

Supplementary Material

Survey Instrument

Before agreeing to take the survey, Amazon Mechanical Turk “workers” were provided the following information:

Title: Attitude Survey

Description: In this short survey (approximately 5 minutes), you will view an image before indicating your level of agreement with a series of statements based on that image and your perception.

Keywords (to search for survey): survey, attitude, opinion, perception

Reward per response: \$0.50

Time allotted: 20 min

After agreeing to take the survey, “workers” received the following prompts:

Survey Instructions: We are conducting a survey about animals. You will view an image of an animal and then indicate your level of agreement with a series of statements. Select the link below to complete the survey. At the end of the survey, you will receive a Respondent ID code to paste into the box below to receive credit for taking our survey.

Make sure to leave this window open as you complete the survey. When you are finished, you will return to this page to paste the Respondent ID code into the box.

For survey statements 1-24, respondents selected from a 4-point Likert scale with the following response choices: “strongly disagree, disagree, agree, strongly agree.” Statement 1 was provided on its own page immediately following image presentation:

- Statement 1: I would like to have a sloth (python) as a pet. [12]

Statements 2-24 were presented in random order on a single page after a response to Statement 1 was provided. Each statement was previously validated in the studies referenced with each below:

- Statement 2: People should have the right to buy and keep a sloth (python) if they want to. [44]
- Statement 3: Allowing people to hold or handle a sloth (python) for a photo opportunity should be banned. [50]
- Statement 4: I would enjoy learning about the ecosystem of wild sloths (pythons). [12]
- Statement 5: I am very interested in learning about wild sloth (python) populations in nature. [12]
- Statement 6: It is important that we learn as much as we can about wildlife. [1]
- Statement 7: I am afraid of sloths (pythons). [12]
- Statement 8: I think sloths (pythons) are unclean and full of disease. [12]
- Statement 9: I do not think sloths (pythons) are smart enough to be trained in a zoo. [12]
- Statement 10: I like to see pictures or watch TV programs depicting animals like sloths (pythons), but I have little desire to see them in the wild. [12]
- Statement 11: I would be thrilled to take a tour in Central/South America (Asia) to see sloths (pythons) in the wild. [12]
- Statement 12: If I were to take a tour in Central/South America (Asia), I would prefer to stay in a modern facility in a city rather than in nature where there might be wild sloths (pythons) around. [12]
- Statement 13: I think love is an emotion that people should feel for other people, not for sloths (pythons). [12]
- Statement 14: I think it is okay if wild animals participate in experiences such as sloth yoga (tourist photos). [12]
- Statement 15: If there are plenty of sloths (pythons) in the wild, I believe people should be allowed to hunt or capture and sell them if it helps improve their livelihood. [12]

- Statement 16: It harms animals to use them in the media, such as commercials, television programs, or movies. [44]
- Statement 17: In my opinion, animals are definitely inferior to humans. [47]
- Statement 18: There should be extremely harsh penalties including jail sentences for people who participate in activities that result in cruelty to animals. [48]
- Statement 19: I am, or could become, very emotionally attached to some of the sloths (pythons) I see at the zoo. [12]
- Statement 20: I feel a sense of connection with the animals I see at a zoo. [2]
- Statement 21: I do not feel affectionate toward animals I see at a zoo. [7]
- Statement 22: Animals in zoos are healthy and comfortable. [46]
- Statement 23: Zoo staff provide the animals in their care with a high quality of life. [49]
- Statement 24: Keeping sloths (pythons) in zoos, no matter how large and attractive their surroundings are, strikes me as cruel and unusual. [12]

Demographic questions were provided in set order (see below) and on a separate page at the end of the survey:

- How many times have you visited any zoo in the past year? (open numerical response)
- What is your age? (open numerical response)
- Please specify your ethnicity.*
 Caucasian
 Hispanic or Latino
 Black or African American
 Native American or American Indian
 Asian / Pacific Islander
 Other/Multiple
 Prefer not to say
- Which of the following best describes your gender?
 Female
 Male
 Other gender
 Prefer to self-describe ____
 Prefer not to say
- What is the highest degree or level of school you have completed? If currently enrolled, highest degree received.*
 Some high school, no diploma
 High school graduate, diploma or the equivalent (for example: GED)
 Trade/technical/vocational training or Associate's degree
 Bachelor's degree
 Professional or Graduate degree (Masters, Doctorate, MBA, Professional Engineer, etc.)
 Prefer not to say

*Standard questions used in previous survey research at the authors' institutions. Since the hypotheses tested in this study were unrelated to these parameters, we do not provide, analyze, or discuss responses to these questions.

Supplemental Tables

Table S1. Self-reported gender identities. While respondents could specify additional gender identities, we used only three categories (male, female, other) to simplify analyses following Lindqvist et al. [59]. Table reproduced from Cronin et al. [26] with permission under the Creative Commons license.

Study	Self-reported Gender	Frequency
Sloth	Female	918
Sloth	Male	833
Sloth	Other gender	3
Sloth	Prefer to self-describe: genderqueer	1
Sloth	Prefer to self-describe: nebularian	1
Sloth	Prefer to self-describe: nonbinary	2
Sloth	Prefer to self-describe: transman	1
Sloth	Prefer not to say	8
Python	Female	873
Python	Male	892
Python	Other gender	7
Python	Prefer to self-describe: agender	1
Python	Prefer to self-describe: gender fluid	1
Python	Prefer to self-describe: nonbinary	1
Python	Prefer not to say	10

Table S2. Likelihood ratio test results for four linear regression models. Results for significant predictors ($p < 0.05$) are shown in bold.

Sloth Positive Attitude Type	F	df	P-value	Python Positive Attitude Type	F	df	P-value
Fixed Factors				Fixed Factors			
Context	0.3516	5	0.8814	Context	1.0023	5	0.4148
Gender	0.8366	2	0.4334	Gender	28.4133	2	7.145e-13
Generation	7.9641	5	1.965e-07	Generation	9.9467	5	2.127e-09
Sloth Negative Attitude Type	F	df	P-value	Python Negative Attitude Type	F	df	P-value
Fixed Factors				Fixed Factors			
Context	1.9712	5	0.07999	Context	0.1107	5	0.9900
Gender	27.1517	2	2.438e-12	Gender	38.5748	2	<2.2e-16
Generation	4.0643	5	0.001135	Generation	6.5609	5	4.661e-06

Table S3. Linear regression results for the sloth experiment, positive attitude type. The reference levels were “Control” for context, female for gender, and Gen Z for generation. We provide predictor coefficients as well as 95% confidence intervals (Lower-95, Upper-95) and standard error (S.E.).

