

Supplement 1. Ethogram of gorilla behaviour used in the study.

	CODE	ACTIVITY	DESCRIPTION
SOLITARY ACTIVITY	TRM	Terrestrial movement	Moving bipedally on the ground or rock structures (walking, running, climbing)
	S	Sitting	Not moving, bearing most weight on buttocks
	L	Lying	Recumbent with little or no weight being borne on hands or feet
	SS	Standing still	Bearing weight on feet quadrupedally or bipedally with hands holding on to mesh, glass, tree, etc.
	SFG	Self-grooming	Picking stuff out of hair or scratching systematically, inspecting or cleaning its body
	FEED	Feeding	Holding or eating food
	D	Drinking	Consuming water
	FOR	Foraging	Looking for food
	L-PLAY	Locomotor play	Moving in any direction for its own sake (chasing, hide and seek, tree climbing, etc.)
	O-PLAY	Object play	Manipulating object
	ABN	Abnormal behaviour	Exhibiting any stereotypical or unnatural behaviour
	FEC	Faeces manipulation	Manipulating or mouthing own or other's faeces. Note if ingested.
SOCIAL ACTIVITY	S-REST	Social resting	Sitting or lying within arm's reach of another for at least 10s (The initiator is the primate that comes second to rest. The receiver must be relatively immobile, but not limited to resting).
	PLAY	Social play	Chasing, slapping or wrestling with another primate
	AGG	Aggressive behaviour	Exhibiting any aggressive display directed towards another primate ¹
OTHER	OS	Out of sight	Behind foliage or furnish, or in the visually inaccessible part of the enclosure (i.e. outside when the observer is inside etc.)
	EL	Elimination	Urinating or defecating
	LV	Looking at visitors	Directing its eyes towards visitors
	LK	Looking at keeper	Directing its eyes towards zoo keeper
	LG	Looking at gorillas	Directing its eyes towards other gorillas

Supplement 2. *Gorilla Behavior Index* (GBI), an instrument used to assess gorillas' personality (Gold and Maple, 1994).

1.	Active: moves about a lot	1	2	3	4	5
2.	Aggressive: causes harm or potential harm; displays, chases, bites, etc.	1	2	3	4	5
3.	Apprehensive: seems to be anxious about everything; fears and avoids any	1	2	3	4	5
4.	Confident: behaves in a positive, assured manner, not restrained or	1	2	3	4	5
5.	Curious: readily explores new situations, environments, objects	1	2	3	4	5
6.	Eccentric: shows stereotypes or unusual mannerisms; coprophagy, regurgitation, rock, pace, self-clasp, etc.	1	2	3	4	5
7.	Effective: gets own way, can control others	1	2	3	4	5
8.	Equable: reacts to others in an even, calm way; is not easily disturbed	1	2	3	4	5
9.	Excitable: overreacts to any change	1	2	3	4	5
10.	Fearful: fear grins; retreats readily from others or from outside	1	2	3	4	5
11.	Insecure: hesitates to act alone; seeks reassurance from others	1	2	3	4	5
12.	Irritable: reacts negatively with little provocation	1	2	3	4	5
13.*	Motherly: provides a warm, receptive, secure base	1	2	3	4	5
14.	Opportunistic: seizes a chance as soon as it arises	1	2	3	4	5
15.	Permissive: could but does not interfere with the behavior of others	1	2	3	4	5
16.	Playful: initiates play and joins in when play is solicited	1	2	3	4	5
17.	Popular: is sought out as a companion by others	1	2	3	4	5
18.	Protective: prevents harm or possible harm to others	1	2	3	4	5
19.	Slow: moves and sits in a relaxed manner; moves slowly and deliberately	1	2	3	4	5
20.	Sociable: seeks companionship of others	1	2	3	4	5
21.	Solitary: spends time alone	1	2	3	4	5
22.	Strong: depends upon sturdiness and muscular strength	1	2	3	4	5
23.	Subordinate: gives in readily to others	1	2	3	4	5
24.	Tense: shows restraint in posture and movement; carries the body stiffly, which suggests a shrinking tendency, as if trying to pull back and be less conspicuous	1	2	3	4	5
25.	Understanding: responds in a discriminating and appropriate manner to the behavior of others	1	2	3	4	5

*This item was excluded, as it was not applicable for the currently observed gorillas.

** (1) weakly represented, or not present at all; (2) distinctly present, but falls below average; (3) halfway between the extremes, or average for gorilla behavior as you know it; (4) strong, although not outstanding; (5) very strong and conspicuous, approaching the extreme.

Supplement 3. Gorilla personality factors measured by the *Gorilla Behavior Index* (GBI), adjectives that compose them and their loadings.

Extroverted	Dominant	Fearful	Understanding
+ Active	+ Aggressive	+ Apprehensive	+ Equable
+ Curious	+ Effective	- Confident	+ Permissive
+ Playful	+ Excitable	+ Eccentric	+ Protective
+ Popular	+ Irritable	+ Fearful	+ Understanding
- Slow	+ Opportunistic	+ Insecure	
- Solitary	+ Strong	+ Subordinate	
+ Sociable		+ Tense	

* (+) positive loadings, (-) negative loadings