
Contributed Articles

Road Safety Media Review

Coverage of commuter and recreational cycling in major Australian newspapers

Soufiane Boufous¹ and Ahmad Aboos²

¹*School of Aviation, Transport and Road Safety (TARS) Research Centre, University of New South Wales, Sydney, Australia*

²*Faculty of Human Sciences, Macquarie University, Sydney, Australia.*

Corresponding Author: Soufiane Boufous, School of Aviation, Transport and Road Safety (TARS) Research Centre, UNSW, Sydney, NSW Australia 2052, soufiane@unsw.edu.au. +61 2 9385 6227.

Key findings

- Positive coverage of cycling in Australian newspapers is on the rise.
- A significant number of negative stories where the focus is on cyclists, particularly those involved in crashes, is still being published.
- Partnership between cycling safety advocates and journalists are needed to improve media coverage, particularly of cyclist crashes.

Abstract

The study examined the framing of commuter and recreational cycling in Australian newspapers between 2010 and 2013. The number of newspaper articles on cycling over the study period increased by over 30% annually. The proportion of positive stories on cycling also increased from 46.2% in 2010 to 67.4% in 2012 before decreasing to 53.9% in 2013. There was a significantly higher proportion of negative stories amongst articles with a focus on cyclists (66.3%) compared to cycling (12.3%). “Cycling crashes” was the most common theme representing 38% of all published stories, followed by “cycling safety” (13.9%) and “cycling infrastructure” (13.1%). While positive coverage of cycling in major Australian newspapers seems to be on the increase, there is still a significant number of negative stories, particularly those reporting cyclist crashes. Building partnerships between cycling safety advocates and media reporters has the potential to improve the coverage of and public perception about cycling.

Keywords

Cycling; Media; Safety; Promotion

Introduction

Concerns about safety, particularly fears of sharing the road with motor vehicles and the lack of adequate infrastructure, are often reported as the main barriers to cycling (Fishman et al. 2012). As with other car-dependent countries, negative attitudes of many motorists towards cyclists and the failure to recognise cycling as a legitimate mode of transport is also believed to contribute to a reduction in cyclist safety and participation in Australia (Johnson et al, 2014, Australian Bicycle Council, 2017).

It has been suggested that these attitudes are shaped by the portrayal of cyclists and cycling in the Australian media

which in turn impacted on the level of cycling uptake and the development of supportive public policy in this area (Rissel et al. 2010). The power of media in shaping public perceptions, through the control and selection of information presented and how it is framed, is well recognised (McCullagh and Campling, 2002). While framing is important in making an issue accessible to lay audiences, it is also a powerful tool that allows the communicator to package the issue thereby shaping the way audiences receive and interpret information (Maniou, 2015).

This study aims to investigate how commuter and recreational cycling was portrayed and framed in major newspapers circulated in all Australian states and Territories between 2010 and 2013.

Methods

The Factiva electronic news archive was searched for articles referring to cycling using search terms “cycling”, “cyclist” or “bicycle”. The database includes articles published in all newspapers owned by the two major Australian print media groups, Fairfax and News Limited. Articles examined in this study were published in the most widely circulated metropolitan newspapers between 2010 and 2013. Selected newspapers covered all Australian state and Territories and included: The Australian, The Australian Financial Review, Daily Telegraph, The Sydney Morning Herald, The Age, Herald-Sun, The Courier-Mail, The Advertiser, The West Australian, Hobart Mercury, Canberra Times and the Northern Territory News.

The focus was on commuter and recreational cycling (urban cycling). Articles on off-road cycling, professional sports cycling, cyclo-tourism, reviews of books about cycling or articles about cycling-related products were excluded. Retrieved articles were reviewed by two separate reviewers.

Content analysis was used to examine the portrayal of cycling in major Australian newspaper articles. A content analysis coding system was developed based on predetermined explicit rules, with the newspaper article as the unit of analysis. The principal frame or angle was determined based on coders' impression about whether the journal article was overall positive or negative in its portrayal of cycling or cyclists. Other relevant frames included the main theme of the article (e.g. cyclist crash, benefits of cycling and cycling infrastructure) and the overall focus of the paper (cycling or cyclist). Examples of a negative angle include articles with clear negative themes “cyclist as irresponsible road uses”, or where during the reporting of cycling crashes cycling is portrayed as a dangerous activity. Examples of a positive angle include reporting on the benefits of cycling or when the coverage of cycling crashes is sympathetic to cyclists and include strategies to improve cycling safety.