Predictor	Coefficient	Lower-95	Upper-95	S.E.
Context_Habitat	0.0097	-0.1394	0.1588	0.0760
Context_Zoo Keeper	0.0545	-0.0939	0.2030	0.0757
Context_Perch	0.0375	-0.1111	0.1861	0.0758
Context_Touch	0.0695	-0.0785	0.2175	0.0755
Context_Yoga	0.0778	-0.0706	0.2261	0.0756
Gender_Male	0.0151	-0.0712	0.1014	0.0440
Gender_Other	-0.2796	-0.7325	0.1733	0.2309
Generation_Millennial	-0.0121	-0.1734	0.1492	0.0823
Generation_Gen X	-0.1976	-0.3720	-0.0232	0.0889
Generation_Boomer II	-0.3854	-0.5935	-0.1773	0.1061
Generation_Boomer	-0.4718	-0.7740	-0.1696	0.1541
Generation_Post War	-0.5471	-1.2973	0.2032	0.3825

Table S4. Linear regression results for the sloth experiment, negative attitude type. The reference levels were “Control” for context, female for gender, and Gen Z for generation. We provide predictor coefficients as well as 95% confidence intervals (Lower-95, Upper-95) and standard error (S.E.).

Predictor	Coefficient	Lower-95	Upper-95	S.E.
Context_Habitat	-0.0251	-0.1746	0.1245	0.0763
Context_Zoo Keeper	-0.1176	-0.2665	0.0314	0.0759
Context_Perch	0.0448	-0.1043	0.1939	0.0760
Context_Touch	0.0315	-0.1169	0.1800	0.0757
Context_Yoga	0.1049	-0.0439	0.2537	0.0759
Gender_Male	0.3169	0.2303	0.4035	0.0442
Gender_Other	-0.2328	-0.6870	0.2215	0.2316
Generation_Millennial	0.3251	0.1632	0.4869	0.0825
Generation_Gen X	0.3065	0.1316	0.4814	0.0892
Generation_Boomer II	0.1785	-0.0303	0.3872	0.1064
Generation_Boomer	0.1467	-0.1564	0.4499	0.1546
Generation_Post War	-0.1883	-0.9409	0.5643	0.3837

Table S5. Linear regression results for the python experiment, positive attitude type. The reference levels were “Control” for context, female for gender, and Gen Z for generation. We provide predictor coefficients as well as 95% confidence intervals (Lower-95, Upper-95) and standard error (S.E.).

Predictor	Coefficient	Lower-95	Upper-95	S.E.
Context_Habitat	-0.0095	-0.1553	0.1364	0.0744
Context_Zoo Keeper	0.1143	-0.0316	0.2601	0.0744
Context_Perch	0.0834	-0.0617	0.2286	0.0740
Context_Touch	0.0895	-0.0554	0.2345	0.0739
Context_Tourist Photo	0.0194	-0.1259	0.1647	0.0741
Gender_Male	0.3132	0.2282	0.3982	0.0433
Gender_Other	0.6026	0.2012	1.0040	0.2047
Generation_Millennial	-0.0629	-0.2108	0.0850	0.0754
Generation_Gen X	-0.0963	-0.2584	0.0658	0.0827
Generation_Boomer II	-0.4188	-0.6148	-0.2228	0.0999
Generation_Boomer	-0.5846	-0.8408	-0.3283	0.1306
Generation_Post War	-1.0088	-1.6489	-0.3686	0.3264

Table S6. Linear regression results for the python experiment, negative attitude type. The reference levels were “Control” for context, female for gender, and Gen Z for generation. We provide predictor coefficients as well as 95% confidence intervals (Lower-95, Upper-95) and standard error (S.E.).

Predictor	Coefficient	Lower-95	Upper-95	S.E.
Context_Habitat	0.0364	-0.1023	0.1750	0.0707
Context_Zoo Keeper	0.0000	-0.1387	0.1387	0.0707
Context_Perch	0.0225	-0.1155	0.1606	0.0704
Context_Touch	0.0225	-0.1154	0.1603	0.0703
Context_Tourist Photo	0.0373	-0.1009	0.1755	0.0705
Gender_Male	0.3367	0.2558	0.4175	0.0412
Gender_Other	-0.4431	-0.8248	-0.0614	0.1946
Generation_Millennial	0.3427	0.2021	0.4834	0.0717
Generation_Gen X	0.4223	0.2682	0.5765	0.0786
Generation_Boomer II	0.4259	0.2395	0.6122	0.0950
Generation_Boomer	0.3551	0.1115	0.5988	0.1242
Generation_Post War	0.6520	0.0433	1.2607	0.3103

Table S7. Pairwise contrasts (estimate) with standard errors (S.E.) between predictor levels for the sloth experiment, with contrasts for the model investigating the positive attitude type on the left and contrasts for the model investigating the negative attitude type on the right. For each predictor, results are averaged over levels of other predictors. p-values were adjusted using the Tukey method for comparing a family of six estimates for context, three estimates for gender, and six estimates for generation. Results for significant contrasts ($p < 0.05$) are shown in bold.

