

Safety in Numbers

Combining a panel design and cross-cultural survey to examine suggested mechanisms

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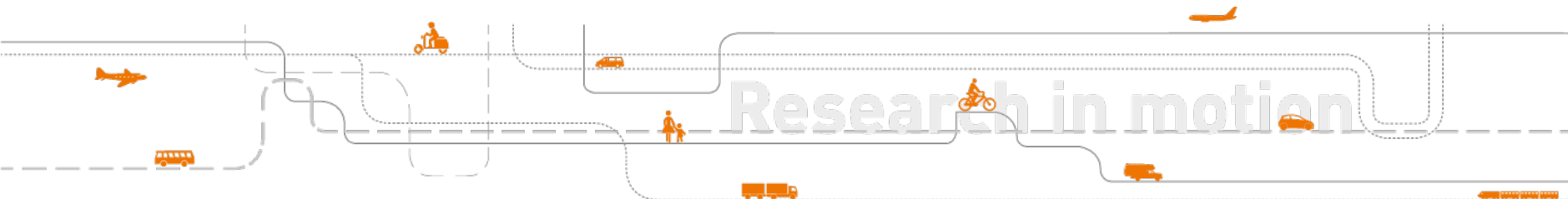
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ICSC 2014 Göteborg



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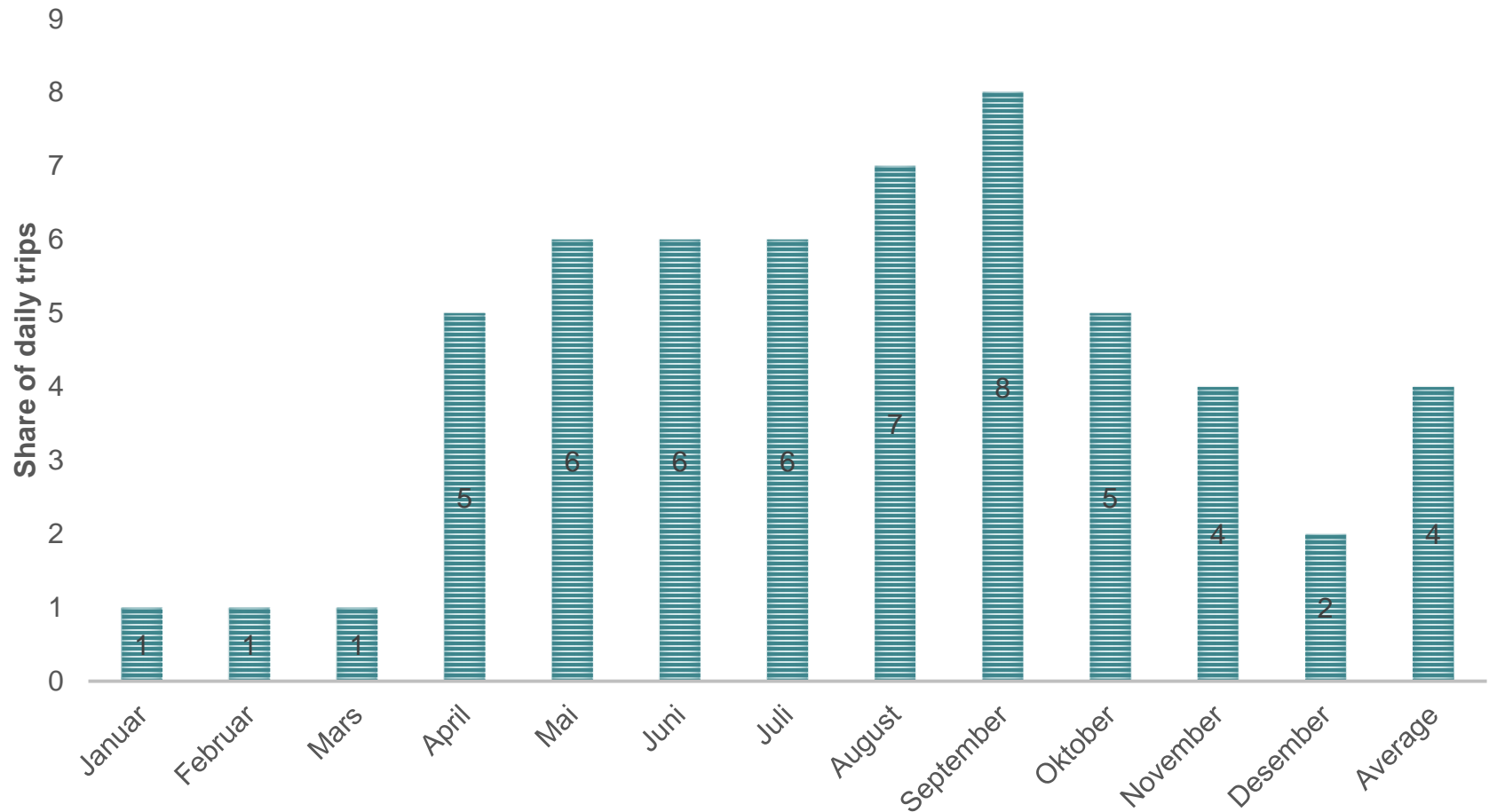
Research question

Is the Safety in Numbers effect a result of increased attention (the expectancy effect)?





