

PEDESTRIAN AND DRIVER KNOWLEDGE OF PRIORITY RULES FOR VARIOUS TYPES OF CROSSINGS

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Abstract

Crashes involving road-crossing pedestrians are common, and may result from misunderstanding of priority rules. At signalised intersections, confusion may result from pedestrians facing “Walk”, and drivers turning across them facing a green disc. Priority rules relating to various unsignalised crossings (e.g. zebra crossings, pedestrian refuges, paved “crossings”) may be poorly understood, and may be understood differently by pedestrians and drivers. In a field survey conducted in Sydney and Goulburn, 297 people who had just been walking, and 273 people who had just been driving, were asked about priority rules surrounding various crossing situations (depicted on showcards). Two versions of the survey placed respondents in the role of either pedestrian or driver. In the “Walk”/green disc situation pedestrians were believed to have priority, but drivers often intended to take it. Confusion about priority/intentions was evident with pedestrians crossing on flashing “Don’t walk” (drivers facing green), crossing toward a pedestrian refuge, and crossing at a paved road-section. Priority beliefs were uninfluenced by whether respondents had been walking or driving, or by survey version. Key findings may be of assistance to road safety authorities and practitioners, and clarification of “problem” situations is recommended.

Pedestrian casualties represent a substantial proportion of relatively severe road trauma. In 1999/2000, 121 pedestrians were killed and 3,396 were injured as a result of traffic crashes in NSW (IRMRC, 2004). Thus, pedestrians represented 20.7% of all road fatalities and 15.9% of all road injuries. This is unsurprising, since almost everyone will use the roads as a pedestrian at some time. Further, pedestrians are vulnerable road users, in that they are not protected (compared with, say, vehicle passengers), so injuries in the event of a crash are likely to be severe. Amongst, the elderly, pedestrian casualties represent an even higher proportion of road trauma (approximately 32%). Thus, pedestrian safety has deservedly become a focus of research and policy.

Crashes involving pedestrians are most likely to occur when the pedestrian is crossing the road. Of crashes involving pedestrians in NSW in 2000, at least 79.1% occurred while the pedestrian was crossing the road (NSW Roads and Traffic Authority, 2001a).

Some of these crashes may result from poor understanding of relevant “right of way” rules (for a statement of these rules see NSW Roads and Traffic Authority, 2001b). In Australia, drivers are required to give way to pedestrians when making a turn at an intersection, and whenever there is a danger of colliding with the pedestrian. At pedestrian crossings, drivers are required to slow down and stop when a pedestrian is on or entering the crossing. At signalised intersections, there are often signals that pedestrians must follow. Pedestrians may start to cross on a green “Walk” signal, must not start to cross but may finish crossing on a flashing red “Don’t walk” signal, and may not start crossing on a red “Don’t walk” signal.

Several situations may engender confusion regarding right of way. One situation which appears particularly problematic occurs at signalized intersections. Generally, a green traffic signal indicates to drivers that they have right of way when passing through the intersection in the direction indicated by the signal, and (often simultaneously) a green ‘Walk’ signal indicates to pedestrians that they have right of way when crossing. Conflict may arise when drivers of vehicles facing a green traffic signal are turning left or right into the street being crossed by a pedestrian facing a green “Walk” signal. Job (1998) found that a significant minority of drivers believed they had an automatic right of way

when facing a green light, but turning left or right out of the street they were traveling on. About 3% of pedestrian deaths and 6% of pedestrian injuries occur in collisions with vehicles turning left and right at traffic-signal controlled intersections (RTA, 2001a).

Confusion regarding right of way may be exaggerated when drivers of vehicles facing a green traffic signal are turning left or right into the street being crossed by a pedestrian facing a red “Don’t Walk” signal. Right of way at other crossing types (e.g. pedestrian refuges), and at paved sections of road, may also be poorly understood.

