APPENDIX

A1) Cooperation Rate, Sampling Strategy and Socio-Demographics of Respondents

Table A1.1 presents cooperation rates (COOP1 according to AAPOR standards), that is, completed interviews per eligible and contacted individuals. This is done for each wave of the Konstanz Citizen Survey that had a CM experiment implemented. Since cooperation is generally much higher among already registered panel members (52-61%) than in the refreshment samples (20-24%), these are displayed separately.

Table A1.1 Cooperation Rate and Sampling Strategy

		n (eligible and contacted)	completed interviews
Wave 4 (2011)	Panel members	1249	666 (53%)
	Refreshment sample	1548	369 (24%) (244 online, 125 paper)
Wave 6 (2013)	Panel members	1280	782 (61%)
	Refreshment sample	2770 (1844 online first, 936 paper only)	581 (21%) 259 online, 322 paper
Wave 7 (2014)	Panel members	1577	869 (55%)
	Refreshment Sample	3009	635 (21%) 506 online, 129 paper
Wave 8 (2015)	Panel members	1885	982 (52%)
	Refreshment Sample	3279	640 (20%)

Note that members of the refreshment samples who did not want to register for the online panel had an option to fill in a paper questionnaire in wave 4, 6 and 7 but were not automatically followed-up on in the next year. Also, the paper questionnaires did usually not contain the experiments on the crosswise model – with the exception of wave 6 where the number of paper respondents is too low for meaningful analyses.

To ensure data quality, the target population and the covered respondent pool are regularly compared in terms of all demographic characteristics for which registry data is available: sex, age, citizenship and area of residence within the city. To account for lower response rates and higher panel attrition among young people and immigrants, citizens aged 18-30 and people with a non-German nationality were oversampled in the refresher samples since wave 4 (probability to be selected was doubled). Wave 8 was special in that its substantive focus was on neighborhoods. As a consequence, also inhabitants of underrepresented districts were oversampled.

Table A1.2 shows the some sociodemographic information on the respondents we are analysing in this paper, that is, the respondents that provided valid answer to either the crosswise model or the respective direct question in each wave.

Table A1.2 Socio-demographics for the respondents of each survey wave

		Wave 4 (2011) n=813	Wave 6 (2013) n=1027	Wave 7 (2014) n=1291	Wave 8 (2015) n=1584
sex	male	53%	52%	52%	49%
	female	47%	48%	48%	51%
age	18-30	19%	30%	33%	33%
	31-59	61%	48%	47%	45%
	60+	20%	22%	20%	22%
education	below A-levels	30%	26%	25%	27%
	A-levels	18%	25%	26%	25%
	tertiary	52%	49%	50%	49%

Cells might not sum up to 100% because of rounding.

A2) Question Wording of Crosswise Models

(1) Voter turnout
Is your mother‘s birthday in January, February or March?
Have you participated in the vote on „Stuttgart 21“[1]?

☐ YES to both questions or NO to both questions
☐ YES to one question and NO to the other question

(2) Blood donation
Is your father’s birthday in January, February or March?
Have you donated blood in the past 12 months?

☐ YES to both questions or NO to both questions
☐ YES to one question and NO to the other question

(3) Littering
Is your mother‘s birthday in June or July?
Have you ever thrown anything on the streets or into nature instead of using a bin?

☐ YES to both questions or NO to both questions
☐ YES to one question and NO to the other question

(4) Keeping Change
Is your father‘s birthday in September or October?
Have you ever kept too much change that was accidently given to you?

response order 1: “same first”
☐ YES to both questions or NO to both questions
☐ YES to one question and NO to the other question

response order 2: “different first”
☐ YES to one question and NO to the other question
☐ YES to both questions or NO to both questions

(5) Jaywalking
Is your father‘s birthday in September or October?
Have you ever passed a red traffic light when there wasn’t any car in sight?

response order 1: “same first”
☐ YES to both questions or NO to both questions
☐ YES to one question and NO to the other question

response order 2: “different first”
☐ YES to one question and NO to the other question
☐ YES to both questions or NO to both questions

[1] Vote taking place in Baden-Württemberg in November 2011. Citizens were asked to decide if the federal government should continue a construction project to reorganise train traffic around Stuttgart.

A3) Learning Effects by Sociodemographic Background

Since respondents with different experience levels differ in sample composition (due to non-random panel attrition), regression models of CM prevalence on previous exposure were run separately for respondents with comparable sociodemographic background. Results are presented for combinations of characteristics where case numbers allowed a comparison of at least 10 respondents without previous experience to at least 10 respondents with previous experience. The findings show no significant learning effects for any of the groups, with most coefficients pointing towards the opposite direction.

Table A3. Learning effects by sociodemographic background

	respondent characteristics			case numbers	regression results (learning effect on CM)	
	sex	age	education	experience (no – yes)	coefficient	significance (p-value)
blood donation	Male	31-59	low	19 - 23	+0.36	0.22
(negative effect of experience expected if people learn)	Male	31-59	high	54 - 50	+0.13	0.49
	Male	60+	low	14 - 14	+0.14	0.71
	Male	60+	high	36 - 21	-0.10	0.72
	female	31-59	low	30 - 18	+0.02	0.93
	female	31-59	high	44 - 27	+0.37	0.12
	female	60+	low	17 - 12	+0.36	0.32
jaywalking (all)	Male	18-30	middle	25 - 13	-0.22	0.30
(positive effect of experience expected if people learn)	Male	18-30	high	23 - 13	+0.10	0.65
	Male	31-59	low	18 - 24	-0.17	0.44
	Male	31-59	high	26 - 54	-0.13	0.41
	Male	60+	low	10 - 18	-0.38	0.21
	female	18-30	middle	37 - 16	+0.11	0.45
	female	18-30	high	35 - 24	-0.03	0.85
	female	31-59	low	13 - 26	-0.58	0.02
	female	31-59	middle	11 - 15	+0.11	0.68
	female	31-59	high	33 - 25	+0.05	0.78
	female	60+	low	12 - 20	-0.4	0.10
jaywalking	female	18-30	middle	20 - 11	+0.01	0.94
(order1)	female	18-30	high	14 - 10	-0.34	0.15
	female	31-59	high	12 - 13	+0.40	0.17
jaywalking	Male	31-59	low	11 - 11	-0.14	0.63
(order2)	Male	31-59	high	18 - 30	-0.17	0.42
	female	18-30	high	21 - 14	+0.18	0.46
	female	31-59	high	21 - 12	-0.16	0.46

education levels: low = below high school, middle = high school diploma, high = university degree