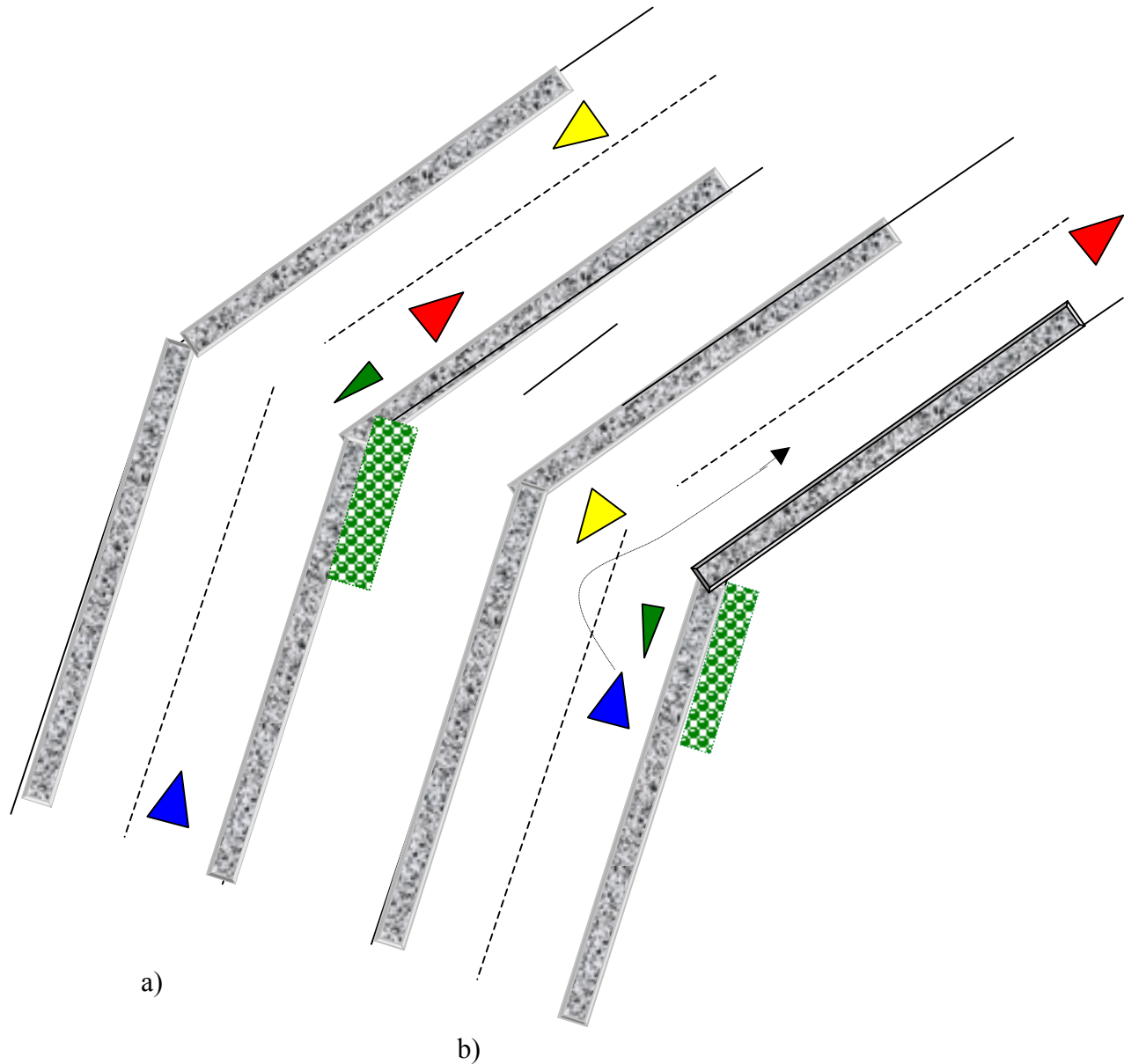


BIKE ON RIGHT CURVED ROAD (SLOW DOWN AND MOVE RIGHT) – NV:2A

In this scenario, an attempt is made to determine whether drivers would predict the location of a hidden vehicle on a curve when it was possible that the hidden vehicle might move over into the participant driver's own lane. Specifically, in this scenario there is a breakdown lane on both sides of the road (the shaded rectangles in [Figure 1a](#)). The road curves to the right ahead of the participant driver. A bicyclist (small green triangle) is coming toward the participant driver in the right hand lane, emerging from behind the curve just as the participant driver (blue) starts around the curve. A decoy vehicle (yellow) is behind the bicyclist in the left hand lane. A lead vehicle (red) is in front of the participant driver. Vegetation or buildings hide the oncoming vehicle when the participant driver first encounters this section of road. The participant driver needs to slow down when the bicyclist emerges from behind the curve because the participant driver may need to move into the lane of opposing traffic to pass the bicyclist. This potentially places the participant driver in a position of being lined up adjacent to the bicyclist and the decoy vehicle as the participant driver passes the bicyclist ([Figure 1b](#)). The lead vehicle accelerates as it rounds the curve. It is hypothesized that inexperienced drivers are less likely to predict the hidden vehicle around the curve and therefore less likely to take appropriate care when passing the bicyclist.

Figure 1: NV:2A



Material Risks. When a risk materializes, the yellow decoy vehicle in the opposing lane will take a tight turn, almost crossing the centerline when first becoming visible to the participant driver. When no risk materializes, the yellow vehicle will take a wide turn, leaving plenty of room for the participant driver to pass the bicyclist as the turn is rounded.

Dependent Variables. Several different measures will be taken of the behavior of the participant's vehicle: the number of participant drivers who slow down enough to allow time for the driver of a vehicle in the opposing lane to go by and the point in time when the driver first brakes (an indication that the driver notices the potential risk).

Unfortunately, it cannot easily be determined whether the driver is braking due to concern about the bicyclist or concern about a car in the opposing lane, which might be coming as the driver passes the bicyclist. Only the latter indicates that the driver is predicting the occurrence of a risk that currently is not visible. The eye tracker can perhaps give more direct information. The question here is whether the driver fixates the area in the road ahead from which a potential vehicle might emerge.