Supplemental Materials

In these supplemental materials we report the results of three sets sensitivity analyses to the main models, and report the results of mediation models for the stay-objective versus no-instructions comparison. First, we ran the main mediation models with a control variable for general moral concern. This allowed us to test whether the positive effects of perspective taking observed in the main analyses were specific to animals and artificial entities, or whether they could be explained by an increase in general moral concern, incidentally affecting our groups of interest. As stated in the main article, the sensitivity analyses did not affect our main conclusions. The inclusion of general moral concern as a control variable reduced the magnitude of the indirect effects in Study 1 by approximately one-third, rendering the indirect effects of the no-instructions versus perspective taking comparisons via self-other overlap on moral concern for all farmed animals and speciesism statistically nonsignificant. This suggests that part of the observed effects via this path could be explained by a general increase in moral concern, though this does not explain all of the effect. The inclusion of general moral concern as a control variable in Study 2 did not affect the magnitude or significance of the effects, suggesting that the observed findings were specific to artificial entities.

Second, we included personal distress as a third mediator in the models, alongside empathic concern and self-other overlap. Since our perspective taking manipulation was other-focused, encouraging participants to imagine the experience of another entity rather than imagining themselves in another entity's position, we did not expect to find an effect via personal distress (Batson et al., 1997). As expected, our experimental manipulation had no effect on personal distress, and there were no indirect effects of perspective taking on any of our outcome variables via this mediator. However, in Study 1, we found that the inclusion of personal distress resulted in a relatively large reduction in the size of the indirect effects on speciesism via empathic concern, but not for the other outcome variables of interest. This was because the effect of empathic concern on speciesism became nonsignificant when including personal distress, suggesting it may be a confounder of the initially observed relationship, which was correlational in nature. The inclusion

of personal distress also rendered the marginally significant indirect effect on speciesism via self-other overlap for the perspective taking versus no-instructions comparison marginally nonsignificant. In Study 2, we did not find a significant effect of the manipulation on personal distress, nor did we find any significant indirect effects via personal distress. However, consistent with the effects on speciesism in Study 1, we found that its inclusion rendered the indirect effect via empathic concern on substratism nonsignificant.

Third, since our hypothesized relationships between the mediators and dependent variables rely on correlational data, we estimated models that controlled for a range of potential confounders: age, gender, ethnicity, education, diet, pet ownership, political views, and personal distress. In Study 1, the inclusion of the control variables in the models reduced the size of the indirect effects by a relatively small amount compared to the models with just personal distress, additionally rendering two marginally significant effects nonsignificant: the indirect effect on moral concern for all farmed animals via self-other overlap for the perspective taking versus no-instructions contrast, and the indirect effect on speciesism via self-other overlap for the perspective taking versus stay-objective contrast. nonsignificant. In Study 2, the inclusion of the additional control variables had a small downward effect on the estimates, rendering the marginally significant indirect effect on substratism via self-other overlap for the perspective taking versus stay-objective comparison nonsignificant, but not affecting any of the other estimates.

The results for the mediation models for the stay-objective versus no-instructions comparisons were comparable in magnitude to the perspective taking versus no-instructions comparisons, supporting our conclusion that the effects can be explained by a combination of encouraging perspective taking and suppressing it. Note that, due to the bootstrapping procedure, some of the indirect effects for the no-instructions versus perspective taking comparisons reported in these models are slightly different to those in the main paper.

Table S1. Study 1 Mediation model results – moral concern for farmed pigs with control variable for general moral concern.

	β	*SE*	*t*	*p*
DV: Empathic concern				
Intercept	0.000	0.056	0.000	1.000
Stay-objective	-0.203	0.064	-3.156	0.002
No-instructions	-0.096	0.064	-1.492	0.137
DV: Self-other overlap				
Intercept	0.000	0.057	0.000	1.000
Stay-objective	-0.232	0.066	-3.520	0.001
No-instructions	-0.119	0.066	-1.812	0.071
DV: Moral concern for farmed pigs (direct effects)				
Intercept	0.000	0.043	0.000	1.000
Stay-objective	0.099	0.051	1.932	0.054
No-instructions	-0.028	0.050	-0.566	0.572
Empathic concern	0.256	0.058	4.381	0.000
Self-other overlap	0.216	0.057	3.799	0.000
DV: Moral concern for farmed pigs (total effects)				
Intercept	0.000	0.049	0.000	1.000
Stay-objective	-0.003	0.056	-0.051	0.960
No-instructions	-0.079	0.056	-1.397	0.164

Note: Reference group in each case is perspective taking condition. Standardized effects reported. DV = dependent variable.

Table S2. Study 1 Indirect effects –moral concern for farmed pigs with control variable for general moral concern.

	β	*SE*	CI lower	CI upper
M: Empathic concern				
Stay-objective	-0.064	0.024	-0.114	-0.022
No-instructions	-0.031	0.020	-0.073	0.007
M: Self-other overlap				
Stay-objective	-0.062	0.024	-0.114	-0.022
No-instructions	-0.033	0.020	-0.077	0.003

Note: Reference group in each case is perspective taking condition. Standardized effects reported. M = mediator.

Table S3. Study 1 Mediation model results – moral concern for all farmed animals with control variable for general moral concern.

