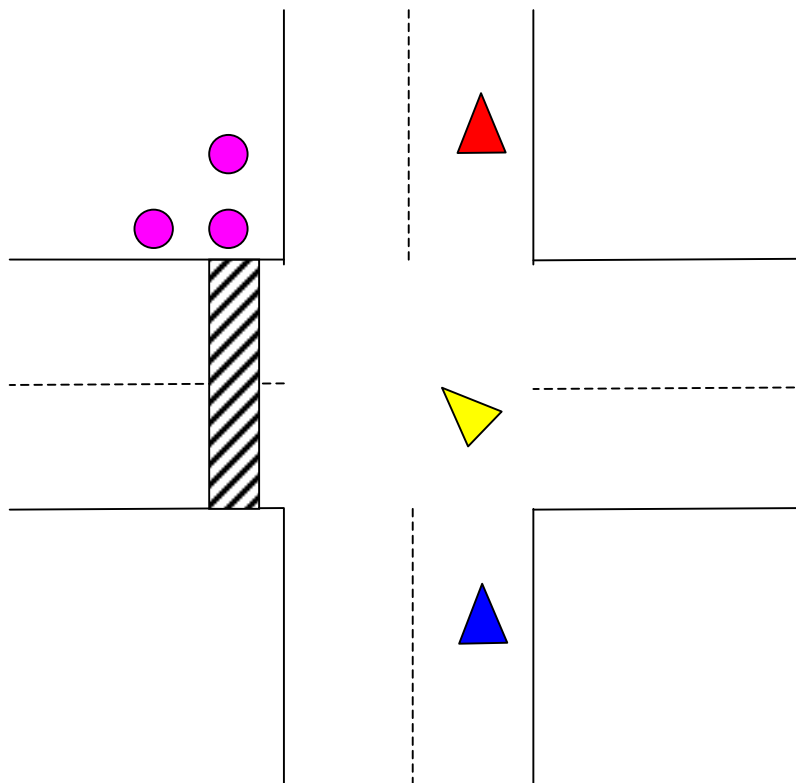


LEFT TURN WITHOUT WALK SIGNAL – V:1B

Much the same situation can develop at an intersection like the above where there is no walk signal. Again, an attempt is made to determine whether drivers can predict that a pedestrian who enters the crosswalk will cause other traffic to behave in ways that might impact the safety of the driver. Specifically, in this scenario, the decoy vehicle (yellow) will attempt to make a turn left across the opposing lane (Figure 1). All vehicles (lead, decoy and participant) will be traveling at the start of the scenario at approximately 25 mph. There will be pedestrians along the sidewalk at the edge of the opposing lane. One (pink) will be walking towards the decoy vehicle (yellow) as this vehicle gets ready to turn left. The lead vehicle (red) will continue straight; the decoy vehicle will slow to a quick stop before turning left, to make sure that the pedestrian does not enter the crosswalk. The decoy vehicle will then accelerate quickly after making this determination. It is hypothesized that inexperienced drivers will be less likely to predict the linkage between the pedestrian movement and the movement of the left turning decoy vehicle.

Figure 1: V: 1B



Material Risks. When the risk materializes, one of the pedestrians approaching the crosswalk will step out into the crosswalk just after the decoy vehicle, which is making a left turn, starts the turn. Thus, the decoy vehicle will come to a double stop, first to determine whether the pedestrian is moving into the crosswalk, and then, after moving slightly to take the left turn, coming to a complete stop in the participant driver's lane to

let the pedestrian travel across the street. When no risk materializes, the same scenario will unfold except that the pedestrian will turn around and head back down the sidewalk as the decoy vehicle begins to round the curve.

Dependent Variables. Measures will be made of the behavior of the driver's vehicle including when the driver begins decelerating, the speed of the driver's vehicle when the decoy vehicle starts braking quickly, and the distance of the driver's vehicle from the decoy vehicle when the decoy vehicle comes to a quick stop. Summary measures will also be constructed from the analysis of the eye movements, including a determination of whether inexperienced drivers look back and forth between the lead vehicle and the pedestrian more often than do experienced drivers.