Mind games force drivers to slow down

Removing white lines and painting roads different colours can trick motorists into safety, say researchers

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First came the dreaded speed hump and other obstacles to make drivers slow down. Now local authorities are to be allowed to use more subtle and psychological tricks to get motorists to take their foot off the accelerator.

A major report for the Department for Transport reveals that ‘psychological’ traffic calming works. Painting the road different colours, taking out white lines or planting things in the way of sight-lines on corners can be used to make roads look narrower, or bumpy or windy. Drivers then feel less safe and drive more slowly - a principle adopted most radically in one town in the Netherlands which abolished all signs and road markings.

The four-year study by the Transport Research Laboratory found that many optical tricks were successful in slowing speeds: in simulator tests all speeds fell when the measures were introduced, some by an average of more than 4mph; and in one test in Latton, Norfolk, average speeds fell by up to 8 mph, and the speeds of faster drivers by even more.

The most successful measures, likely to be used in future, were using red bricks to make the road look narrower and small areas ‘built out’ into the road with trees, shrubs or wooden posts, said the report.

The findings were welcomed by road and safety groups as the future of traffic calming. "This has been refined over the years, it’s a lot more sophisticated now with speed cushions, chicanes and mini-islands. This is the next advance," said Roger Vincent, spokesman for the Royal Society for the Prevention of Accidents.

Interest in psychological traffic-calming measures has been growing for a few years: in Britain, London’s Kensington and Chelsea council is discussing taking all ‘road furniture’ off Exhibition Road. Central white lines have been successfully removed in some Norfolk villages, and lines before roundabouts are painted more closely together so drivers feel they are driving faster.

Importantly for politicians and safety campaigners, focus groups and questionnaires also found that psychological measures were much more popular than physical obstacles like humps and cushions.

Janet Kennedy, the main author of the report, thinks this is because the tricks draw on elements of real roads, such as country lanes, where many motorists naturally drive more slowly.

"Residents usually welcome speed-reducing measures such as road humps, but drivers forced to reduce speeds by artificial means tend to resent it," she said. "Drivers tend not to resent having to slow down on a winding country lane or at a hump-back bridge."

The report says it is vital that the psychological measures do not actually increase risk, for example from vehicles hitting trees, and they work best when used with physical traffic calming. It also admits the need for more tests to see if they are still effective after several years, rather than just months.

However, a Department for Transport spokesman said it was so confident in the results that next year it would issue advice to local authorities on when, where and how the measures work best.

"This research is positive but we realise these things won’t necessarily work everywhere, and local authorities will still be the ones to determine the best option for them," said the spokesman.

A Freight Transport Association official said another advantage would be to break up monotonous roads which can make drivers drowsy.

Kevin Delaney, the RAC Foundation’s head of safety, said removing central white lines from roads through villages had been very successful in reducing speeds and accidents, and many more rural and urban roads could benefit from similar changes.

"It has to be done thoughtfully but sometimes if you remove some of the certainty it does make the roads a little bit safer because it does put the onus back on the driver," he said.

So does it work?
Driving sensibly has never been my forte and I was quietly sceptical when, as the Observer guinea pig, I was asked to test the new, psychological, traffic calming measures at the Transport Research Laboratory simulator in Bracknell, Berkshire. The test involved ‘driving’ through rolling countryside interrupted by villages with differing measures. Here are the results:

Village 1
No calming measures
The first village bought out my usual village driving technique: stare at the speedometer, sit religiously at the 30mph line and refuse to go a fragment under. This is not a DVLA recommended technique.

My speed: 30 mph

Village 2
Redbrick ‘narrowing’
Much to my surprise, this measure instantly slowed me down. Not knowing where to find the edge of the road made me drive towards the centre. The fear of other vehicles coming in the opposite direction immediately reduced my speed.

My speed: 27-28 mph

Village 3
Tree ‘buildouts’
These forced me towards the centre, and fear of hitting a tree brought my speed down further. It took my eyes off the speedo by worrying more about what was in the road - which can only be a good thing.

My speed: 25 mph

• Dan Selinger

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Transport Research Laboratory - for a copy of the report.

www.dft.gov.uk

Department for Transport - with facts and figures on road safety.