

Supporting Information for Nettle, Coall and  
Dickins, *Birthweight and paternal involvement  
predict early reproduction in British women:  
Evidence from the National Child  
Development Study*

Daniel Nettle, David A. Coall  
Thomas E. Dickins

May 12, 2009

## 1 Using different cut-off ages in the definition of early reproduction

We performed the logistic regression analyses with early reproduction as the outcome variable, as described in the main paper, but using different cut-off ages for the definition of early reproduction. The main paper reports the full results for a cut-off of the twentieth birthday. Here we report abbreviated results (odds ratios for key variables only) obtained using the cut-offs of the eighteenth, nineteenth and twenty-first birthdays, for comparison. As in the paper, Model 1 contains only GA, BGA and paternal involvement, whereas Model 2 additionally includes paternal social class, school socio-economic composition, and mother's age at birth. As the cut-off age reduces, the number of cases of early reproduction declines. We did not do the same exercise for early intended reproduction intention, as the numbers of girls giving ages younger than 20 in their answers was small.

The key results are shown in table 1. The results regarding paternal involvement are extremely robust with respect to changes in the cut-off for early reproduction. Regardless of how this is defined, paternal involvement rated as 'Leaves it to mother' or 'Inapplicable' roughly doubles the odds of early reproduction relative to ratings of 'Equal to mother' or 'Significant', which never differ from each other. If there is any trend, it is for the paternal involvement effects to become larger as more extreme early reproduction is considered. The results for BGA are less consistent. The effect is significant with cut-off ages of 20 and 21 (Model 1), and near-significant with a cut-off of 19, but not significant at all with a cut-off of 19. BGA does not reliably remain significant in

Model 2. This is consistent with the smaller effect sizes for BGA than paternal involvement reported in the main paper. GA never has a significant effect.

## **2 Testing for intergenerational transmission of mother's age**

In table 2 we report a logistic regression with early reproduction as the outcome variable, first with cohort member's mother's age at birth as the sole predictor variable (Model 1), and then adding in father's social class (Model 2), and school socioeconomic position (Model 3). There is a significant effect of mother's age at birth only in Model 1. That is, in this cohort there is no evidence of intergenerational cultural transmission of young reproduction. Similarities between the generations are fully explicable by shared socioeconomic factors, and once these are controlled for, any effect of mother's age disappears.

Cut-off age	18		19		20		21	
	<i>Model 1</i>	<i>Model 2</i>	<i>Model 1</i>	<i>Model 2</i>	<i>Model 1</i>	<i>Model 2</i>	<i>Model 1</i>	<i>Model 2</i>
Number of cases		275		535		785		1106
BGA (+1 s.d.)	0.97	0.94	0.89 <sup>†</sup>	0.91	0.88 <sup>†</sup>	0.89 <sup>†</sup>	0.91 <sup>†</sup>	0.94
GA (+1 s.d.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Paternal involvement	Equal 1 Signif. 1.03 Leaves 2.58* Inapp. 2.32*	Equal 1 Signif. 1.78 <sup>†</sup> Leaves 3.01* Inapp. 1.60	Equal 1 Signif. 0.94 Leaves 1.84* Inapp. 2.57*	Equal 1 Signif 1.29 Leaves 2.03* Inapp. 2.10*	Equal 1 Signif 0.88 Leaves 1.79* Inapp. 2.25*	Equal 1 Signif 1.15 Leaves 1.87* Inapp. 1.79*	Equal 1 Signif. 0.99 Leaves 1.80* Inapp. 2.26*	Equal 1 Signif. 1.17 Leaves 1.82* Inapp. 2.12*

Table 1: Odds ratios and significance levels from a logistic regression of early reproduction on birthweight for gestational age, gestational age, and paternal involvement. Model 1 contains only these variables, whereas Model 2 additionally contains the control variables paternal social class, school socioeconomic composition and mother’s age at birth (output not shown for these variables).

\* $p < 0.01$

<sup>†</sup> $p < 0.05$

<sup>‡</sup> $p < 0.07$

	Model 1 n=5959	Model 2 n=5671	Model 3 n=3896
<i>Variable</i>	$\chi^2$	$\chi^2$	$\chi^2$
Mother's age	6.99*	1.33	0.63
Father's social class	-	94.96*	39.59*
School socioeconomic composition	-	-	51.82*

Table 2: Logistic regression predicting early reproduction by mother's age at birth, father's social class, and school socioeconomic composition.

\* $p < 0.01$