Great Ape Personality Inventory (GAPI-B)

The GAPI's background, development and properties are published in:

Uher, J. (2011b). Personality in nonhuman primates: What can we learn from human personality psychology? In A. Weiss, J. King, & L. Murray (Eds.). *Personality and Temperament in Nonhuman Primates* (pp. 41-76). New York, NY: Springer. [download] DOI: 10.1007/978-1-4614-0176-6 3

Uher, J. & Asendorpf, J. B. (2008). Personality assessment in the Great Apes: Comparing ecologically valid behavior measures, behavior ratings, and adjective ratings. *Journal of Research in Personality*, 42, 821-838. [download] DOI: 10.1016/j.jrp.2007.10.004

Research design and assessment procedure

In primate research, raters often repeatedly assess different individuals on the same items. Therefore, it is helpful to insert the name of the target individual into the wording of each item statement to help the raters focus on the particular individual that they are assessing (e.g., using a computer programme).

All items in the behaviour-descriptive verb format (B) and the trait-adjective format (A) can be presented together; you may also use the items of just one of the two GAPI formats. Importantly, the items should be presented in a randomised order with regard to the constructs that they indicate. Presenting items in chunks of five items is useful to avoid cross-checking between responses to items of related content. To avoid effects of familiarisation with the inventories on the assessments of single ape individuals, the order in which each rater assesses his or her particular set of ape individuals should be randomised.

Assessments can be made on two different scales, agreement scales and frequency scales. *Agreement* scales range from (1) *strongly disagree* to (5) *strongly agree*. For these scales, the quantifying expressions provided in parentheses are included in the item text (e.g., "Name often plays with youngsters" for which the quantifying expression is "often"). *Frequency* scales range from (1) *hardly ever* to (5) *very often*; for these scales, items are presented without any quantifying expressions (e.g., "Name plays with youngsters"). Note that the meanings of some items might thereby reverse depending on the kind of scale used.

General instructions for raters

Ideally, each great ape should be assessed by 2-3 people who know the individual very well. It is important that you assess the individuals as they are currently behaving, even though their behaviour may have changed in comparison with previous months or years. Please read every statement carefully and think about how well it applies to the particular ape individual in comparison with other apes.

For your answers, you can use five response categories. Please try to use the full range of all five categories for your answers and to use the outer categories as well.

Example: Panisca is in close proximity to other group members.

		0	0					
almost never	rarely	sometimes	often	very often				
strongly disagree	agree	neither agree nor disagree	disagree	strongly disagree				

There are no right or wrong answers. If a statement is difficult to judge for a particular individual, please select the answer that you think is most appropriate. Please fill in all inventories on your own, and do not discuss your assessments with the other raters so that everyone can provide his or her own personal assessments.