Thus, because the relevant road rules appear somewhat ambiguous, and traffic signals to both drivers and pedestrians (each potentially visible to both drivers and pedestrians) give somewhat conflicting messages, there is a potential for misunderstanding for all road users. Any confusion resulting from misunderstanding of right of way rules may be exacerbated by people endorsing different behaviours when driving versus walking.

Relevant research investigating road-users’ beliefs and attitudes relating to right of way rules is lacking. Thus, improved understanding of the attitudes and behaviour of pedestrians and drivers, in relation to crossing the road at various types of crossing, may provide the basis for developing countermeasures to substantially reduce pedestrian road trauma. The present study aimed to investigate beliefs and attitudes relating to right of way rules at signalised intersections and other forms of crossing.

Method

Design

The study was conducted in metropolitan Sydney and in Goulburn (rural NSW).

Two groups of participants were involved:

- 1) Pedestrians who had just been walking (so psychologically identify with walking).
- 2) Drivers who had just been driving (when they psychologically identify with driving).

Pedestrians were approached for interview at suitable intersections (2 in Sydney and 1 in Goulburn), after they had completed their crossing. Interviews from drivers were obtained by approaching drivers after they had parked in car parks (near the intersections at which pedestrians were interviewed).

Two versions of the structured interview were employed. One aimed to focus participants on the pedestrian role, and the other aimed to focus participants on the driver role (see *Materials*). These versions of the interview were counterbalanced across interview site.

Participants

Approximately 46.9% of the randomly selected pedestrians refused to be interviewed. Only pedestrians and drivers who confirmed that they were over 17 years old in an initial question were interviewed. Overall, a total of 570 participants were interviewed. Of these, 33% were from rural areas, 52% were interviewed at intersections, and 59% completed the “pedestrian” version of the questionnaire. Approximately 49.1% of participants were female, and gender did not differ by interview site ($\%Female_{intersection}=47.6$; $\%Female_{carpark}=50.0$; $\chi^2 = 0.32$, $p=.572$), or questionnaire version ($\%Female_{pedestrian}=50.6$; $\%Female_{driver}=46.1$; $\chi^2 = 1.11$, $p=.292$). The average age of participants was 38.05 years. There was no significant association between age and interview site ($M_{intersection}=38.08$; $M_{carpark}=37.67$; $F_{1,565} = 0.09$, $p=.768$) or questionnaire version ($M_{pedestrian}=38.27$, $M_{driver}=37.32$; $F_{1,565} = 0.47$, $p=.493$).

Materials

All potential participants read a Participant Information Sheet, which described the study as an investigation of pedestrian and driver responses to right of way in various road situations. Those who were willing to participate signed the attached Consent Form.

In order to avoid detailed oral explanations, Showcards were used to depict the ten situations at marked or unmarked crossings about which participants were questioned. Because of space constraints, 5 situations that were the most central to our concerns, and that provided a good cross-section of crossing situations, are reported here [see Fig. 1-5]. Another Showcard depicted a paved section of road without other installations that have a clearer meaning (e.g. zebra stripes, or refuge islands).

Structured interviews were conducted according to standard protocol. First, all participants were asked their age. For the “pedestrian” version of the questionnaire, the next questions related to exposure and experience as a pedestrian (e.g. how often they walk beside a road or cross a road as a pedestrian). Questions about exposure and experience as a driver (e.g. licence status, years of licensure) appeared toward the end of the interview. For the “driver” version of the questionnaire, the position of these questions was reversed. For each of the ten situations depicted on Showcards, participants were asked to respond to the questions depicted in Fig. 6. Only responses to the first two questions are reported here. In the pedestrian version of the questionnaire, participants were asked to “imagine that you are the pedestrian”. The questions referred to “you, as the pedestrian”. In the driver version of the questionnaire, participants were asked to “imagine that you are the driver”, and the questions referred to “you, as the driver”.