Positive Attitude Type						Negative Attitude Type					
Context	estimate	S.E.	df	t-ratio	P-value	Context	estimate	S.E.	df	t-ratio	P-value
Control - Habitat	-0.0097	0.0760	1754	-0.127	1.0000	Control - Habitat	0.0251	0.0763	1754	0.329	0.9995
Control - Zoo Keeper	-0.0545	0.0757	1754	-0.720	0.9795	Control - Zoo Keeper	0.1175	0.0759	1754	1.548	0.6329
Control - Perch	-0.0375	0.0758	1754	-0.495	0.9964	Control - Perch	-0.0448	0.0760	1754	-0.589	0.9918
Control - Touch	-0.0695	0.0755	1754	-0.921	0.9411	Control - Touch	-0.0315	0.0757	1754	-0.417	0.9984
Control - Yoga	-0.0778	0.0756	1754	-1.028	0.9086	Control - Yoga	-0.1049	0.0759	1754	-1.383	0.7376
Habitat - Zoo Keeper	-0.0448	0.0756	1754	-0.593	0.9915	Habitat - Zoo Keeper	0.0925	0.0758	1754	1.219	0.8276
Habitat - Perch	-0.0278	0.0758	1754	-0.367	0.9991	Habitat - Perch	-0.0698	0.0760	1754	-0.918	0.9419
Habitat - Touch	-0.0599	0.0754	1754	-0.793	0.9687	Habitat - Touch	-0.0566	0.0757	1754	-0.748	0.9758
Habitat - Yoga	-0.0681	0.0758	1754	-0.898	0.9470	Habitat - Yoga	-0.1300	0.0760	1754	-1.709	0.5259
Zoo Keeper - Perch	0.0170	0.0754	1754	0.226	0.9999	Zoo Keeper - Perch	-0.1623	0.0756	1754	-2.147	0.2636
Zoo Keeper - Touch	-0.0150	0.0750	1754	-0.200	1.0000	Zoo Keeper - Touch	-0.1491	0.0753	1754	-1.980	0.3541
Zoo Keeper - Yoga	-0.0233	0.0755	1754	-0.308	0.9996	Zoo Keeper - Yoga	-0.2224	0.0757	1754	-2.938	0.0392
Perch - Touch	-0.0320	0.0752	1754	-0.426	0.9982	Perch - Touch	0.0132	0.0754	1754	0.175	1.0000
Perch - Yoga	-0.0403	0.0756	1754	-0.532	0.9949	Perch - Yoga	-0.0601	0.0759	1754	-0.792	0.9689
Touch - Yoga	-0.0082	0.0753	1754	-0.109	1.0000	Touch - Yoga	-0.0734	0.0755	1754	-0.971	0.9270
Gender	estimate	S.E.	df	t-ratio	P-value	Gender	estimate	S.E.	df	t-ratio	P-value
Female - Male	-0.0151	0.0440	1754	-0.343	0.9373	Female - Male	-0.3170	0.0441	1754	-7.178	<0.0001
Female - Other	0.2796	0.2310	1754	1.211	0.4468	Female - Other	0.2330	0.2316	1754	1.005	0.5738
Male - Other	0.2947	0.2310	1754	1.275	0.4094	Male - Other	0.5500	0.2318	1754	2.371	0.0468
Generation	estimate	S.E.	df	t-ratio	P-value	Generation	estimate	S.E.	df	t-ratio	P-value
Gen Z - Millennial	0.0121	0.0823	1754	0.147	1.0000	Gen Z - Millennial	-0.3251	0.0825	1754	-3.940	0.0012
Gen Z - Gen X	0.1976	0.0889	1754	2.222	0.2281	Gen Z - Gen X	-0.3065	0.0892	1754	-3.437	0.0079
Gen Z - Boomer II	0.3854	0.1061	1754	3.632	0.0039	Gen Z - Boomer II	-0.1785	0.1064	1754	-1.677	0.5474
Gen Z - Boomer	0.4718	0.1541	1754	3.062	0.0271	Gen Z - Boomer	-0.1467	0.1546	1754	-0.949	0.9335
Gen Z - Post War	0.5471	0.3825	1754	1.430	0.7086	Gen Z - Post War	0.1883	0.3837	1754	0.491	0.9965
Millennial - Gen X	0.1854	0.0532	1754	3.483	0.0067	Millennial - Gen X	0.0186	0.0534	1754	0.348	0.9993
Millennial - Boomer II	0.3733	0.0789	1754	4.734	<0.0001	Millennial - Boomer II	0.1466	0.0791	1754	1.853	0.4316
Millennial - Boomer	0.4597	0.1367	1754	3.362	0.0103	Millennial - Boomer	0.1784	0.1372	1754	1.300	0.7849
Millennial - Post War	0.5349	0.3755	1754	1.424	0.7121	Millennial - Post War	0.5134	0.3767	1754	1.363	0.7493
Gen X - Boomer II	0.1878	0.0856	1754	2.194	0.2411	Gen X - Boomer II	0.1280	0.0859	1754	1.491	0.6703

Positive Attitude Type					Negative Attitude Type						
Gen X - Boomer	0.2742	0.1408	1754	1.947	0.3735	Gen X - Boomer	0.1598	0.1413	1754	1.131	0.8684
Gen X - Post War	0.3495	0.3769	1754	0.927	0.9395	Gen X - Post War	0.4948	0.3781	1754	1.309	0.7803
Boomer II - Boomer	0.0864	0.1522	1754	0.567	0.9931	Boomer II - Boomer	0.0318	0.1527	1754	0.208	0.9999
Boomer II - Post War	0.1617	0.3817	1754	0.424	0.9983	Boomer II - Post War	0.3668	0.3828	1754	0.958	0.9309
Boomer - Post War	0.0753	0.3977	1754	0.189	1.0000	Boomer - Post War	0.3350	0.3989	1754	0.840	0.9600

Table S8. Pairwise contrasts (estimate) with standard errors (S.E.) between predictor levels for the python experiment, with contrasts for the model investigating the positive attitude type on the left and contrasts for the model investigating the negative attitude type on the right. For each predictor, results are averaged over levels of other predictors. p-values were adjusted using the Tukey method for comparing a family of six estimates for context, three estimates for gender, and six estimates for generation. Results for significant contrasts ($p < 0.05$) are shown in bold.