In addition, the overall political leaning of reviewed newspapers was determined by their affiliation with the corresponding print media group. Newspapers owned by Fairfax Media group were classified as left-centre left leaning and those owned by News Corp were categorised as representing central to centre-right views (Muller, 2017).

Kappa statistics was computed to establish inter-rater reliability between coders. Chi-square statistic was used to test differences in portraying cycling between various newspaper types and according to the focus of the article. Mantel-Haenszel Chi-Square/test was used to examine the significance of trends of the main frame or angle over time.

Results

A total of 519 articles were published about commuter and recreational cycling in major Australian newspapers with over a 30% yearly increase over the study period between 1st January 2014 and 31st December 2013. There was also an increase in the proportion of positive stories about cycling from 46.2% in 2010 to 67.4% in 2012 before decreasing to 53.9% in 2013 (Table 1). While the trend for the whole period was not significant (*Mantel-Haenszel Test* = 0.61, *p* = 0.43), it became significant when excluding 2013 (*Mantel-Haenszel Test* = 9.36, *p* = 0.002).

Table 1. Number and proportion of negative and positive reporting by year, articles focus and Newspapers political leaning

| Angle | Positive | | Negative | | All |
|--|----------|-------|----------|-------|-----|
| Year | | | | | |
| 2010 | 36 | 46.2% | 42 | 53.8% | 78 |
| 2011 | 61 | 58.7% | 43 | 41.3% | 104 |
| 2012 | 97 | 67.4% | 47 | 32.6% | 144 |
| 2013 | 104 | 53.9% | 89 | 46.1% | 193 |
| <i>Trend. Mantel-Haenszel Test</i> = 0.61, <i>p</i> = 0.43 | | | | | |
| Articles Focus | | | | | |
| Cycling | 200 | 87.7% | 28 | 12.3% | 228 |
| Cyclists | 98 | 33.7% | 193 | 66.3% | 291 |
| <i>Chi-Square</i> = 152.71, <i>p</i> < 0.001 | | | | | |
| Newspapers political leaning | | | | | |
| Right-leaning | 202 | 53.6% | 175 | 46.4% | 377 |
| Left-leaning | 96 | 67.6% | 46 | 32.4% | 142 |
| <i>Chi-Square</i> = 18.29, <i>p</i> = 0.004 | | | | | |
| Total | 298 | 57.4% | 221 | 42.6% | 519 |

There was a significantly higher proportion of negative stories where the focus of reviewed articles was on “cyclists” (66.3%) compared to those where the focus was on cycling (12.3%), ($\chi^2 = 152.71$, *p* < 0.001). In addition, there was a significantly higher proportion of positive stories in left leaning newspapers (67.6%) compared to right leaning newspapers (53.6%) ($\chi^2 = 18.29$, *p* = 0.004).

As shown in Table 2, “Cycling crashes” was the most common theme representing 38.2% of all stories published during the study period followed by “cycling safety” (13.9%), “cycling infrastructure” (13.1%) and “benefits of cycling” (7.7%). The most common themes varied according to the main frame or angle of the article with “cycling crashes” dominating stories with a negative angle (76.9%) followed by “cyclist as irresponsible road uses” (7.2%), “cycling infrastructure” (5%) and “popularity of

