This paper suggests that a universal psychophysical law influences the perception of risks and physical quantities in traffic. This law states that there will be a tendency to overestimate low probabilities or small quantities, while high probabilities or large quantities may be underestimated. Studies of the perception of risk and physical quantities in traffic have found a highly consistent pattern, which shows that:

1. Pedestrians intending to cross the road overestimate the stopping distance of cars travelling at low speed and underestimate the stopping distance of cars travelling at high speed.
2. Car drivers intending to overtake overestimate the distance needed at low speed, but underestimate it at high speed.
3. Car drivers asked to accelerate from standstill to a given speed overshoot the target speed; when asked to slow down to a stated speed, drivers also overshoot the target speed.
4. When asked what speed to choose to save a given amount of time on a trip of given length, drivers overestimate target speed when initial speed is low and underestimate it when initial speed is high.
5. Drivers overestimate the increase in risk associated with a small increase in speed and underestimate the increase in risk associated with a larger increase in speed.
6. Drivers overestimate the risk of apprehension for traffic offences when it is low and underestimate it when it is high.
7. Road users overestimate the risk associated with comparatively safe modes of transport and underestimate the risk associated with comparatively hazardous modes of transport.