Positive Attitude Type						Negative Attitude Type					
Context	estimate	S.E.	df	t-ratio	P-value	Context	estimate	S.E.	df	t-ratio	P-value
Control - Habitat	0.0095	0.0744	1772	0.127	1.0000	Control - Habitat	-0.0364	0.0707	1772	-0.515	0.9956
Control - Zoo Keeper	-0.1143	0.0744	1772	-1.536	0.6407	Control - Zoo Keeper	0.0000	0.0707	1772	0.000	1.0000
Control - Perch	-0.0834	0.0740	1772	-1.127	0.8702	Control - Perch	-0.0225	0.0704	1772	-0.320	0.9996
Control - Touch	-0.0896	0.0739	1772	-1.211	0.8315	Control - Touch	-0.0225	0.0703	1772	-0.319	0.9996
Control - Tourist Photo	-0.0194	0.0741	1772	-0.261	0.9998	Control - Tourist Photo	-0.0373	0.0704	1772	-0.529	0.9950
Habitat - Zoo Keeper	-0.1237	0.0743	1772	-1.664	0.5557	Habitat - Zoo Keeper	0.0364	0.0707	1772	0.515	0.9956
Habitat - Perch	-0.0929	0.0741	1772	-1.254	0.8099	Habitat - Perch	0.0138	0.0704	1772	0.196	1.0000
Habitat - Touch	-0.0990	0.0740	1772	-1.338	0.7639	Habitat - Touch	0.0139	0.0704	1772	0.198	1.0000
Habitat - Tourist Photo	-0.0288	0.0742	1772	-0.389	0.9989	Habitat - Tourist Photo	-0.0009	0.0706	1772	-0.013	1.0000
Zoo Keeper - Perch	0.0308	0.0741	1772	0.416	0.9984	Zoo Keeper - Perch	-0.0225	0.0705	1772	-0.320	0.9996
Zoo Keeper - Touch	0.0247	0.0741	1772	0.334	0.9995	Zoo Keeper - Touch	-0.0225	0.0704	1772	-0.319	0.9996
Zoo Keeper - Tourist Photo	0.0949	0.0742	1772	1.278	0.7971	Zoo Keeper - Tourist Photo	-0.0373	0.0706	1772	-0.528	0.9950
Perch - Touch	-0.0061	0.0735	1772	-0.083	1.0000	Perch - Touch	0.0001	0.0699	1772	0.001	1.0000
Perch - Tourist Photo	0.0640	0.0738	1772	0.867	0.9542	Perch - Tourist Photo	-0.0148	0.0702	1772	-0.210	0.9999
Touch - Tourist Photo	0.0702	0.0737	1772	0.952	0.9327	Touch - Tourist Photo	-0.0148	0.0701	1772	-0.212	0.9999
Gender	estimate	S.E.	df	t-ratio	P-value	Gender	estimate	S.E.	df	t-ratio	P-value
Female - Male	-0.3130	0.0433	1772	-7.228	<0.0001	Female - Male	-0.3370	0.0412	1772	-8.171	<0.0001
Female - Other	-0.6030	0.2047	1772	-2.944	0.0092	Female - Other	0.4430	0.1946	1772	2.277	0.0594
Male - Other	-0.2890	0.2043	1772	-1.416	0.3327	Male - Other	0.7800	0.1943	1772	4.013	0.0002
Generation	estimate	S.E.	df	t-ratio	P-value	Generation	estimate	S.E.	df	t-ratio	P-value
Gen Z - Millennial	0.0629	0.0754	1772	0.834	0.9612	Gen Z - Millennial	-0.3428	0.0717	1772	-4.780	<0.0001
Gen Z - Gen X	0.0963	0.0827	1772	1.165	0.8534	Gen Z - Gen X	-0.4223	0.0786	1772	-5.373	<0.0001
Gen Z - Boomer II	0.4188	0.0999	1772	4.191	0.0004	Gen Z - Boomer II	-0.4259	0.0950	1772	-4.482	0.0001
Gen Z - Boomer	0.5846	0.1306	1772	4.474	0.0001	Gen Z - Boomer	-0.3551	0.1242	1772	-2.859	0.0492
Gen Z - Post War	1.0088	0.3264	1772	3.091	0.0248	Gen Z - Post War	-0.6520	0.3103	1772	-2.101	0.2872
Millennial - Gen X	0.0334	0.0534	1772	0.626	0.9892	Millennial - Gen X	-0.0796	0.0508	1772	-1.567	0.6206
Millennial - Boomer II	0.3559	0.0775	1772	4.595	0.0001	Millennial - Boomer II	-0.0831	0.0737	1772	-1.129	0.8696
Millennial - Boomer	0.5217	0.1144	1772	4.560	0.0001	Millennial - Boomer	-0.0124	0.1088	1772	-0.114	1.0000
Millennial - Post War	0.9458	0.3202	1772	2.954	0.0374	Millennial - Post War	-0.3092	0.3045	1772	-1.016	0.9128
Gen X - Boomer II	0.3225	0.0842	1772	3.829	0.0019	Gen X - Boomer II	-0.0036	0.0801	1772	-0.044	1.0000
Gen X - Boomer	0.4882	0.1190	1772	4.104	0.0006	Gen X - Boomer	0.0672	0.1131	1772	0.594	0.9915

Positive Attitude Type					Negative Attitude Type						
Gen X - Post War	0.9124	0.3220	1772	2.834	0.0527	Gen X - Post War	-0.2297	0.3062	1772	-0.750	0.9755
Boomer II - Boomer	0.1657	0.1315	1772	1.260	0.8067	Boomer II - Boomer	0.0708	0.1251	1772	0.566	0.9932
Boomer II - Post War	0.5899	0.3268	1772	1.805	0.4627	Boomer II - Post War	-0.2261	0.3108	1772	-0.728	0.9786
Boomer - Post War	0.4242	0.3375	1772	1.257	0.8084	Boomer - Post War	-0.2969	0.3210	1772	-0.925	0.9402

Table S9. Likelihood ratio test results for ordinal logistic regression models. Results for significant predictors ($p < 0.05$) are shown in bold.

Statement 22: Animals in zoos are healthy and comfortable.			
Sloth	χ^2	df	P-value
Fixed Factors			
Context	2.3239	5	0.8028
Gender	6.6799	2	0.03544
Generation	22.2122	5	0.0004771
Statement 23: Zoo staff provide the animals in their care with a high quality of life.			
Sloth	χ^2	df	P-value
Fixed Factors			
Context	1.0133	5	0.9615
Gender	2.7800	2	0.2491
Generation	10.8117	5	0.05524
Statement 24: Keeping sloths (pythons) in zoos, no matter how large and attractive their surroundings are, strikes me as cruel and unusual.			
Sloth	χ^2	df	P-value
Fixed Factors			
Context	4.0735	5	0.5389
Gender	2.5196	2	0.2837
Generation	0.6115	5	0.9875
Python			
Python	χ^2	df	P-value
Fixed Factors			
Context	0.895	5	0.9706
Gender	9.635	2	0.008088
Generation	44.122	5	2.188e-08
Context	3.8749	5	0.5676
Gender	4.2786	2	0.1177
Generation	19.5834	5	0.001496

Table S10. Ordinal logistic regression results investigating agreement with zoo animal perception questions for the sloth experiment. The reference levels were “Control” for context, female for gender, and Gen Z for generation. We provide predictor coefficients as well as 95% confidence intervals (Lower-95, Upper-95), standard error (S.E.), and exponentiated odds ratios.