Procedure

At each site, interviews were conducted every weekday and weekend day for a period of two months. During the day, session times were roughly 10:00-11:30, 11:45-13:30, 14:30-16:00, and 16:45-18:30. Researchers worked in pairs for safety reasons. At intersection sites, researchers randomly selected participants by choosing the next pedestrian to complete a crossing after the previous participant had been interviewed. At car park sites, drivers were randomly selected by choosing the next driver to be observed leaving a vehicle and passing the researcher after the previous interview had been completed. Researchers positioned themselves so that potential participants had to walk near them to exit or enter the car park. Interviewers approached potential participants and introduced the study. Refusals (and any reasons offered) were recorded on the interview sheet. Potential participants were asked their age, and the interview was discontinued if they were younger than 17 years. The remainder of the interview was then conducted according to the standard protocol, with Showcards presented (and corresponding questions asked) in one of two orders (1-10, or 10-1).

Results

A Type 1 error rate of .05 was employed for all analyses, and all tests were 2-tailed. For each situation, the following comparisons were made using the Kruskal-Wallis test:

- a) Pedestrian versus driver version of the questionnaire; reflecting differences in being asked to take the role of pedestrian or driver. For the question asking about intention to take right of way, this divided the sample into those responding as “pedestrians” and those responding as “drivers”.
- b) Intersection versus car park interviews; reflecting differences in having just been walking or driving.

Figure 1: Showcard 7 depicting a person crossing on Walk with traffic initially travelling in the same direction as the pedestrian and turning left on a green light, at a 4-way intersection

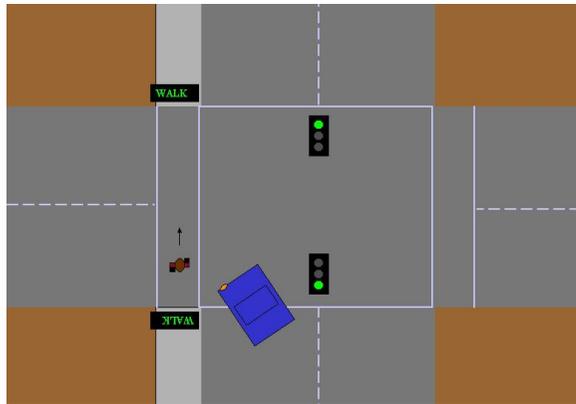


Figure 2: Showcard 10 depicting person crossing on Walk with traffic initially travelling against the pedestrian and turning right on a green light.

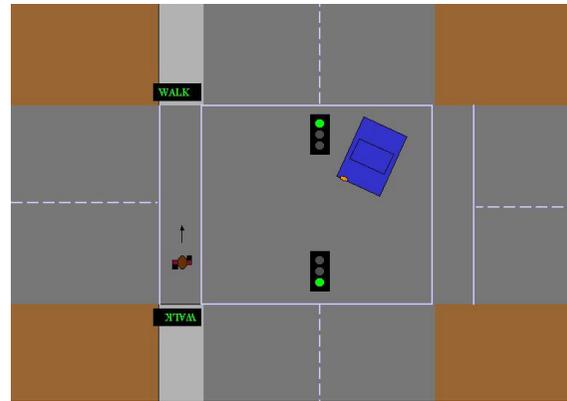


Figure 3: Showcard 1 depicting a person crossing on flashing "Don't Walk" with traffic initially travelling in the same direction as the pedestrian and turning left on a green light, at a 4-way intersection.

