

## Capuchin Personality Inventory (CPI)

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

Uher, J. & Visalberghi, E. (2016). Observations versus assessments of personality: A five-method multi-species study reveals numerous biases in ratings and methodological limitations of standardised assessments. *Journal of Research in Personality*, 61, 61-79.  
<http://dx.doi.org/10.1016/j.jrp.2016.02.003>

### 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 statement (e.g., using a computer programme) to help the raters focus on the particular individual that they are assessing.

All items in the behaviour-descriptive verb format (BV) and the trait-adjective format (TA) can be presented together; you may also use the items of just one of the two CPIc 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 capuchins, the order in which each rater judges his or her particular set of monkey individuals should be randomised. Ideally, each monkey should be assessed by 2-3 people who know the individual very well.

### General instructions for raters

It is important that you assess the capuchins 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 often, in comparison with others, the particular capuchin monkey shows the behaviours described in the statement.

For your answers, you can use five response categories.

<b>almost never</b>	when the behaviour is	never or hardly ever shown
<b>rarely</b>		rather not shown
<b>sometimes</b>		shown every now and then
<b>often</b>		frequently shown
<b>very often</b>		very frequently shown

Please try to use the full range of all five categories for your answers and to use the outer categories as well.

### Example:

Capuchina is in close proximity to other group members.

**almost never**
 **rarely**
 **sometimes**
 **often**
 **very often**

There are no right or wrong answers. 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.

<b>Behaviour-Descriptive Verb Items (BV)</b>		<b>Inter-rater reliability<sup>b</sup></b>		<b>Temporal reliability<sup>c</sup></b>	
<b>Item code</b>	<b>Complete item statements</b>	<b>ICC (3,k)</b>	<b>ICC (3,1)</b>	<b>r<sub>tt</sub></b>	<b>p</b>
AGCPB1	<i>Name</i> starts agonistic interactions in the group by threatening and/or chasing other group members.	<b>.810</b>	<b>.630</b>	<b>.90</b>	.000
AHCPB1	When somebody stays in front of the cage, <i>Name</i> jumps at the grate and may also try to grab that person.	<b>.790</b>	<b>.620</b>	<b>.68</b>	.000
ARCPB1	When there are unusual noises outside the cage, <i>Name</i> starts pacing and/or scratching.	.480	.220	.36	.063
ARCPB2	When awaiting the feeding, <i>Name</i> paces restlessly and/or scratches him/herself.	.290	.200	<b>.58</b>	.002
AXCPB1	In social conflict situations, <i>Name</i> screams quickly and flees from others.	<b>.790</b>	<b>.590</b>	<b>.80</b>	.000
AXCPB2	<i>Name</i> keeps a distance from unknown objects/persons and/or avoids uncertain situations.	<b>.650</b>	.440	.32	.109
COCPB1	In the group, <i>Name</i> starts conflicts over food or foraging places with others.	<b>.730</b>	<b>.510</b>	<b>.89</b>	.000
COCPB2	<i>Name</i> displaces others that are being groomed by others or that are huddling together with a social partner.	<b>.730</b>	<b>.520</b>	<b>.65</b>	.000
CRCPB1	In his/her activities, <i>Name</i> involves several objects.	<b>.610</b>	<b>.400</b>	<b>.80</b>	.000
CUCPB1	<i>Name</i> explores new, potentially edible materials by sniffing, touching and/or mouthing them.	.350	.290	<b>.80</b>	.000
CUCPB2	<i>Name</i> readily explores changes in the environment.	.480	.370	<b>.73</b>	.000
DICPB1*	<i>Name</i> can focus long on activities that take effort and time.	<b>.630</b>	.410	<b>.47</b>	.013
DOCPB1	In the group, <i>Name</i> occupies the best places for foraging and resting.	<b>.870</b>	<b>.720</b>	<b>.92</b>	.000
DOCPB2*	Even from a distance, <i>Name</i> makes way for others and/or avoids others that are approaching.	<b>.820</b>	<b>.660</b>	<b>.89</b>	.000
FOCPB1	During the day, <i>Name</i> spends much time searching for food and eating.	<b>.520</b>	.310	<b>.74</b>	.000
FOCPB2	When there is food, <i>Name</i> is quickly on the spot.	.190	.160	<b>.74</b>	.000
GRCPB1	<i>Name</i> sits close together with other members of the group.	<b>.770</b>	<b>.590</b>	<b>.81</b>	.000
GRCPB2*	During the day, <i>Name</i> spends much time on his/her own.	<b>.640</b>	.420	<b>.75</b>	.000
IMCPB1	When <i>Name</i> does not get his/her food or reward immediately, he/she quickly bangs against the mesh or tries to get it forcefully.	<b>.740</b>	<b>.540</b>	<b>.77</b>	.000
PACPB1	During the day, <i>Name</i> constantly moves around in the enclosure.	<b>.540</b>	.340	<b>.82</b>	.000
PACPB2*	During the day, <i>Name</i> takes rests.	<b>.400</b>	.170	.31	.119
PECPB1	When trying to obtain food that is scattered or difficult to get, <i>Name</i> can spend a considerable amount of time and effort uninterrupted in this activity.	.260	.190	<b>.83</b>	.000
PLCPB1	<i>Name</i> plays with materials and/or objects in his/her environment on his/her own.	<b>.820</b>	<b>.650</b>	<b>.77</b>	.000
PLCPB2	<i>Name</i> engages in rough-and-tumble play or play chases with his/her group members.	<b>.890</b>	<b>.750</b>	<b>.77</b>	.000

