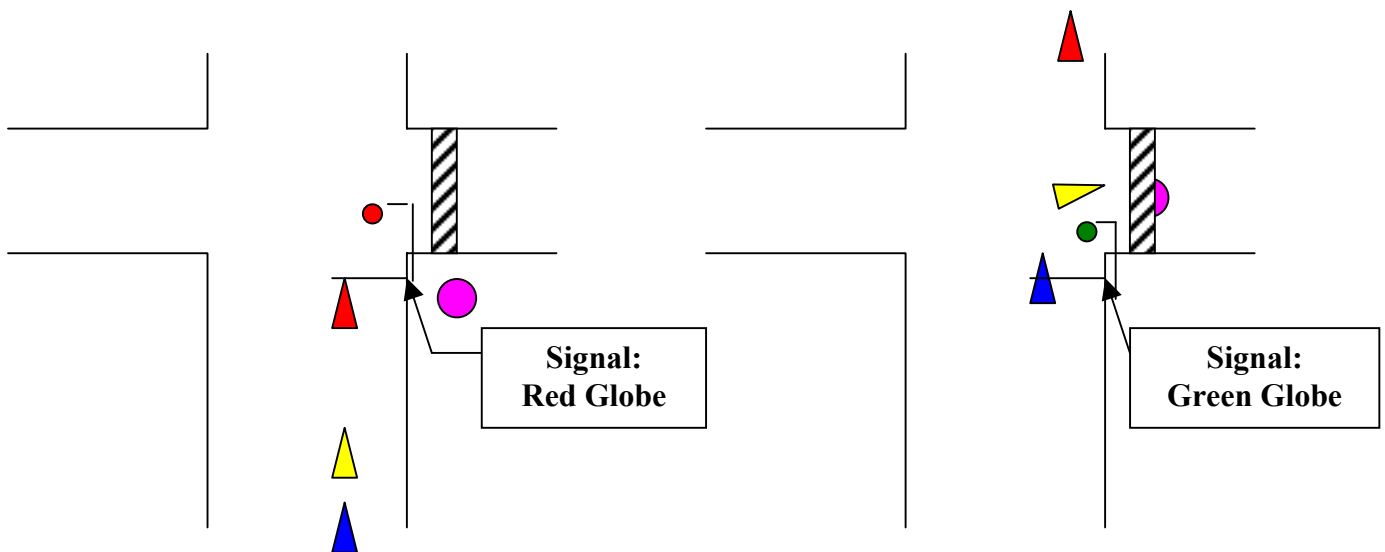


### ***RIGHT TURN WITH WALK SIGNAL (MAINTAIN FOLLOWING DISTANCE) – V:1A***

In the first scenario in this subcategory, an attempt was made to determine whether drivers would predict the effect that a pedestrian about to enter a crosswalk would have on other traffic that might in turn create a potential conflict with the driver. Unlike the above scenarios the pedestrian is clearly visible, as is the other traffic with which the driver may have a potential conflict. Specifically, in this case, the lead vehicle (red) is ahead of the decoy vehicle (yellow) and both stop at a signal ahead of the driver (blue) (Figure 1, left hand panel). When the signal turns green the lead vehicle accelerates quickly. The decoy vehicle accelerates relatively quickly too, with its right turn signal on. The stop line is moved some ways behind the actual right turn so that both the lead and decoy vehicles would have time to accelerate, giving the participant driver time to accelerate as well. However, the decoy driver comes suddenly to a stop as he or she turns right, making way for a pedestrian (pink circle), crossing the road. The decoy vehicle continues the turn after the pedestrian passes in front, quickly enough so that the participant driver does not collide with it. It was hypothesized that less experienced drivers would not predict the evolving situation with the decoy vehicle and pedestrian and so would need to brake suddenly as the decoy vehicle itself brakes suddenly for the pedestrian in the crosswalk.

**Figure 1: V : 1A**



**Note.** It was difficult to imagine how one would stage the specific scenario that is being described here without a lead and decoy vehicle. Specifically, in this scenario a measure of a driver's speed across stop line is one indication of whether the driver predicts that the decoy vehicle will need to stop for the pedestrian. In real life, drivers are truly in a hurry and so may travel faster than warranted finding that all too suddenly the vehicle in front stops. However, a driver in the scenarios being constructed has no real reason to accelerate quickly unless he or she is following someone ahead of them in the simulation.

Thus, again there appears to be a need for several vehicles beside the vehicle that the participant is driving.

**Material Risks.** When the risk materializes, the WALK signal will flash as soon as the light turns green. The pedestrian will step off the curb as soon as the lead vehicle accelerates across the intersection. When the risk does not materialize, the pedestrian will turn to the right and head back away from the road.

**Dependent Variables.** The speed at which the participant driver accelerates when first the light turns green, both when the risk does and does not materialize, will be measured. Experienced drivers may infer that the decoy vehicle, which has its right turn signal on, may need to stop quickly for a pedestrian. The speed at which the participant driver decelerates when the decoy vehicle comes to a dead stop in order to let a pedestrian in front of him or her will also be measured. Experienced drivers may be more aware that the decoy vehicle may need to stop and therefore decelerate more slowly (since the experienced drivers see the slowing of the decoy vehicle some time before the inexperienced driver). Analyses of the eye movement data will be used to determine when drivers fixate the pedestrian, walk sign and rear of the decoy vehicle, if at all. These three elements are the components, which together define the scenario as it unfolds in time as a risky one. The percentage of experienced drivers that fixated all three elements before braking will be compared with the percentage of inexperienced drivers that did such.