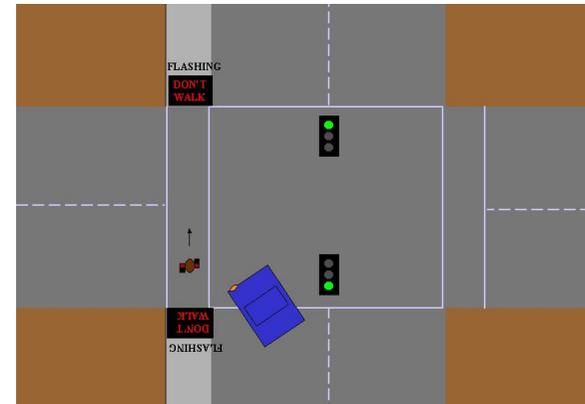


Figure 4: Showcard 9 depicting a person crossing at a zebra crossing with nearside traffic approaching, on a straight stretch of road.

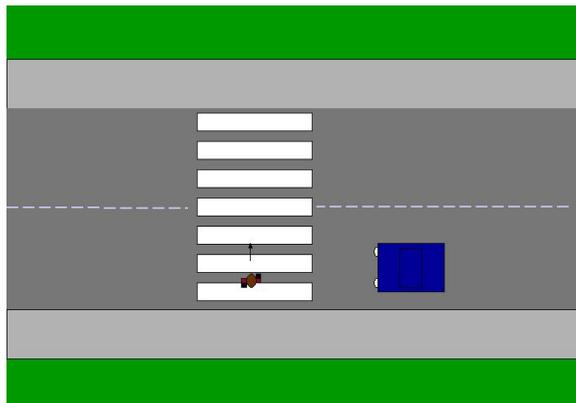


Figure 5: Showcard 8 depicting person crossing at a pedestrian island with nearside traffic approaching, on a straight stretch of road.

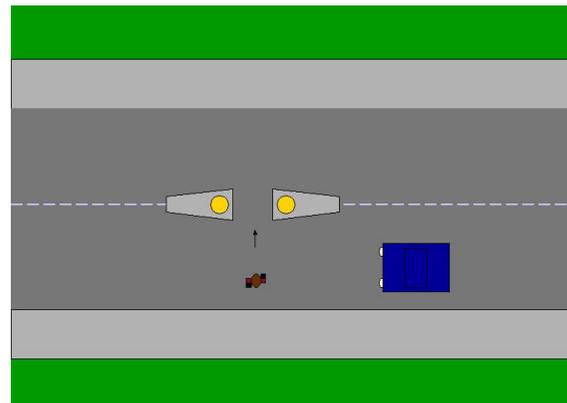


Figure 6: Question template applied to each of the situations depicted in the first ten showcards, from the "driver" version of the interview

And now, in this situation who technically has right of way (whether they take it or not)?

- You, as the driver.
- The pedestrian.
- Don't know.

Would you take right of way (whether you have it or not)? Y/N

If you don't have right of way and you take it, about how likely are you to get caught? Would it be

- 1 in 2 occasions.
- 1 in 5 occasions.
- 1 in 10 occasions.
- 1 in 20 occasions.
- 1 in 50 occasions.
- 1 in 100 occasions.
- 1 in 1000 occasions.

Is there a fine? Y/N/Don't know [If "Yes"] How much? _____

Would you lose any points from your licence (i.e. demerit points)?

Y/N/Don't know [If "Yes"] How many? _____

Table 1: Beliefs about, and self-reported intentions towards, “right of way” in the situation depicted in Showcard 7 [Fig.1], by questionnaire version, and site.

		Ped Q'nnaire		Driver Q'nnaire	
		Intersection	Carpark	Intersection	Carpark
Technically “right of way”	% The Pedestrian	96.0	96.8	94.1	94.7
	% The Car	4.0	3.2	5.9	5.3
	% Don't know	0.0	0.0	0.0	0.0
Take “right of way”?	% Yes	87.0	88.6	5.9	18.8
	% No	13.0	11.4	94.1	81.3
	% Don't know	0.0	0.0	0.0	0.0

Technically who has right of way?

95.4% of respondents thought the pedestrian had right of way in this situation. There was no effect of questionnaire version ($x_1^2 = 1.35$, $p=.245$) or interview site ($x_1^2 = 0.16$, $p=.691$) on whether respondents thought the pedestrian had right of way.

