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Road safety analysis needs to be more sophisticated

I note with interest the correspondence about speed cameras; among the longest to grace *LTT*'s letters pages. Perhaps I can give a fresh perspective to this protracted discussion.

If it is indeed the case that cameras do not lead to reductions in KSIs (killed and serious injuries), one response might be to address obvious loopholes in the system. This would mean reducing the number of unlicensed or uninsured drivers who can speed past cameras knowing that they will not be caught, and concealing cameras and increasing their numbers so that the problem of reverting to speeding after passing a camera is addressed. These issues seem not to have been addressed in the lengthy discussion.

I welcome the questioning of camera effects by statisticians such as Professor Maher. I suggest that the

road safety establishment often fails to understand trends. The intervention under discussion – where drivers are simply asked to obey the law at limited and well-advertised locations – has upset some motorists. But surely rigorous statistical analysis is needed for a whole range of road safety interventions in highway and vehicle engineering, particularly those that reduce the danger perceived by drivers. My own special interest has been the effect of seat belt laws but we need to be aware of the full effects of highway treatments (anti-skid surfacing, felling road side trees, erecting crash barriers etc.) and vehicle modifications (crumple zones, side impact protection systems, anti-lock brakes, air bags etc.)

With all these measures, the “road safety” establishment has failed to account for risk compensation – adaptation by drivers to their lowered perception of danger – and/or conducted inadequate statistical analysis of the intervention (as with the issues raised by the discussion of regression to the mean).

The effect has been a long-term shifting of the burden of risk away from motorised road users on to the users of more benign modes, i.e. walkers and cyclists. Over the last few decades the number of casualties in these groups has declined, but often this is simply because of a – I would argue undesirable – fall in the numbers of trips by these modes. Most troubling is the decline in numbers of people walking and cycling, particularly the young and old, precisely because of the increased danger from motor traffic. This phenomenon is rather more important than the alleged failure of a limited attempt to get drivers to obey the law on speed.

What I note in particular in this debate about speed cameras is how little has changed since John Adams addressed this issue in the Letters section of *LTT* ten years ago (see <http://tinyurl.com/huygv9l>).

Naturally professionals are unwilling to accept that their interventions have not had the effects that they have promised, or that downward casualty trends would have occurred anyway. That doesn't mean that we shouldn't try to reduce casualties, but we should try to do so in ways that do not exacerbate or ignore dangers to cycling and walking.

Apart from this, where does knowledge of risk compensation take us? If drivers find it so difficult to drive properly and within the law (partly because of their increased level of protection provided by the

“road safety” industry), we need a more radical approach to the danger they pose to those walking and cycling. More forceful attempts to protect these groups are required as a priority: these can be through vehicle and highway engineering, as well as law enforcement. If, as risk compensation suggests, there is limited potential to reduce risk-taking overall, it is only civilised to focus on the danger posed to those outside motor vehicles (although reducing danger at source could also benefit car occupants).

Above all, a fuller understanding of risk-taking is required. My suggestion is that genuine progress will require cultural change, to more civilised behaviour based on reducing danger at source, namely from the (ab)use of motor vehicles. That change mainly affects driver attitudes. It also requires that transport professionals have a more self-critical view of their role, for example by not treating current driver behaviour as unalterable.

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Robert Davis
Chair, Road Danger Reduction Forum
London NW10
www.rdrf.org.uk