

Petterson Trial Day 4 **Expert Witnesses**

Jury question: black plastic item had Mercedes symbol; could not have come from a Transit. Witness Mr Norris recalled to testify that item had Mercedes symbol and number; was part of the under body trim from the vehicle which ran over David (car behind Mr Petterson's Transit).

Witness 2 PC 1874 Ed Wilson Forensic Collision Investigator; Senior I O in Road Deaths Unit Attended scene at 9.47 am and immediately became I O. Gave evidence regarding width of lanes (3.6m, nearside 3.07m), gradient over length of road concerned (0.4 degrees) and azimuth of sun calculated at 136.5 degrees from north at time of first 999 call (8.45 am). Visibility good, road wet. Orange coloured scuff marks in Lane 1, 110 m east of slip road, quantity of red plastic and batteries. Bicycle (Giant) on concrete hard standing 1.3 m east of scuff marks, David within Lane 1, helmet on road; one bicycle shoe by kerb, one in Lane 3; led light in road.

Issue of black plastic "wing mirror" dealt with. Unlikely to have been a wing mirror.

Expert Witness analysis: Wet carriageway lowers frictional value and effects stopping distance; sun shining on carriageway; damage on Mercedes consistent with low down bicycle; not possible to determine how David came to be on the carriageway; unable to identify vehicle mirror had come from; R handlebar rubber grip and Transit wing mirror removed; handlebars rotated to expected position. Damaged profiles on bike and Transit examined for fit: off-side handlebar fit with near-side damage to Transit; black mark on bonnet identical height to handlebars.

David was 6ft 1in; PC of similar height mounted bike to ascertain what part of rider would be hit by wing mirror: R elbow and upper arm. Mirror contact with R arm consistent with scuff marks on Transit near side. Evidence suggested David was riding towards near side of Lane 1. Not possible to identify bike rear illumination other than reflector. Orange high-vis garment would have heightened visibility but rucksack and cycling stance would tend to obscure upper body and arms.. Reflective ankle-bands with leds but impossible to ascertain whether lights were on. Chance of Mercedes avoiding David minimal. Drive through following day in similar conditions. **Defence:** never possible to replicate conditions accurately; evidence from drive through should be treated with caution.

Reference made to study "Influence of a bicycle commuter's clothing on overtaking". This compared overtaking of cyclists wearing a variety of garments including high-vis. Overtaking distance increased only when cyclist was wearing high-vis with POLICE on it; ordinary high-vis had no effect.

Jury question: Can precise point of collision be identified? **Witness:** No but it would have been immediately prior to marked site .

Witness PC Ed Wilson (continued): human eye and camera will react differently to glare; referred to studies on the effect of sun glare on drivers visibility; concrete barrier and foliage may have had effect of merging cyclist with background; sun visor and prescription sunglasses were used by Mr Petterson. **Prosecution:** asked about Highway Code advice on sunlight glare **Witness:** "Slow down or stop".

Expert Witness view of accident: pedal cycle being ridden east; R handlebar hit by bonnet and wing mirror of passing vehicle causing instability; cyclist falling into path of following vehicle. Mercedes could not take evasive action due to vehicles in Lane 2. Cyclist was riding normally in Lane 1 and should have been visible to other road users. Low sun on elevated section does not account for Transit's failure to recognise the cyclist ahead as a hazard. Effect of higher position of Transit driver cannot be quantified. Highly unlikely that wing mirror made contact with cyclist's head.

Defence: vehicles moving laterally (changing lanes to overtake or access slip road) would have made it more difficult for Mr Petterson to see the cyclist and vehicles ahead overtaking could be making ordinary vehicle lane changes; lanes on flyover wider, less need for vehicles to move into Lane 2 to overtake cyclist. Mr Petterson didn't see a cyclist; no evidence to contradict this. Would you agree that R handlebar is at an angle to van? **Witness:** No, parallel to van **Defence:** physical evidence that first point of contact was R handlebar but elbow sticking out; would indicate that handlebars were sticking out towards van. **Witness:** "No, I don't agree. My evidence is that handlebars were parallel to van" **Defence:** What was effect of sun? **Witness:** would have made cyclist virtually impossible to see. **Defence:** vehicle movements ahead could distract attention **Witness:** should draw attention to road. **Defence:** lateral movements ahead would be noticed by advanced drivers **Witness:** No, other drivers saw cyclist. *[further questioning about movements of vehicles ahead and effect of glare]*

Judge: When you offered up handlebars to Transit you did this with bicycle parallel to ground, handlebars to road. **Witness:** The only way the bike matches is parallel to Transit **Judge:** Would "wobble" referred to by witnesses have effected angle of handelbars? **Witness:** Yes, but there would be other evidence of damage. All evidence shows bike was upright and parallel to Transit. **Defence:** Photo shows bike at an angle to van rather than parallel **Witness:** No, parallel to van

Jury questions: Would handlebar rubber grip help with angle of bike? Is there any evidence that Mr Petterson was wearing the prescription sunglasses referred to?

Expert Witness 2 David Burgess Forensic Vehicle Collision Expert Much of report agrees with Expert Witness 1's report. Additional points: kerb 3.5 degrees higher than centre of road; handlebars would be slightly higher on left. Cyclist wishes to maintain upright position but bike would be at an angle, leaning towards van. Bike can vary in orientation by a number of degrees in either direction. Agrees sun played a significant role; not possible to say where lateral movements of vehicles ahead were in relation to Transit; "bunching" of vehicles at Regents Park traffic lights would complicate situation and could make cyclist less visible; drivers will focus on vehicle in front not 4 – 5 vehicles ahead: lateral movements ahead would not necessarily flag up cyclist ahead; driver can't stop "on a sixpence", may be continuing ahead although "blinded"; not possible to identify vehicle positions accurately; impact likely to have taken place before first signs of debris on road; sufficient width of lanes on flyover to overtake without lateral movement.

Defence: Do you have any conclusions as to cause of accident? **Witness:** Wet road would have aggravated glare of sun; sun low on carriageway causing problems. **Defence:** Is there any evidence that Mr P failed to pay attention? **Witness:** Matter for the jury; no evidence of distractions inside van.

Main points of disagreement with Expert Witness 1: limited opportunity for Mr Petterson to observe lateral movements of vehicles ahead; insufficient evidence about vehicle interactions; possible effect of "bunching" at Regent's Park lights; forward anticipation is an advanced driver skill; damage to rubber handlebar grip may have been caused by contact with road.

Judge: If R handlebar hit by van coming up behind, rubber would be pushed forward **Witness:** Not uncommon for subsequent vehicles to mask initial impact evidence.

Discussion of whether Mr Petterson would have been aware of the movements of drivers Bowles, Parker and Mullins ahead of him

Jury question: Were all the drivers who saw the cyclist ahead advanced drivers? **Judge:** They were not asked; you must make your own judgement about this.