	β	*SE*	*t*	*p*
DV: Empathic concern				
Intercept	0.000	0.056	0.000	1.000
Stay-objective	-0.203	0.064	-3.156	0.002
No-instructions	-0.096	0.064	-1.492	0.137
DV: Self-other overlap				
Intercept	0.000	0.057	0.000	1.000
Stay-objective	-0.232	0.066	-3.520	0.001
No-instructions	-0.119	0.066	-1.812	0.071
DV: Moral concern for all farmed animals (direct effects)				
Intercept	0.000	0.042	0.000	1.000
Stay-objective	0.127	0.050	2.511	0.013
No-instructions	0.023	0.049	0.459	0.646
Empathic concern	0.224	0.057	3.904	0.000
Self-other overlap	0.304	0.056	5.432	0.000
DV: Moral concern for all farmed animals (total effects)				
Intercept	0.000	0.050	0.000	1.000
Stay-objective	0.011	0.057	0.187	0.852
No-instructions	-0.035	0.057	-0.611	0.542

Note: Reference group in each case is perspective taking condition. Standardized effects reported. DV = dependent variable.

Table S4. Study 1 Indirect effects – moral concern for all animals with control variable for general moral concern.

	β	*SE*	CI lower	CI upper
M: Empathic concern				
Stay-objective	-0.056	0.021	-0.102	-0.018
No-instructions	-0.027	0.018	-0.066	0.005
M: Self-other overlap				
Stay-objective	-0.087	0.029	-0.147	-0.035
No-instructions	-0.045	0.026	-0.098	0.004

Note: Reference group in each case is perspective taking condition. Standardized effects reported. M = mediator.

Table S5. Study 1 Mediation model results – speciesism with control variable for general moral concern.

	β	*SE*	*t*	*p*
DV: Empathic concern				
Intercept	0.000	0.056	0.000	1.000
Stay-objective	-0.203	0.064	-3.156	0.002
No-instructions	-0.096	0.064	-1.492	0.137
DV: Self-other overlap				
Intercept	0.000	0.057	0.000	1.000
Stay-objective	-0.232	0.066	-3.520	0.001
No-instructions	-0.119	0.066	-1.812	0.071
DV: Speciesism (direct effects)				
Intercept	0.000	0.054	0.000	1.000
Stay-objective	-0.151	0.064	-2.355	0.019
No-instructions	0.040	0.063	0.633	0.527
Empathic concern	-0.093	0.073	-1.273	0.204
Self-other overlap	-0.232	0.071	-3.266	0.001
DV: Speciesism (total effects)				
Intercept	0.000	0.056	0.000	1.000
Stay-objective	-0.078	0.065	-1.206	0.229
No-instructions	0.076	0.065	1.177	0.240

Note: Reference group in each case is perspective taking condition. Standardized effects reported. DV = dependent variable.

Table S6. Study 1 Indirect effects – speciesism with control variable for general moral concern.

	β	*SE*	CI lower	CI upper
M: Empathic concern				
Stay-objective	0.020	0.016	-0.008	0.056
No-instructions	0.010	0.010	-0.005	0.034
M: Self-other overlap				
Stay-objective	0.058	0.023	0.018	0.110
No-instructions	0.030	0.019	-0.001	0.074

Note: Reference group in each case is perspective taking condition. Standardized effects reported. M = mediator.

Table S7. Study 1 Mediation model results – moral concern for farmed pigs with personal distress as third mediator.

	β	*SE*	*t*	*p*
DV: Empathic concern				
Intercept	0.000	0.060	0.000	1.000
Stay-objective	-0.237	0.069	-3.423	0.001
No-instructions	-0.123	0.069	-1.778	0.077
DV: Self-other overlap				
Intercept	0.000	0.060	0.000	1.000
Stay-objective	-0.259	0.069	-3.758	0.000
No-instructions	-0.141	0.069	-2.045	0.042
DV: Personal distress				
Intercept	0.000	0.061	0.000	1.000
Stay-objective	-0.103	0.070	-1.465	0.144
No-instructions	-0.079	0.070	-1.128	0.260
DV: Moral concern for farmed pigs (direct effects)				
Intercept	0.000	0.048	0.000	1.000
Stay-objective	0.074	0.057	1.290	0.198
No-instructions	-0.045	0.055	-0.807	0.420
Empathic concern	0.219	0.069	3.162	0.002
Self-other overlap	0.173	0.063	2.739	0.007
Personal distress	0.335	0.068	4.896	0.000
DV: Moral concern for farmed pigs (total effects)				
Intercept	0.000	0.061	0.000	1.000
Stay-objective	-0.057	0.070	-0.819	0.414
No-instructions	-0.123	0.070	-1.746	0.082

Note: Reference group in each case is perspective taking condition. Standardized effects reported. DV = dependent variable.

Table S8. Study 1 Indirect effects – moral concern for farmed pigs with personal distress as third mediator.

	β	*SE*	CI lower	CI upper
M: Empathic concern				
Stay-objective	-0.051	0.023	-0.103	-0.012
No-instructions	-0.027	0.018	-0.068	0.002
M: Self-other overlap				
Stay-objective	-0.045	0.022	-0.094	-0.007
No-instructions	-0.024	0.017	-0.062	0.001
M: Personal distress				
Stay-objective	-0.035	0.025	-0.089	0.010
No-instructions	-0.027	0.025	-0.080	0.018

Note: Reference group in each case is perspective taking condition. Standardized effects reported. M = mediator.

