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EXTREME BEHAVIOUR ON 2 WHEELS

- is mainly about illegal riding

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Background

A majority of the motorcyclists are safety-conscious riders. They don't take unnecessary risks and mainly enjoy riding a motorcycle. It is essential for riders to have a valid driver's license while riding a motorcycle, according to studies conducted by SMC, VTI and NTF (1, 2).

However, there are some factors that recur again and again in fatalities among Swedish motorcyclists. SMC has labelled the factors extreme behaviour and defined four factors within the concept. These are: riding without a valid license, riding under the influence of alcohol or/and drugs, aggressive riding and high speed in combination with reckless driving. The proportion of deaths with one or more of these factors is increasing, while the number of motorcycle accidents is falling. It is becoming very clear that the problem of extreme behaviour is mainly about the group of riders that lack a license. The group is difficult to reach and influence with traditional road safety measures.

Illegal riding- riding without a valid A-license

Many of the motorcyclists who die in motorcycle accidents have no valid license, have never undergone a driving license education and accordingly, not the knowledge to ride a motorcycle. Within the group without a valid license, the other three factors in extreme behaviour are overrepresented. The proportion of non-license holders was 25 percent of all fatal motorcycle accidents from 2005 to 2010 (Table 1).

Unfortunately, this was not the entire truth about the fatal motorcycle accidents 2005 - 2010. Many of the illegal riders did not own the motorcycle they rode. The motorcycles were also often unregistered, disabled and uninsured and thus not allowed to ride on the road. One fifth of the riders in this group did not wear a helmet when they were killed, even though it's been required by law since 1975. Finally, a majority, 60 percent, were intoxicated and/or under the influence of drugs in the group fatal motorcycle accidents without an A-license.

Killed MC riders, 2005-2010	Without license	All fatal accidents
	65	263
Single accidents	25 %	41 %
Average age	30	39
Alcohol or/and drugs	60 %	26 %
Legal owner of MC	32 %	63 %
No helmet	20 %	7 %
Cross/enduro	22 %	6 %
Un registered MC	12 %	3 %
MC not in use	35 %	11 %
Speed more than 30 +	42 %	36 %
Dark, dusk, dawn	46 %	24 %
Outside village	46 %	70 %
City street	55 %	27 %
If alcohol, promille	1,6	1,4

Table 1. Fatalities MC 2005-2010, without a license, compared to all fatal accidents. Source: Trafikverket (the Swedish Transport Administration)

Fatal motorcycle accidents 2011-2012, with and without driver's license

SMC has studied all fatal motorcycle accidents in Sweden 2011-2012 and compared the group that lacked an A-license with those who had an A-license. The difference from Table 1 is that the groups are shown separately in Table 2. 25 out of 72 fatalities did not have a valid A-license which corresponds to 34,7 percent. The average age is lower among the group without driver's license, 31,5 years, but shows that the problem is not about young persons.

When comparing the group without an A-license with those who had a driver's license, it is clear that the non-license group committed a series of traffic offenses during the ride that led to the fatal accident. To begin with, a majority were influenced by alcohol and/or drugs. 72 percent were under the influence in the group without an A-license compared to eight percent in the group with an A-license. It is obvious that riding without a valid license and being influenced by drugs and/or alcohol increases the risk of severe accidents.

No motorcyclist with an A-license died without wearing a helmet while 5 people of 25 who had no license did not use a helmet. Riding without a valid license not using a helmet increases the risk of serious injury or death when an incident occurs.

40 percent of the group without a valid license owned the motorcycle they rode at the fatal accident, compared with 85 percent among those who had an A-license. Riding without a license on a motorcycle you are not familiar with, increase the risk of being killed or seriously injured.

Two thirds of those who had no A-license was riding a motorcycle that was unregistered/out of traffic/uninsured. In other words, they rode a motorcycle that was illegal to use. This problem doesn't exist in the A- license group where only one drove a motorcycle with immobilisation, since a periodic inspection was not done within the prescribed time.

Killed 2011-2012 - with and without license

	Without A-license number (%)	With A-license number (%)
Number	25 (35%)	47 (65 %)
Average age	31,5	42,6
Alcohol	14 (56%)	3 (7%)
Promille, average	1,33	1,66
Drugs	8 (36 %)	1 (2%)
Both alcohol and drugs	5 (16 %)	0
Total alcohol and/or drugs	18 (72%)	4 (8%)
Without helmet	5 (20%)	0
Owner	10 (40%)	40 (85%)
Unregistered/out of traffic/not insured	17 (68 %)	1 (2%)
Cross/enduro	5 (20%)	0
Supersport	12 (48 %)	23 (49%)
Single	12 (48%)	13 (28%)
Collision	13 (52%)	31 (66%)
Wild animals	0	3 (7%)

Table 2. Killed 2011-2012, with and without motorcycle license. Source: Swedish Transport Administration in-depth studies 2011-2012

What happened in the collision?

