

Supplementary Material

Table S1

Characteristics of (and behavioural and hormonal data on) yellow baboon mothers and infants included in this study

Mother	Infant	Group	Maternal			Infant		Mother–infant behavioural measures			Faecal hormone values ^{##}			
			Age*	Parity†	Rank‡	Sex	Birth date	Relative rate of transitions initiated by infant§	Relative proportion of transitions by infant**	Relative proportion of time off the nipple††	Prenatal fE	Postnatal fE	Prenatal fP	Postnatal fP
Dun	Dig	1.22	7.0	2	1	♂	20 Jan 2003	2.25	0.12	0.05	-0.19	0.30	0.02	-0.05
Dux	Dap	1.10	7.2	2	4	♀	23 Nov 2002	-4.76	-0.17	0.18	0.23	0.11	0.08	0.30
Hym	Huc	1.10	5.3	1	16	♀	20 Dec 2002	-13.31	-0.01	-0.04	0.06	0.08	-0.05	0.16
Kol	Kri	2.20	8.3	2	14	♂	23 Jan 2003	-6.89	-0.02	-0.17	-0.06	0.17	0.02	-0.13
Las	Lut	2.20	12.1	5	7	♂	23 Dec 2002	12.23	-0.07	0.10	-0.02	0.01	0.30	0.21
Lol	Les	2.10	5.5	1	8	♂	21 Jan 2003	-5.57	-0.13	-0.07	0.03	0.25	-0.01	0.04
Mys	Mic	2.10	11.0	4	9	♀	7 Jan 2003	-6.23	-0.04	0.03	-0.04	0.33	0.00	0.01
Ofr	Ode	1.21	11.4	5	5	♂	25 May 2003	5.42	0.13	0.09	-0.10	-0.11	0.04	0.01
Vet	Tof	1.22	10.0	5	9	♂	24 Dec 2002	-3.71	-0.06	-0.07	-0.08	0.42	0.24	0.27
Vin	Yah	1.22	12.8	9	8	♀	28 Nov 2002	1.78	0.06	-0.02	-0.03	0.14	0.04	0.00
Wen	Wol	2.20	15.3	8	6	♂	10 Dec 2002	14.79	0.11	0.13	0.14	0.15	0.16	0.26
Ham	Mum	1.10	12.0	5	19	♀	18 Jun 2003	-2.20	0.06	-0.14	-0.26	-0.11	-0.19	-0.32
Hum	Hor	1.10	7.7	2	16	♂	13 Jun 2003	-3.26	0.01	-0.02	0.04	-0.13	-0.04	-0.06
Lad	Lov	2.10	9.8	4	3	♀	11 Jun 2003	-4.89	-0.07	-0.03	-0.11	0.04	-0.05	-0.12
Lav	Ari	2.20	10.9	4	18	♀	14 Jun 2003	-10.18	-0.20	-0.09	-0.19	-0.06	0.11	-0.05
Laz	Lou	2.20	11.8	5	9	♂	15 Jun 2003	6.05	-0.06	-0.08	-0.21	-0.23	-0.18	-0.12
Obi	Ojo	1.21	7.4	2	7	♂	9 Jun 2003	-0.08	-0.08	0.13	-0.07	0.04	0.04	-0.17
Ser	Soy	1.10	13.9	7	1	♂	3 Feb 2003	-2.28	-0.04	-0.03	0.17	-0.07	0.07	-0.09
Viv	Vav	1.22	17.8	9	11	♀	20 Jun 2003	3.11	0.10	-0.14	-0.30	0.04	-0.12	-0.08
Dui	Dou	1.21	8.4	3	1	♂	3 Jul 2003	3.15	0.08	0.01	-0.11	-0.03	0.07	-0.12