Table S9. Study 1 Mediation model results – moral concern for all farmed animals with personal distress as third mediator.

	β	*SE*	*t*	*p*
DV: Empathic concern				
Intercept	0.000	0.060	0.000	1.000
Stay-objective	-0.237	0.069	-3.423	0.001
No-instructions	-0.123	0.069	-1.778	0.077
DV: Self-other overlap				
Intercept	0.000	0.060	0.000	1.000
Stay-objective	-0.259	0.069	-3.758	0.000
No-instructions	-0.141	0.069	-2.045	0.042
DV: Personal distress				
Intercept	0.000	0.061	0.000	1.000
Stay-objective	-0.103	0.070	-1.465	0.144
No-instructions	-0.079	0.070	-1.128	0.260
DV: Moral concern for all farmed animals (direct effects)				
Intercept	0.000	0.047	0.000	1.000
Stay-objective	0.106	0.056	1.897	0.059
No-instructions	0.008	0.055	0.153	0.878
Empathic concern	0.210	0.068	3.079	0.002
Self-other overlap	0.275	0.062	4.425	0.000
Personal distress	0.274	0.067	4.074	0.000
DV: Moral concern for all farmed animals (total effects)				
Intercept	0.000	0.061	0.000	1.000
Stay-objective	-0.043	0.070	-0.605	0.545
No-instructions	-0.078	0.070	-1.107	0.269

Note: Reference group in each case is perspective taking condition. Standardized effects reported. DV = dependent variable.

Table S10. Study 1 Indirect effects – moral concern for all farmed animals with personal distress as third mediator.

	β	*SE*	CI lower	CI upper
M: Empathic concern				
Stay-objective	-0.049	0.021	-0.097	-0.013
No-instructions	-0.026	0.017	-0.063	0.001
M: Self-other overlap				
Stay-objective	-0.071	0.025	-0.125	-0.028
No-instructions	-0.038	0.022	-0.084	-0.001
M: Personal distress				
Stay-objective	-0.029	0.021	-0.075	0.009
No-instructions	-0.022	0.021	-0.069	0.015

Note: Reference group in each case is perspective taking condition. Standardized effects reported. M = mediator.

Table S11. Study 1 Mediation model results – speciesism with personal distress as third mediator.

	β	*SE*	*t*	*p*
DV: Empathic concern				
Intercept	0.000	0.060	0.000	1.000
Stay-objective	-0.237	0.069	-3.423	0.001
No-instructions	-0.123	0.069	-1.778	0.077
DV: Self-other overlap				
Intercept	0.000	0.060	0.000	1.000
Stay-objective	-0.259	0.069	-3.758	0.000
No-instructions	-0.141	0.069	-2.045	0.042
DV: Personal distress				
Intercept	0.000	0.061	0.000	1.000
Stay-objective	-0.103	0.070	-1.465	0.144
No-instructions	-0.079	0.070	-1.128	0.260
DV: Speciesism (direct effects)				
Intercept	0.000	0.054	0.000	1.000
Stay-objective	-0.119	0.064	-1.846	0.066
No-instructions	0.054	0.062	0.870	0.385
Empathic concern	0.015	0.078	0.197	0.844
Self-other overlap	-0.156	0.071	-2.188	0.030
Personal distress	-0.379	0.077	-4.920	0.000
DV: Speciesism (total effects)				
Intercept	0.000	0.061	0.000	1.000
Stay-objective	-0.043	0.070	-0.613	0.541
No-instructions	0.104	0.070	1.492	0.137

Note: Reference group in each case is perspective taking condition. Standardized effects reported. DV = dependent variable.

Table S12. Study 1 Indirect effects – speciesism with personal distress as third mediator.

	β	*SE*	CI lower	CI upper
M: Empathic concern				
Stay-objective	-0.004	0.020	-0.047	0.035
No-instructions	-0.002	0.011	-0.027	0.022
M: Self-other overlap				
Stay-objective	0.040	0.022	0.003	0.090
No-instructions	0.022	0.016	-0.002	0.060
M: Personal distress				
Stay-objective	0.039	0.028	-0.012	0.097
No-instructions	0.030	0.028	-0.020	0.089

Note: Reference group in each case is perspective taking condition. Standardized effects reported. M = mediator.

Table S13. Study 1 Mediation model results – moral concern for farmed pigs with controls.

	β	*SE*	*t*	*p*
DV: Empathic concern				
Intercept	0.000	0.058	0.000	1.000
Stay-objective	-0.217	0.068	-3.206	0.002
No-instructions	-0.089	0.068	-1.311	0.191
DV: Self-other overlap				
Intercept	0.000	0.058	0.000	1.000
Stay-objective	-0.228	0.068	-3.349	0.001
No-instructions	-0.119	0.068	-1.742	0.083
DV: Personal distress				
Intercept	0.000	0.059	0.000	1.000
Stay-objective	-0.075	0.069	-1.090	0.277
No-instructions	-0.041	0.069	-0.594	0.553
DV: Moral concern for farmed pigs (direct effects)				
Intercept	0.000	0.045	0.000	1.000
Stay-objective	0.079	0.054	1.466	0.144
No-instructions	-0.024	0.053	-0.457	0.648
Empathic concern	0.206	0.068	3.024	0.003
Self-other overlap	0.152	0.062	2.460	0.015
Personal distress	0.284	0.067	4.232	0.000
DV: Moral concern for farmed pigs (total effects)				
Intercept	0.000	0.055	0.000	1.000
Stay-objective	-0.021	0.064	-0.332	0.740
No-instructions	-0.072	0.065	-1.119	0.264

Note: Reference group in each case is perspective taking condition. Standardized effects reported. DV = dependent variable.