Table 2. Number and proportion of most common reported themes by main angle of the article

| All articles | n | % |
|---|------------|-------------|
| Cycling Crashes | 198 | 38.2% |
| Cycling safety | 72 | 13.9% |
| Cycling infrastructure | 68 | 13.1% |
| Benefits of cycling | 40 | 7.7% |
| Cycling in local and national politics | 34 | 6.6% |
| Popularity of cycling | 26 | 5.0% |
| Advocacy and support for cycling | 24 | 4.6% |
| Community cycling events | 20 | 3.9% |
| Cyclists as irresponsible road users | 16 | 3.1% |
| Barriers to cycling | 9 | 1.7% |
| Road safety | 5 | 1.0% |
| Road rage between cyclists and other road users | 5 | 1.0% |
| Need for bicycle registration | 2 | 0.4% |
| Total | 519 | 100% |
| Articles with a positive angle | n | % |
| Cycling safety | 70 | 23.5% |
| Cycling infrastructure | 57 | 19.1% |
| Benefits of cycling | 40 | 13.4% |
| Cycling Crashes | 28 | 9.4% |
| Cycling in local and national politics | 27 | 9.1% |
| Advocacy and support for cycling | 24 | 8.1% |
| Community cycling events | 20 | 6.7% |
| Popularity of cycling | 18 | 6.0% |
| Barriers to cycling | 9 | 3.0% |
| Road rage between cyclists and other road users | 3 | 1.0% |
| Road safety | 2 | 0.7% |
| Total | 298 | 100% |
| Articles with a negative angle | n | % |
| Cycling Crashes | 170 | 76.9% |
| Cyclists as irresponsible road users | 16 | 7.2% |
| Cycling infrastructure | 11 | 5.0% |
| Popularity of cycling | 8 | 3.6% |
| Cycling in local and national politics | 7 | 3.2% |
| Road safety | 3 | 1.4% |
| Cycling safety | 2 | 0.9% |
| Need for bicycle registration | 2 | 0.9% |
| Road rage between cyclists and other road users | 2 | 0.9% |
| Total | 221 | 100% |

cycling” (3.6%). For articles with a positive angle, the most common themes were “cycling safety” (23.5%), “cycling infrastructure” (19.1%), “benefits of cycling” (19.1%) and “cycling crashes” (9.4%).

While some themes were common for both types of articles, the actual content varied according to the angle of the story. For instance, while “cycling infrastructure” was portrayed as important to reduce dependence on cars and encourage cycling in stories with a positive angle, articles with negative angles report cycling infrastructure as a “waste of public money that is never or hardly ever used by cyclists” and is a “threat to parking spaces” and “anti-businesses”. Similarly, while stories with a positive angle highlight the increase in the popularity of cycling, particularly in inner suburbs of big cities, and portray cycling as the “future” in terms of providing a “viable transport alternative”, those with a negative angle report on geographical areas where there was a decline in the popularity of cycling. While cycling crashes overwhelmingly dominated stories with negative connotations towards cyclists they also appeared in positively framed stories that were sympathetic to cyclists injured or killed in the crashes and included recommendations for safety strategies designed to prevent future crashes involving cyclists.

Inter-rater agreement, as measured by Cohen’s Kappa, was 0.75 for coding of main frame (negative/positive), 0.82 for the main theme and 0.95% for the focus (cycling/cyclist).

Discussion

The findings show a significant increase in the number of articles about commuter and recreational cycling in the major newspapers in Australia reflecting the prominence the issue has gained over the years. This was also accompanied by a significant increase in the proportion of positive stories about cycling and cyclists. This proportion has increased from less than half (46.2%) in 2010 to over two thirds (67.4%) in 2012 before dropping to 53.9% in 2013. The latest year was a particularly bad year for cycling in Australia with an epidemiological study showing that while cyclist deaths decreased steadily from 58 deaths in 1991 to 33 in 2012, a marked increase to 50 deaths was recorded in 2013 (Boufous and Olivier, 2016). This might explain the rise in the proportion of negative stories during that particular year as crash reporting dominates articles adopting a negative angle.

An interesting finding is the very high proportion of negative stories (66.3%) where the focus is on cyclists, compared to only 12.3% of articles focusing on cycling. This reflects the prevailing negative views about cyclists in some sections of popular media as a group that is very different to the rest of the population in a society where the car culture is dominant. The finding is also important for policy makers and cycling advocates to focus on the activity rather than the people in their effort to promote cycling and cycling safety in the community. For instance, it is more effective to advocate for the provision of cycling facilities rather than facilities for cyclists (Rissel et al. 2010).

