

Motorcycles 'keep left' order: Is it viable?

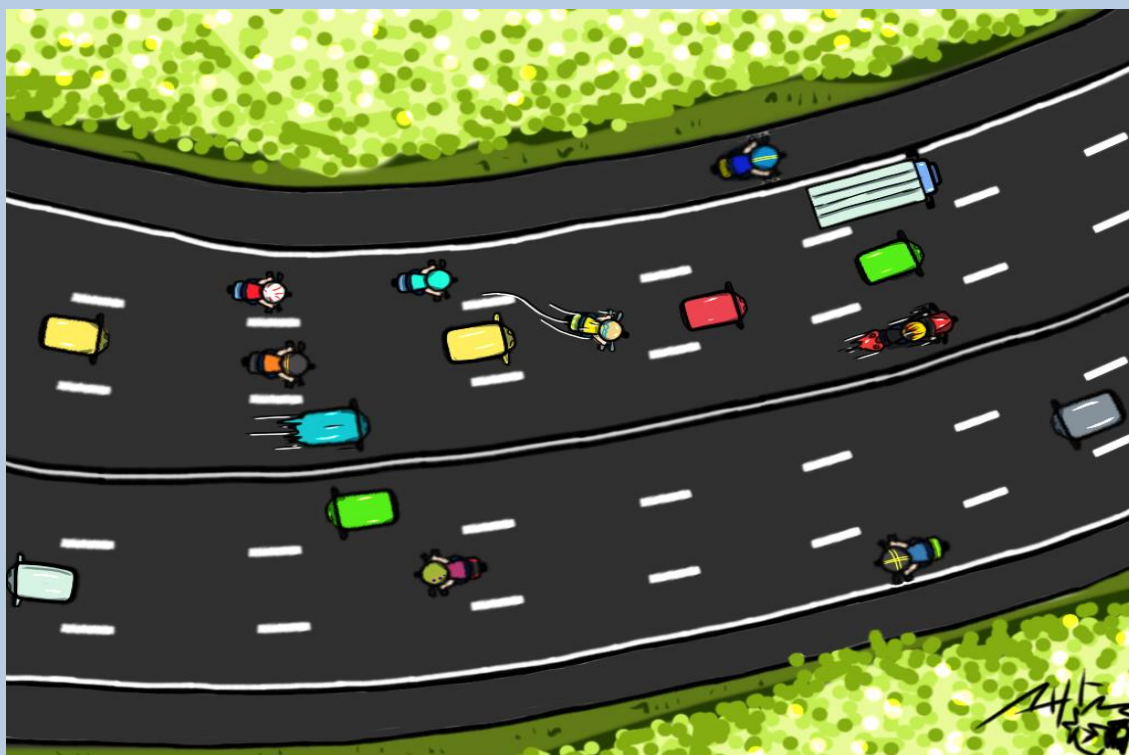
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Motorcyclists swerving in and out of lanes and in between lines of vehicles contribute to traffic conflicts thus creating unnecessary risk of collision. Keeping their travels in dedicated lanes ('keep left' order) as much as possible, may perhaps increase their safety on the road and consequently help reduce road deaths and injuries in Malaysia.

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This paper attempts to briefly discuss the allocation of motorcycle lane in road traffic from a regulatory and best practices perspective while exploring the viability for motorcyclists to travel in a specified lane in circumstances where a dedicated motorcycle lane (exclusive and non-exclusive lane) is unavailable. It should be noted that this work is exploratory in nature and tries to find possible and practical alternatives to improve motorcycling safety in Malaysia.

Unwelcoming Safety Record

For many decades, Malaysia has been experiencing a great challenge to elevate road safety, particularly with respect to motorcycling safety. In 2016, the number of road deaths reached an all-time high with 7,152 fatalities with motorcyclists outnumbering other road users and contributing approximately 63 percent (4,485 deaths). This marked an increase of 282 deaths compared to the previous year, as shown in Figure 1 (left) (PDRM, 2017). Despite numerous awareness campaigns, seasonal operations and road safety programs as well as initiatives, positive and sustainable change in motorcyclist fatality rate seems far from becoming a reality.