Statement 22: Animals in zoos are healthy and comfortable.					
Predictor	Coefficient	Lower-95	Upper-95	S.E.	Odds Ratio
Context_Habitat	0.0046	-0.3034	0.3127	0.1571	1.0046
Context_Zoo Keeper	0.1196	-0.1885	0.4278	0.1572	1.1270
Context_Perch	0.0616	-0.2482	0.3714	0.1580	1.0635
Context_Touch	-0.0210	-0.3285	0.2866	0.1569	0.9793
Context_Yoga	-0.1043	-0.4120	0.2033	0.1569	0.9010
Gender_Male	0.2193	0.0395	0.3995	0.0918	1.2452
Gender_Other	-0.3694	-1.3195	0.5851	0.4824	0.6912
Generation_Millennial	0.6757	0.3418	1.0100	0.1703	1.9654
Generation_Gen X	0.8030	0.4427	1.1640	0.1839	2.2322
Generation_Boomer II	0.5636	0.1363	0.9923	0.2182	1.7570
Generation_Boomer	0.5703	-0.0343	1.1798	0.3093	1.7689
Generation_Post War	-0.6116	-2.3299	1.0544	0.8516	0.5425
Statement 23: Zoo staff provide the animals in their care with a high quality of life.					
Predictor	Coefficient	Lower-95	Upper-95	S.E.	Odds Ratio
Context_Habitat	-0.0062	-0.3233	0.3109	0.1618	0.9938
Context_Zoo Keeper	0.0442	-0.2716	0.3599	0.1611	1.0452
Context_Perch	-0.0453	-0.3611	0.2704	0.1611	0.9557
Context_Touch	-0.0143	-0.3288	0.3002	0.1604	0.9858
Context_Yoga	-0.1078	-0.4228	0.2072	0.1607	0.8979
Gender_Male	0.1144	-0.0691	0.2982	0.0937	1.1212
Gender_Other	-0.5364	-1.5493	0.4902	0.5184	0.5849
Generation_Millennial	0.5287	0.1787	0.8773	0.1782	1.6968
Generation_Gen X	0.5420	0.1648	0.9182	0.1921	1.7195
Generation_Boomer II	0.3225	-0.1187	0.7634	0.2250	1.3805
Generation_Boomer	0.3712	-0.2673	1.0140	0.3268	1.4495
Generation_Post War	-0.0876	-1.7756	1.6085	0.8565	0.9161
Statement 24: Keeping sloths in zoos, no matter how large and attractive their surroundings are, strikes me as cruel and unusual.					
Predictor	Coefficient	Lower-95	Upper-95	S.E.	Odds Ratio
Context_Habitat	0.0054	-0.2977	0.3086	0.1546	1.0055
Context_Zoo Keeper	-0.0760	-0.3785	0.2265	0.1543	0.9268
Context_Perch	0.0217	-0.2824	0.3258	0.1551	1.0219
Context_Touch	0.1965	-0.1052	0.4986	0.1540	1.2171
Context_Yoga	0.1227	-0.1805	0.4262	0.1547	1.1306
Gender_Male	-0.1099	-0.2860	0.0661	0.0898	0.8959
Gender_Other	-0.5544	-1.5534	0.4212	0.5022	0.5744
Generation_Millennial	-0.0999	-0.4232	0.2248	0.1652	0.9049
Generation_Gen X	-0.1182	-0.4683	0.2329	0.1788	0.8885
Generation_Boomer II	-0.1426	-0.5622	0.2770	0.2140	0.8671
Generation_Boomer	-0.1696	-0.7720	0.4278	0.3056	0.8440
Generation_Post War	-0.0919	-1.7588	1.5177	0.8234	0.9122

Table S11. Ordinal logistic regression results investigating agreement with zoo animal perception questions for the python experiment. The reference levels were “Control” for context, female for gender, and Gen Z for generation. We provide predictor coefficients as well as 95% confidence intervals (Lower-95, Upper-95), standard error (S.E.), and exponentiated odds ratios.

Statement 22: Animals in zoos are healthy and comfortable.					
Predictor	Coefficient	Lower-95	Upper-95	S.E.	Odds Ratio
Context_Habitat	0.0223	-0.2864	0.3310	0.1574	1.0225
Context_Zoo Keeper	0.0065	-0.3039	0.3171	0.1584	1.0065
Context_Perch	-0.0091	-0.3150	0.2970	0.1561	0.9910
Context_Touch	-0.0024	-0.3095	0.3048	0.1567	0.9976
Context_Tourist Photo	-0.1092	-0.4189	0.2005	0.1580	0.8966
Gender_Male	0.2722	0.0925	0.4522	0.0917	1.3128
Gender_Other	-0.2476	-1.0964	0.6114	0.4335	0.7807
Generation_Millennial	0.8670	0.5548	1.1800	0.1594	2.3798
Generation_Gen X	1.1337	0.7877	1.4810	0.1768	3.1070
Generation_Boomer II	0.7063	0.2999	1.1143	0.2077	2.0265
Generation_Boomer	0.5569	0.0247	1.0927	0.2722	1.7452
Generation_Post War	0.4779	-0.8546	1.8241	0.6748	1.6127
Statement 23: Zoo staff provide the animals in their care with a high quality of life.					
Predictor	Coefficient	Lower-95	Upper-95	S.E.	Odds Ratio
Context_Habitat	0.0894	-0.2254	0.4044	0.1606	1.0935
Context_Zoo Keeper	0.0223	-0.2945	0.3391	0.1616	1.0225
Context_Perch	0.0246	-0.2879	0.3372	0.1594	1.0249
Context_Touch	0.0152	-0.2965	0.3269	0.1590	1.0153
Context_Tourist Photo	-0.2036	-0.5194	0.1120	0.1610	0.8158
Gender_Male	0.1767	-0.0069	0.3607	0.0937	1.1933
Gender_Other	-0.2806	-1.1455	0.5948	0.4433	0.7553
Generation_Millennial	0.5948	0.2722	0.9169	0.1644	1.8127
Generation_Gen X	0.4577	0.1058	0.8092	0.1794	1.5804
Generation_Boomer II	0.1836	-0.2373	0.6046	0.2147	1.2015
Generation_Boomer	0.0737	-0.4750	0.6253	0.2806	1.0765
Generation_Post War	0.2234	-1.1068	1.5848	0.6847	1.2503
Statement 24: Keeping pythons in zoos, no matter how large and attractive their surroundings are, strikes me as cruel and unusual.					
Predictor	Coefficient	Lower-95	Upper-95	S.E.	Odds Ratio
Context_Habitat	-0.0707	-0.3691	0.2274	0.1521	0.9317
Context_Zoo Keeper	-0.0246	-0.3267	0.2774	0.1541	0.9757
Context_Perch	-0.0260	-0.3211	0.2690	0.1505	0.9744
Context_Touch	-0.0738	-0.3711	0.2233	0.1516	0.9288
Context_Tourist Photo	0.0923	-0.2062	0.3908	0.1523	1.0967
Gender_Male	-0.0474	-0.2215	0.1266	0.0888	0.9537
Gender_Other	-0.4441	-1.2683	0.3750	0.4178	0.6414
Generation_Millennial	0.0466	-0.2562	0.3505	0.1547	1.0477
Generation_Gen X	0.1928	-0.1398	0.5265	0.1699	1.2127
Generation_Boomer II	0.1847	-0.2182	0.5879	0.2056	1.2028
Generation_Boomer	0.3680	-0.1588	0.8948	0.2685	1.4448
Generation_Post War	-0.0035	-1.4143	1.4226	0.7169	0.9965

