

City cycling at the crossroads

Can Australia learn from Northern Europe?

Warwick Pattinson

Carolyn Whitzman

Faculty of Architecture, Building and Planning, University of Melbourne

Pattinson and Whitzman SOAC Sydney
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- Are we at a turning point for cycling in cities?
- Can the potential benefits of cycling be understood and motivate action on the main impediment to more cycling – fear of traffic!
- For over 30 years governments have focused on requiring helmets and providing unprotected bike lanes to inconsistent standards and that disappeared at intersections.
- The main game has been providing for motor vehicles.
- Cycling has been promised with ‘plans’ but no real funding delivered by state or national governments.



The end of car dominance?

More cycling & more serious injuries

- In Melbourne cyclist deaths and serious injuries doubled between 2000 and 2008
- Victorian TAC payments to cyclists in Inner Melbourne increased by over 40% in the four years to 2011
- Nationally, by mid Nov., 2013 46 cyclists were dead, a 42% increase on the ten year average.



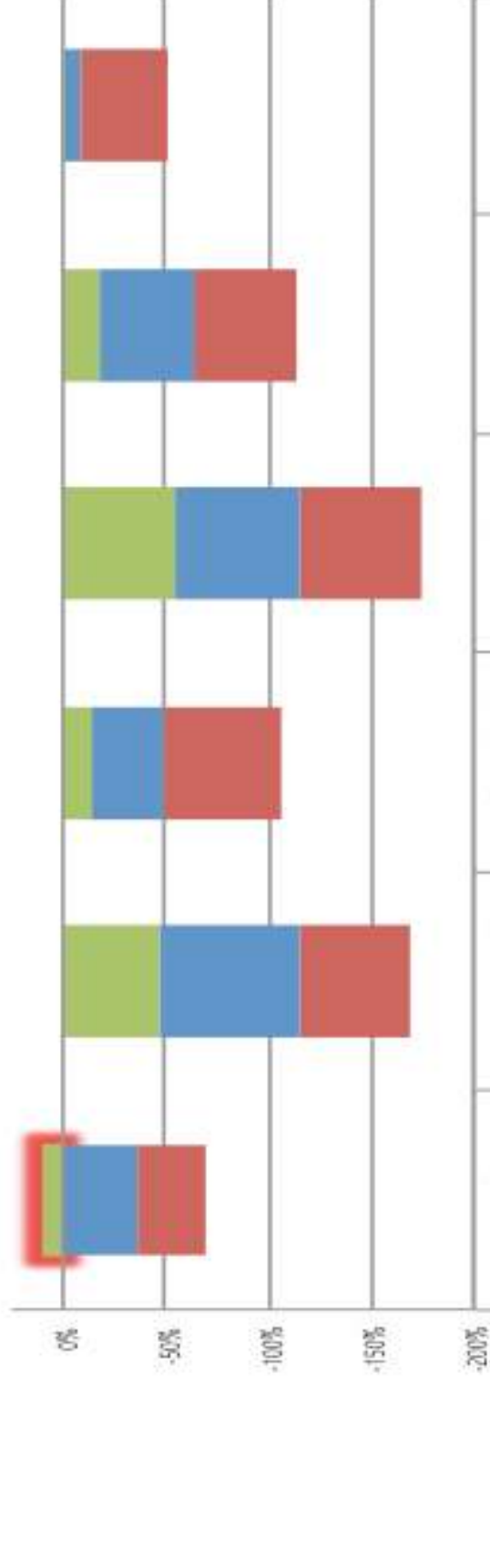
(News.com.au)

Context

- 60% of reported cyclist casualties occur at intersections (VicRoads Crashstats)
- At most Australian intersections cyclists are left to fend for themselves
- In Northern Europe intersection treatments have been part of the cycle friendly package for decades
- A potential encounter between a truck and a cyclist is the most dangerous - 28% of cyclist fatalities involved a heavy vehicle (VicRoads 2012)
- In the future city roads will have more trucks!

Australia, OECD Cycling Black Spot

Change in Road User Deaths 2000 - 2011



	Australia	Denmark	Netherlands	Sweden	UK	USA
Car Occupants	-34%	-54%	-57%	-60%	-49%	-42%
Pedestrians	-36%	-67%	-35%	-60%	-47%	-7%
Bicyclists	10%	-48%	-14%	-55%	-17%	-2%

Method

Lessons from Northern Europe:

- Data comparisons
- Case studies
- Similarities and differences
- Adaption – Actors and Elements
- Examples

Inner City Comparison

City Area	Pop. (000's)	Inner Area (km ²)	Density Res. / km ²	Cycling (% trips)	Region	All Rd. deaths (per 100,000)
Melb. (IMAP)	446	135	3300	¹ 3.9 (2007)	State of Victoria (Pop. 5.5 mil.)	5.1
Ams. (City)	820	219	3745	³ 29 to ⁴ 50. (2008)	Province of North Holland (Pop. 7 mil) in E. U.	3.9
Cph. (City)	559	77	7260	³ 29. (2008)	State of Denmark (Pop. 5.4 mil) in E.U.	4.7