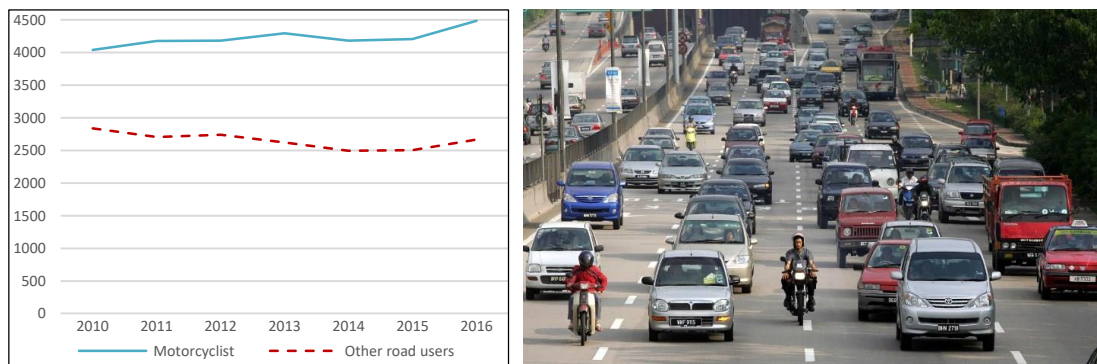


Figure 1: Motorcyclists fatality trend (left) and motorcycles in traffic (right) (Source: PDRM (left); <http://www.bikesrepublic.com> (right))

Disadvantaged in Traffic

By default, the motorcycle is very unstable compared to cars and other vehicles. Its single track design requires a motorcyclist to have good handling skills in maintaining stability and directional control. Having to travel in mixed-mode traffic poses additional challenge to motorcyclists in ensuring their safety. In the absence of dedicated motorcycle lanes, movement of motorcycles in mixed-traffic is observably multi-directional as opposed to other transport modes such as cars and buses. Obviously, the road environment has been developed to be primarily oriented around 4-wheelers, including trucks and buses (Hsu et al., 2003), thus creating lane positioning uncertainty to smaller-sized vehicles such as motorcycles. Among other factors, their relatively narrow physical build, in addition to high acceleration capability, provide opportunities for the motorcycles to advance forward in almost any traffic situations (Figure 1 (right)). Depending on traffic and road conditions, the advisable motorcycle position in the lane is usually a little to the left or right of the centre of the lane, in the track where the tires of a four-wheeled vehicle would move (MTO, 2013). This could be considered the practical position for a motorcycle to keep a safe distance from other vehicles; for the motorcyclist to see and be seen.

Clue in Road Crashes

Past records indicated that involvement of motorcycles in multiple vehicle crashes has been prevalent both in 1-way and 2-way traffic systems, causing more than 50% motorcyclist fatalities (excluding single motorcycle crashes) with more than 60% occurring along straight section of roads (Abdul Manan et al., 2017a). Correspondingly, angular (>26%) and head-on (>17%) collisions configurations of motorcycles with other transport modes had resulted in high fatalities and severe injuries (Roslan et al., 2011).

Unsupportive Regulatory Provision

It is worth noting that the Road Transport Rules are mainly lacking in motorcycle-centric clauses. Most of the time, the topic comes under the subject of ‘drivers of motor vehicles’ except for a special mention on motorcycle safety helmet. In comparison, pedal cyclists and pedestrians have dedicated clauses with regard to their conduct on the road. With respect to motorcycle lane position in traffic, the provision is basically very general and advisory in nature. The Highway Code in Part 2 with the subheading ‘Keep to The Left’ mentions that “*vehicles should at all times be driven on the left hand side of the road, the slower the speed the closer to the edge of the road*” (Road Transport Rules, 2014). A specific statement for motorcyclists includes advice to avoid excessive speeding and weaving in and out of traffic. In brief, lane positioning for motorcyclists travelling on the road is relatively vague, thus potentially allowing undirected movement opportunities to motorcyclists. Correspondingly, the use of emergency lanes as travel lane is prohibited. Lane splitting (riding between lines of moving vehicles) and lane filtering (riding between lines of stopped vehicles) are also not clearly addressed in the regulations and there is no mention of lane sharing between motorcycles and other vehicles (within the same lane) and in return, there is no mention of motorcycle being treated as another vehicle in traffic. Lane splitting is considered a dangerous manoeuvre since the safe clearance between a motorcycle and the line of vehicles is practically very slim. In the event any vehicle attempts to change lane, for instance, then the motorcycle most probably will have very little space for evasive action.