Table S14. Study 1 Indirect effects – moral concern for farmed pigs with controls.

	β	*SE*	CI lower	CI upper
M: Empathic concern				
Stay-objective	-0.049	0.025	-0.106	-0.008
No-instructions	-0.020	0.018	-0.061	0.008
M: Self-other overlap				
Stay-objective	-0.038	0.022	-0.086	-0.003
No-instructions	-0.020	0.016	-0.059	0.003
M: Personal distress				
Stay-objective	-0.024	0.024	-0.074	0.019
No-instructions	-0.013	0.023	-0.061	0.030

Note: Reference group in each case is perspective taking condition. Standardized effects reported. M = mediator.

Table S15. Study 1 Mediation model results – moral concern for all farmed animals with controls.

	β	*SE*	*t*	*p*
DV: Empathic concern				
Intercept	0.000	0.058	0.000	1.000
Stay-objective	-0.217	0.068	-3.206	0.002
No-instructions	-0.089	0.068	-1.311	0.191
DV: Self-other overlap				
Intercept	0.000	0.058	0.000	1.000
Stay-objective	-0.228	0.068	-3.349	0.001
No-instructions	-0.119	0.068	-1.742	0.083
DV: Personal distress				
Intercept	0.000	0.059	0.000	1.000
Stay-objective	-0.075	0.069	-1.090	0.277
No-instructions	-0.041	0.069	-0.594	0.553
DV: Moral concern for farmed pigs (direct effects)				
Intercept	0.000	0.044	0.000	1.000
Stay-objective	0.110	0.054	2.042	0.042
No-instructions	0.018	0.053	0.349	0.728
Empathic concern	0.186	0.068	2.746	0.006
Self-other overlap	0.246	0.061	4.012	0.000
Personal distress	0.248	0.067	3.720	0.000
DV: Moral concern for farmed pigs (total effects)				
Intercept	0.000	0.056	0.000	1.000
Stay-objective	-0.005	0.065	-0.082	0.935
No-instructions	-0.038	0.065	-0.577	0.564

Note: Reference group in each case is perspective taking condition. Standardized effects reported. DV = dependent variable.

Table S16. Study 1 Indirect effects – moral concern for all farmed animals with controls.

	β	*SE*	CI lower	CI upper
M: Empathic concern				
Stay-objective	-0.044	0.022	-0.093	-0.007
No-instructions	-0.018	0.016	-0.055	0.008
M: Self-other overlap				
Stay-objective	-0.060	0.025	-0.114	-0.018
No-instructions	-0.032	0.021	-0.078	0.005
M: Personal distress				
Stay-objective	-0.020	0.021	-0.065	0.016
No-instructions	-0.011	0.019	-0.052	0.024

Note: Reference group in each case is perspective taking condition. Standardized effects reported. M = mediator.

Table S17. Study 1 Mediation model results – speciesism with controls.

	β	*SE*	*t*	*p*
DV: Empathic concern				
Intercept	0.000	0.058	0.000	1.000
Stay-objective	-0.217	0.068	-3.206	0.002
No-instructions	-0.089	0.068	-1.311	0.191
DV: Self-other overlap				
Intercept	0.000	0.058	0.000	1.000
Stay-objective	-0.228	0.068	-3.349	0.001
No-instructions	-0.119	0.068	-1.742	0.083
DV: Personal distress				
Intercept	0.000	0.059	0.000	1.000
Stay-objective	-0.075	0.069	-1.090	0.277
No-instructions	-0.041	0.069	-0.594	0.553
	0.000	0.059	0.000	1.000
DV: Moral concern for farmed pigs (direct effects)				
Intercept	0.000	0.050	0.000	1.000
Stay-objective	-0.130	0.061	-2.133	0.034
No-instructions	0.023	0.060	0.393	0.694
Empathic concern	0.027	0.077	0.351	0.726
Self-other overlap	-0.138	0.070	-1.980	0.049
Personal distress	-0.320	0.076	-4.227	0.000
DV: Moral concern for farmed pigs (total effects)				
Intercept	0.000	0.055	0.000	1.000
Stay-objective	-0.080	0.064	-1.248	0.213
No-instructions	0.051	0.065	0.782	0.435

Note: Reference group in each case is perspective taking condition. Standardized effects reported. DV = dependent variable.

Table S18. Study 1 Indirect effects – speciesism with controls.