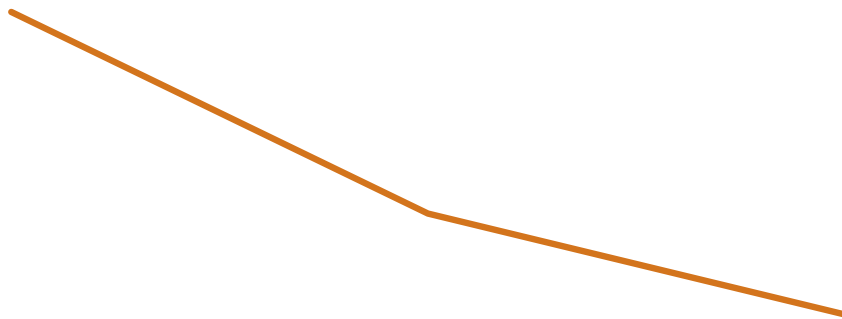
Seasonal variation in bicycle use, Norway



Hypotheses

The number of times...

1. bicyclists are overlooked by cars
 2. car drivers are surprised by a bicyclist
- ... is reduced April → Sept







Hypotheses, contd

Norwegian...

3. bicyclists overlooked by cars
 4. car drivers surprised by a bicyclist
- ... more often than Danish