Would you take right of way?

87.8% of respondents who completed the pedestrian questionnaire reported that they would take right of way, whereas 12.4% of respondents who completed the driver questionnaire reported that they would (and this difference was significant; $x_1^2 = 317.31$, $p<.001$). There was no effect of interview site on whether respondents reported that they would take right of way ($x_1^2 = 1.47$, $p=.226$).

Table 2: Beliefs about, and self-reported intentions towards, “right of way” in the situation depicted in Showcard 10 [Fig.2], by questionnaire version, and site.

		Ped Q'nnaire		Driver Q'nnaire	
		Intersection	Carpark	Intersection	Carpark
Technically “right of way”	% The Pedestrian	96.1	98.1	96.6	95.6
	% The Car	3.9	1.3	2.5	4.4
	% Don't know	0.0	0.6	0.8	0.0
Take “right of way”?	% Yes	89.9	91.8	4.2	20.2
	% No	10.1	7.5	95.8	79.8
	% Don't know	0.0	0.6	0.0	0.0

Technically who has right of way?

96.6% of respondents thought the pedestrian had right of way in this situation. There were no effects of questionnaire version ($x_1^2 = 0.18$, $p=.674$) or interview site ($x_1^2 = 0.31$, $p=.578$) on whether respondents thought the pedestrian had right of way.

Would you take right of way?

90.9% of respondents who completed the pedestrian questionnaire reported that they would take right of way, whereas 12.2% of respondents who completed the driver questionnaire reported that they would (and this difference was significant; $x_1^2 = 348.82$, $p<.001$). There was no effect of interview site on whether respondents reported that they would take right of way ($x_1^2 = 2.00$, $p=.157$).

Table 3: Beliefs about, and self-reported intentions towards, “right of way” in the situation depicted in Showcard 1 [Fig.3], by questionnaire version, and site.

		Ped Q'nnaire		Driver Q'nnaire	
		Intersection	Carpark	Intersection	Carpark
Technically “right of way”	% The Pedestrian	56.4	53.8	50.4	62.5
	% The Car	43.6	45.0	49.6	37.5
	% Don't know	0.0	1.3	0.0	0.0
Take “right of way”?	% Yes	51.1	63.1	21.8	25.2
	% No	48.9	36.3	78.2	74.8
	% Don't know	0.0	0.6	0.0	0.0

Technically who has right of way?

55.7% of respondents thought the pedestrian had right of way in this situation. There was no effect of questionnaire version ($x_1^2 = 0.00$, $p=.964$) or interview site ($x_1^2 = 1.14$, $p=.286$) on whether respondents thought the pedestrian had right of way.

Would you take right of way?

57.1% of respondents who completed the pedestrian questionnaire reported that they would take right of way, whereas 23.5% of respondents who completed the driver questionnaire reported that they would (and this difference was significant; $x_1^2 = 60.83$, $p<.001$). There was no effect of interview site on whether respondents reported that they would take right of way ($x_1^2 = 3.66$, $p=.056$).

Table 4: Beliefs about, and self-reported intentions towards, “right of way” in the situation depicted in Showcard 9 [Fig.4], by questionnaire version, and site.

		Ped Q'nnaire		Driver Q'nnaire	
		Intersection	Carpark	Intersection	Carpark
Technically “right of way”	% The Pedestrian	96.1	97.5	98.3	93.8
	% The Car	3.9	2.5	1.7	6.2
	% Don't know	0.0	0.0	0.0	0.0
Take “right of way”?	% Yes	86.0	86.8	9.3	23.0
	% No	14.0	13.2	90.7	77.0
	% Don't know	0.0	0.0	0.0	0.0

Technically who has right of way?

96.4% of respondents thought the pedestrian had right of way in this situation. There was no effect of questionnaire version ($x_1^2 = 0.17$, $p=.683$) or interview site ($x_1^2 = 0.43$, $p=.512$) on whether respondents thought the pedestrian had right of way.