¹The Victorian Department of Transport 2007 Victorian Integrated Survey of Travel (VISTA) estimated people cycled for 3.9% of total travel in the inner suburbs (Department of Transport Victoria, 2009).
²(WHO, 2013)

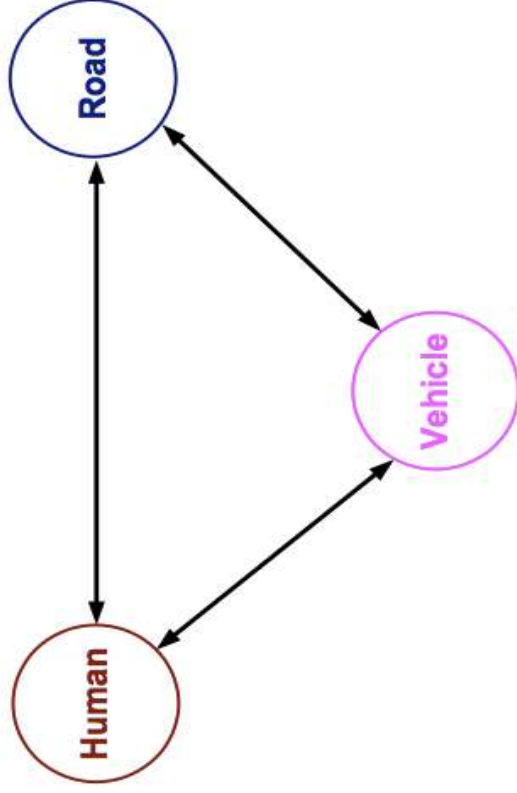
³ (Rask & Skov-Peterson, 2013)

⁴ (Voerknecht, H 2010, estimate for Inner Amsterdam)

Safe systems approach

A crucial difference between Australian cities such as Melbourne and European cities such as Amsterdam and Copenhagen appears to be the social support for and institutional commitment to provide a **safe road system**

Conceptually the road system is a simple model: Principles of a Safe System:



1. Recognising human limits to perceive and avoid conflict.
2. Acknowledging human tolerance to violent forces (< 30 km/h impacts)
3. Shared responsibility for safe road use
 - complying with standards and rules.
4. Creating a forgiving road-transport system
 - errors should not result in serious injury.

From (Corben, Logan et al., 2010)

Transferability?

Socio-cultural contexts have a strong influence on transferability

([Hofstede, 2001](#); [Persia, Corazza et al., 2010](#)).

From Hofstede, cultural fit can be assessed in terms of:

- democratic power sharing across income and social strata **V** elitism
- collectivism (concern for the general good) **V** individualism
- caring **V** competition
- risk taking for the public good **V** uncertainty avoidance, and
- generosity with privilege **V** accumulation.

Cultural comparisons do not encourage optimism about transferability between Northern Europe and Australia, **but....**

Change can be achieved

Princes Bridge Melb. (before)



Princes Bridge (after)



Possible Actions by Actors and System Elements

Actors:	System elements:			Cyclists
	Roads	Vehicles	HV Operators	
Influencers (e.g. Media)	Road management and space allocation	Community demands	Corporate Social Responsibility	Responsibility
Businesses	Support for road space re-allocation	Purchases of vehicles	Purchases of logistics	Staff & customer info.
Municipalities	Local roads	Operational requirements	Purchases	Local user groups (BUGS)
State	Arterial roads Speed limits and other major traffic regulation	Operational requirements	Enforcement Purchases	Education Enforcement
National	<u>Design Stds</u> <u>Prog. Funding</u>	ADR's and performance	Regulations	Taxation provisions

Example – Road Engineering

Road space allocation

St Kilda Junction, Melbourne



Amsterdam



Example – truck design & management

Actors: National Govt, All purchasers and providers of logistics

Melbourne



Amsterdam



Conclusions

- Recent growth in cycling has led to growth in cyclist trauma
 - more cycling with more cyclist trauma is not sustainable.
- Northern European cities have grown cycling and reduced cyclist trauma.
- There are enough contextual similarities for Australian cities to learn from the ‘safe system’ measures used in Northern European cities.
- What will it take to get on the path for more and safer city cycling? political will? professional ethics? community support? Institutional leadership?

Cycling not resting In cycle safe Cities



Next steps

The next phase of our research will explore some of the barriers and enablers by interviews with:

- local (Melbourne) bike owners
 - truck drivers, and
 - key informants in Melbourne, Amsterdam and Copenhagen.
- **Thank you.**