Field interviews



April

Juni

September



212



288



480



225



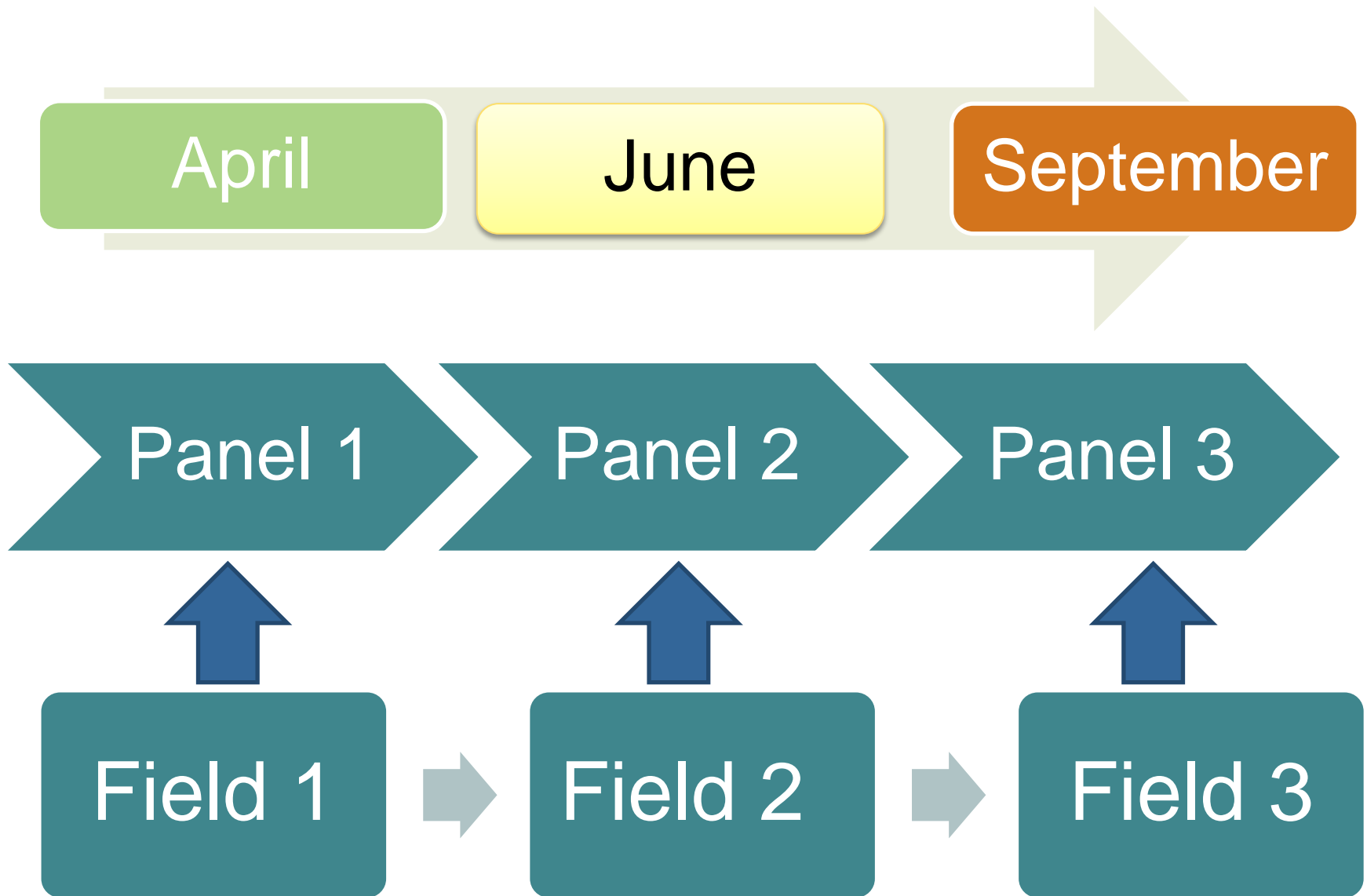
246



203

The cyclists

	April	June	September	Danish bicyclists
Mountain bike	44	34	37	9
“Hybrid bike” (city bike)	39	38	33	39
Racer bike	5	7	9	8
Rented bike	1	1	1	2
Classical bike	10	19	19	42
Other types	1	1	1	1
Cycle +5 days / week	73	72	73	81
Whole year bicyclist	46	33	36	88
Male	57	58	53	44
Mean age	44.6	43.8	43.1	35.5
N	212	288	480	265



H1: Number of times bicyclists have been overlooked and hindered last week

	April	April to June	June to September
Overlooked by car	15,51	-1,99*	-0,92
Car hindering	16,47	-2,72	-2,53*
N		136	172

*p<0.1

H2: Car drivers' surprise

- Number of bicyclists encountered on current trip, number of times surprised and surprise per bicycle

	Number of bicyclists	Number of times surprised	Surprise/ bicyclist
April	4.81	.34	.07
June	6.33	.31	.05
September	5.86	.42	.07

No
difference!

H3: Bicyclists being overlooked by cars on current trip - Norway vs Denmark

	Beta	P
Country=Denmark	.15	.00
Gender	-.06	.10
Age	-.05	.16
Mid-day	.04	.36
Afternoon	-.07	.09
Distance cycled	.17	.00

⇐ Wrong way!

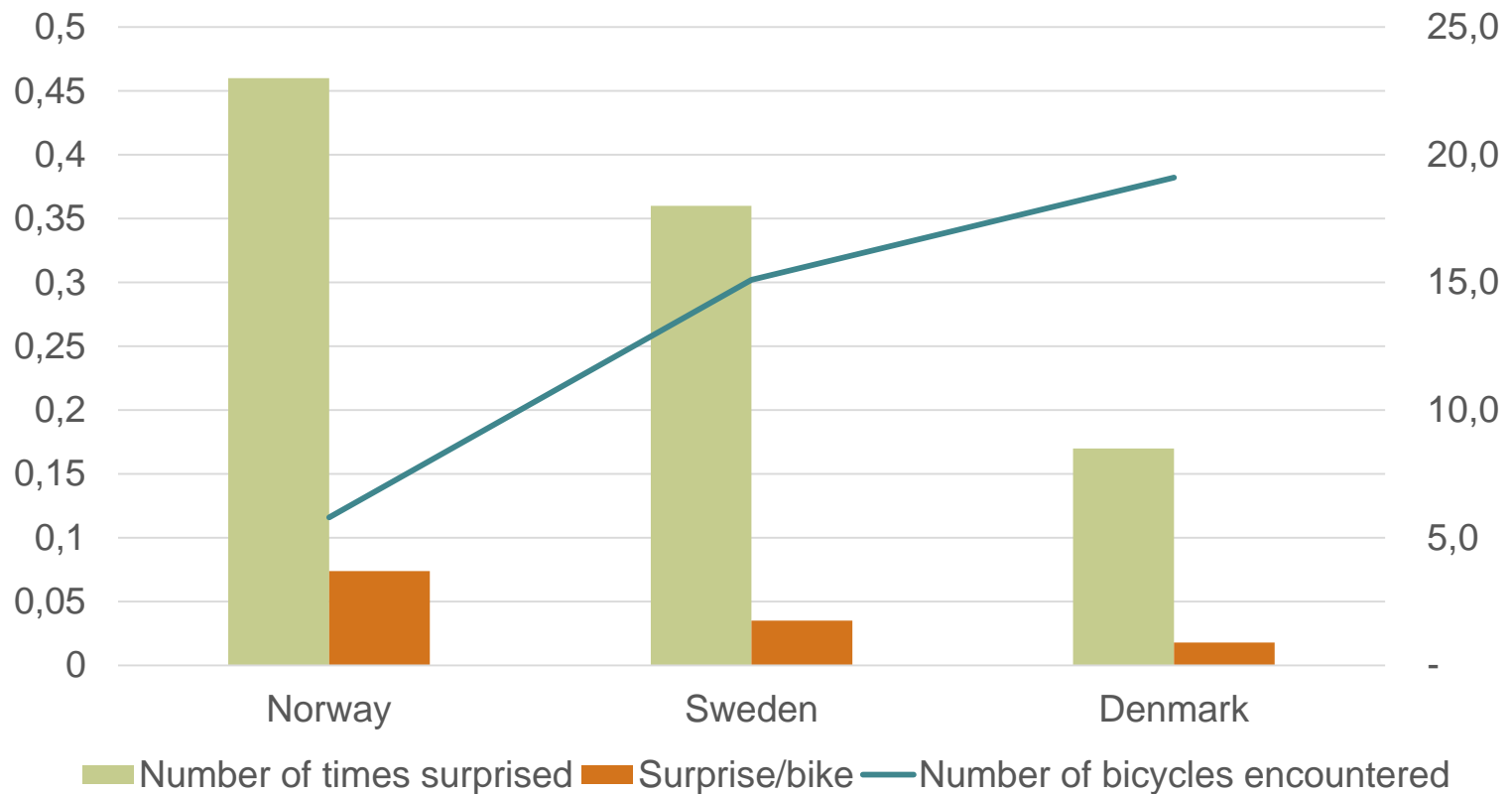
H3: Bicyclists being overlooked by cars last week - Norway vs Denmark

