# Cycling, risk and behaviour

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# What are we going to look at?

Who?

How?

Roads

People



# Social psychology

- Driving is perceived as desirable and cars as a symbol of success. Cycling is perceived as odd.
- In-group versus out-group behaviour. The out-group are stereotyped and vilified: *“they all ride through red lights*”.
- Exacerbated where cyclists are a minority group.
- Many drivers believe that it is too dangerous to cycle.

# Are they all the same?



# Who is most at risk?

- Male
- Age 10-19
- Alcohol or drug consumption
- Not wearing a helmet

Ruiz et al (2013): Spanish crashes



# All cyclists are not the same

- Fast helmet-wearing cyclists with lots of equipment. They report more collisions and higher perceptions of risk. Slow cyclists without helmets and little equipment report fewer collisions. (Fhvri et al., 2012)
- We don’t see the same difference between females or in America: cultural differences.





# What do cyclists think about risk?

- Believe that cycling is high-risk.
- Cyclists who comply with road rules perceive less risk.
- Drivers are (accurately) perceived as the main risk.
- Lack of cycling skills and poor bike maintenance also perceived as risk factors.



# Biased risk perceptions

- Cyclists also show self-enhancement bias: females view themselves as more cautious, males as more competent (Felonneau et al., 2013).
- Cyclists overestimate their visibility to car drivers and underestimate the benefits of reflective clothing (Wood et al., 2009, 2013).

# The effect of experience

- Novice cyclists or those who are less confident prefer segregated facilities.
- More experienced cyclists prefer to cycle on the road.

# How do drivers treat cyclists?

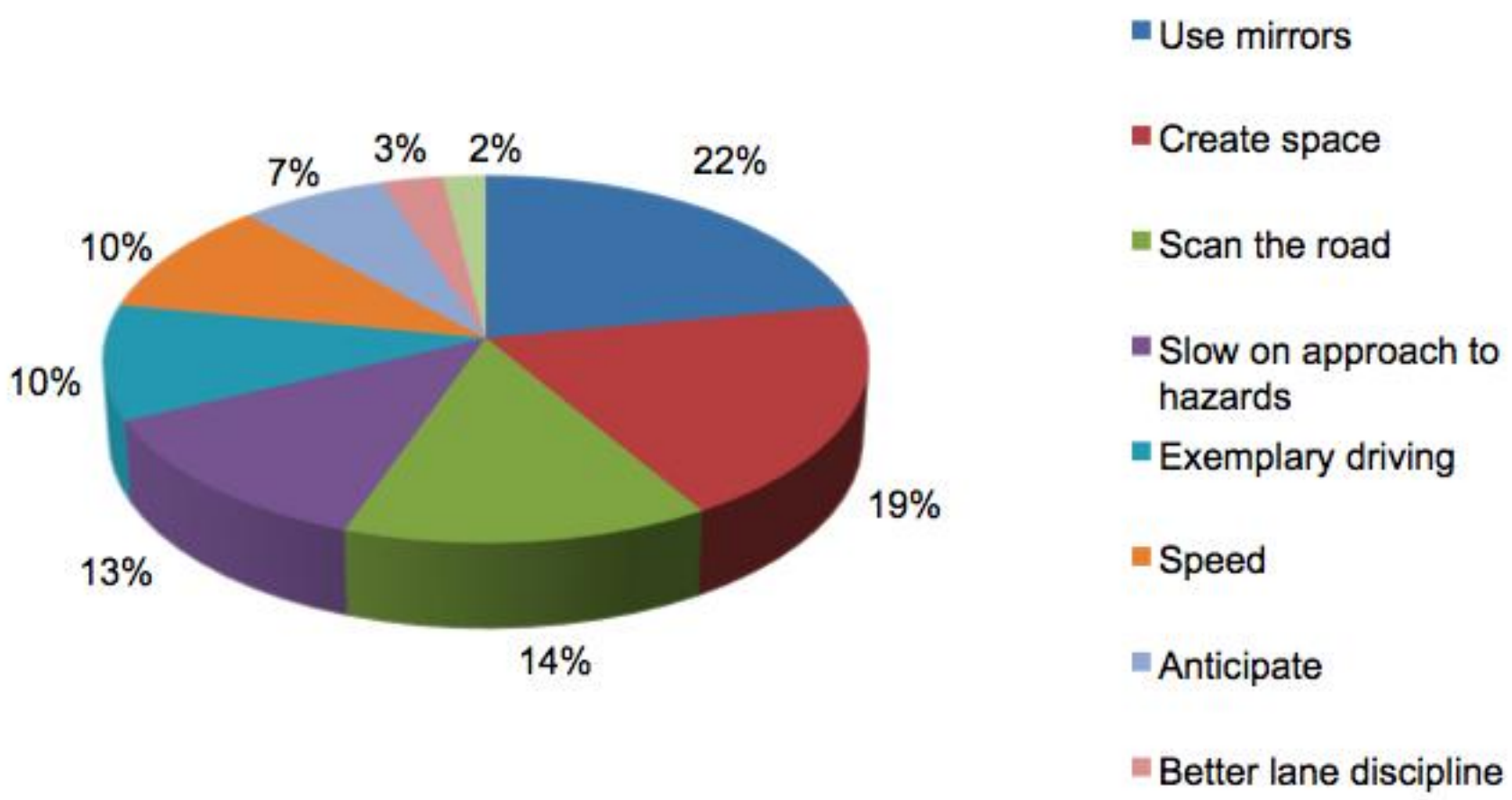
- They change their behaviour based on perceived cyclist competence.
- Give cyclists without helmets more room (Walker 2007)
- Give females more room (Walker, 2007).
- Drivers of buses and HGVs give cyclists less room than other drivers (Walker, 2007).