The results also indicate that the proportion of positive stories was higher in left leaning newspapers (67.6%) compared to those on the right (53.6%). This finding is supported by those of a British study indicating that opinions about cycling were significantly linked to voting intention in the population with an overall gradient of decreasing positivity when moving from the political left to right (Tapp et al. 2016).

The most common theme of all articles reviewed were cyclist crashes (38%) which also made up 77% of all negative stories. Among the crashes reported in all reviewed newspapers, 44% resulted in cyclist fatalities while during the same period only 1% of actual cyclist hospitalisations resulted in death (Boufous et al. 2016). The higher proportion of cyclist crashes reported, including fatalities, reflects the tendency of the media to focus on the “unusual” and “newsworthy” rather than on factual common trends. This type of reporting is likely to overestimate the risk of cycling crashes and deaths and negatively influence public perception towards cycling.

A small proportion of the 198 articles that reported cyclist crashes (14%) adopted a positive angle because they were sympathetic to cyclists involved and included recommendations about strategies to improve cyclist safety. There has been calls to increase similar reporting and improve the coverage of cyclist crashes through collaboration between road safety advocates and media professionals (Yankson et al. 2010; Boufous et al. 2016).

Despite the high proportion of articles reporting crashes that highlight the risk of cycling in the community, there are increasingly positive newspaper stories promoting the safety of cycling through education, legislation and better infrastructure as well as those highlighting the benefits of cycling to the individual and society at large.

Some of the limitations of the study stem from the focus on metropolitan newspapers, as the coverage of cycling might differ in newspapers published in regional areas; and the exclusion of cycling tourism and sports cycling that are more likely to be covered in a positive light by newspapers. However, the focus was on the most common type of cycling and on metropolitan newspapers widely circulated in a largely urban Australian population.

Conclusions

The coverage of cycling in major Australian newspapers as a generally positive activity seems to be on the rise. However, a significant number of negative stories, particularly those reporting cyclist crashes, is also being published. More efforts are needed to improve the reporting of cyclist crashes, and cycling related issues in general, as part of an overall strategy to improve attitudes towards cycling in the community as a safe and legitimate mode of transport.

References

- Austroroads & Australian Bicycle Council. (2017). *National cycling participation survey*. Sydney: Austroroads Ltd.
- Boufous, S., Aboss, A., & Montgomery, V. (2016). *Reporting on cyclist crashes in Australian newspapers*. Australian and New Zealand Journal of Public Health, 40: 490-492.
- Boufous S., & Olivier, J. (2016). *Recent trends in cyclist fatalities in Australia*. Injury Prevention, 22: 284-287.
- Fishman, E., Washington, S., & Haworth, N.L. (2012). *Understanding the fear of bicycle riding in Australia*. Journal of the Australasian College of Road Safety, 23: 19-27.
- Johnson, M., Oxley, J., Newstead, S., & Charlton, J. (2014). Safety in numbers? *Investigating Australian driver behaviour, knowledge and attitudes towards cyclists*. Accident Analysis & Prevention, 70: 148-54.
- Maniou, T. (2015). *Media framing of health issues: Communicating public health through the press in time of crisis*. International Journal of Health Communication, 5: 36-43.
- McCullagh, C., & Campling, J. (2002). *Media power: a sociological introduction*. Basingstoke: Palgrave.
- Muller, D. (2017). *Mixed media: how Australia's newspapers became locked in a war of left versus right*. The conversation. Available from <https://theconversation.com/mixed-media-how-australias-newspapers-became-locked-in-a-war-of-left-versus-right-79001>
- Rissel, C., Bonfiglioli, C., Emilsen, A., & Smith, B.J. (2010). *Representations of cycling in metropolitan newspapers - changes over time and differences between Sydney and Melbourne, Australia*. BMC Public Health, 10:37.
- Tapp, A., Davis, A., Nancarrow, C., & Jones, S. (2016). *Great Britain adults' opinions on cycling: Implications for policy*. Transportation Research Part A, 89:14–28.
- Yankson, I.K., Browne, E.N.L., Tagbor, H., et al. (2010). *Reporting on road traffic injury: content analysis of injuries and prevention opportunities in Ghanaian newspapers*. Injury Prevention, 16: 194–197.