SMC has looked at the fatal accidents where motorcyclists were killed in a collision with another vehicle. A Norwegian theme analysis of fatal motorcycles accidents compared motorcyclists who did everything right with the extreme behaviour group to see at what extent the riders caused the accident (3). The Norwegian study showed that in accidents where the motorcyclist did everything right, the other party caused the accident in 27 of the 64 collisions. In the group extreme behaviour, the motorcyclist was responsible in 45 of 50 accidents. This issue has never been studied in Sweden but statistics suggest similar proportion (Table 3, next page).

Fatalities with more vehicles involved than a motorcycle 2011-2012 (number)

	Without a license	With a license
Total collisions	13	31
Other vehicle left turn/U-turn	5	14
Un-attentive car driver	0	1
Car on wrong side	1	2
Junction		3
MC wrong side	5	10
MC hitting car from behind	1	1

Table 3. What happened in the collision? Source: In-depth studies of fatal motorcycle accidents 2011-2012. The Swedish Transport Administration

Although SMC doesn't have access to all the facts in the in-depth studies or knowledge of the judgments in all accidents where the motorist has been prosecuted, the statistics indicate that the ratio in Sweden is comparable to Norwegian conditions. Motorcyclists with an A-license are affected to a greater degree by other road users' errors in traffic.

Illegal riding among severely injured

There is no overall picture of whether illegal riding without an A-license also occurs among the severely injured. SMC has therefore studied all police-reported motorcycle accidents with seriously injured motorcycle drivers in statistics from the Swedish Transport Agency. The statistics also included age, motorcycle model and driving license. The statistics clearly show that riding without a valid A-license is an important factor not only among the fatalities, but also among motorcyclists who are seriously injured.

760 persons were seriously injured during the period 2010-2012 on a motorcycle with 2 wheels according to police-reported accidents in STRADA. 56 were women (7%) and 704 male (93%). The average age was 42,48 years.

Information is missing about driving licence for 53 persons (7 %) out of 760 severely injured. The group includes 50 men, one woman and two with unknown sex. There are probably people in this group who doesn't have a valid driver's license.

117 out of 760 severely injured didn't have a valid A-license, which represents 15% of all severely injured in motorcycle accidents. 100 were men and 17 women. 72 out of 117 found lack both driver's license and learners permit. The rest have been riding a motorcycle with the wrong license competence.

Difference between sexes

More women die as passengers than as riders of motorcycles. Usually it is men who are killed on a motorcycle without an A-license. Two out of 28 killed motorcyclists 2011-2012 without an A-license were women. It is a high number from a historical perspective. SMC is only aware of a couple of accidents in the past where a female rider among the fatalities lacked an A-license. Illegal motorcycle riding is very much a male phenomenon and problem.

Among the seriously injured there were 17 women and 100 men who had no driver's license. It was significantly higher proportion of women who had the wrong competence in the driving license compared with men, 64% respectively 34%. This means that two-thirds of the severely injured men had neither driver's license or learner's permit, compared with one third of the women.

SMC scans articles in media every day regarding motorcycles in any form. All articles related to extreme behaviour are published on the website: <http://bit.ly/1gJp9Gz> All perpetrators are men in the approximately 150

articles from 2012 to 2013 that describes some kind of extreme behaviour, mainly illegal riding a motorcycle under the influence of drugs and/or alcohol.

Does this match the picture of Swedish motorcyclists?

There are few similarities with Swedish motorcyclists in these statistics if you look at SMC/NTF study of attitudes to road safety in 2010 (1) or the recent SMC/VTI study of motorcyclist's attitude towards speed (2). Both studies state that all have a valid motorcycle license. The attitude to riding drunk and/or under the influence of drugs is clearly distancing. Motorcyclists had a much better attitude towards alcohol and drugs compared to motorists. It is a must to pay vehicle tax, motorcycle insurance and only ride a motorcycle registered for road use. It is also obvious that motorcyclists take care of their vehicles since they have the best approval rate of all vehicles in Sweden according to RWT statistics from Bilprovningen year after year. There is only one factor where the motorcyclists are "worse" than car drivers - motorcyclists are inferior to motorists to obey the legal speed limit.

What can the police do?

It is mainly the police who are able to take action against riders without a license. The Norwegian theme analysis showed that 80% of this group was found in the criminal record of economic crime, drugs, violence, vandalism, and other traffic offenses (3). Measures suggested by the Norwegian analysis working group were that the police should be authorized to take action against this specific group. Measures could be control and sanctions directed specifically to the group and control and monitoring of youth at risk.

