup> percentile	30	0.820	0.202	0.754	0.871	0.603	0.200	0.506	0.692
5 <sup>th</sup> percentile	33	0.930	0.203	0.899	0.952	0.807	0.200	0.739	0.861
5 <sup>th</sup> percentile	36	0.975	0.203	0.963	0.983	0.920	0.201	0.886	0.945
50 <sup>th</sup> percentile	12	0.008	0.150	0.006	0.010	0.003	0.159	0.002	0.004
50 <sup>th</sup> percentile	15	0.021	0.150	0.016	0.028	0.009	0.159	0.006	0.012
50 <sup>th</sup> percentile	18	0.058	0.150	0.044	0.076	0.023	0.159	0.017	0.032
50 <sup>th</sup> percentile	21	0.147	0.150	0.114	0.187	0.063	0.159	0.047	0.083
50 <sup>th</sup> percentile	24	0.325	0.150	0.264	0.393	0.157	0.158	0.120	0.202
50 <sup>th</sup> percentile	27	0.575	0.150	0.502	0.645	0.340	0.158	0.274	0.413
50 <sup>th</sup> percentile	30	0.792	0.150	0.739	0.836	0.589	0.159	0.512	0.662
50 <sup>th</sup> percentile	33	0.914	0.150	0.888	0.935	0.799	0.159	0.745	0.845
50 <sup>th</sup> percentile	36	0.968	0.150	0.957	0.976	0.917	0.159	0.890	0.938
95 <sup>th</sup> percentile	12	0.008	0.221	0.005	0.012	0.003	0.235	0.002	0.004
95 <sup>th</sup> percentile	15	0.021	0.221	0.014	0.032	0.007	0.234	0.005	0.011
95 <sup>th</sup> percentile	18	0.054	0.221	0.036	0.081	0.020	0.234	0.013	0.031
95 <sup>th</sup> percentile	21	0.133	0.221	0.090	0.191	0.055	0.234	0.035	0.084
95 <sup>th</sup> percentile	24	0.290	0.221	0.209	0.386	0.140	0.234	0.093	0.205
95 <sup>th</sup> percentile	27	0.521	0.221	0.414	0.626	0.315	0.234	0.225	0.421
95 <sup>th</sup> percentile	30	0.743	0.221	0.653	0.817	0.564	0.234	0.450	0.672
95 <sup>th</sup> percentile	33	0.885	0.221	0.833	0.922	0.785	0.234	0.697	0.852
95 <sup>th</sup> percentile	36	0.954	0.221	0.930	0.969	0.911	0.234	0.867	0.942

**Table S9.** The predicted probabilities of productive vocabulary scores according to early pregnancy maternal plasma thyrotropin (TSH)  $\leq 2.5$  and  $> 2.5$  mIU/L, respectively, by offspring age (Model 5). The effect of the predictor is considered significant when the predicted probability point estimate for one group is not included within the 95% confidence interval (CI) range of the other group. Abbreviations: SE, standard error.

TSH ( $\leq 2.5$ vs. $> 2.5$ )	Offspring age	Girls				Boys			
		Predicted probability	SE	Lower CI	Upper CI	Predicted probability	SE	Lower CI	Upper CI
$\leq 2.5$	12	0.007	0.155	0.005	0.010	0.003	0.167	0.002	0.005
$\leq 2.5$	15	0.020	0.155	0.015	0.027	0.009	0.167	0.007	0.013
$\leq 2.5$	18	0.055	0.155	0.041	0.073	0.025	0.167	0.018	0.034
$\leq 2.5$	21	0.139	0.155	0.107	0.179	0.065	0.167	0.047	0.087
$\leq 2.5$	24	0.310	0.155	0.249	0.378	0.160	0.167	0.120	0.208
$\leq 2.5$	27	0.556	0.155	0.480	0.629	0.343	0.167	0.273	0.420
$\leq 2.5$	30	0.777	0.155	0.720	0.825	0.589	0.167	0.508	0.665
$\leq 2.5$	33	0.907	0.155	0.878	0.929	0.798	0.167	0.740	0.845
$\leq 2.5$	36	0.964	0.155	0.952	0.973	0.916	0.167	0.887	0.938
$> 2.5$	12	0.008	0.255	0.005	0.013	0.002	0.245	0.001	0.003
$> 2.5$	15	0.023	0.255	0.014	0.037	0.006	0.244	0.004	0.010
$> 2.5$	18	0.062	0.254	0.039	0.098	0.018	0.244	0.011	0.029
$> 2.5$	21	0.159	0.254	0.103	0.237	0.053	0.243	0.033	0.082
$> 2.5$	24	0.350	0.254	0.247	0.470	0.143	0.243	0.094	0.212
$> 2.5$	27	0.606	0.254	0.483	0.717	0.334	0.243	0.237	0.447
$> 2.5$	30	0.814	0.254	0.727	0.878	0.601	0.244	0.483	0.708
$> 2.5$	33	0.926	0.255	0.883	0.954	0.819	0.244	0.737	0.879
$> 2.5$	36	0.973	0.256	0.956	0.983	0.931	0.244	0.893	0.956

**Table S10.** Predicted probabilities of productive vocabulary scores at the 5<sup>th</sup>, 50<sup>th</sup>, and 95<sup>th</sup> percentile of early pregnancy maternal plasma thyrotropin (TSH), by offspring age (Model 6). The effect of the predictor is considered significant when the predicted probability point estimate for one group is not included within the 95% confidence interval (CI) range of the other group. Abbreviations: SE, standard error.

