

Supplemental Material

**Autonomous vehicles: how perspective-taking accessibility alters moral judgments
and consumer purchasing behavior.**

Rose Martin^a, Petko Kusev^a, and Paul van Schaik^b

^aHuddersfield Business School, The Behavioural Research Centre, Queensgate,
Huddersfield, HD1 3DH, United Kingdom.

^bTeesside University, Campus Heart, Southfield Road, Middlesbrough, TS1 3BX,
United Kingdom.

Moral Scenarios

In Experiments 1a, 1b and 2, participants received the following scenarios and visual stimuli in accordance with the experimental condition they were assigned to:

Participant Involvement / Partial PT Accessibility (Experiments 1a, 1b and 2)

You are the sole passenger in an autonomous self-driving vehicle travelling at the speed limit down a main road. Suddenly, 10 pedestrians appear ahead, in the direct path of the car. The car could be programmed to either SWERVE off to the side of the road, where it will impact a barrier, killing you but leaving the 10 pedestrians unharmed or STAY on its current path where it will kill the 10 pedestrians, but you will be unharmed (see the picture illustrating this scenario).

Participant Involvement / Full PT Accessibility (Experiments 1a, 1b and 2)

You could be the sole passenger in an autonomous self-driving vehicle travelling at the speed limit down a main road. Or you could be one of the 10 pedestrians that have appeared ahead, in the direct path of the car. The car could be programmed to either SWERVE off to the side of the road, where it will impact a barrier, killing the passenger (that could be you) but leaving the 10 pedestrians unharmed or STAY on its current path where it will kill the 10 pedestrians (that could include you), but the passenger will be unharmed (see the picture illustrating this scenario).

Stranger Involvement (Sam) / Partial PT Accessibility (Experiments 1a)

Sam is the sole passenger in an autonomous self-driving vehicle travelling at the speed limit down a main road. Suddenly, 10 pedestrians appear ahead, in the direct path of the car. The car could be programmed to either SWERVE off to the side of the road, where it will impact a barrier, killing Sam but leaving the 10 pedestrians unharmed or STAY on its current path where it will kill the 10 pedestrians, but Sam will be unharmed (see the picture illustrating this scenario).

Stranger Involvement (Sam) / Full PT Accessibility (Experiments 1a)

Sam could be the sole passenger in an autonomous self-driving vehicle travelling at the speed limit down a main road. Or Sam could be one of the 10 pedestrians that have appeared ahead, in the direct path of the car. The car could be programmed to either SWERVE off to the side of the road, where it will impact a barrier, killing the passenger (that could be Sam) but leaving the 10 pedestrians unharmed or STAY on its current path where it will kill the 10 pedestrians (that could include Sam), but the passenger will be unharmed (see the picture illustrating this scenario).

Stranger Involvement (anonymous) / Partial PT Accessibility (Experiments 1b)

A stranger is the sole passenger in an autonomous self-driving vehicle travelling at the speed limit down a main road. Suddenly, 10 pedestrians appear ahead, in the direct path of the car. The car could be programmed to either SWERVE off to the side of the road, where it will impact a barrier, killing the stranger but leaving the 10 pedestrians unharmed or STAY on its current path where it will kill the 10 pedestrians, but the stranger will be unharmed (see the picture illustrating this scenario).

Stranger Involvement (anonymous) / Full PT Accessibility (Experiments 1b)

A stranger could be the sole passenger in an autonomous self-driving vehicle travelling at the speed limit down a main road. Or the stranger could be one of the 10 pedestrians that have appeared ahead, in the direct path of the car. The car could be programmed to either SWERVE off to the side of the road, where it will impact a barrier, killing the passenger (that could be the stranger) but leaving the 10 pedestrians unharmed or STAY on its current path where it will kill the 10 pedestrians (that could include the stranger), but the passenger will be unharmed (see the picture illustrating this scenario).

Participant-and-Family Involvement / Partial PT Accessibility (Experiment 2)

You and your family member are the 2 passengers in an autonomous self-driving vehicle travelling at the speed limit down a main road. Suddenly, 20 pedestrians appear ahead, in

the direct path of the car. The car could be programmed to either SWERVE off to the side of the road, where it will impact a barrier, killing you and your family member but leaving the 20 pedestrians unharmed or STAY on its current path where it will kill the 20 pedestrians, but you and your family member will be unharmed (see the picture illustrating this scenario).