	Beta	P
Country=Denmark	-.11	.01
Gender	-.12	.01
Age	-.10	.02
Weekly distance cycled	.10	.03

⇐ Right way!

H4: Car drivers' surprise

- Number of bicyclists encountered on current trip, number of times surprised and surprise per bicycle

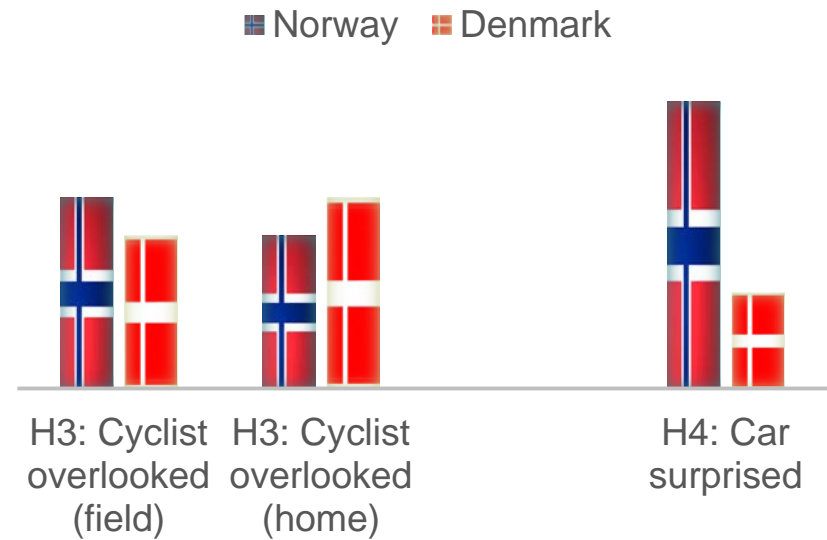
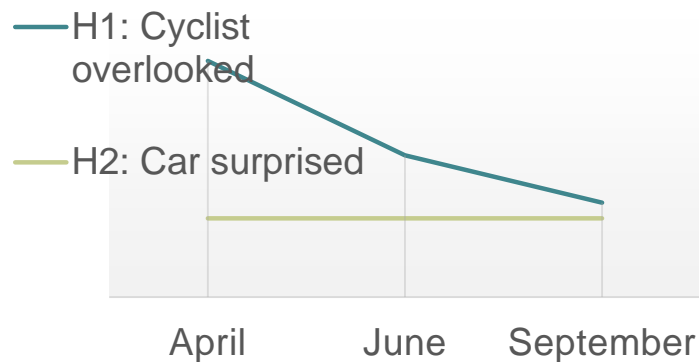


H4: Car drivers' surprise

- Number of bicyclists encountered on current trip, number of times surprised and surprise per bicycle

	Norway	Denmark	F
Number of bicycles encountered	5.8	19.6	108.4***
Number of times surprised	.46	.17	11.2***
Surprise/bike	0.074	0.018	8.1**
N	204	158	158

To summarize



Thank you

