

# Incivility awareness could save lives

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## Data, Analyses, & Results

### Study 1 Results

During the course of the experiment, there were 2,022 street crossers, of whom 832, or 41.1%, were red-light violators. A chi-square test found a significant difference in violation rates across the three conditions,  $\chi^2(2, N = 2022) = 265.24, p < .001$ .

Of the three conditions, the incivility-awareness condition was most effective at mitigating red-light crossing. Its violation rate was only 23.9%, as opposed to 64.6% for the no-sign control,  $\chi^2(1, N = 1386) = 231.70, p < .001$ , and 32.5% for the no-crossing imperative,  $\chi^2(1, N = 1301) = 12.00, p = .001$ . (See Table S1 for hour-by-hour statistics.)

### Study 2 Results

Of the 2,847 street crossers observed, 993, or 34.9%, were red-light violators. A chi-square test found a significant difference in violation rate across the five conditions,  $\chi^2(4, N = 2847) = 118.15, p < .001$ .

As we predicted, the incivility-awareness condition was the most effective of the five conditions at mitigating red-light crossing, with a violation rate of only 23.1%, compared with 49.2% in the no-sign control. The other conditions had violation rates in between—37.4% for the safety-awareness condition, 30.7% in the danger-awareness condition, and 29.6% in the civility-awareness condition, all with  $ps < .015$  (See Table S2 for hour-by-hour statistics.)

We further found that the civility-focused signs were more effective than the safety-focused signs,  $\chi^2(1, N = 2199) = 15.28, p < .001$ . Between the two safety-focused signs, the negatively framed sign was more effective,  $\chi^2(1, N = 1086) = 5.48, p = .019$ . Between the two civility-focused signs, the negatively framed sign was also more effective,  $\chi^2(1, N = 1113) = 6.14, p = .013$ .

### Study 3 Results

Of the 7,792 street crossers observed, 3,215, or 41.3%, were red-light violators. Figure 3 shows the day-by-day results. (See Table S3 for hour-by-hour results.) On the first day of

the experiment, when the incivility-awareness signs were not yet present, the violation rate was 66.2%. After the incivility-awareness signs were erected on the second day, the violation rate dropped to 30.3%. Even though the violation rates increased somewhat over time, they remained below 37% when the signs were present. The violation rates were significantly different than the 66.2% violation rate on the first day. It is important to note that on the last day of the experiment, when the signs were removed, the violation rate rebounded to 58.9%. That was significantly higher than the violation rates on the days when the signs were present, with all  $ps < .001$  using chi-square tests.

Table S1. Study 1 results by time

Time	Condition	Street crossers	Red-light violators	Violation rates (red-light violators/street crossers)
9:30–9:50	No sign	77	66	85.7%
9:50–10:10	No-crossing imperative	97	36	37.1%
10:10–10:30	Incivility awareness	88	21	23.9%
10:30–10:50	No sign	103	61	59.2%
10:50–11:10	No-crossing imperative	88	39	44.3%
11:10–11:30	Incivility awareness	105	32	30.5%
12:30–12:50	No sign	102	72	70.6%
12:50–13:10	No-crossing imperative	75	24	32.0%
13:10–13:30	Incivility awareness	67	14	20.9%
13:30–13:50	No sign	87	52	59.8%
13:50–14:10	No-crossing imperative	75	26	34.7%
14:10–14:30	Incivility awareness	112	28	25.0%
14:30–14:50	No sign	86	62	72.1%
14:50–15:10	No-crossing imperative	99	32	32.3%
15:10–15:30	Incivility awareness	108	24	22.2%
15:30–15:50	No sign	126	91	72.2%
15:50–16:10	No-crossing imperative	103	32	31.1%
16:10–16:30	Incivility awareness	71	18	25.4%
16:30–16:50	No sign	140	62	44.3%
16:50–17:10	No-crossing imperative	99	18	18.2%
17:10–17:30	Incivility awareness	114	22	19.3%