Would you take right of way?

86.4% of respondents who completed the pedestrian questionnaire reported that they would take right of way, whereas 16.2% of respondents who completed the driver questionnaire reported that they would (and this difference was significant; $x_1^2 = 278.15$, $p<.001$). There was no effect of interview site on whether respondents reported that they would take right of way ($x_1^2 = 1.31$, $p=.253$).

Table 5: Beliefs about, and self-reported intentions towards, “right of way” in the situation depicted in Showcard 8 [Fig.5], by questionnaire version, and site.

		Ped Q'nnaire		Driver Q'nnaire	
		Intersection	Carpark	Intersection	Carpark
Technically “right of way”	% The Pedestrian	23.5	26.6	13.6	20.4
	% The Car	75.4	71.5	82.2	78.8
	% Don't know	1.1	1.9	4.2	0.9
Take “right of way”?	% Yes	33.5	34.2	34.2	39.8
	% No	66.5	65.8	65.8	60.2
	% Don't know	0.0	0.0	0.0	0.0

Technically who has right of way?

21.0% of respondents thought the pedestrian had right of way in this situation. There was no effect of questionnaire version ($x_1^2 = 3.22$, $p=.073$) or interview site ($x_1^2 = 0.85$, $p=.357$) on whether respondents thought the pedestrian had right of way.

Would you take right of way?

33.9% of respondents who completed the pedestrian questionnaire reported that they would take right of way, whereas 37.0% of respondents who completed the driver questionnaire reported that they would (and this difference was not significant; $x_1^2 = 0.59$, $p=.444$). There was also no effect of interview site ($x_1^2 = 0.47$, $p=.494$) on reported intention to take right of way.

Table 6: Beliefs about legalities related to “driver not giving way to a pedestrian at a paved section of road”, by questionnaire version, and site.

		Ped Q'nnaire		Driver Q'nnaire	
		Intersection	Carpark	Intersection	Carpark
Against law?	% Yes	40.0	40.3	37.0	41.6
	% No	37.7	41.5	49.6	52.2
	% Don't know	22.3	18.2	13.4	6.2

Table 6 shows respondents' beliefs about legalities related to “not giving way to a pedestrian at a paved section of road” (without other installations that have a clearer meaning e.g. zebra stripes). On average, 39.7% of respondents reported that it is illegal for a driver not to give way to a pedestrian at a paved section of road. Responses to this question were not influenced by questionnaire version ($x_1^2 = 1.49$ $p=.223$) or interview site ($x_1^2 = 1.25$, $p=.263$).

Results are summarised in Table 7.

Table 7: Summary of results for selected Showcards (SC).

			SC7	SC 10	SC 1	SC 9	SC 8
Pedestrian has “right of way”	% respondents	All	95.4	96.6	55.7	96.4	21.0
	Sig. effects		none	none	none	none	none
Would take “right of way”	% respondents	Ped.	87.8	90.9	57.1	86.4	33.9
		Driver	12.4	12.2	23.5	16.2	37.0
	Sig. effects		P<D	P>D	P>D	P>D	none

Key for significant effects: questionnaire version (P=pedestrian versus D=driver), & interview site (I=intersection versus C=carpark),

Discussion

Crossing on Walk with traffic initially travelling in the same direction as the pedestrian turning left on a green light, at a 4-way intersection

In this key situation, there was a general recognition of pedestrian right of way (unaffected by questionnaire version, or interview site), but it appears that some drivers may take right of way nonetheless. The vast majority of participants recognised that the pedestrian has right of way, with only 4.6% of participants identifying the driver as having right of way. Nonetheless, 12.4% of participants cast in the role of driver reported that they would take right of way, (and 87.8% of participants cast in the role of pedestrian reported that they would). Although this suggests some potential for pedestrian/vehicle conflict, this concern is somewhat mitigated by the relatively low proportion of both pedestrians and drivers who report intending to take right of way.

