

by *Jacqueline K. Hurst, BSc, MD*

# THE GOOD, THE BAD AND THE UGLY

## association between car colour and bicycle passing space

### Abstract

**Objective:** Because anecdotal evidence indicates that the behaviour of cars (and their drivers) with respect to bicycles is highly variable, this study was undertaken to determine whether car colour correlates with the space allowed by the driver for passing a bicycle.

**Design:** Randomized recollection.

**Setting:** The streets of Vancouver and Burnaby, BC.

**Participants:** The author, her bike, lots of cars and a few transit buses.

**Methods:** For a 10-day period in the summer of 1998, the investigator attempted, while cycling, to remember car colours and associated behaviours until she reached her various destinations. Data were eventually recorded in a tattered spiral-bound notebook saved from university days.

**Outcome measures:** Numbers of cars in 2 categories: "good" (those that gave extra space to cyclists) and "bad" (those that didn't).

**Results:** Read the article to find out.

**Conclusion:** Although there was a slightly greater chance that a passing car would give a cyclist extra space, riders should be especially cautious when they catch sight of white and maroon vehicles.



**Fig. 1:** Author (far left) in field gear. Witnesses Jan Poersch, Carolyn Montgomery, Lynda Gravel and Beth Brydon can attest that she was cycling at the time of the study and that she wore her helmet.

as purchasing a rearview mirror and sticking the left arm out when a suspect car approaches from the rear (this usually results in reflexive braking by the drivers of cars and — occasionally — transit buses).

### Methods

During commuting trips through Vancouver and Burnaby, I attempted to remember the colour and behaviour of cars passing my bicycle on the left. Sometimes, vehicles passed on the right, for example, when I was making a left-hand turn, but my concentration level in this situation (to avoid being hit by oncoming vehicles) prevented me from recording data for these vehicles. On one occasion, a black car passed on the left while I was turning left, but obviously I survived.

To eliminate bias, I consistently used the same bicycle and helmet (Fig. 1), and my clothing was consistently shoddy ("the ugly" of the title of this article), although the latter varied somewhat because of the need for laundering.

**A**s an avid cyclist, I am well-positioned to observe the behaviour, polite and otherwise, of vehicles powered by internal combustion engines. Specifically, when I am riding my bike, numerous vehicles travelling in the same direction pass me by. Some of them leave little space for other than "straight-line" cycling, which does not allow for potholes, boulders, the opening of doors on parked cars and other hazards known only too well to bicycle couriers and 2-wheel commuters.

This study was designed to determine if there is a correlation between car colour and space allowed for passing cyclists, since advance knowledge of behaviour might enable cyclists to take avoidance measures, such

Any car that made a slight or substantial deviation around the bike was considered “good,” whereas those maintaining a straight course or even cutting in closer to the bike were counted as “bad.” The control group consisted of transit buses (also ugly): they seldom leave extra space and often cut in toward the cyclist.

Because note-taking was impossible under these circumstances and my memory is fading with age, I could only remember data for a maximum of 10 cars per trip. The plan was to obtain information for 100 cars (to facilitate the calculation of percentages), but I got bored and quit at 79. I initially recorded each day’s information on to small scraps of paper and later transferred the data to the aforementioned tattered spiral-bound notebook.

**Results**

Fig. 2 presents the proportions of cars of various colours in the 2 categories. The highest odds ratio (good:bad) was observed among beige cars, followed by grey ones (Table 1). Overall, there was a somewhat greater chance that a passing car would allow extra space for the cyclist than not (odds ratio 5:4).

An incidental finding of the study was that white

**Table 1: Odds ratio (good:bad) for cars of various colours**

Colour	Odds ratio
Copper	2:1
Yellow	1:2
Red	2:1
Beige/taupe	7:1
Blue	1:1
White	1:3
Grey	5:1
Black	2:1
Green	1:1
Maroon	0:3
Purple	1:0
Overall	5:4

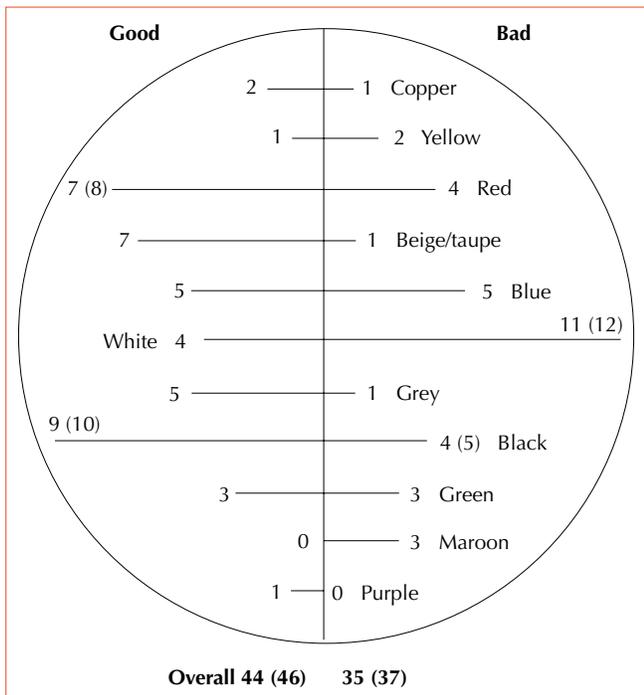
seems to be the preferred colour of cars these days: this “colour” accounted for nearly 20% of the participating vehicles. The transit buses varied in colour from the routine BC flag colours (red, white and blue, but without the sun), through green and white (so-called environmentally friendly), to completely covered with advertising. There was no association between transit bus colour and space allowed for cyclists.

**Interpretation**

For a cyclist, the safest cars are beige or grey, whereas the most dangerous are white and maroon. In general, there is no reason to assume that drivers will allow extra space when passing a cyclist.

The significance of the preponderance of white vehicles in this region of the country remains a puzzle. In such a rainy location, why would someone want a car that will show the muddy splashes? This is a topic for further study. This finding is of some import to cyclists, though, given that 75% of white cars did not allow extra space for passing.

To my knowledge this is the only study every done (and reported) on the association between car colour and passing space allowed for bikes. Although the study took place in Vancouver, there was only one wet day throughout the study period. On that day, every car except the white one gave extra space, and the transit buses took the opportunity to drive through any available puddle to create effective splash.



**Fig. 2: Pretty chart showing the numbers of cars of various colours whose behaviour earned them a “good” or “bad” rating. Numbers in parentheses indicate the numbers actually used to generate even odds ratios (see Table 1).**

**Dr. Hurst is a physician with Medical Services, British Columbia Institute of Technology, and a cyclist who is only too familiar with the hazards of sharing the road with automobiles and buses.**