	β	*SE*	CI lower	CI upper
M: Empathic concern				
Stay-objective	-0.006	0.021	-0.052	0.035
No-instructions	-0.002	0.010	-0.026	0.018
M: Self-other overlap				
Stay-objective	0.034	0.023	-0.004	0.085
No-instructions	0.019	0.016	-0.004	0.059
M: Personal distress				
Stay-objective	0.026	0.026	-0.021	0.081
No-instructions	0.014	0.024	-0.032	0.066

Note: Reference group in each case is perspective taking condition. Standardized effects reported. M = mediator.

Table S19. Study 1 Mediation model results – stay-objective versus no-instructions comparison – moral concern for farmed pigs.

	β	*SE*	*t*	*p*
DV: Empathic concern				
Intercept	0.000	0.060	0.000	1.000
Stay-objective	-0.113	0.069	-1.626	0.105
Perspective taking	0.123	0.069	1.778	0.077
DV: Self-other overlap				
Intercept	0.000	0.060	0.000	1.000
Stay-objective	-0.117	0.069	-1.691	0.092
Perspective taking	0.141	0.069	2.045	0.042
DV: Moral concern for farmed pigs (direct effects)				
Intercept	0.000	0.050	0.000	1.000
Stay-objective	0.142	0.058	2.456	0.015
Perspective taking	0.036	0.058	0.626	0.532
Empathic concern	0.392	0.062	6.307	0.000
Self-other overlap	0.272	0.062	4.359	0.000
DV: Moral concern for farmed pigs (total effects)				
Intercept	0.000	0.061	0.000	1.000
Stay-objective	0.066	0.070	0.939	0.348
Perspective taking	0.123	0.070	1.746	0.082

Note: Reference group in each case is no-instructions condition. Standardized effects reported. DV = dependent variable.

Table S20. Study 1 Indirect effects – stay-objective versus no-instructions comparison – moral concern for farmed pigs.

	β	*SE*	CI lower	CI upper
M: Empathic concern				
Stay-objective	-0.044	0.029	-0.104	0.012
Perspective taking	0.048	0.027	-0.003	0.105
M: Self-other overlap				
Stay-objective	-0.032	0.021	-0.078	0.005
Perspective taking	0.038	0.022	0.0005	0.086

Note: Reference group in each case is perspective taking condition. Standardized effects reported. M = mediator.

Table S21. Study 1 Mediation model results – stay-objective versus no-instructions comparison – moral concern for all farmed animals.

	β	*SE*	*t*	*p*
DV: Empathic concern				
Intercept	0.000	0.060	0.000	1.000
Stay-objective	-0.113	0.069	-1.626	0.105
Perspective taking	0.123	0.069	1.778	0.077
DV: Self-other overlap				
Intercept	0.000	0.060	0.000	1.000
Stay-objective	-0.117	0.069	-1.691	0.092
Perspective taking	0.141	0.069	2.045	0.042
DV: Moral concern for all farmed animals (direct effects)				
Intercept	0.000	0.048	0.000	1.000
Stay-objective	0.117	0.056	2.084	0.038
Perspective taking	-0.015	0.056	-0.274	0.784
Empathic concern	0.352	0.060	5.822	0.000
Self-other overlap	0.356	0.061	5.876	0.000
DV: Moral concern for all farmed animals (total effects)				
Intercept	0.000	0.061	0.000	1.000
Stay-objective	0.036	0.071	0.509	0.611
Perspective taking	0.078	0.071	1.107	0.269

Note: Reference group in each case is no-instructions condition. Standardized effects reported. DV = dependent variable.

Table S22. Study 1 Indirect effects – stay-objective versus no-instructions comparison – moral concern for all farmed animals.

	β	*SE*	CI lower	CI upper
M: Empathic concern				
Stay-objective	-0.039	0.027	-0.093	0.011
Perspective taking	0.043	0.025	-0.003	0.096
M: Self-other overlap				
Stay-objective	-0.042	0.026	-0.097	0.007
Perspective taking	0.050	0.027	-0.00001	0.105

Note: Reference group in each case is perspective taking condition. Standardized effects reported. M = mediator.

Table S23. Study 1 Mediation model results – stay-objective versus no-instructions comparison – speciesism.

	β	*SE*	*t*	*p*
DV: Empathic concern				
Intercept	0.000	0.060	0.000	1.000
Stay-objective	-0.113	0.069	-1.626	0.105
Perspective taking	0.123	0.069	1.778	0.077
DV: Self-other overlap				
Intercept	0.000	0.060	0.000	1.000
Stay-objective	-0.117	0.069	-1.691	0.092
Perspective taking	0.141	0.069	2.045	0.042
DV: Speciesism (direct effects)				
Intercept	0.000	0.056	0.000	1.000
Stay-objective	-0.200	0.065	-3.065	0.002
Perspective taking	-0.045	0.065	-0.685	0.494
Empathic concern	-0.180	0.070	-2.574	0.011
Self-other overlap	-0.268	0.070	-3.808	0.000
DV: Speciesism (total effects)				
Intercept	0.000	0.061	0.000	1.000
Stay-objective	-0.148	0.070	-2.111	0.036
Perspective taking	-0.105	0.070	-1.492	0.137

Note: Reference group in each case is no-instructions condition. Standardized effects reported. DV = dependent variable.

Table S24. Study 1 Indirect effects – stay-objective versus no-instructions comparison – speciesism.

