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Author(s): Winnie Eckardt ; H Dieter Steklis ; Netzin G Steklis ; Alison W Fletcher ;
Tara A Stoinski ; Alexander Weiss

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Supplemental table 1

Modification of great ape personality questionnaires from the human Five-Factor Model (FFM) to the Hominoid Personality Questionnaire (HPQ).

Questionnaire	N traits	FFM plus
Human Five-Factor Model FFM (Goldberg, 1990)	75	
Chimpanzee Personality Questionnaire CPQ (King & Figueredo, 1997)	43 of 75 (FFM)	clumsy, autistic
Orangutan Personality Questionnaire OPQ (Weiss et al., 2006)	48 (43 from CPQ)	anxious, vulnerable, cool, curious, conventional
Hominoid Personality questionnaire HPQ (Weiss et al., 2009)	54	thoughtless, distractible, quitting, individualistic, innovative, unperceptive

Supplemental table 2

Inter-rater reliabilities of traits.

Trait	<i>ICC(3,1)</i>	<i>ICC(3,k)</i>
Fearful	0.31	0.69
Dominant	0.72	0.92
Persistent	0.24	0.61
Cautious	0.14	0.44
Stable	0.18	0.52
Autistic	0.15	0.47
Curious	0.32	0.69
Thoughtless	0.27	0.64
Stingy	0.23	0.59
Jealous	0.17	0.49
Individualistic	0.26	0.63
Reckless	0.15	0.46
Sociable	0.37	0.73
Distractible	0.39	0.75
Timid	0.17	0.49
Sympathetic	0.18	0.51
Playful	0.66	0.90
Solitary	0.50	0.83
Vulnerable	0.12	0.39
Innovative	0.05	0.21
Active	0.37	0.74
Helpful	0.33	0.70
Bullying	0.43	0.78
Aggressive	0.43	0.78
Manipulative	0.20	0.55
Gentle	0.31	0.68
Affectionate	0.17	0.50
Excitable	0.16	0.47
Impulsive	0.10	0.35
Inquisitive	0.24	0.61
Submissive	0.09	0.31
Cool	0.34	0.71
Dependent	0.25	0.62
Irritable	0.32	0.69
Unperceptive	-0.02	-0.13
Predictable	0.03	0.14

Decisive	0.36	0.73
Depressed	0.29	0.66
Conventional	0.13	0.42
Sensitive	0.24	0.60
Defiant	0.24	0.60
Intelligent	0.33	0.70
Protective	0.48	0.82
Quitting	0.16	0.47
Inventive	0.13	0.42
Clumsy	0.10	0.34
Erratic	0.07	0.26
Friendly	0.29	0.67
Anxious	0.14	0.43
Lazy	0.22	0.58
Disorganized	0.12	0.40
Unemotional	0.14	0.43
Imitative	0.54	0.85
Independent	0.57	0.86

Note. $ICC(3,1)$ = reliability of individual ratings; $ICC(3,k)$ = reliability of mean ratings

Supplemental table 3

Traits loading on gorilla personality dimension derived from a PCA with promax rotation including 116 gorillas compared to other great apes.

Trait	Promax-rotated components							h^2
	HU	CH	OR	O	D _R	S	P-A _R	
<i>Intelligent</i>	+O ^a	+D ^d	+I ^f	0.02	0.92	0.15	-0.07	0.86
<i>Decisive</i>	+C ^a	+D ^d	+I ^f	-0.14	0.78	-0.04	-0.10	0.77
<i>Protective</i>	+A ^b	+A ^d	+A ^f	-0.08	0.74	0.07	-0.32	0.83
<i>Timid</i>	-E ^{a,c}	-D ^d	+N ^f	-0.47	-0.92	-0.03	-0.05	0.78
<i>Anxious</i>	+N ^{a,c}	-D ^e	+N ^f	-0.48	-0.96	0.04	-0.39	0.79
<i>Independent</i>	-N ^a	+D ^d	+I ^f	-0.20	0.71	-0.29	-0.10	0.84
<i>Dominant</i>	+E ^{a,c}	+D ^d	+D ^f	-0.19	0.64	0.01	-0.39	0.85