Crossing on Walk with traffic initially travelling against the pedestrian turning right on a green light

Compared to the previous situation, this key situation demonstrated a similarly strong recognition of pedestrian right of way (again unaffected by questionnaire version, or interview site), but slightly more inclination of pedestrians to take it. Nonetheless, some drivers also plan to take right of way in this situation. The vast majority of participants recognised that the pedestrian has right of way, with only 3.4% of participants identifying the driver as having right of way. The traffic turning right appears to slightly increase the likelihood that the pedestrian is perceived to have right of way (compared to the previous situation), perhaps because of the different rights of traffic turning right versus left in NSW (see NSW Roads and Traffic Authority, 2001b). In this situation, 90.9% of participants cast in the role of pedestrian reported that they would take right of way, and 12.2% of participants cast in the role of driver reported that they would. Again, there appears to be a slight change in the reported behaviour of “pedestrians” (but not “drivers”) when the car is turning right (compared to the previous situation). This may owe partly to the pedestrian and driver having a better view of each other in this situation (compared to the previous situation), and it would be interesting to examine the impact of depicting the pedestrian crossing from the other road-side. Amongst participants who completed the driver version of the interview, those interviewed at car park sites appeared more likely to report that they would take right of way than those interviewed at intersections (20.2% versus 4.2%), suggesting some impact of motivations associated with having just driven.

Crossing on flashing Don't Walk with traffic initially travelling in the same direction as the pedestrian turning left on a green light, at a 4-way intersection

Compared to the first two situations, there appeared to be a substantial drop in participants' perception that the pedestrian has right of way when the pedestrian is facing a flashing “Don't Walk” signal (and the traffic is still facing a green signal). 55.7% of participants thought that the pedestrian had right of way. Again, these beliefs were not influenced by questionnaire version or interview site. In fact, the pedestrian has right of way because the driver is turning. The pedestrian should not have started crossing on a flashing “Don't walk” signal, but it is not clear in the showcard whether the pedestrian started crossing on a “Walk” signal, and this should be clarified in future research. Nevertheless, results suggest a need for improved knowledge that the pedestrian has right of way in these situations. Importantly, results regarding intentions to take right of way reflect confusion about these situations. 57.1% of participants cast in the role of pedestrian reported that they would take right of way on a flashing “Don't walk” signal,

even though only 55.7% thought they had right of way. Further, a large proportion of participants cast in the role of driver (23.5%) reported that they would take right of way when turning left across a pedestrian facing a flashing “Don’t walk” signal when facing a green signal), suggesting a concerning potential for conflict.

Remaining situations

The situation involving a pedestrian crossing on a zebra crossing produced a perception of pedestrian right of way (93.8%) that was roughly similar to the situations involving a pedestrian facing “Walk” with green-facing traffic either turning left (95.4%) or right (96.6%) across them. A pedestrian crossing toward a pedestrian refuge with nearside traffic approaching was seen to have right of way by only 21% of the sample. Belief in pedestrian right of way was not influenced by questionnaire version or interview site.

In the situation involving a pedestrian crossing on a zebra crossing, 86.4% of pedestrian questionnaire participants said that they would take right of way. Nonetheless 16.2% of driver questionnaire participants reported that they would take right of way, suggesting that improved awareness of drivers’ responsibilities when pedestrians are crossing on a zebra crossing is warranted. When a pedestrian is crossing toward a pedestrian refuge with nearside traffic approaching, about 35% of both pedestrian and driver questionnaire participants reported that they would take right of way (and there was no significant difference between them). There was a shared perception of a moderate pedestrian right of way. Again, clarification of rights of way at this type of crossing appears to be warranted. The road rules do not offer any specific guidelines regarding this type of crossing, relying on the principle that the pedestrian would have right of way if likely to be hit.