Table S12. Pairwise contrasts (estimate) with standard errors (S.E.) between predictor levels for agreement with zoo animal perception statement 22 (Animals in zoos are healthy and comfortable) for the sloth experiment (left) and python experiment (right). For each predictor, results are averaged over levels of other predictors. p-values were adjusted using the Tukey method for comparing a family of six estimates for context, three estimates for gender, and six estimates for generation. Results for significant contrasts ($p < 0.05$) are shown in bold.

Sloth Experiment					Python Experiment				
Context	estimate	S.E.	z-ratio	P-value	Context	estimate	S.E.	z-ratio	P-value
Control - Habitat	-0.0046	0.1570	-0.029	1.0000	Control - Habitat	-0.0223	0.1570	-0.142	1.0000
Control - Zoo Keeper	-0.1196	0.1570	-0.761	0.9740	Control - Zoo Keeper	-0.0065	0.1580	-0.041	1.0000
Control - Perch	-0.0616	0.1580	-0.390	0.9988	Control - Perch	0.0091	0.1560	0.058	1.0000
Control - Touch	0.0210	0.1570	0.134	1.0000	Control - Touch	0.0024	0.1570	0.015	1.0000
Control - Yoga	0.1043	0.1570	0.664	0.9858	Control - Tourist Photo	0.1092	0.1580	0.691	0.9830
Habitat - Zoo Keeper	-0.1149	0.1570	-0.732	0.9780	Habitat - Zoo Keeper	0.0158	0.1570	0.100	1.0000
Habitat - Perch	-0.0570	0.1580	-0.360	0.9992	Habitat - Perch	0.0313	0.1550	0.202	1.0000
Habitat - Touch	0.0256	0.1570	0.163	1.0000	Habitat - Touch	0.0247	0.1560	0.158	1.0000
Habitat - Yoga	0.1089	0.1570	0.693	0.9828	Habitat - Tourist Photo	0.1314	0.1570	0.836	0.9609
Zoo Keeper - Perch	0.0580	0.1580	0.367	0.9991	Zoo Keeper - Perch	0.0155	0.1560	0.099	1.0000
Zoo Keeper - Touch	0.1405	0.1570	0.896	0.9475	Zoo Keeper - Touch	0.0089	0.1570	0.057	1.0000
Zoo Keeper - Yoga	0.2238	0.1570	1.424	0.7127	Zoo Keeper - Tourist Photo	0.1156	0.1580	0.731	0.9782
Perch - Touch	0.0825	0.1580	0.523	0.9953	Perch - Touch	-0.0067	0.1540	-0.043	1.0000
Perch - Yoga	0.1658	0.1580	1.048	0.9017	Perch - Tourist Photo	0.1001	0.1560	0.642	0.9878
Touch - Yoga	0.0833	0.1570	0.531	0.9949	Touch - Tourist Photo	0.1068	0.1560	0.683	0.9839
Gender	estimate	S.E.	z-ratio	P-value	Gender	estimate	S.E.	z-ratio	P-value
Female - Male	-0.2190	0.0918	-2.389	0.0445	Female - Male	-0.2720	0.0917	-2.966	0.0085
Female - Other	0.3690	0.4824	0.766	0.7242	Female - Other	0.2480	0.4335	0.571	0.8354
Male - Other	0.5890	0.4830	1.219	0.4420	Male - Other	0.5200	0.4331	1.200	0.4530
Generation	estimate	S.E.	z-ratio	P-value	Generation	estimate	S.E.	z-ratio	P-value
Gen Z - Millennial	-0.6757	0.1700	-3.967	0.0010	Gen Z - Millennial	-0.8670	0.1590	-5.439	<0.0001
Gen Z - Gen X	-0.8030	0.1840	-4.366	0.0002	Gen Z - Gen X	-1.1340	0.1770	-6.412	<0.0001
Gen Z - Boomer II	-0.5636	0.2180	-2.582	0.1015	Gen Z - Boomer II	-0.7060	0.2080	-3.401	0.0088
Gen Z - Boomer	-0.5703	0.3090	-1.844	0.4375	Gen Z - Boomer	-0.5570	0.2720	-2.046	0.3162
Gen Z - Post War	0.6116	0.8520	0.718	0.9798	Gen Z - Post War	-0.4780	0.6750	-0.708	0.9810
Millennial - Gen X	-0.1273	0.1100	-1.153	0.8588	Millennial - Gen X	-0.2670	0.1150	-2.322	0.1849
Millennial - Boomer II	0.1121	0.1620	0.690	0.9831	Millennial - Boomer II	0.1610	0.1590	1.009	0.9153
Millennial - Boomer	0.1054	0.2730	0.386	0.9989	Millennial - Boomer	0.3100	0.2380	1.305	0.7823
Millennial - Post War	1.2873	0.8390	1.535	0.6414	Millennial - Post War	0.3890	0.6620	0.588	0.9918
Gen X - Boomer II	0.2394	0.1760	1.360	0.7513	Gen X - Boomer II	0.4270	0.1750	2.437	0.1434