# Does legislation work?

- Some US states have introduced a “3 foot passing” law.
- Limited evidence that it is effective.

# What are the major problems?

- Most collisions take place at junctions, with drivers not giving way to cyclists: SMIDSY.
- Cyclists not looking behind before turning right (UK) is less common, although more common with children and novice cyclists.
- Collisions while overtaking are very common.
- Door-opening incidents also common.
- Not enough cyclists: safety in numbers.


22%
19%
14%
13%
10%
10%
7%
3%
2%
Use mirrors
Create space
Scan the road
Slow on approach to hazards
Exemplary driving
Speed
Anticipate
Better lane discipline

# Do cycle lanes help?







# Do cycle lanes work?

- Mixed evidence.
- Love et al. (2012) found greater passing distance on streets (30mph) with cycle lanes.
- But they don’t make motorists leave more space: motorists leave *less* space on fast roads with a cycle lane (Parkin and Meyer, 2010)
- Many cyclists don’t like them.

*“The European Union gave the council some money for cycling and all they did was to paint white lines on the road to create cycle lanes. Just ignore them. They’re dangerous – there’s too much junk in the gutter. Take an assertive road position so that you control the road.”*

# Safety in numbers: What could make cycling less risky and more attractive?

- Bicycle lanes (88%) or paths (76%)
- Reduce the speed of motor vehicles (55%)
- Better bike security (64%)
- Bike-friendly public transport (38%)

- Of those who cycle to work at least once a week, better shower facilities, fewer difficult junctions, rising fuel costs, fewer and more expensive car parks, and better commuting bikes would encourage them to cycle more often.