Driver not give way at a paved section of road

Results confirm that there is confusion surrounding the status of paved sections of road that have no other installations associated with them. 39.7% of the sample report that it is illegal for a car not to give way at paved section of road. Considering that only 7.7% of the sample believes a pedestrian has right of way at an unmarked section of road, around 30% of the sample appears to think that paving indicates a pedestrian right of way when otherwise there would be none. This confusion is likely to pose a risk to pedestrian safety, and it would be edifying to investigate peoples intentions to take right of way in this situation. Beliefs regarding the status of paved sections of road were not influenced by questionnaire version or interview site. Paved crossings are inherently ambiguous and are not addressed by the Road Users’ Handbook (NSW Roads and Traffic Authority, 2001b). It might be argued that they can act as a traffic-calming device, highlight areas with high pedestrian activity, delineate separate space for pedestrians, or create pedestrian priority. However, these possible benefits rely on ambiguity. Whilst some international evidence suggests that pavement alterations may reduce pedestrian road trauma, research in the Australian context is warranted to inform reconsideration of the use of paved crossings.

Limitations

Whilst one or two aspects of this study could be refined, the existing imperfections are unlikely to have distorted the results. Specifically, self-reports may reflect errors in recall or reporting. Nevertheless, several aspects of the present results dispel concerns that results were distorted by social desirability. For example, a significant proportion of the sample admitted that they would begin crossing on a flashing “Don’t walk” signal (in a

section of the survey that is not reported here). Further, for the most critical questions in the present research (i.e. regarding who has “right of way”) the main social pressure on respondents would be to be correct. Some limitations in sampling are also unlikely to have substantially distorted results. Specifically, the different locations had a different age distribution, and slightly different proportions of pedestrian versus driver versions of the questionnaire, and of intersection versus carpark interviews. Nonetheless, Goulburn typically differed from Glebe and from Chatswood *in the same direction*, despite lying between them in terms of sample make-up.

Future Research and Recommendations

The present results do suggest an assumption of pedestrian right of way when the pedestrian is facing a “Walk” signal, but also that approximately 12% of drivers who are turning left or right across their path while facing a green disc intend to take right of way nonetheless. Thus, the safety of pedestrians is likely to benefit from campaigns reminding drivers that they must give way to pedestrians turning right or left. Campaigns might emphasise to drivers that when they are facing a green signal and turning left or right they are likely to cross the path of pedestrians that are crossing on a “Walk” signal, and that they should check for pedestrians and grant them right of way. Future campaigns should emphasise to pedestrians the need to pay attention to traffic at all times – even when the pedestrian signal is “Walk”.

The present research also suggests future pedestrian safety campaigns should aim to clarify pedestrian right of way in several situations. Although drivers must give way to pedestrians when making a turn at an intersection, at pedestrian crossings, and whenever there is a danger of colliding with the pedestrian, the pedestrian was perceived to have right of way by a low to moderate proportion of the sample (<60%) for:

- A pedestrian crossing on a flashing “Don’t walk” with traffic initially travelling parallel facing a green signal and turning left (55.7%);
- A pedestrian crossing at a pedestrian refuge (21.0%);

There is most cause for concern when sizeable proportions of both pedestrians and drivers intend to take right of way in the same situation. For every situation except the two situations in which the pedestrian is facing a “Walk” signal more than 15% of participants cast in the role of both pedestrian and driver said they would take right of way. Thus, there is a high potential for conflict in all of these situations, and right of way rules should be clarified, and the need to obey them emphasised.

Given the confusion surrounding paved sections of road, it may be timely to research the impact of this type of crossing.

A pleasing aspect of the present research is that generally survey participants’ understanding of right of way did not appear to be influenced by whether they were approached as a pedestrian versus driver. This suggests that campaigns addressing right of way do not need to address pedestrians and drivers separately.

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