Sloth Experiment				Python Experiment			
Gen X - Boomer	0.2326	0.2810	0.827	0.9625	Gen X - Boomer	0.5770	0.2490
Gen X - Post War	1.4146	0.8410	1.682	0.5440	Gen X - Post War	0.6560	0.6660
Boomer II - Boomer	-0.0067	0.3050	-0.022	1.0000	Boomer II - Boomer	0.1490	0.2720
Boomer II - Post War	1.1752	0.8500	1.382	0.7377	Boomer II - Post War	0.2280	0.6750
Boomer - Post War	1.1820	0.8780	1.346	0.7590	Boomer - Post War	0.0790	0.6980
						0.113	1.0000

Table S13. Pairwise contrasts (estimate) with standard errors (S.E.) between predictor levels for agreement with zoo animal perception statement 23 (Zoo staff provide the animals in their care with a high quality of life) for the sloth experiment (left) and python experiment (right). For each predictor, results are averaged over levels of other predictors. p-values were adjusted using the Tukey method for comparing a family of six estimates for context, three estimates for gender, and six estimates for generation. Results for significant contrasts ($p < 0.05$) are shown in bold.

Sloth Experiment					Python Experiment				
Context	estimate	S.E.	z-ratio	P-value	Context	estimate	S.E.	z-ratio	P-value
Control - Habitat	0.0062	0.1620	0.038	1.0000	Control - Habitat	-0.0894	0.1610	-0.557	0.9937
Control - Zoo Keeper	-0.0442	0.1610	-0.274	0.9998	Control - Zoo Keeper	-0.0223	0.1620	-0.138	1.0000
Control - Perch	0.0453	0.1610	0.281	0.9998	Control - Perch	-0.0246	0.1590	-0.154	1.0000
Control - Touch	0.0143	0.1600	0.089	1.0000	Control - Touch	-0.0152	0.1590	-0.096	1.0000
Control - Yoga	0.1078	0.1610	0.671	0.9852	Control - Tourist Photo	0.2036	0.1610	1.264	0.8047
Habitat - Zoo Keeper	-0.0504	0.1610	-0.312	0.9996	Habitat - Zoo Keeper	0.0672	0.1610	0.417	0.9984
Habitat - Perch	0.0391	0.1620	0.242	0.9999	Habitat - Perch	0.0648	0.1590	0.407	0.9986
Habitat - Touch	0.0081	0.1610	0.050	1.0000	Habitat - Touch	0.0742	0.1590	0.468	0.9972
Habitat - Yoga	0.1016	0.1610	0.630	0.9888	Habitat - Tourist Photo	0.2930	0.1610	1.820	0.4525
Zoo Keeper - Perch	0.0894	0.1610	0.557	0.9937	Zoo Keeper - Perch	-0.0024	0.1600	-0.015	1.0000
Zoo Keeper - Touch	0.0584	0.1600	0.365	0.9992	Zoo Keeper - Touch	0.0071	0.1600	0.044	1.0000
Zoo Keeper - Yoga	0.1519	0.1610	0.945	0.9346	Zoo Keeper - Tourist Photo	0.2258	0.1620	1.395	0.7299
Perch - Touch	-0.0310	0.1600	-0.194	1.0000	Perch - Touch	0.0094	0.1570	0.060	1.0000
Perch - Yoga	0.0625	0.1610	0.389	0.9989	Perch - Tourist Photo	0.2282	0.1600	1.429	0.7096
Touch - Yoga	0.0935	0.1600	0.584	0.9921	Touch - Tourist Photo	0.2188	0.1590	1.376	0.7418
Gender	estimate	S.E.	z-ratio	P-value	Gender	estimate	S.E.	z-ratio	P-value
Female - Male	-0.1140	0.0937	-1.221	0.4406	Female - Male	-0.1770	0.0937	-1.885	0.1430
Female - Other	0.5360	0.5184	1.035	0.5549	Female - Other	0.2810	0.4433	0.633	0.8019
Male - Other	0.6510	0.5190	1.254	0.4215	Male - Other	0.4570	0.4426	1.033	0.5559
Generation	estimate	S.E.	z-ratio	P-value	Generation	estimate	S.E.	z-ratio	P-value
Gen Z - Millennial	-0.5287	0.1780	-2.968	0.0355	Gen Z - Millennial	-0.5948	0.1640	-3.618	0.0040
Gen Z - Gen X	-0.5420	0.1920	-2.821	0.0542	Gen Z - Gen X	-0.4577	0.1790	-2.551	0.1096
Gen Z - Boomer II	-0.3225	0.2250	-1.433	0.7066	Gen Z - Boomer II	-0.1836	0.2150	-0.855	0.9570
Gen Z - Boomer	-0.3712	0.3270	-1.136	0.8664	Gen Z - Boomer	-0.0737	0.2810	-0.263	0.9998
Gen Z - Post War	0.0876	0.8570	0.102	1.0000	Gen Z - Post War	-0.2234	0.6850	-0.326	0.9995
Millennial - Gen X	-0.0133	0.1130	-0.117	1.0000	Millennial - Gen X	0.1371	0.1150	1.191	0.8413
Millennial - Boomer II	0.2063	0.1640	1.258	0.8077	Millennial - Boomer II	0.4113	0.1650	2.485	0.1284
Millennial - Boomer	0.1575	0.2880	0.547	0.9942	Millennial - Boomer	0.5211	0.2450	2.125	0.2740
Millennial - Post War	0.6163	0.8420	0.732	0.9780	Millennial - Post War	0.3715	0.6710	0.554	0.9938
Gen X - Boomer II	0.2196	0.1790	1.229	0.8227	Gen X - Boomer II	0.2741	0.1800	1.526	0.6473
Gen X - Boomer	0.1708	0.2970	0.575	0.9926	Gen X - Boomer	0.3840	0.2550	1.507	0.6596

Sloth Experiment				Python Experiment			
Gen X - Post War	0.6296	0.8450	0.745	0.9762	Gen X - Post War	0.2343	0.6750
Boomer II - Boomer	-0.0488	0.3190	-0.153	1.0000	Boomer II - Boomer	0.1098	0.2810
Boomer II - Post War	0.4101	0.8540	0.480	0.9968	Boomer II - Post War	-0.0398	0.6850
Boomer - Post War	0.4589	0.8860	0.518	0.9955	Boomer - Post War	-0.1496	0.7080
						-0.211	0.9999

Table S14. Pairwise contrasts (estimate) with standard errors (S.E.) between predictor levels for agreement with zoo animal perception statement 24 (Keeping sloths (pythons) in zoos, no matter how large and attractive their surroundings are, strikes me as cruel and unusual) for the sloth experiment (left) and python experiment (right). For each predictor, results are averaged over levels of other predictors. p-values were adjusted using the Tukey method for comparing a family of six estimates for context, three estimates for gender, and six estimates for generation.