Behaviour-Descriptive Verb Items (GAPI-B)		Inter-rater reliability b		Temporal reliability
Item code ^a	Complete item statements	<i>ICC</i> (3, <i>k</i>)t₁	ICC $(3,k)t_2$	r _{tt} c
AHAPB2	Name (often) jumps at the grate or window when somebody stands in front of it.	.86	.78	.94***
AHAPB3	Name (often) spits or throws objects from his/her cage.	.84	.88	.94***
AHAPB4	Name (often) tries to scratch people through the grate.	.92	.69	.82***
AXAPB2	When <i>Name</i> is alone in a room, he/she (often) paces continuously and even sometimes has diarrhea.	.79	.90	.95***
AXAPB3	When somebody comes close to the grate near <i>Name</i> , he/she (often) shies away.	.06	.25	.86***
ARAPB2	Prior to a feeding session, <i>Name</i> (often) paces a lot.	21	.62	.59**
ARAPB3	When being fed, <i>Name</i> (often) makes loud sounds.	17	.82	.92***
CUAPB2	Name (often) touches new objects, such as enrichment items, intensely.	.76	.60	.91***
CUAPB3*		.88	.78	.61**
DIAPB2	When <i>Name</i> is occupied with something (e.g., fishing for food), he/she (hardly) interrupts his/her activity (even) when someone tries to distract him/her.	.78	.73	.72***
DOAPB2	In the group, <i>Name</i> is (most often) the first to get to the food.	.96	.85	.98***
DOAPB3*	Name is (most often) the last to get to the food.	.98	.82	.96***
FMAPB2	When there is food, <i>Name</i> is (often) quickly on the spot.	.79	50	.69***
FMAPB3	Between feeding times, one (hardly ever) sees <i>Name</i> eating.	.69	.70	.64**
FHAPB2	Name (often) comes to the grate when called.	.89	.27	.20
FHAPB3	(At times), <i>Name</i> even allows close contact with humans.	.84	.43	.88***
FRAPB5	Name (often) grooms his/her conspecifics.	.69	.82	.90***
FRAPB6*	Name (hardly ever) engages in body contact with his/her conspecifics.	.71	.86	.89***
GRAPB2*	Name (often) withdraws from his/her conspecifics in the indoor or outdoor enclosure.	.94	.90	.89***
GRAPB3	Name sits together with his/her conspecifics (a lot).	.93	.89	.88***
IMAPB2	When he/she does not get his/her food immediately, <i>Name</i> (often) quickly knocks at the grate or window.	.04	.42	.68***
IMAPB3*	Name (often) waits calmly until it is his/her turn to get his/her food.	28	.68	.89***
PAAPB2	(Most of the time), <i>Name</i> is walking or brachiating in the indoor or outdoor enclosure.	.93	.93	.98***
PAAPB3*	(Most of the time), <i>Name</i> is sitting or lying down.	.96	.90	.90***
PEAPB2*	When fishing for food, <i>Name</i> (often) gives up easily.	.11	.64	.79***
PEAPB3	Name can occupy him-/herself with something (for a long time).	.41	.56	.94***
PLAPB2	Name (often) plays on his/her own with objects such as enrichment items.	.76	.42	.88***
PLAPB3	Name (rarely) plays with his/her conspecifics (except for youngsters).	.82	.77	.79***

Behaviour-Descriptive Verb Items (GAPI-B)		Inter-rater reliability b		Temporal reliability
Item code ^a	Complete item statements	<i>ICC</i> (3, <i>k</i>)	<i>ICC</i> (3, 1)	r_{tt}^{c}
SXAPB2	Name (often) establishes sexual contact with his/her conspecifics.	.77	.96	.96***
SXAPB3	Name (often) stimulates him-/herself sexually.	.79	.72	.90***
VIAPB2	Name is (often) quick to notice small changes in the cages or enclosures.	69	.17	.85***
VIAPB3	Name (often) watches everything around him-/herself very closely.	12	.49	.83***
YOAPB2	Name spends (a lot of) time with youngsters.	.75	.96	.91***
YOAPB3	Name (often) plays with youngsters.	.57	.49	.89***

^{*} Items reversed in meaning when used with a frequency scale. Further items may have reversed keyed meanings when used with an agreement scale. Based on N = 20 great apes.

Abbreviations Item code

First two digits construct (see below)
Second two digits species (AP = great ape)

Last two digits item format B1 to B3 = behaviour-descriptive verb items

"Personality" Constructs:

AH Aggressiveness to humans	FO Food orientation
AR Arousability	GR Gregariousness
AX Anxiousness	IM Impulsiveness
CO Competitiveness	PA Physical activity
CU Curiousness	PE Persistency
DI Distractibility	PL Playfulness
DO Dominance	SX Sexual activity
FH Friendliness (Social orientation) to humans	VI Vigilance

FR Friendliness (Social orientation) to conspecifics YO Social orientation to youngsters.

Please note that items describing *Aggressiveness to conspecifics* are not contained because intra-specific aggression was not recorded in the behavioural studies. The same applies to the construct *Cleanliness*. Pertinent items may be adapted from the CPI for capuchin monkeys or the MPIc for macaques.

The GAPI has been developed for assessments of captive individuals.

^a Item code abbreviations see below

^b Inter-rater reliabilities based on k = 4-5 raters per ape individual.

[°] Test-retest reliability over 4-5 weeks; Pearson correlation r; p < .001, p < .01.