Participant-and-Family Involvement / Full PT Accessibility (Experiment 2)

You and your family member could be the 2 passengers in an autonomous self-driving vehicle travelling at the speed limit down a main road. Or you and your family member could be 2 of the 20 pedestrians that have appeared ahead, in the direct path of the car. The car could be programmed to either SWERVE off to the side of the road, where it will impact a barrier, killing the passenger (that could be you and your family member) but leaving the 20 pedestrians unharmed or STAY on its current path where it will kill the 20 pedestrians (that could include you and your family member), but the passenger will be unharmed (see the picture illustrating this scenario).

Moral Questions/Measures

Participant answered all of the following questions relevant to the experiment in which they were assigned to.

Experiment 1a and 1b

Judge the moral appropriateness of programming a car to swerve;

Judge the moral appropriateness of programming a car to stay;

Using a budget of £50,000, please indicate how much you would pay for the following autonomous self-driving cars (the entire £50,000 budget must be spent): a car that is programmed to swerve and a car that is programmed to stay.

Experiment 2

Judge the moral appropriateness of programming a car to swerve;

Judge the moral appropriateness of programming a car to stay;

How would you rate your willingness to BUY an autonomous self-driving car programmed to swerve?;

How would you rate your willingness to BUY an autonomous self-driving car programmed to stay?;

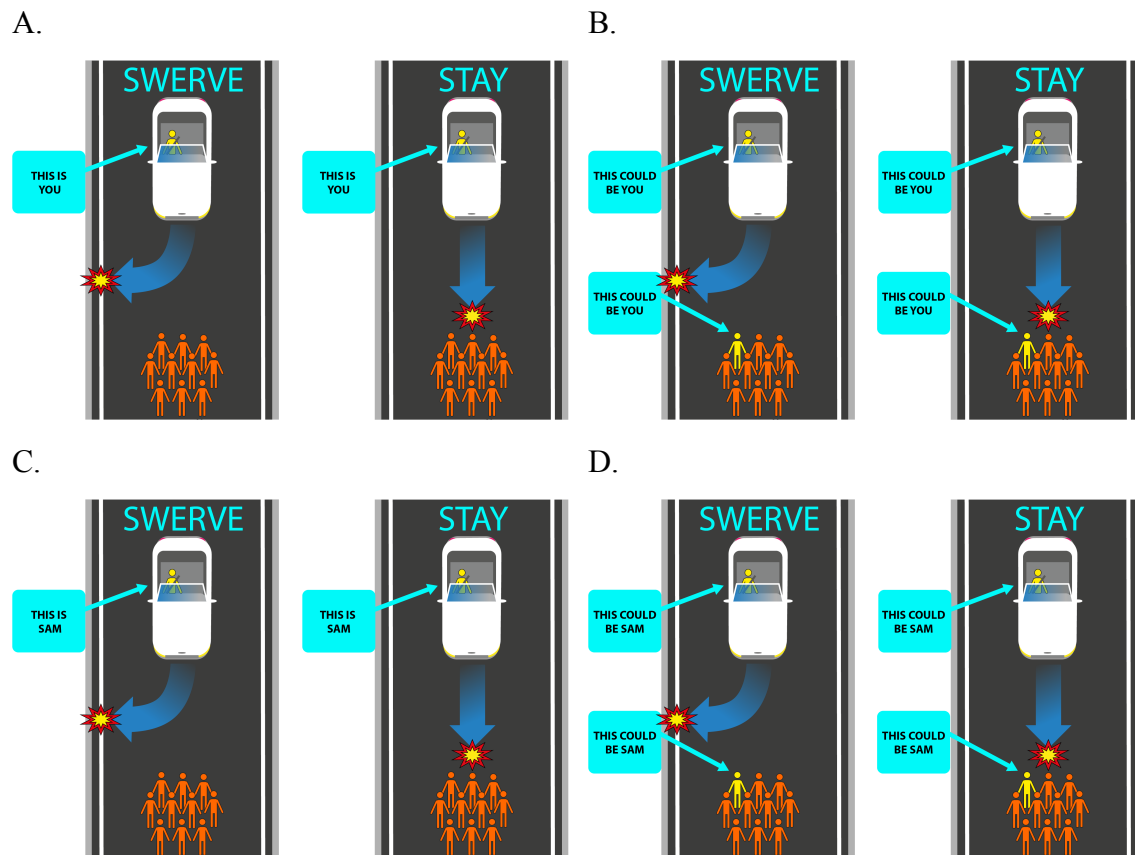
How would you rate your willingness to RIDE inside an autonomous self-driving car programmed to swerve?;