	β	*SE*	CI lower	CI upper
M: Empathic concern				
Stay-objective	0.020	0.016	-0.005	0.055
Perspective taking	-0.023	0.016	-0.060	0.001
M: Self-other overlap				
Stay-objective	0.031	0.021	-0.005	0.077
Perspective taking	-0.038	0.023	-0.089	-0.001

Note: Reference group in each case is perspective taking condition. Standardized effects reported. M = mediator.

Table S25. Study 2 Mediation model results – moral concern for emulations with control variable for general moral concern.

	β	*SE*	*t*	*p*
DV: Empathic concern				
Intercept	0.000	0.060	0.000	1.000
Stay-objective	-0.165	0.069	-2.393	0.017
No-instructions	-0.083	0.069	-1.195	0.233
DV: Self-other overlap				
Intercept	0.000	0.060	0.000	1.000
Stay-objective	-0.140	0.069	-2.034	0.043
No-instructions	-0.036	0.069	-0.527	0.599
DV: Moral concern for emulations (direct effects)				
Intercept	0.000	0.045	0.000	1.000
Stay-objective	0.141	0.052	2.702	0.007
No-instructions	0.049	0.052	0.943	0.346
Empathic concern	0.416	0.059	7.042	0.000
Self-other overlap	0.291	0.059	4.920	0.000
DV: Moral concern for emulations (total effects)				
Intercept	0.000	0.059	0.000	1.000
Stay-objective	0.032	0.068	0.467	0.641
No-instructions	0.004	0.068	0.059	0.953

Note: Reference group in each case is perspective taking condition. Standardized effects reported. DV = dependent variable.

Table S26. Study 2 Indirect effects – moral concern for emulations with control variable for general moral concern.

	β	*SE*	CI lower	CI upper
M: Empathic concern				
Stay-objective	-0.071	0.032	-0.136	-0.012
No-instructions	-0.035	0.031	-0.098	0.025
M: Self-other overlap				
Stay-objective	-0.043	0.023	-0.092	-0.002
No-instructions	-0.012	0.022	-0.058	0.030

Note: Reference group in each case is perspective taking condition. Standardized effects reported. M = mediator.

Table S27. Study 2 Mediation model results – substratism with control variable for general moral concern.

	β	*SE*	*t*	*p*
DV: Empathic concern				
Intercept	0.000	0.060	0.000	1.000
Stay-objective	-0.165	0.069	-2.393	0.017
No-instructions	-0.083	0.069	-1.195	0.233
DV: Self-other overlap				
Intercept	0.000	0.060	0.000	1.000
Stay-objective	-0.140	0.069	-2.034	0.043
No-instructions	-0.036	0.069	-0.527	0.599
DV: Substratism (direct effects)				
Intercept	0.000	0.051	0.000	1.000
Stay-objective	-0.022	0.060	-0.368	0.713
No-instructions	0.049	0.060	0.818	0.414
Empathic concern	-0.243	0.068	-3.576	0.000
Self-other overlap	-0.313	0.068	-4.599	0.000
DV: Substratism (total effects)				
Intercept	0.000	0.059	0.000	1.000
Stay-objective	0.062	0.068	0.903	0.368
No-instructions	0.080	0.069	1.168	0.244

Note: Reference group in each case is perspective taking condition. Standardized effects reported. DV = dependent variable.

Table S28. Study 2 Indirect effects – substratism with control variable for general moral concern.

	β	*SE*	CI lower	CI upper
M: Empathic concern				
Stay-objective	0.042	0.022	0.006	0.090
No-instructions	0.021	0.019	-0.013	0.063
M: Self-other overlap				
Stay-objective	0.044	0.023	0.002	0.094
No-instructions	0.011	0.023	-0.034	0.057

Note: Reference group in each case is perspective taking condition. Standardized effects reported. M = mediator.

Table S29. Study 2 Mediation model results – moral concern for emulations with personal distress as third mediator.

	β	*SE*	*t*	*p*
DV: Empathic concern				
Intercept	0.000	0.060	0.000	1.000
Stay-objective	-0.169	0.070	-2.424	0.016
No-instructions	-0.069	0.070	-0.996	0.320
DV: Self-other overlap				
Intercept	0.000	0.060	0.000	1.000
Stay-objective	-0.144	0.070	-2.068	0.040
No-instructions	-0.022	0.070	-0.318	0.751
DV: Personal distress				
Intercept	0.000	0.061	0.000	1.000
Stay-objective	-0.087	0.070	-1.251	0.212
No-instructions	0.018	0.070	0.263	0.793
DV: Moral concern for emulations (direct effects)				
Intercept	0.000	0.045	0.000	1.000
Stay-objective	0.136	0.052	2.604	0.010
No-instructions	0.050	0.052	0.973	0.331
Empathic concern	0.292	0.069	4.228	0.000
Self-other overlap	0.287	0.059	4.900	0.000
Personal distress	0.226	0.061	3.718	0.000
DV: Moral concern for emulations (total effects)				
Intercept	0.000	0.061	0.000	1.000
Stay-objective	0.025	0.070	0.361	0.718
No-instructions	0.028	0.070	0.397	0.691

Note: Reference group in each case is perspective taking condition. Standardized effects reported. DV = dependent variable.

Table S30. Study 2 Indirect effects – moral concern for emulations with personal distress as third mediator.

