

A APPENDIX

Table 2: Post hoc comparisons: desirability-behavior (prestudy)

		Mean δ	SE	t	Cohen's d	<i>P</i> _{bonf}
behavior1	behavior8	2.184	0.401	5.451	0.884	< .001
	behavior11	2.184	0.369	5.915	0.960	< .001
behavior2	behavior7	2.026	0.382	5.307	0.861	< .001
	behavior8	2.816	0.399	7.059	1.145	< .001
behavior3	behavior11	2.816	0.397	7.091	1.150	< .001
	behavior12	2.184	0.496	4.405	0.715	0.006
	behavior7	2.026	0.326	6.225	1.010	< .001
	behavior8	2.816	0.365	7.706	1.250	< .001
	behavior9	1.474	0.379	3.893	0.632	0.026
behavior4	behavior10	1.079	0.281	3.844	0.624	0.030
	behavior11	2.816	0.320	8.807	1.429	< .001
	behavior12	2.184	0.418	5.225	0.848	< .001
	behavior7	1.711	0.459	3.729	0.605	0.042
	behavior8	2.500	0.425	5.888	0.955	< .001
behavior5	behavior11	2.500	0.433	5.775	0.937	< .001
	behavior12	1.868	0.492	3.798	0.616	0.035
	behavior7	1.789	0.403	4.441	0.720	0.005
	behavior8	2.579	0.361	7.143	1.159	< .001
behavior6	behavior11	2.579	0.363	7.105	1.153	< .001
	behavior12	1.947	0.432	4.512	0.732	0.004
	behavior7	1.658	0.396	4.186	0.679	0.011
behavior8	behavior8	2.447	0.349	7.010	1.137	< .001
	behavior11	2.447	0.361	6.776	1.099	< .001
	behavior12	1.816	0.392	4.636	0.752	0.003
behavior9	behavior9	-1.342	0.305	-4.404	-0.714	0.006
	behavior10	-1.737	0.361	-4.809	-0.780	0.002
behavior10	behavior11	-1.342	0.321	-4.186	-0.679	0.011
behavior10	behavior11	1.737	0.347	5.004	0.812	< .001

Table 3: Post hoc comparisons: surprisingness-behavior (prestudy)

		Mean δ	SE	t	Cohen's d	<i>P</i> _{bonf}	
behavior1	behavior3	-1.184	0.308	-3.840	-0.623	0.031	
	behavior4	-1.211	0.309	-3.917	-0.635	0.025	
	behavior6	-1.763	0.402	-4.389	-0.712	0.006	
	behavior8	-1.921	0.380	-5.059	-0.821	< .001	
	behavior9	-1.947	0.341	-5.704	-0.925	< .001	
	behavior10	-1.632	0.361	-4.524	-0.734	0.004	
	behavior11	-2.079	0.410	-5.066	-0.822	< .001	
	behavior12	-2.395	0.380	-6.301	-1.022	< .001	
	behavior2	behavior12	-1.658	-0.380	-4.368	0.709	0.006
	behavior5	behavior12	-1.447	-0.337	-4.299	0.697	0.008

Table 4: Mean and SD of intentionality, surprisingness and desirability ratings per behavior (pre-study)

behavior	intentionality		desirability		surprisingness	
	M	SD	M	SD	M	SD
1	5.947	1.541	5.105	1.641	3.500	2.024
2	6.000	1.542	5.737	1.483	4.237	2.174
3	6.079	1.302	5.737	1.349	4.684	1.974
4	5.763	1.852	5.421	1.926	4.711	2.052
5	5.842	1.685	5.500	1.720	4.447	2.009
6	6.132	1.119	5.368	1.746	5.263	1.982
7	5.605	1.220	3.711	2.104	4.763	1.992
8	5.579	1.671	2.921	1.978	5.421	1.765
9	5.737	1.223	4.263	2.310	5.447	1.704
10	5.553	1.501	4.658	1.893	5.132	1.877
11	5.711	1.393	2.921	2.005	5.579	1.368
12	6.132	1.119	3.553	2.424	5.895	1.521

Table 5: Post hoc comparisons: desirability - behavior (main)