<i>Fearful</i>	+N ^a	-D ^d	+N ^f	-0.06	-0.83	0.07	-0.36	0.58
<i>Sensitive</i>	+A ^a	+A ^d	+A ^f	-0.26	0.70	0.34	-0.04	0.73
<i>Distractible</i>	----	----	----	0.41	-0.64	0.33	-0.05	0.83
<i>Helpful</i>	+A ^a	+A ^d	+A ^f	-0.22	0.60	0.43	-0.33	0.75
<i>Bullying</i>	-A ^b	+D ^d	+D ^f	0.20	0.56	-0.11	-0.50	0.83
<i>Dependent</i>	+N ^a	-D ^d	-I ^f	0.31	-0.54	0.34	0.13	0.73
<i>Disorganised</i>	-C ^a	-C ^d	-I ^f	0.49	-0.54	-0.08	0.01	0.68
<i>Submissive</i>	-E ^c /+N ^a	-D ^d	-D ^f	-0.24	-0.61	0.22	0.17	0.59
<i>Imitative</i>	-O ^b	+E ^d	+E ^f	0.51	-0.47	0.34	0.16	0.87
<i>Persistent</i>	+C ^a	+D ^d	+D ^f	0.28	0.51	0.01	-0.43	0.60
<i>Clumsy</i>	----	-C ^e	+I ^f	0.02	-0.57	-0.06	-0.09	0.30
<i>Vulnerable</i>	+N ^c	-D ^e	+N ^f	0.24	-0.48	-0.22	0.13	0.42
<i>Active</i>	+E ^a	+E ^d	+E ^f	0.87	0.12	0.19	0.26	0.81
<i>Cool</i>	-E ^a	-N ^e	-N ^f	-0.75	0.16	0.20	0.23	0.77
<i>Thoughtless</i>	-C ^c /-A ^a	-C ^e	----	0.76	-0.10	-0.10	-0.12	0.66
<i>Unemotional</i>	-N ^{a,c}	-N ^d	-E ^f	-0.81	-0.25	-0.15	-0.06	0.60
<i>Playful</i>	+E ^a	+E ^d	+E ^f	0.76	-0.21	0.31	0.20	0.91
<i>Impulsive</i>	+E ^a	-C ^d	+N ^f	0.75	-0.03	0.06	-0.39	0.68
<i>Lazy</i>	-C ^a	-E ^d	-E ^f	-0.81	-0.45	-0.11	-0.31	0.67
<i>Curious</i>	+O ^a	+O ^e	+E ^f	0.74	-0.24	0.38	-0.03	0.81
<i>Inventive</i>	+O ^a	+O ^d	+E ^f	0.74	0.00	0.33	-0.28	0.59
<i>Excitable</i>	+N ^a	+N ^d	+N ^f	0.69	-0.09	0.01	-0.41	0.64
<i>Inquisitive</i>	+O ^a	+O ^d	+E ^f	0.70	-0.18	0.39	-0.04	0.69
<i>Reckless</i>	-C ^a	-C ^d	+D ^f	0.61	-0.11	-0.10	-0.53	0.72
<i>Innovative</i>	+O ^a	+O ^e	----	0.67	0.22	0.19	-0.23	0.46
<i>Stable</i>	-N ^a	-N ^d	-N ^f	-0.58	0.21	0.28	0.12	0.56
<i>Conventional</i>	-O ^c /-C ^a	+A ^e	-E ^f	-0.59	0.00	0.30	0.15	0.53
<i>Quitting</i>	-C ^c	-C ^e	----	0.58	-0.37	0.11	0.07	0.64
<i>Erratic</i>	-C ^a	-C ^d	+N ^f	0.52	-0.23	-0.33	-0.26	0.60
<i>Predictable</i>	+C ^a	+C ^d	-N ^f	-0.50	-0.33	0.39	-0.08	0.46
<i>Cautious</i>	+C ^a	-D ^d	+N ^f	-0.40	-0.08	-0.08	-0.33	0.26
<i>Friendly</i>	+A ^a	+E ^d	+A ^f	0.18	-0.12	0.86	0.07	0.86
<i>Sociable</i>	+E ^{a,c}	+E ^d	+A ^f	0.36	0.11	0.87	0.04	0.82
<i>Affectionate</i>	+A ^a	+E ^d	+A ^f	0.03	0.06	0.87	-0.11	0.68
<i>Solitary</i>	-E ^b	-E ^d	-E ^f	-0.18	0.10	-0.84	0.09	0.70
<i>Depressed</i>	-E ^b	-E ^d	-E ^f	-0.42	-0.21	-0.79	-0.09	0.72
<i>Gentle</i>	+A ^b	+A ^d	-D ^f	-0.17	-0.06	0.59	0.34	0.70
<i>Sympathetic</i>	+A ^a	+A ^d	+A ^f	-0.27	0.35	0.70	-0.13	0.68
<i>Defiant</i>	-A ^b	-C ^e	+D ^f	0.21	0.23	-0.48	-0.43	0.77
<i>Individualistic</i>	-N ^a	-E ^e	----	0.01	0.23	-0.44	-0.40	0.64

<i>Jealous</i>	-A ^a /+N ^{a,c}	-C ^d	+D ^f	0.12	-0.03	0.12	-0.93	0.77
<i>Irritable</i>	-A ^{a,c}	-C ^e	+D ^f	0.16	0.01	-0.22	-0.76	0.81
<i>Aggressive</i>	-A ^a	-C ^d	+D ^f	0.10	0.21	-0.29	-0.68	0.87
<i>Stingy</i>	-A ^{a,c}	+D ^d	+D ^f	-0.05	0.29	-0.03	-0.68	0.72
<i>Manipulative</i>	-A ^a	+D ^e	+D ^f	-0.23	0.16	0.45	-0.61	0.53
<i>Autistic</i>	----	nl	nl	0.12	-0.06	0.03	-0.33	0.11
% variance				21	21	14	12	

Note. Boldface = salient loadings; nl = no loading; '----' = trait (or included term) not assessed; '+' = positive loadings; '-' = negative loadings; h^2 communality; E = Extraversion (facets: sociability, assertiveness, activity, positive emotions^g); C = Conscientiousness (facets: deliberation, self-discipline, dutifulness, order^g); O = Openness (facets: ideas/intellect, imagination, creativity, curiosity^g); N = Neuroticism (facets: anxiety, depression, vulnerability to stress, moodiness^g); A = Agreeableness (trust, tendermindedness, cooperation, lack of aggression^g); D = Dominance (nonhuman great apes); I = Intellect (orangutan); HU = human, CH = chimpanzee, OR = orang-utan.

^a traits (or synonyms of traits) and classification (Goldberg, 1990)

^b traits and their classification (Goldberg, 1990) as described in Table 1 (King & Figueredo, 1997)

^c traits and their classification (McCrae & Costa, 1987)

^d traits and their classification (King & Figueredo, 1997)

^e traits and their classification (Weiss et al., 2008)

^f traits and their classification (Weiss et al., 2006)

^g for more details see John (1990) and Costa & McCrae (199