	β	*SE*	CI lower	CI upper
M: Empathic concern				
Stay-objective	-0.049	0.024	-0.101	-0.008
No-instructions	-0.020	0.021	-0.066	0.020
M: Self-other overlap				
Stay-objective	-0.041	0.022	-0.087	-0.002
No-instructions	-0.006	0.021	-0.050	0.033
M: Personal distress				
Stay-objective	-0.019	0.017	-0.055	0.011
No-instructions	0.004	0.017	-0.029	0.038

Note: Reference group in each case is perspective taking condition. Standardized effects reported. M = mediator.

Table S31. Study 2 Mediation model results – substratism with personal distress as third mediator.

	β	*SE*	*t*	*p*
DV: Empathic concern				
Intercept	0.000	0.060	0.000	1.000
Stay-objective	-0.169	0.070	-2.424	0.016
No-instructions	-0.069	0.070	-0.996	0.320
DV: Self-other overlap				
Intercept	0.000	0.060	0.000	1.000
Stay-objective	-0.144	0.070	-2.068	0.040
No-instructions	-0.022	0.070	-0.318	0.751
DV: Personal distress				
Intercept	0.000	0.061	0.000	1.000
Stay-objective	-0.087	0.070	-1.251	0.212
No-instructions	0.018	0.070	0.263	0.793
DV: Substratism (direct effects)				
Intercept	0.000	0.048	0.000	1.000
Stay-objective	-0.010	0.056	-0.181	0.857
No-instructions	0.062	0.056	1.116	0.265
Empathic concern	0.009	0.075	0.126	0.900
Self-other overlap	-0.285	0.063	-4.498	0.000
Personal distress	-0.433	0.066	-6.586	0.000
DV: Substratism (total effects)				
Intercept	0.000	0.061	0.000	1.000
Stay-objective	0.067	0.070	0.957	0.339
No-instructions	0.060	0.070	0.858	0.392

Note: Reference group in each case is perspective taking condition. Standardized effects reported. DV = dependent variable.

Table S32. Study 2 Indirect effects – substratism with personal distress as third mediator.

	β	*SE*	CI lower	CI upper
M: Empathic concern				
Stay-objective	-0.001	0.014	-0.030	0.030
No-instructions	0.000	0.008	-0.018	0.017
M: Self-other overlap				
Stay-objective	0.041	0.021	0.003	0.086
No-instructions	0.006	0.021	-0.035	0.048
M: Personal distress				
Stay-objective	0.038	0.031	-0.021	0.099
No-instructions	-0.008	0.031	-0.070	0.054

Note: Reference group in each case is perspective taking condition. Standardized effects reported. M = mediator.

Table S33. Study 2 Mediation model results – moral concern for emulations with controls.

	β	*SE*	*t*	*p*
DV: Empathic concern				
Intercept	0.000	0.058	0.000	1.000
Stay-objective	-0.182	0.068	-2.662	0.008
No-instructions	-0.067	0.069	-0.976	0.330
DV: Self-other overlap				
Intercept	0.000	0.059	0.000	1.000
Stay-objective	-0.134	0.069	-1.956	0.052
No-instructions	0.013	0.069	0.183	0.855
DV: Personal distress				
Intercept	0.000	0.058	0.000	1.000
Stay-objective	-0.092	0.068	-1.350	0.178
No-instructions	0.024	0.068	0.347	0.729
DV: Moral concern for emulations (direct effects)				
Intercept	0.000	0.044	0.000	1.000
Stay-objective	0.116	0.052	2.210	0.028
No-instructions	0.045	0.052	0.854	0.394
Empathic concern	0.280	0.071	3.922	0.000
Self-other overlap	0.282	0.060	4.670	0.000
Personal distress	0.193	0.064	3.033	0.003
DV: Moral concern for emulations (total effects)				
Intercept	0.000	0.058	0.000	1.000
Stay-objective	0.009	0.068	0.137	0.891
No-instructions	0.034	0.068	0.500	0.618

Note: Reference group in each case is perspective taking condition. Standardized effects reported. DV = dependent variable.

Table S34. Study 2 Indirect effects – moral concern for emulations with controls.

	β	*SE*	CI lower	CI upper
M: Empathic concern				
Stay-objective	-0.053	0.025	-0.108	-0.012
No-instructions	-0.019	0.021	-0.063	0.019
M: Self-other overlap				
Stay-objective	-0.040	0.022	-0.089	0.0002
No-instructions	0.004	0.021	-0.039	0.046
M: Personal distress				
Stay-objective	-0.018	0.015	-0.053	0.007
No-instructions	0.005	0.015	-0.023	0.036

Note: Reference group in each case is perspective taking condition. Standardized effects reported. M = mediator.

Table S35. Study 2 Mediation model results – substratism with controls.

