

Tables S2 and S3: Incidence of behaviors in the baseline (S1) and enrichment (S2) conditions of the treatment phase. Behaviors collected with scan sampling method (i.e., participation, tool use, feeding, inactivity, abnormal behaviors, social proximity, agonistic behaviors and affiliative behaviors) represent the percentage of scans in which the behavior was observed), whereas behaviors collected with all-occurrence focal sampling (i.e., self-directed behaviors: rubs and scratches) correspond to rates (i.e., number of self-directed behaviors/ observation time in minutes)

Table S2. Baseline condition during Phase «B» Treatment

Subject	Scan sampling						Focal sampling	
	Tool use	Feeding	Inactivity	Abnormal behaviors	Social proximity	Agonistic interactions	Affiliative interactions	Self-directed behaviors
Africa	17.53	17.72	46.84	0.00	12.28	0.21	15.40	0.47
Bea	0.00	8.61	52.40	0.25	21.47	0.25	15.95	0.85
Bongo	0.00	18.05	39.00	0.62	4.81	2.08	8.92	0.79
Charly	8.53	26.87	17.57	0.52	2.87	0.78	23.00	0.66
Cheeta	4.01	28.90	36.42	1.93	5.89	0.00	3.28	0.74
Coco	9.05	41.29	16.95	4.30	10.29	0.00	8.35	0.98
Juanito	10.08	23.33	20.84	0.25	16.20	0.25	34.99	0.25
Marco	13.08	39.53	14.35	0.24	4.87	0.00	18.35	0.72
Nico	1.589	30.77	28.00	0.62	0.56	0.62	2.77	0.81
Tico	0.45	10.13	28.86	8.15	8.49	0.00	0.00	1.40
Tom	0.00	13.43	31.71	1.62	14.78	0.93	7.87	0.60
Toni	3.32	10.05	32.54	0.00	3.70	1.44	12.44	1.00
Victor	9.05	28.97	33.41	11.68	3.37	0.47	3.27	1.12
Waty	0.24	19.35	13.10	0.00	9.95	0.00	55.36	1.50
Mean	5.49	22.64	29.43	2.16	8.54	0.50	15.00	0.85

Table S3. Enrichment condition during Phase «B» Treatment

Subject	Scan sampling						Focal sampling		
	Participation	Tool use	Feeding	Inactivity	Abnormal behaviors	Social proximity	Agonistic interactions	Affiliative interactions	Self-directed behaviors
Africa	18.25	0.21	29.16	35.60	0.00	14.45	0.00	13.42	0.48
Bea	0.00	0.00	9.78	44.84	0.00	6.26	0.82	12.77	0.95
Bongo	2.10	0.00	20.19	38.48	0.00	5.93	3.24	11.62	0.64
Charly	8.53	0.78	25.59	17.27	2.13	10.76	0.21	30.06	0.38
Cheeta	4.01	0.00	43.69	29.06	0.00	4.58	0.00	5.01	0.80
Coco	9.05	0.00	58.37	7.01	1.36	2.676	0.00	6.56	0.75
Juanito	10.49	0.00	38.27	8.85	0.21	18.94	1.03	37.04	0.17
Marco	13.08	0.00	45.36	10.13	0.00	8.73	0.21	15.40	0.62
Nico	1.59	0.00	36.51	20.11	0.00	1.66	1.85	2.12	1.04
Tico	0.00	0.00	20.98	16.52	6.70	0.48	0.67	0.00	1.01
Tom	0.0	0.00	17.27	20.62	0.00	3.48	1.80	6.96	0.46
Toni	0.00	0.00	4.06	28.04	0.00	8.06	0.00	28.04	0.57
Victor	10.82	0.00	44.81	18.54	2.65	2.35	1.33	2.43	0.73
Waty	1.17	0.00	15.49	15.50	0.00	16.09	0.00	53.99	0.84
Mean	5.65	0.07	29.25	22.18	0.93	7.46	0.80	16.10	0.67