**Table S2. Study 2 results by time**

Time	Condition	Street crossers	Red-light violators	Violation rates (red-light violators/ street crossers)
10:00–10:12	No sign	112	57	50.9%
10:12–10:24	Safety awareness	89	43	48.3%
10:24–10:36	Danger awareness	86	36	41.9%
10:36–10:48	Civility awareness	85	33	38.8%
10:48–11:00	Incivility awareness	79	26	32.9%
12:00–12:12	No sign	123	52	42.3%
12:12–12:24	Safety awareness	109	31	28.4%
12:24–12:36	Danger awareness	111	22	19.8%
12:36–12:48	Civility awareness	120	29	24.2%
12:48–13:00	Incivility awareness	96	9	9.4%
13:00–13:12	No sign	126	58	46.0%
13:12–13:24	Safety awareness	107	32	29.9%
13:24–13:36	Danger awareness	103	22	21.4%
13:36–13:48	Civility awareness	92	23	25.0%
13:48–14:00	Incivility awareness	71	25	35.2%
14:00–14:12	No sign	89	55	61.8%
14:12–14:24	Safety awareness	63	38	60.3%
14:24–14:36	Danger awareness	60	24	40.0%
14:36–14:48	Civility awareness	44	19	43.2%
14:48–15:00	Incivility awareness	72	15	20.8%
15:00–15:12	No sign	70	40	57.1%
15:12–15:24	Safety awareness	59	27	45.8%
15:24–15:36	Danger awareness	45	19	42.2%
15:36–15:48	Civility awareness	68	21	30.9%
15:48–16:00	Incivility awareness	46	25	54.3%
16:00–16:12	No sign	63	37	58.7%
16:12–16:24	Safety awareness	63	17	27.0%
16:24–16:36	Danger awareness	61	19	31.1%
16:36–16:48	Civility awareness	90	14	15.6%
16:48–17:00	Incivility awareness	112	17	15.2%
17:00–17:07	No sign	65	30	46.2%
17:07–17:14	Safety awareness	61	18	29.5%
17:14–17:21	Danger awareness	69	22	31.9%
17:21–17:28	Civility awareness	68	29	42.6%
17:28–17:35	Incivility awareness	70	9	12.9%

**Table S3. Study 3 results by time**

Day	Condition	Time	Street crossers	Red-light violators	Violation rates (red-light violators/ street crossers)
Week 1 Thursday	No sign	11:30–12:30	326	227	69.6%
		12:30–13:30	228	154	67.5%
		15:00–16:00	232	162	69.8%
		16:00–17:00	254	145	57.1%
Week 1 Friday	Incivility awareness	11:30–12:30	255	74	29.0%
		12:30–13:30	127	30	23.6%
		15:00–16:00	159	62	39.0%
		16:00–17:00	196	57	29.1%
Week 2 Thursday	Incivility awareness	11:30–12:30	236	88	37.3%
		12:30–13:30	210	51	24.3%
		15:00–16:00	225	74	32.9%
		16:00–17:00	240	66	27.5%
Week 2 Friday	Incivility awareness	11:30–12:30	289	88	30.4%
		12:30–13:30	307	88	28.7%
		15:00–16:00	268	93	34.7%
		16:00–17:00	262	79	30.2%
Week 3 Thursday	Incivility awareness	11:30–12:30	106	49	46.2%
		12:30–13:30	27	7	25.9%
		15:00–16:00	237	71	30.0%
		16:00–17:00	192	65	33.9%
Week 3 Friday	Incivility awareness	11:30–12:30	273	117	42.9%
		12:30–13:30	288	95	33.0%
		15:00–16:00	294	108	36.7%
		16:00–17:00	279	97	34.8%
Week 4 Thursday	Incivility awareness	11:30–12:30	369	158	42.8%
		12:30–13:30	228	76	33.3%
		15:00–16:00	265	94	35.5%
		16:00–17:00	300	80	26.7%
Week 4 Friday	No sign	11:30–12:30	320	193	60.3%
		12:30–13:30	266	165	62.0%
		15:00–16:00	254	135	53.1%
		16:00–17:00	280	167	59.6%

Note. The weather varied during the days when we collected data, and that may have caused fluctuations in the number of street crossers across different days.