Mother	Infant	Group	Maternal			Infant		Mother–infant behavioural measures			Faecal hormone values ^{‡‡}			
			Age*	Parity†	Rank‡	Sex	Birth date	Relative rate of transitions initiated by infant§	Relative proportion of transitions by infant**	Relative proportion of time off the nipple††	Prenatal fE	Postnatal fE	Prenatal fP	Postnatal fP
Hol	Buf	1.10	9.5	3	18	♂	22 Jul 2003	5.40	0.05	0.06	-0.11	0.06	-0.18	-0.09
Hon	Hav	1.10	5.8	1	13	♀	23 Feb 2003	-8.30	-0.11	-0.08	-0.22	0.02	0.00	0.00
Nob	Nok	2.10	9.3	3	6	♂	8 Mar 2003	0.21	-0.13	0.09	0.12	-0.03	-0.18	-0.20
Vot	Rub	1.22	8.4	3	4	♀	22 Mar 2003	-16.04	-0.10	-0.07	0.08	-0.07	-0.04	0.09
Vow	Emm	1.22	6.0	1	7	♂	22 Mar 2003	-7.38	0.01	0.04	0.02	-0.02	-0.10	0.09
Wea	Waw	2.20	15.3	8	3	♀	19 Mar 2003	19.55	0.06	0.12	0.07	-0.01	-0.17	0.24
Kel	Kij	2.20	17.5	9	15	♂	16 Aug 2003	12.16	0.13	-0.10	-0.23	0.00	-0.04	-0.01
Nap	Nir	2.10	9.2	4	5	♂	21 Apr 2003	4.54	-0.02	0.04	0.09	0.09	0.13	0.16
Vel	Emi	1.22	14.5	7	6	♀	18 Apr 2003	-1.28	0.08	0.06	0.01	0.03	-0.19	0.21
Wad	Wyc	2.10	10.1	4	1	♂	29 Sep 2003	11.25	0.14	0.00	0.10	0.03	-0.11	0.09
Cai	Cyp	1.10	5.8	1	8	♀	22 Oct 2002	-6.87	0.07	0.12	-0.08	-0.17	-0.12	-0.02
Ost	Opr	1.21	11.7	6	8	♀	6 Oct 2003	-4.39	-0.03	0.02	0.16	-0.05	-0.06	0.06
Loc	Car	2.20	8.1	2	9	♂	5 Nov 2002	-4.87	-0.03	0.08	-0.01	-0.07	0.07	0.19
Vio	Eld	1.22	8.5	5	7	♀	11 Nov 2002	-5.37	-0.03	-0.04	0.11	0.11	-0.17	0.34

The 34 mother–infant pairs included mothers and infants of all backgrounds residing in five groups of wild baboons at Amboseli, Kenya.

* Mother's age the day she gave birth to the infant (in years).

† Mother's total number of pregnancies, regardless of outcome, prior to and including the current infant.

‡ Mother's ordinal rank number in the month that she conceived the infant (1 is highest).

§ Mean of a mother–infant pair's weekly residual scores for the rate at which infants initiated transitions (changes) in mother–infant physical contact (see Methods).

** Mean of a mother–infant pair's weekly residual scores for the proportion of transitions (changes) in mother–infant physical contact initiated by infants (see Methods).

†† Mean of a mother–infant pair's weekly residual scores for the proportion of total points (at 5 min intervals) that the infant was observed off the nipple (i.e. not in nipple contact) (see Methods).

‡‡ Log-transformed mean value of the female's prenatal (comprising weeks -8 to -1) or postnatal (comprising weeks 1–8) residual faecal oestrogen or progesterone level (see Methods).

Table S2

Effects of maternal dominance rank, parity and infant sex on individual variation in weekly residual values of mean pre- (weeks -8 to -1) and postnatal (weeks +1 to +8) faecal oestrogen (fE) and progesterone (fP) of 34 adult female yellow baboons

Overall model	Faecal oestrogen (fE)						Faecal progesterone (fP)					
	Prenatal			Postnatal			Prenatal			Postnatal		
	$r^2_{adj, 4}=0.142$			$r^2_{adj, 4}=0.085$			$r^2_{adj, 4}=0.026$			$r^2_{adj, 4}=0.025$		
	MS	F	P	MS	F	P	MS	F	P	MS	F	P
Model	0.044	2.814	0.056	0.003	0.135	0.939	0.019	1.295	0.294	0.032	1.277	0.300
Error	0.016			0.022			0.015			0.025		
Predictor variables												
Dominance rank	0.130	8.238	0.007	0.007	0.316	0.578	0.006	0.386	0.539	0.073	2.941	0.097
Parity	0.008	0.527	0.474	0.000	0.007	0.932	0.000	0.012	0.912	0.004	0.155	0.697
Infant sex	0.002	0.109	0.743	0.001	0.037	0.848	0.046	3.033	0.092	0.020	0.822	0.372

Results of the GLMs indicate that individual variation in postnatal fE and in pre- and postnatal fP were not predictable from maternal rank, parity or infant sex. Individual variation in prenatal fE was, however, predictable from maternal rank (shown in bold), but not from parity or infant sex. MS = mean square.