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Comment and Analysis

Road Traffic Deaths and Injuries

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Road traffic deaths and injuries: a cultural explanation

Dr Peter Wells

Why are so many people killed and injured by road traffic around the world? Why, in particular, are those rapidly motorizing countries suffering burgeoning casualties of epidemic proportions to a degree that has prompted the World Health Organization to make the reduction of such carnage a policy priority? Peter Wells and Malcolm Beynon of Cardiff Business School have looked beyond the usual explanations to focus on the role of culture. The missing ingredient, the authors argue in a recent paper, is relevant not only to an understanding of emergent markets, but also of what happens here in the UK.

Almost everybody here in the UK has a story to tell, of a relative or friend or colleague whose life was lost in a road traffic incident. The UK is, by most measures, one of the safest countries in the world for drivers, pedestrians, cyclists and other road users. Yet we do have distinct high-risk, rule averse behaviours among certain sub-cultures of automobility: examples include young men who steal cars in order to go 'joy riding' or 'airbag surfing', and the so-called 'born-again' bikers who return to using a motorbike after some years of absence. Both groups have a notably higher mortality than average.

While travelling in countries as diverse as Iceland, Brazil, India and the United States it is readily apparent that the myriad ways in which roads are used have very different outcomes in terms of deaths and injuries. Usually, explanations for these differences focus on issues such as the age and condition of the vehicles, the quality of the built infrastructure, the character of the medical system, the official laws and regulations in place, and on socio-economic factors such as poverty. Sometime explanations can also include factors that might be said to increase the risks of being on the road, such as the weather or topography. Of course there is also a recognition that the use of alcohol or other drugs may act severely to impair road users. These are all doubtless contributory factors. In many markets that are relatively new to mass motorisation the contribution to safety from advanced technologies such as airbags or side-impact bars is relatively small, because in these countries the majority of the victims are road users other than vehicle occupants. Moreover, many of the victims are young men who are the primary wage-earners for impoverished families so the true number of victims is in reality much larger. Entire households can be devastated by the premature loss of such individuals.

However, it is a frequent assertion that the majority of such deaths and injuries arise fundamentally from driver error, which is to say a failure to appreciate fully the risks involved in an action or a willingness to ignore those risks. More often than not, such actions are also contrary to the rules of the road. It is this insight that resulted in the research which sought to correlate death and injury rates in countries around the world with some measure of the cultural willingness of their populations to follow the rules. Preliminary research revealed a fascinating study of the diplomats in attendance at the UN in New York. These diplomats had immunity from prosecution, and could

therefore park where they liked and, if they chose, ignore the subsequent fines. What was interesting about the study is that it showed some countries (such as Denmark) never even accumulated a single parking ticket, while some worst offenders (such as Kuwait) not only accumulated a large number of tickets, but also failed to pay any of them. Intriguingly, Kuwait has a very high road traffic death and injury rate relative to the size of the population, the car ownership levels and the road network density.

Unfortunately there is no agreed, comprehensive data source on the degree to which national cultures are rule-following. Even the data on road traffic deaths and injuries is less than perfect despite strenuous efforts by organizations like the World Bank, FIA, UN, and World Health Organization. However the research used two key sources to construct the analysis. First, the country ranking created by Transparency International of public corruption perception was used as a proxy for a general measure of population willingness to follow the rules. Second, the WHO data on road traffic deaths (not injuries), both reported and adjusted to allow for under-reporting, was used as a measure of the rate of road traffic deaths by country.

The results are quite startling. With the unadjusted data on road traffic deaths the correlation with corruption was present, but fairly weak. With the adjusted data, which according to expert opinion more accurately reflects reality, the correlation was positive and robust. That is to say, those countries that had a high level of corruption on the Transparency International index also tended to have a high level of road traffic deaths and injuries.

This is not to say that countries with a long history of motorization are 'better' than those relatively new to it. We have seen in the UK for example that thus far motorists have been slow to accept the message that using a hand-held mobile telephone while driving is not only a traffic offence, it is also highly risky. On the other hand, the incidence of drink-driving is considerably lower than it was following more than thirty years of legislation, educational campaigning and enforcement. Where vehicles are inserted into unequal societies, and into cultures prone to acquiesce to rule-breaking behaviours, then high levels of deaths and injuries are likely to result.

The policy conclusions from the authors are equally important. While much effort is being invested into advanced adaptive safety technologies by vehicle manufacturers and others, these solutions are of limited applicability in many of the newly motorizing countries. The findings suggest that corruption acts as a poison that permeates deep into social attitudes and cultural practices. It is not just a case of bribing police officers to look the other way after a traffic offence has been committed, or of being able to buy a driving licence rather than qualify for one, or even of passing vehicles as fit to go on the road when they are not. While these may be significant instances of corruption as it affects road traffic deaths and injuries, the research we have conducted suggests a deeper, more pervasive issue that can only be resolved by a suite of measures. Putting legal frameworks in place is clearly a starting point. Having the resources to enforce such frameworks is also important. Improving road safety is clearly a matter that demands concerted action by multiple parties and agencies. But beyond this kind of action, our research suggests that road traffic safety is fundamentally explained by the attitudes of road users, and hence it is a battle for hearts and minds. We need to understand a lot more about how different cultures and sub-cultures engage with motor vehicles, and what the consequences are for road

traffic deaths and injuries. Thereafter, we need to construct strategies that can counteract deliberate or negligent rule-breaking, and enhance a sense of prioritising safety above all else. Only then can the scale of carnage be reduced.

Peter Wells, Malcolm J Beynon. Corruption, automobility cultures, and road traffic deaths: the perfect storm in rapidly motorizing countries? Environment and Planning A 2011, volume 43, pages 2492 – 2503. DOI: 10.1068/a4498