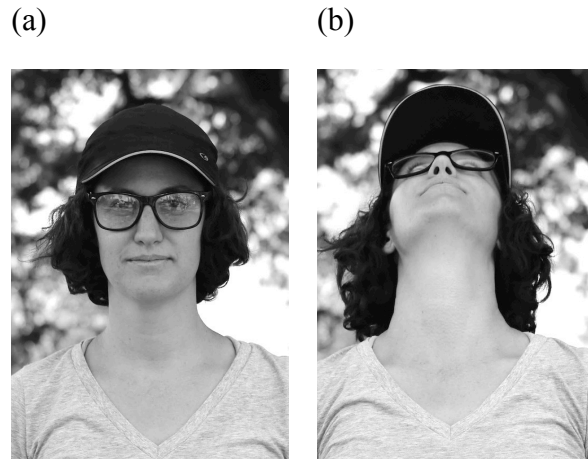


*Experimental Demonstration: Procedure*



**Figure S1.** Experimental demonstration. (a) An experimental demonstrator (E1) stood 1–2 m away from a calmly sitting monkey and attracted the monkey’s attention. (b) Once the monkey looked at E1, E1 looked straight up, rotating her entire head with eyes open. The same experimenter served as the demonstrator for both populations, and she wore a hat with a brim at both sites (as required for research on Cayo Santiago).

*Trial Completion*

As there was unequal trial completion across free-ranging individuals, we first examined the two species’ completion rates. Table S1 reports subject number and total trial completion across up to four trials, broken down by species and age cohort.

**Table S1**

Number of subjects in final sample and total number of trials completed, by species and age group

Age cohort	Barbary macaques		Rhesus macaques	
	<i>N</i>	Mean trials	<i>N</i>	Mean trials
Juveniles (<5 years)	20	3.80±0.14	20	3.55±0.18
Adults (15–15 years)	43	3.53±0.12	50	3.54±0.12
Older adults (>15 years)	17	3.24±0.22	10	3.50±0.27

*Test versus Control Trials: Full Model Parameters*

**Table S2**

Predictors from the full rhesus macaque model for gaze following

Factor	Estimate	SE	Z	P
Condition order (control first = reference)	-0.985	0.437	-2.252	<b>&lt;0.05</b>
Trial number (1–4)	0.030	0.155	0.190	0.85
Trial type (control = reference)	2.031	0.400	5.075	<b>&lt;0.001</b>
Age	-0.261	0.062	-4.216	<b>&lt;0.001</b>
Sex (female = reference)	-1.341	0.463	-2.893	<b>&lt;0.005</b>

Condition order, trial number and a random subject factor were included across models, and trial type (test or control), age and sex were added in successive models to test their importance. Significant *P* values are shown in bold.

**Table S3**

Predictors from the full Barbary macaque model for gaze following

Factor	Estimate	SE	Z	P
Condition order (control first = reference)	0.094	0.309	0.303	0.76
Trial number (1–4)	-0.092	0.140	-0.663	0.50
Trial type (control = reference)	2.332	0.362	6.438	<b>&lt;0.001</b>
Age	-0.037	0.026	-1.405	0.16
Sex (female = reference)	0.310	0.308	1.006	0.31

Condition order, trial number and a random subject factor were included across models, and trial type (test or control), age and sex were added in successive models to test their importance. Significant *P* values are shown in bold.