How would you rate your willingness to RIDE inside an autonomous self-driving car programmed to stay?

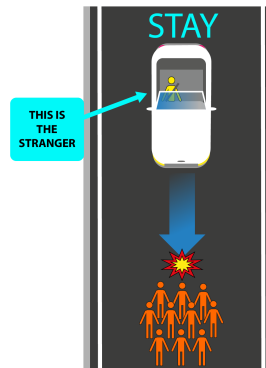
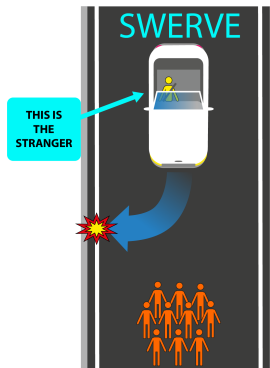
Visual Stimuli

Figure S1

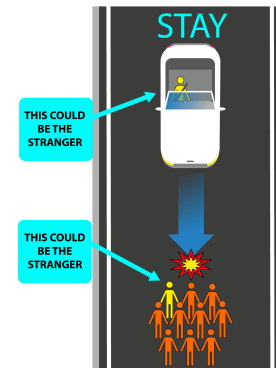
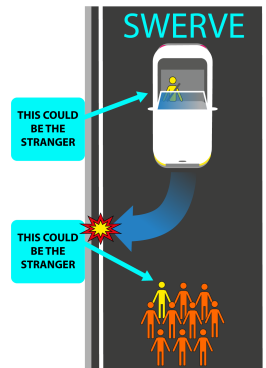
Visual stimuli presented to participants depending on the experimental condition they were assigned to



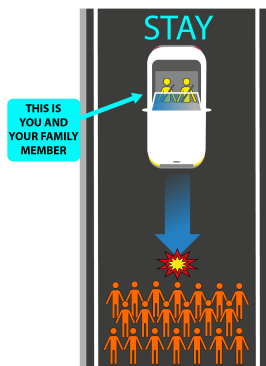
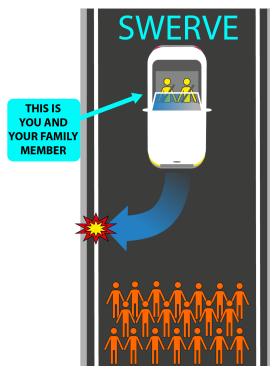
E.



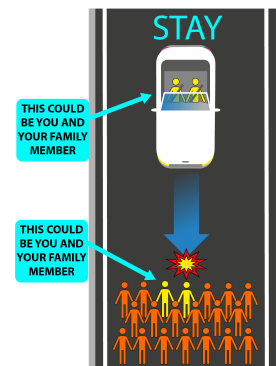
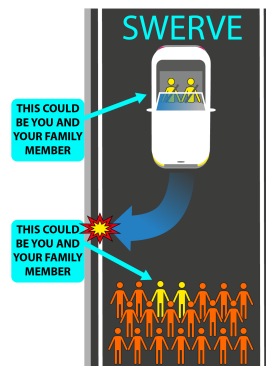
F.



G.



H.



Note. Panel A. participant involvement/partial PT accessibility. Panel B. participant involvement/full PT accessibility. Panel C. stranger involvement (Sam)/partial PT accessibility, Panel D. stranger involvement (Sam)/ full PT accessibility. Panel F. stranger involvement (anonymous)/partial PT accessibility, Panel G. stranger involvement (anonymous)/ full PT accessibility. Panel G. participant-and-family involvement/partial PT accessibility. Panel H. participant-and-family involvement/full PT accessibility.