	β	*SE*	*t*	*p*
DV: Empathic concern				
Intercept	0.000	0.058	0.000	1.000
Stay-objective	-0.182	0.068	-2.662	0.008
No-instructions	-0.067	0.069	-0.976	0.330
	0.000	0.058	0.000	1.000
DV: Self-other overlap				
Intercept	0.000	0.059	0.000	1.000
Stay-objective	-0.134	0.069	-1.956	0.052
No-instructions	0.013	0.069	0.183	0.855
DV: Personal distress				
Intercept	0.000	0.058	0.000	1.000
Stay-objective	-0.092	0.068	-1.350	0.178
No-instructions	0.024	0.068	0.347	0.729
DV: Substratism (direct effects)				
Intercept	0.000	0.047	0.000	1.000
Stay-objective	-0.004	0.056	-0.067	0.947
No-instructions	0.056	0.056	0.998	0.319
Empathic concern	-0.013	0.076	-0.168	0.867
Self-other overlap	-0.257	0.064	-3.984	0.000
Personal distress	-0.383	0.068	-5.635	0.000
DV: Substratism (total effects)				
Intercept	0.000	0.057	0.000	1.000
Stay-objective	0.068	0.067	1.020	0.309
No-instructions	0.044	0.067	0.659	0.511

Note: Reference group in each case is perspective taking condition. Standardized effects reported. DV = dependent variable.

Table S36. Study 2 Indirect effects – substratism with controls.

	β	*SE*	CI lower	CI upper
M: Empathic concern				
Stay-objective	0.004	0.017	-0.030	0.041
No-instructions	0.001	0.008	-0.015	0.021
M: Self-other overlap				
Stay-objective	0.036	0.020	0.0003	0.080
No-instructions	-0.004	0.020	-0.044	0.034
M: Personal distress				
Stay-objective	0.037	0.028	-0.017	0.094
No-instructions	-0.010	0.029	-0.069	0.046

Note: Reference group in each case is perspective taking condition. Standardized effects reported. M = mediator.

Table S37. Study 2 Mediation model results – stay-objective versus no-instructions comparison – moral concern for emulations.

	β	*SE*	*t*	*p*
DV: Empathic concern				
Intercept	0.000	0.060	0.000	1.000
Stay-objective	-0.100	0.069	-1.447	0.149
Perspective taking	0.069	0.069	0.996	0.320
DV: Self-other overlap				
Intercept	0.000	0.060	0.000	1.000
Stay-objective	-0.122	0.069	-1.763	0.079
Perspective taking	0.022	0.069	0.318	0.751
DV: Moral concern for emulations (direct effects)				
Intercept	0.000	0.046	0.000	1.000
Stay-objective	0.079	0.053	1.491	0.137
Perspective taking	-0.064	0.053	-1.223	0.223
Empathic concern	0.430	0.060	7.207	0.000
Self-other overlap	0.310	0.060	5.199	0.000
Personal distress	0.000	0.046	0.000	1.000
	0.079	0.053	1.491	0.137
DV: Moral concern for emulations (total effects)				
Intercept	0.000	0.061	0.000	1.000
Stay-objective	-0.002	0.070	-0.032	0.974
Perspective taking	-0.028	0.070	-0.397	0.691

Note: Reference group in each case is no-instructions condition. Standardized effects reported. DV = dependent variable.

Table S38. Study 2 Indirect effects – stay-objective versus no-instructions comparison – moral concern for emulations.

	β	*SE*	CI lower	CI upper
M: Empathic concern				
Stay-objective	-0.043	0.031	-0.107	0.015
Perspective taking	0.029	0.030	-0.029	0.091
M: Self-other overlap				
Stay-objective	-0.038	0.022	-0.085	0.003
Perspective taking	0.007	0.022	-0.036	0.053

Note: Reference group in each case is perspective taking condition. Standardized effects reported. M = mediator.

Table S39. Study 2 Mediation model results – stay-objective versus no-instructions comparison – substratism.

	β	*SE*	*t*	*p*
DV: Empathic concern				
Intercept	0.000	0.060	0.000	1.000
Stay-objective	-0.100	0.069	-1.447	0.149
Perspective taking	0.069	0.069	0.996	0.320
DV: Self-other overlap				
Intercept	0.000	0.060	0.000	1.000
Stay-objective	-0.122	0.069	-1.763	0.079
Perspective taking	0.022	0.069	0.318	0.751
DV: Substratism (direct effects)				
Intercept	0.000	0.052	0.000	1.000
Stay-objective	-0.058	0.060	-0.968	0.334
Perspective taking	-0.035	0.060	-0.587	0.558
Empathic concern	-0.255	0.068	-3.755	0.000
Self-other overlap	-0.329	0.068	-4.852	0.000
Personal distress	0.000	0.052	0.000	1.000
	-0.058	0.060	-0.968	0.334
DV: Substratism (total effects)				
Intercept	0.000	0.061	0.000	1.000
Stay-objective	0.008	0.070	0.109	0.913
Perspective taking	-0.060	0.070	-0.858	0.392

Note: Reference group in each case is no-instructions condition. Standardized effects reported. DV = dependent variable.

Table S40. Study 2 Indirect effects – stay-objective versus no-instructions comparison – substratism.

	β	*SE*	CI lower	CI upper
M: Empathic concern				
Stay-objective	0.026	0.019	-0.008	0.069
Perspective taking	-0.018	0.019	-0.060	0.018
M: Self-other overlap				
Stay-objective	0.040	0.025	-0.003	0.092
Perspective taking	-0.007	0.024	-0.055	0.042

Note: Reference group in each case is perspective taking condition. Standardized effects reported. M = mediator.

References

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