		Mean δ	SE	t	Cohen's d	<i>P</i> _{bonf}
behavior4	behavior6	1.021	0.253	4.034	0.410	0.002
	behavior8	4.062	0.229	17.714	1.799	< .001
	behavior9	3.062	0.273	11.203	1.137	< .001
behavior6	behavior11	4.062	0.227	-17.898	-1.817	< .001
	behavior12	3.907	0.259	-15.068	-1.530	< .001
	behavior8	3.041	0.204	14.941	1.517	< .001
behavior8	behavior9	2.041	0.234	8.724	0.886	< .001
	behavior11	3.041	0.198	15.386	1.562	< .001
	behavior12	2.887	0.226	12.771	1.297	< .001
behavior9	behavior9	-1.000	0.182	-5.499	-0.558	< .001
behavior9	behavior11	1.000	0.176	5.686	0.577	< .001
	behavior12	0.845	0.214	3.959	0.402	0.002

Table 6: Post hoc comparisons: surprisingness - behavior (main)

		Mean δ	SE	t	Cohen's d	<i>P</i> _{bonf}
behavior4	behavior6	-1.866	0.254	-7.343	-0.746	< .001
	behavior8	-2.454	0.245	-10.023	-1.018	< .001
	behavior9	-1.505	0.279	-5.397	-0.548	< .001
behavior6	behavior11	-1.773	0.252	-7.027	-0.713	< .001
	behavior12	-2.897	0.254	-11.403	-1.158	< .001
	behavior12	-1.031	0.205	-5.019	-0.510	< .001
behavior8	behavior9	0.948	0.211	4.505	0.457	< .001
	behavior11	0.680	0.183	3.723	0.378	0.005
	behavior12	-0.443	0.132	-3.362	-0.341	0.017
behavior9	behavior12	-1.392	0.205	-6.774	-0.688	< .001
behavior11	behavior12	-1.124	0.192	-5.859	-0.595	< .001

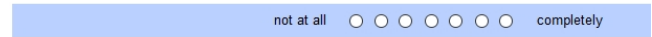
Table 7: Mean and SD of intentionality, surprisingness and understandability (pre/post) desirability (pre/post) ratings per behavior (main)

behavior	intentionality		surprisingness		understandability				desirability			
	M	SD	M	SD	pre		post		pre		post	
4	6.515	1.042	3.412	2.110	5.629	2.083	5.784	1.855	5.639	1.943	5.753	1.837
6	6.340	1.079	5.278	1.853	4.289	2.021	5.485	1.964	4.619	1.788	4.732	1.966
8	5.825	1.541	5.866	1.374	1.784	1.277	4.351	2.165	1.577	1.180	2.278	1.864
9	6.113	1.376	4.918	1.956	3.433	2.222	4.649	2.146	2.577	1.957	2.856	2.175
11	5.670	1.566	5.186	1.752	1.948	1.496	4.577	2.281	1.577	1.107	2.175	1.809
12	6.134	1.247	6.309	1.318	2.103	1.636	4.072	2.251	1.732	1.497	1.907	1.684

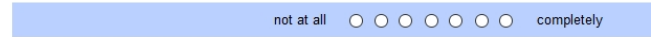
Table 8: Mean and SD of behavior understandability gain, desirability gain and justification quality of explanation per explanation category (main)

explanation category	δ bhv understandability		δ bhv desirability		justification	
	M	SD	M	SD	M	SD
causally structured (2&4)	2.004	1.281	0.504	0.619	4.291	1.295
non-causally structured (1, 3 & 5)	1.365	1.377	0.213	0.859	3.652	1.478
what-explanation (5)	1.307	1.409	0.386	0.962	3.737	1.695
why-explanations (1-4)	1.699	1.357	0.316	0.737	3.951	1.373

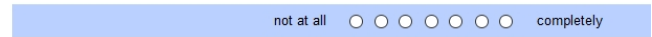
1. Pepper's behavior was surprising.



2. Pepper's behavior was understandable.



3. Pepper's behavior was intentional.



4. Pepper's behavior was desirable.

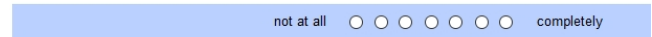


Figure 11: likert-scale items pre-explanation (main)

1. Pepper's explanation was understandable.



2. Pepper's behavior is now understandable.



3. Pepper's explanation adequately justified its behavior.



4. Pepper's behavior is now desirable.

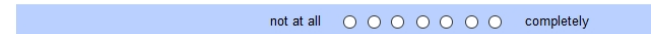


Figure 12: likert-scale items post-explanation (main)