It is possible in Sweden to compare fatalities with criminal records. It's obvious from the articles at the SMC website that the persons are rarely prosecuted and convicted for just one crime. The Swedish police should have a mandate to prioritize the group without an A- license since it is obvious that they have put themselves on the side of the law, not only in terms of riding without a license.

Driver's license checks on a large scale should be prioritized. The proportion of non-license holders are found not only among those who are killed, but also among the seriously injured. No one has looked into how many road users that are driving without a license. SMC asked a question on www.sporthoj.com: How many was stopped by the police in the summer 2013 for a routine check of driving license? The website has hundreds of thousands of visits from sportbike riders each month. 420 of 3962 answered yes to the question, which indicates that the risk of being stopped by the police to show the license is low.

When SMC has looked the indepth studies of killed motorcyclists, the police reports show that a breathalyser test is not taken of all road users involved in a fatal accident. Data is available for all killed motorcyclists but is missing from some of the car drivers. For SMC, it is obvious that everyone involved in an accident must be tested for alcohol and/or drugs. It is also desirable that mobile traffic is investigated in all fatal accidents.

SMC is willing to cooperate with the police on the issue of illegal riders on motorcycles.

What can the rest of us do?

It is obvious to SMC that all drivers of motor vehicles should have a driving license and that this must become a priority in the national Vision Zero work to halve the number of fatalities and reduce serious injuries by 25% by 2020. SMC calls for all involved stakeholders to include driving license as a top priority immediately. Sweden would already have achieved the Vision Zero target 2020 for motorcyclists if everyone who rode a motorcycle 2011-2012 also had a valid A-license.

SMC also calls for annual statistics of driving license competence among the fatalities and seriously injured from the Swedish Transport Agency and the Swedish Transport Administration. No one knows about the proportion in other types of vehicles. There are systems to measure and monitor the proportion of drivers/riders with or without a driving license annually.

It is extremely important that the problem is made visible to sensitize all various stakeholders, like insurance companies, organizations, driving schools, government agencies, courts, politicians, families and friends. If knowledge is spread it is possible for everyone to both inform and take action against riding and driving without a valid license.

It is also important to change the attitudes in society towards road safety. The statistics indicates that it is accepted to ride without a valid license in some groups. SMC believes that a road user education should start at school age, long before the license age. The education from school should lead naturally to an active choice to take a driver's license or not to ride or drive a vehicle at all. Regardless the driver's license, traffic sense an issue for the whole community, including pedestrians and cyclists.

The visible actions taken to reduce accident rates on motorcycle are more stringent requirements for A-licenses by EC directives. The age limit has been increased, the requirements for test vehicles have been tightened and more riding tests have been introduced. In parallel, Sweden introduced mandatory risk training for motorcycle and raised the fees for riding tests on motorcycle. Sweden has the highest test costs in Europe. The number of new license holders on a motorcycle has declined almost every year since 2004. Sweden has the highest known proportion without an A-license among those who died on a motorcycle.

The changes of A-license regulation has not led to reduced accident rates. On the contrary, the proportion of killed without a valid license increase every year. The average age of these are well above 24 years, the new higher age limit for the A license. The number of new license holders on motorcycle is falling. Women are rejected a greater extent than men in the riding tests, although women have a less accident risk once they have the license.

For SMC, it is obvious that we need to change the motorcycle license system. The world's leading road safety experts has put education as the primary measure to increase safety among motorcyclists. Based on this, we must make access to education possible and offer an education that is cost-effective and thus accessible to many. Experience, not the riding tests, must be seen as an important part of driver/rider training.

SMC proposes that Sweden applies to become a test country for a new driving license system on motorcycles in EU. The basis of our application is obvious; nearly half of those who die on a motorcycle didn't have a license at all. Sweden can keep stepped access but with only one basic education, one riding test and one theory test. This means that a 16 year old can take a license on a motorcycle with low effect and work their way up to more powerful motorcycles after two years in every vehicle category.

Two years of experience in each license class provides experience, which is ranked high as a measure for safety by motorcyclists. Experience has more effect on road safety than repeated driving tests. The possibility to coordinate components of education, risk training and testing for B-competence should also be examined.

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1. Study on motorcyclists' behavior and attitude towards road safety, Maria Nordqvist SMC and Nils-Petter Gregersen NTF, 2010
 2. Motorcyclist attitude to speed and acceptance of speed limits, Maria Nordqvist SMC and Nils-Petter Gregersen VTI, 2013
 3. Temaanalyse, Dødsulykker on motorsykel 2005-2009, the Public Roads Administration in 2011

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