TSH	Offspring age	Girls				Boys			
		Predicted probability	SE	Lower CI	Upper CI	Predicted probability	SE	Lower CI	Upper CI
5 <sup>th</sup> percentile	12	0.008	0.247	0.005	0.013	0.004	0.258	0.003	0.007
5 <sup>th</sup> percentile	15	0.022	0.247	0.013	0.035	0.012	0.258	0.007	0.019
5 <sup>th</sup> percentile	18	0.057	0.246	0.036	0.089	0.031	0.257	0.019	0.05
5 <sup>th</sup> percentile	21	0.141	0.246	0.092	0.209	0.077	0.257	0.048	0.121
5 <sup>th</sup> percentile	24	0.308	0.246	0.215	0.419	0.181	0.257	0.118	0.268
5 <sup>th</sup> percentile	27	0.548	0.246	0.428	0.662	0.370	0.257	0.261	0.493
5 <sup>th</sup> percentile	30	0.767	0.246	0.670	0.842	0.608	0.257	0.484	0.720
5 <sup>th</sup> percentile	33	0.900	0.247	0.847	0.936	0.805	0.258	0.713	0.872
5 <sup>th</sup> percentile	36	0.961	0.247	0.938	0.975	0.916	0.258	0.868	0.948
50 <sup>th</sup> percentile	12	0.008	0.221	0.005	0.012	0.003	0.22	0.002	0.005
50 <sup>th</sup> percentile	15	0.021	0.221	0.014	0.032	0.009	0.22	0.006	0.014
50 <sup>th</sup> percentile	18	0.056	0.221	0.037	0.084	0.024	0.22	0.016	0.037
50 <sup>th</sup> percentile	21	0.142	0.221	0.097	0.203	0.065	0.22	0.043	0.096
50 <sup>th</sup> percentile	24	0.314	0.221	0.229	0.414	0.160	0.22	0.111	0.227
50 <sup>th</sup> percentile	27	0.561	0.221	0.453	0.663	0.346	0.22	0.256	0.449
50 <sup>th</sup> percentile	30	0.780	0.221	0.697	0.845	0.594	0.22	0.488	0.693
50 <sup>th</sup> percentile	33	0.908	0.221	0.865	0.938	0.802	0.22	0.725	0.862
50 <sup>th</sup> percentile	36	0.965	0.221	0.947	0.977	0.918	0.22	0.880	0.945
95 <sup>th</sup> percentile	12	0.007	0.269	0.004	0.011	0.002	0.263	0.001	0.003
95 <sup>th</sup> percentile	15	0.019	0.269	0.012	0.032	0.006	0.263	0.003	0.009
95 <sup>th</sup> percentile	18	0.054	0.269	0.033	0.089	0.017	0.263	0.010	0.027
95 <sup>th</sup> percentile	21	0.144	0.269	0.090	0.221	0.048	0.262	0.029	0.078
95 <sup>th</sup> percentile	24	0.328	0.268	0.224	0.452	0.130	0.262	0.082	0.200
95 <sup>th</sup> percentile	27	0.587	0.269	0.456	0.706	0.309	0.262	0.211	0.427
95 <sup>th</sup> percentile	30	0.805	0.269	0.709	0.875	0.571	0.262	0.443	0.690
95 <sup>th</sup> percentile	33	0.923	0.269	0.877	0.953	0.799	0.263	0.703	0.869
95 <sup>th</sup> percentile	36	0.972	0.269	0.954	0.983	0.922	0.263	0.876	0.952

99 <sup>th</sup> percentile	12	0.006	0.341	0.003	0.012	0.001	0.380	0.001	0.002
99 <sup>th</sup> percentile	15	0.019	0.341	0.010	0.036	0.004	0.379	0.002	0.008
99 <sup>th</sup> percentile	18	0.054	0.340	0.028	0.099	0.012	0.378	0.006	0.024
99 <sup>th</sup> percentile	21	0.145	0.340	0.080	0.248	0.036	0.378	0.018	0.073
99 <sup>th</sup> percentile	24	0.336	0.340	0.206	0.496	0.107	0.378	0.054	0.201
99 <sup>th</sup> percentile	27	0.602	0.340	0.437	0.746	0.277	0.378	0.154	0.445
99 <sup>th</sup> percentile	30	0.819	0.340	0.699	0.898	0.549	0.378	0.367	0.719
99 <sup>th</sup> percentile	33	0.931	0.341	0.874	0.963	0.795	0.378	0.649	0.891
99 <sup>th</sup> percentile	36	0.976	0.342	0.954	0.987	0.925	0.379	0.855	0.963