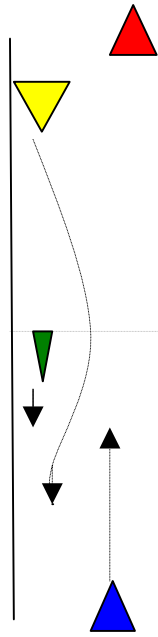


BIKE ON STRAIGHT SECTION (SPEED UP) – V:2A

In this scenario, an attempt was made to determine whether a driver would make allowances for the fact that an oncoming vehicle in the opposing lane may swing wide in order to avoid a bicyclist. Specifically, in this scenario, a bike (small green triangle in figure below) is traveling in the opposing lane coming towards the participant driver (blue) (Figure 1). A decoy vehicle in the opposing lane (yellow) is coming towards the driver, but much farther in the distance behind the bicycle. The participant driver should speed up in order to pass the bicyclist before the vehicle in the opposing lane at a distance also needs to pull out and around the bicycle. Alternatively, the participant driver could slow way down in order to achieve the same outcome. The lead vehicle (red) has no context specific role to play in this scenario other than as lead vehicle. If it started driving faster, this might clue the correct response in the participant driver. If it slowed down, the scenario would become a very different one because now the participant driver would need to consider whether it is more prudent to speed up and pass the bicyclist and then come to a sudden stop (to avoid hitting the lead vehicle) or to slow way down and perhaps pull over (to avoid a situation where the lead vehicle, participant driver and bicyclist are all fighting for the same piece of road). It is hypothesized that inexperienced drivers will fail to recognize the risk that the decoy vehicle and bicyclist pose.

Figure 1: V: 2a



Material Risks. When the risky element materializes, the vehicle in the opposing lane will move far enough into the participant driver's lane so that it creates a very tight squeeze between the bicyclist, participant driver and driver of the vehicle in the opposing lane. When the risky element does not materialize, the vehicle in the opposing lane will stay in the opposing lane as the bicyclist is passed.

Dependent Variables. Measures of the behavior of the driver's vehicle will include point at which the participant driver accelerates or decelerates around the pedestrian. Either action indicates that the participant driver is predicting the potential path of the vehicle ahead and in the opposing lane. Summary measures also will be constructed from the eye movement data, which include the point in time after fixating the turning bicyclist that the participant driver fixates the decoy (yellow) vehicle and the number of participant drivers that fixated the decoy vehicle. Presumably more experienced drivers would be more likely to scan the decoy vehicle and, when they did such, to do so somewhat earlier than inexperienced drivers.