Table 2 Repeatability (intra-class correlation coefficient) of the 16 variables reported for each zoo

Variable	AR long	95% CI (lower, upper) F, p	AR short	95% CI (lower, upper) F, p	CH	95% CI (lower, upper) F, p	BB	95% CI (lower, upper) F, p
Submission	0.36	(0.18, 0.61) 4.42, <0.001	0.41	(−0.01, 0.70) 2.34, 0.027	0.34	(−0.06, 0.65) 2.05, 0.046	0.48	(0.14, 0.72) 2.83, 0.004
Aggression given	0.57	(0.38, 0.77) 8.94, <0.001	0.48	(0.08, 0.74) 2.83, 0.010	0.52	(0.15, 0.76) 3.15, 0.004	0.74	(0.51, 0.87) 6.5, <0.001
Aggression received	0.33	(0.15, 0.58) 3.92, <0.001	0.33	(−0.10, 0.65) 1.99, 0.062	−0.004	(−0.40, 0.40) 0.99, 0.507	−0.15	(−0.49, 0.23) 0.75, 0.78
No. neighbours	0.38	(0.19, 0.63) 4.71, <0.001	0.64	(0.31, 0.83) 4.57, <0.001	0.93	(0.84, 0.97) 26.0, <0.001	0.49	(0.16, 0.72) 2.92, 0.003
Approaching	0.21	(0.05, 0.46) 2.61, 0.002	0.50	(0.10, 0.75) 2.96, 0.008	0.92	(0.81, 0.96) 22.6, <0.001	0.53	(0.21, 0.75) 3.23, 0.001
Being approached	0.32	(0.14. 0.57) 3.85, <0.001	0.22	(−0.21, 0.58) 1.58, 0.153	0.86	(0.71, 0.94) 13.4, <0.001	0.46	(0.12, 0.70), 2.68, 0.006
Play initiate	0.43	(0.24, 0.67) 5.55, <0.001	0.52	(0.14, 0.77) 3.17, 0.005	0.87	(0.73, 0.94) 14.7, <0.001	0.19	(−0.18, 0.52) 1.48, 0.154
Play receive	0.26	(0.09, 0.52) 3.15, <0.001	0.25	(−0.18, 0.60) 1.68, 0.121	0.49	(0.11, 0.74) 2.88, 0.007	0.65	(0.38, 0.82) 4.74, <0.001
Groom given	0.47	(0.28, 0.70) 6.38, <0.001	0.62	(0.28, 0.63) 4.32, 0.001	0.47	(0.08, 0.73) 2.74, 0.010	0.39	(0.03, 0.66) 2.25, 0.018
Groom received	0.36	(0.17, 0.60) 4.31, <0.001	0.41	(−0.00, 0.71) 2.40, 0.025	0.71	(0.43, 0.86) 5.81, <0.001	0.30	(−0.07, 0.59) 1.84, 0.056
Point affinitive	0.78	(0.64, 0.90) 22.6, <0.001	0.82	(0.61, 0.92) 9.97, <0.001	0.53	(0.17, 0.77) 3.26, 0.003	0.66	(0.40, 0.83) 4.95, <0.001
Groom density	0.50	(0.30, 0.72) 6.95, <0.001	0.61	(0.26, 0.82) 4.13, 0.001	0.50	(0.12, 0.75) 2.96, 0.006	0.71	(0.48, 0.86) 6.00, <0.001
Groom divers.	0.48[a]	(0.27, 0.72) 6.47, <0.001	0.26	(−0.17, 0.61) 1.71, 0.113	0.38	(−0.01, 0.68) 2.25, 0.029	0.42[b]	(0.02, 0.71) 2.44, 0.020
Scratch	0.58	(0.39, 0.78) 9.23, <0.001	0.72	(0.44, 0.88) 6.24, <0.001	0.70	(0.42, 0.86) 5.70, <0.001	0.55	(0.23, 0.76) 3.43, 0.001
Autogroom	0.41	(0.21, 0.65) 5.09, <0.001	0.83	(0.64, 0.93) 10.8, 0.001	0.71	(0.43, 0.86) 5.83, <0.001	0.40	(0.05, 0.67) 2.34, 0.014
Activity	0.37	(0.18, 0.62) 4.54, <0.001	0.45	(0.04, 0.73) 2.61, 0.016	0.26	(−0.19, 0.57) 1.58, 0.140	0.91	(0.81, 0.95) 20.2, <0.001
N=	18		22		24		29	

ICC (3,1) values are given as consistency agreement and as single correlation. Bold values indicate statistical deviation from zero by F test. Each zoo was tested separately, but in BB the two groups (BBa and BBb) were pooled

AR Arnhem, CH Chester, BB Beekse Bergen, AR long repeatability analysis includes all six Arnhem sampling periods (six behaviour scores per individual), AR short repeatability analysis includes two consecutive Arnhem winter sampling periods (two behaviour scores per individual), CI confidence interval

[a] Due to missing values by two individuals (no grooming in one data period) N=16

[b] Due to missing values by six individuals (no grooming in one or both data periods) N=23