Sloth Experiment					Python Experiment				
Context	estimate	S.E.	z-ratio	P-value	Context	estimate	S.E.	z-ratio	P-value
Control - Habitat	-0.0054	0.1550	-0.035	1.0000	Control - Habitat	0.0707	0.1520	0.465	0.9973
Control - Zoo Keeper	0.0760	0.1540	0.493	0.9964	Control - Zoo Keeper	0.0246	0.1540	0.160	1.0000
Control - Perch	-0.0217	0.1550	-0.140	1.0000	Control - Perch	0.0260	0.1500	0.173	1.0000
Control - Touch	-0.1965	0.1540	-1.276	0.7982	Control - Touch	0.0738	0.1520	0.487	0.9966
Control - Yoga	-0.1227	0.1550	-0.793	0.9688	Control - Tourist Photo	-0.0923	0.1520	-0.606	0.9906
Habitat - Zoo Keeper	0.0815	0.1530	0.531	0.9949	Habitat - Zoo Keeper	-0.0461	0.1540	-0.300	0.9997
Habitat - Perch	-0.0162	0.1540	-0.105	1.0000	Habitat - Perch	-0.0448	0.1510	-0.297	0.9997
Habitat - Touch	-0.1911	0.1530	-1.248	0.8129	Habitat - Touch	0.0031	0.1520	0.020	1.0000
Habitat - Yoga	-0.1173	0.1540	-0.760	0.9740	Habitat - Tourist Photo	-0.1630	0.1520	-1.070	0.8935
Zoo Keeper - Perch	-0.0977	0.1540	-0.635	0.9884	Zoo Keeper - Perch	0.0014	0.1530	0.009	1.0000
Zoo Keeper - Touch	-0.2725	0.1530	-1.784	0.4763	Zoo Keeper - Touch	0.0492	0.1540	0.320	0.9996
Zoo Keeper - Yoga	-0.1987	0.1540	-1.290	0.7909	Zoo Keeper - Tourist Photo	-0.1169	0.1540	-0.757	0.9746
Perch - Touch	-0.1748	0.1540	-1.139	0.8653	Perch - Touch	0.0479	0.1500	0.319	0.9996
Perch - Yoga	-0.1011	0.1550	-0.652	0.9869	Perch - Tourist Photo	-0.1182	0.1510	-0.784	0.9703
Touch - Yoga	0.0738	0.1540	0.480	0.9968	Touch - Tourist Photo	-0.1661	0.1520	-1.094	0.8839
Gender	estimate	S.E.	z-ratio	P-value	Gender	estimate	S.E.	z-ratio	P-value
Female - Male	0.1100	0.0898	1.224	0.4391	Female - Male	0.0474	0.0888	0.534	0.8545
Female - Other	0.5540	0.5022	1.104	0.5116	Female - Other	0.4441	0.4178	1.063	0.5372
Male - Other	0.4450	0.5027	0.884	0.6503	Male - Other	0.3966	0.4171	0.951	0.6081
Generation	estimate	S.E.	z-ratio	P-value	Generation	estimate	S.E.	z-ratio	P-value
Gen Z - Millennial	0.0999	0.1650	0.605	0.9907	Gen Z - Millennial	0.0466	0.1550	-0.301	0.9997
Gen Z - Gen X	0.1182	0.1790	0.661	0.9861	Gen Z - Gen X	-0.1928	0.1700	-1.135	0.8669
Gen Z - Boomer II	0.1426	0.2140	0.666	0.9856	Gen Z - Boomer II	-0.1847	0.2060	-0.898	0.9470
Gen Z - Boomer	0.1696	0.3060	0.555	0.9938	Gen Z - Boomer	-0.3680	0.2690	-1.370	0.7450
Gen Z - Post War	0.0919	0.8230	0.112	1.0000	Gen Z - Post War	0.0035	0.7170	0.005	1.0000
Millennial - Gen X	0.0183	0.1080	0.169	1.0000	Millennial - Gen X	-0.1462	0.1100	-1.334	0.7662
Millennial - Boomer II	0.0427	0.1600	0.266	0.9998	Millennial - Boomer II	-0.1381	0.1590	-0.866	0.9545
Millennial - Boomer	0.0697	0.2710	0.257	0.9998	Millennial - Boomer	-0.3214	0.2350	-1.368	0.7465
Millennial - Post War	-0.0080	0.8100	-0.010	1.0000	Millennial - Post War	0.0502	0.7050	0.071	1.0000
Gen X - Boomer II	0.0243	0.1740	0.140	1.0000	Gen X - Boomer II	0.0082	0.1730	0.047	1.0000
Gen X - Boomer	0.0513	0.2790	0.184	1.0000	Gen X - Boomer	-0.1752	0.2450	-0.716	0.9801

Sloth Experiment				Python Experiment					
Gen X - Post War	-0.0264	0.8130	-0.032	1.0000	Gen X - Post War	0.1964	0.7090	0.277	0.9998
Boomer II - Boomer	0.0270	0.3030	0.089	1.0000	Boomer II - Boomer	-0.1833	0.2710	-0.677	0.9845
Boomer II - Post War	-0.0507	0.8220	-0.062	1.0000	Boomer II - Post War	0.1882	0.7180	0.262	0.9998
Boomer - Post War	-0.0777	0.8510	-0.091	1.0000	Boomer - Post War	0.3715	0.7390	0.503	0.9961