Behaviour-Descriptive Verb Items (BV)		Inter-rater reliability <sup>b</sup>		Temporal reliability <sup>c</sup>	
Item code <sup>a</sup>	Complete item statements	ICC (3,k)	ICC (3,1)	$r_{tt}$	$p$
SCCPB1	<i>Name</i> cleans himself/herself intensely by self-licking or self-grooming.	.260	.080	.07	.730
SHCPB1	To persons approaching or standing in front of the cage, <i>Name</i> approaches, lip-smacks and/or shows scalp lifts.	<b>.570</b>	.380	<b>.81</b>	.000
SOCPB1	<i>Name</i> approaches and lip-smacks to other group members.	.250	.130	<b>.64</b>	.000
SOCPB2	<i>Name</i> touches and also grooms other group members.	<b>.640</b>	.440	<b>.76</b>	.000
SOCPB3	<i>Name</i> feeds together with others in close proximity.	<b>.650</b>	.430	<b>.65</b>	.000
SXCPB1	<i>Name</i> tries to contact others sexually by scalp lifting, head cocking, grinning and/or chest rubbing.	<b>.710</b>	.400	<b>.76</b>	.000
VICPB1	<i>Name</i> watches everything around him/her closely.	<b>.560</b>	.220	.48	.011
VICPB2	<i>Name</i> quickly spots small food items, potential prey or changes in the environment.	<b>.540</b>	.190	<b>.54</b>	.004
YOCPB1	<i>Name</i> observes youngsters with interest, tries to get close to them and/or initiates playful interactions with them. <sup>c</sup>	.407	.146	<b>.85</b>	.000
YOCPB2	<i>Name</i> takes care of youngsters and carries, embraces and/or grooms them. <sup>c</sup>	<b>.571</b>	.250	<b>.93</b>	.000

Bold ICC and  $r_{tt}$  scores >.50.  $N = 150$  capuchin monkeys.

\* Item meanings are reverse keyed.

<sup>a</sup> Item code abbreviations see below.

<sup>b</sup> Mean inter-rater reliabilities of all institution-specific scores;  $k = 2-6$  raters per monkey.

<sup>c</sup> Determined only for the ISTC-CNR sub-sample; time span = 4 weeks (see publication).

#### Abbreviations Item code

First two digits      construct (see below)  
 Second two digits    species (CP = capuchin)  
 Last two digits      item format    B1 to B3 = behaviour-descriptive verb items

#### “Personality” Constructs:

AG Aggressiveness to conspecifics	IM Impulsiveness
AH Aggressiveness to humans	PA Physical activity
AR Arousability	PE Persistency
AX Anxiousness	PL Playfulness
CO Competitiveness	SC (Self-)Cleanliness
CR Creativeness/ Inventiveness	SH Social orientation to humans
CU Curiousness	SO Social orientation to conspecifics
DI Distractibility	SX Sexual activity
DO Dominance	VI Vigilance
FO Food orientation	YO Social orientation to youngsters.
GR Gregariousness	

Please note that the CPI has been developed for assessments of captive individuals.

This research was funded by a grant to Dr Jana Uher from the Deutsche Forschungsgemeinschaft, DFG (German Research Foundation, Grant Nr. UH249/1-1).