Safety Risks in Mixed-traffic

Unlike cars, motorcycles usually make non-lane-based movement because in many situations, they tend to frequently change travel direction and speeds, regardless of lane width and number of lanes (Nguyen et al., 2014). Correspondingly, lane splitting and swerving are observably a highly common occurrence. It may be a way to escape dangerous situation, or on the contrary, may create hazardous situation through the subsequent move. In short, motorcycles in general travel in a relatively virtual lane and within a lane, there could be few motorcycles travelling together in a possibly parallel alignment. To reduce safety risks, motorcyclists should try as much as possible to avoid the middle and overtaking lanes since that would expose them to left side and right side hazards posed by adjacent vehicles.

Motorcycle-Keep-Left (MKL) Proposition

The motorcycle lane has been long proven effective in reducing motorcycle crashes and consequently motorcycle-related injuries. However, its development and availability has been very limited thus far due to numerous constraints (Abdul Manan et al., 2017b). Given the difference when it was first introduced in the early 1970s and the present time, it is estimated

that more resources and time are needed before motorcycle lanes can become commonly available for use (Radin Sohadi et al., 1995a). Additionally, considering the annually increasing volume of motorcycles and motorcyclists as well as their continuous daily travels on the road, a quick but careful measure is highly needed. This paper proposes that a Motorcycle-Keep-Left (MKL) order be considered as one of the interim measures to arrest the issue of motorcycle crashes. Historically, efforts to get drivers to keep left were mooted many years ago, as depicted in Figure 2 (right). Back then, it involved mainly passenger cars.

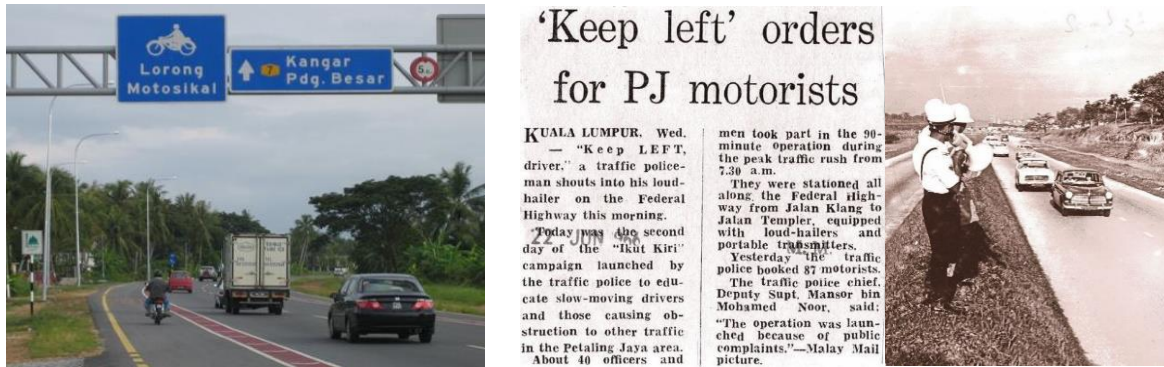


Figure 2: Non-exclusive lane (left) and Keep-left campaign by enforcement agencies in 1960s (right) (Source: Arman Ahmad, 2017)

Moving Forward

MKL may seem simplistic in concept but has good potential to be realized since it may not require extensive investment in roads infrastructure, save for new road signs. The idea is for motorcyclists to keep left as much as possible throughout their journey so that their movement become more predictable to all road users. MKL potentially promotes disciplined riding on roads and discourages risky manoeuvres such as swerving and lane splitting. Awareness and campaigns on MKL are inevitably necessary to garner support and commitment from both stakeholders and the public. Nevertheless, it is noted that getting motorcyclists to keep their travels in a specified lane poses a challenge considering that all the while their movements are basically multi-directional, loosely regulated and with lots of navigational autonomy. Other matters such as speeding and overtaking also warrant further scrutiny.

Motorcyclist safety is best guaranteed through preventive measure. In multi-mode traffic system, segregating motorcycles from other transport modes has been proven to reduce over 30% of road crashes (Radin Sohadi et al., 1995b; Ibrahim et al., 2018). Though dedicated motorcycle lane was introduced decades ago in Malaysia, its availability to date is rather limited due to numerous constraints and limitations. In other words, the potential benefits of segregating motorcycles are still far short of reality. For interim measure, getting motorcyclists to mainly travel within specified lane maybe one of the options to ensure their discipline while on the road and make their travelling more predictable; both for themselves and other road users. Since the traffic in Malaysia utilizes the left lane, requiring motorcyclists to keep left could be a noteworthy countermeasure to reduce the risk of crashes.

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