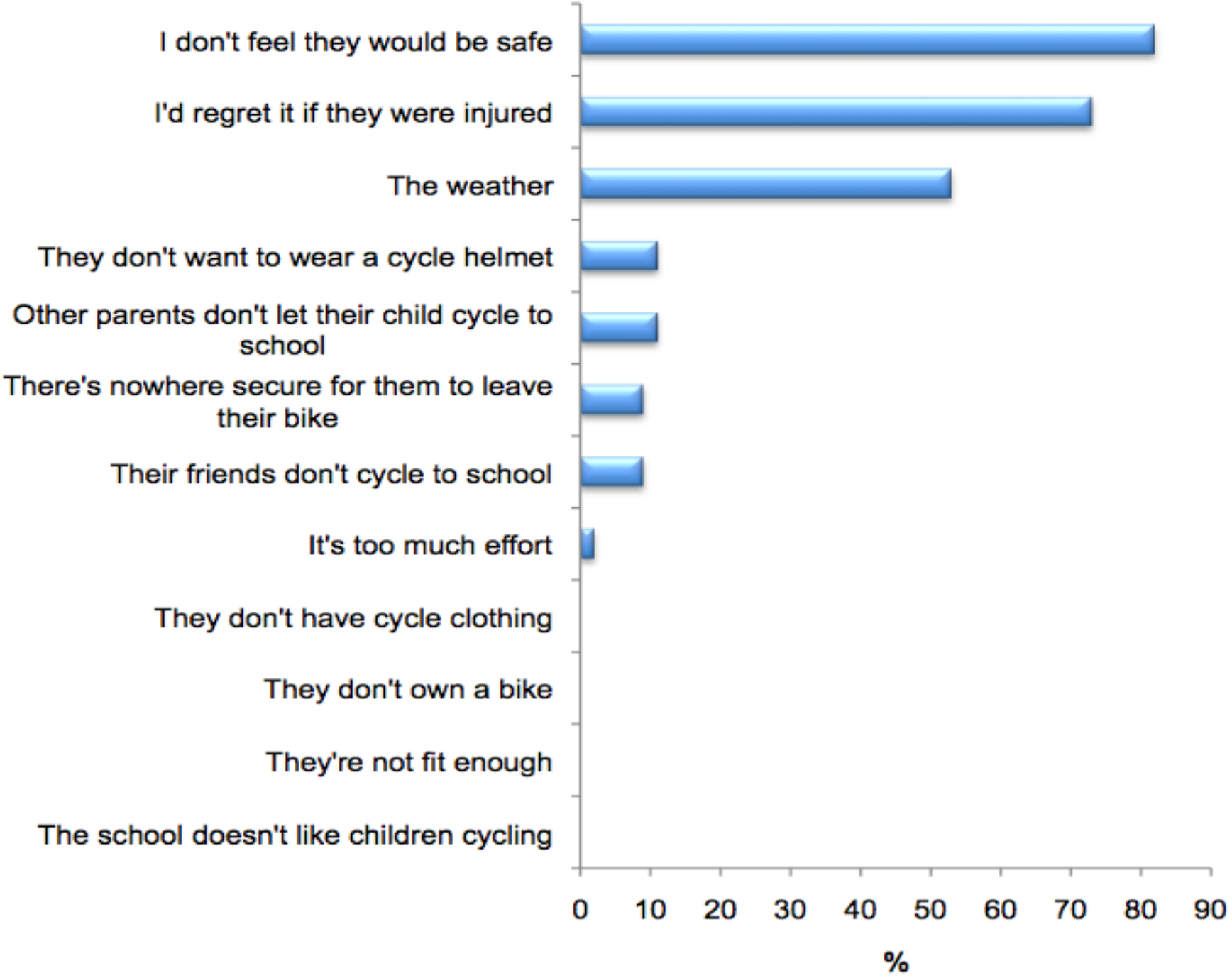
# Interventions to increase cycling in adults

- Schemes such as City Cycle (Brisbane) and Commuter Course (Lancashire) aim to get drivers to swap short car journeys for cycling.
- Typically effective in changing attitudes and increasing confidence.
- Safety is a major barrier.
- Weather and topography also deter cycling.
- Bike maintenance skills also a barrier.

(Fishman et al., 2012; Fylan et al., 2011)

# Interventions to increase cycling in children

- Usually undertaken in school: either during the year or in summer camps.
- Can be effective in increasing riding skill and knowledge of road use, e.g. the New Jersey Bike Scheme (Lachapelle et al., 2013); Bikeability (Fylan et al., 2012).
- But parental and school safety concerns prevent cycling to school.


I don't feel they would be safe
I'd regret it if they were injured
The weather
They don't want to wear a cycle helmet
Other parents don't let their child cycle to school
There's nowhere secure for them to leave their bike
Their friends don't cycle to school
It's too much effort
They don't have cycle clothing
They don't own a bike
They're not fit enough
The school doesn't like children cycling
0
10
20
30
40
50
60
70
80
90
%

# What does this mean for you?

- Cyclists aren’t a homogenous group.
- Some cyclists and situations are more risky than others.
- Cyclists and drivers already recognise the risk.
- Increasing cycling skills is not the whole answer.
- Better driver skills and willingness to share the road with cyclists would decrease risk and encourage cycling.

# Thank You

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