

## Who to kill? The dilemma of driverless cars – Expert reaction

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**Dr Carolyn Mason, Lecturer, Philosophy, University of Canterbury, comments:**

“The researchers found that the majority of their research participants accept that it is morally right to program autonomous vehicles (AVs) to kill the occupant of the car to save ten pedestrians. As the researchers point out, this result agrees with utilitarianism, that is, the moral theory that holds that the right action is the one that, of all the available options, maximises happiness. It is also arguably consistent with other moral theories. Would a rational person want to live in a world where AVs were programmed to kill ten pedestrians rather than kill the occupant of the vehicle? If the answer is ‘no’, then according to Kantian ethics, programming AVs in this way would be immoral. It also seems reasonable to believe that a virtuous person would want to drive an AV that would kill the occupant of the vehicle rather than kill ten pedestrians. If so, this position is consistent with virtue ethics.

“Bonnenon et al. also found that the majority of their research participants would prefer to buy a car that would kill ten pedestrians rather than the occupant of the AV. In contrast, the majority of research participants believed that it was both ethical to program an AV to kill one pedestrian if doing so would save ten, and would prefer to own an AV that would kill one pedestrian if doing so would save ten. Bonnenon et al. conclude that “there seems to be no easy way to design algorithms that ... reconcile moral values and ... self-interest” (1576).

“The situation is worse than this; people are not only bad at reconciling moral values and self-interest, they are also bad at making decisions that reflect their own interests. Studies like this one encourage the research participant to identify with the occupant of the AV rather than the pedestrians who may be harmed by the vehicle, and encourage them to think of the harm to their child in the AV, rather than the harm to their child walking to school. Bonnenon et al., also found that fewer than 50% of respondents wanted other people’s cars to be programmed to kill the car’s occupant rather than killing ten pedestrians. This seems a failure of imagination.

“As Bonnenon et al. comment, people prioritising their interests over those of others is nothing new. People’s willingness to rely on others doing the morally right thing while cheating on the system has been investigated by biologists, psychologists, sociologists and economists, as well as ethicists. Bonnenon et al. mention people’s willingness to benefit from others vaccinating their children while not being willing to take the risks associated with vaccinating their own children. Attitudes like this have led some Australian states to pass legislation allowing childcare centres to refuse to enrol children who have not been immunised.

“Legislation is often the best way to prevent harm to others by those who take their own well-being to be significantly more important than the well-being of others. So, in study five and six, Bonnenon et al., questioned people about their attitudes to AV legislation. They found that the majority of participants believe that there should not be legislation requiring AVs to be programmed to sacrifice the AV’s occupant to save ten pedestrians. Not wanting to be affected by a law is a good reason for arguing against legislation, but a poor reason for not legislating.

“Bonneton et al. comment that “enthusiasm for self-driving cars was consistently greater for younger, male participants”, but the report does not include information about differences in responses based on age or sex. Many studies report both that males are more likely to engage in risk-taking behaviour than females and that younger drivers are more likely to engage in risky driving behaviour. (See, for example, the 2003 Queensland study by Turner and McClure, ‘Age and gender differences in risk-taking behaviour as an explanation for high incidence of motor vehicle crashes as a driver in young males’.) It seems plausible that age and sex also affects attitudes towards legislation that restricts driving. For example, in their 2011 New Zealand study, Charlene Hallett, Anthony Lambert, and Michael A. Regan found that legislation banning cellphone use was less acceptable to younger drivers than older drivers. It would be interesting to learn whether sex and age had any effect on responses in Bonneton, Shariff and Rahwan’s study.

“Bonneton et al. suggest that the distaste for legislating to ensure that AVs are programmed in the way that most people believe is most ethical combined with the majority preference to travel in an AV that would save your life at the cost of ten pedestrians may delay the uptake of AVs. They suggest that this is a concern because a delay in the uptake of AVs will mean a delay in the reduction in harm expected to follow from a reduction in self-driven cars. There are two reasons for thinking this may not be a genuine concern. The cost of purchase means that those who purchase AVs are likely to be over 24 years old, so if age affects attitudes, the study may not support worry. Second, public education campaigns have corrected mistaken attitudes towards the acceptability of other risky transport related practices, such as cellphone use and driving under the influence. It is reasonable to expect that public education campaigns will support more consistent thinking about morality and self-interest with AV programming.”