

THE GERMAN APPROACH TO SOLVING THE PROBLEM OF DRIVING UNDER THE INFLUENCE OF DRUGS

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ABSTRACT: In August 1998, a new law (§ 24a StVG) into force in Germany sanctioning people suspected of driving under the influence of certain illicit drugs. The drugs are: amphetamine, MDMA, MDE, cannabis, cocaine, heroin, and morphine (heroin detected as morphine; cocaine as benzoylecgonine). According to the law, the presence of any of the drugs in any concentration in the blood of a subject is prima facie evidence of his/her impairment. The law is so new that there are no general guidelines followed by all the states in the Federal Republic of Germany.

KEY WORDS: DUID; Illicit drugs; Drug testing.

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In Saarland, when a driver is stopped (usually at a check point), and the police officer suspects the driver has drugs in his system, the officer has two choices:

1. order a blood test if he thinks the subject is unfit to drive safely, or
2. he can first ask for a urine test if the signs of impairment are not very strong.

In the first situation where a blood sample is ordered directly, the case is referred to the court for criminal offense (if any psychoactive drugs are detected). The same procedure is followed in the case of an accident or when the police observe unsafe driving manoeuvres.

If in the second situation the urine test is negative, the subject is allowed to go home free with no penalty. However, if the urine test is positive, a blood sample is ordered. If any of the banned drugs of § 24a StVG are detected in the blood, the subject is charged by an administrative offense which carries a fine of up to DM 500 (255 EUR) and a one month suspension of driver's license.

The success of this approach depends entirely on the accuracy of the officers' observations and the reliability of the urine and blood tests. The urine tests are presently under investigation in eight European countries in the ROSITA project. Laboratories performing blood tests must document their proficiency by mandatory participation in the GTFCh proficiency program. Furthermore, the police officers have to be trained to detect even moderate signs of drug impairment. Such a training program is now available in Germany and is being translated into other languages.

	Analytical Limit (No proof of impairment required)	Impairment (No concrete endangering)	Impairment (Concrete endangering of a person)
ALCOHOL			
Type of offense	Administrative	Criminal	
Legal basis	§ 24a, I, StVG ¹	§ 316, StGB (impairment presumed at 0.11 % BAC)	§ 315c, StGB (impairment presumed at 0.11 % BAC)
Legal sanctions and penalties	Limit: 0.05 % blood (0.25 mg/l breath) Fine: max. 1,000 DM Limit: 0.08 % blood (0.40 mg/l breath) Fine: max. 3,000 DM	Prison: max. 1 year, or Fine: max. 360 daily rates	Prison: max. 5 years, or Fine: max. 360 daily rates
	Driving ban: 1 - 3 months	Revocation of drivers license	
DRUGS / MEDICATION			
Type of offense	Administrative	Same as for Alcohol	
Legal Basis	§24a, II, StVG		
Legal sanctions and penalties	Limit: Zero in blood (for special drugs of abuse) Fine: max. 3,000 DM and Driving ban: 1 - 3 months		

Fig. 1. Legal situation about alcohol, drugs and driving in Germany.

The legal situation about drugs and driving in Germany is shown in Figure 1. Two kinds of offenses exist in Germany, when alcohol is involved: administrative (§ 24 a Street Traffic Law; StVG) and criminal (§ 316, § 315 c, penal code; StGB). The criminal offense is linked to impairment, without or with concrete endangering a person or things of important value, or an accident. The legal limit for alcohol is 0.11%. If the concentration is between 0.05% and 0.11% it is an administrative offense, if none is endangered; otherwise it is a criminal offense. Even below 0.05%, down to 0.03% it can be a criminal offense, if an accident happened or any other severe traffic violation occurred.

The same situation exists with drugs. If an impairment can be proven, it is a criminal offense with identical fines. Since exactly one year, a new law has come into force, which bans any concentration of special drugs of abuse in blood as an administrative offense.

The banned drugs are: amphetamine, MDMA, MDE, cannabis, cocaine, heroin, morphine. The corresponding analytes are amphetamine, MDMA, MDE, tetrahydrocannabinol, benzoylecgonine, morphine. The law is fulfilled, when one of these analytes can be identified in blood. Exceptions are made if a drug is prescribed for a special treatment.

The synopsis of the two laws is shown in Figure 2. In cases of an administrative offense, the scope of investigation is limited to the above listed drugs, including alcohol. In criminal offenses all psychoactive drugs must be involved. The suspicion in criminal offenses arises mostly when an accident happened or a severe driving fault occurred. At checkpoints the police officers identify drivers mostly in cases of administrative offenses. This comes from the focus of suspicion. Investigations according to § 316, § 315

c are made when a subject shows visible signs of impairment (extremely slow reaction, confusion, unsteady walk). Offenses against the administrative law are already fulfilled when recent drug consumption can be concluded (red conjunctiva, slow pupil reaction to light, delayed reaction, sleepiness). The level of evidence must be high in criminal offenses. For administrative offenses, where the sanctions are much lower, the level of evidence can be inferior. However, the determination of the drugs in blood must be of the same high quality in both cases, requiring gas chromatography-mass spectrometry as a standard. Further sanctions are revocation of the drivers license and a driving ban of one to three months respectively.

To effectively fulfill the legislative intent, the police officers, who control drivers, must be trained to recognize subjects driving under the influence of drugs.

“Drug recognition in road traffic”, a training program initiated by the Federal Highway Research Institute, has been available to police training schools since September 1997. The program aims to enable police officers to recognize people driving under the influence of drugs and/or pharmaceutical products more reliably.

A panel of experts, headed by the University of Saarland’s Institute for Forensic Medicine, was created at the end of 1994 to draw up the training program; the program

	§ 316 StGB	§ 24a StVG
type of offense	criminal offense	administrative offense
scope of investigation	all psychoactive drugs	list according to the law including alcohol
arousal of suspicion	accident, driving fault, check point	check point (accident, driving fault)
focus of suspicion	impairment	recent consumption
level of evidence	high	low
required evidence in blood	high (gaschromatography / mass spektrometry)	
further sanctions	information to the administrative authority withdrawal of license driving ban administrative measures	

Fig. 2. Synopsis of § 316, § 315 c STGB (panel code) and § 24 a StVG (traffic law).

was completed in 1997. The fact that the panel was composed of experts in traffic and forensic medicine, toxicologists, practitioners, jurists and police officers guaranteed that the topic would be dealt with in a comprehensive, comprehensible, and well-balanced

manner relevant to actual practice. It is in use meanwhile in ten of the sixteen states of Germany. The program is developed from the American DRE program, but with major modifications because of the different legal (rights of police officers, evidence in court) and technical procedures, traffic related differences, and a deviating drug panorama. It is a one week training program for “drug experts” (Figure 3) and a second, lower level educational program of two half days with basic facts for the training of all police officers. Translations into other languages are already made or under discussion. Presently, an update, according to the new legal situation, recent information on new drugs, and experience of the police with the existing version, is being prepared.

The program was introduced in May 1997 in the state of Saarland. In Figure 4, the development of the number of cases (blood samples delivered to the laboratory of the Institute of Legal Medicine) is shown. The Institute of Legal Medicine analyses all

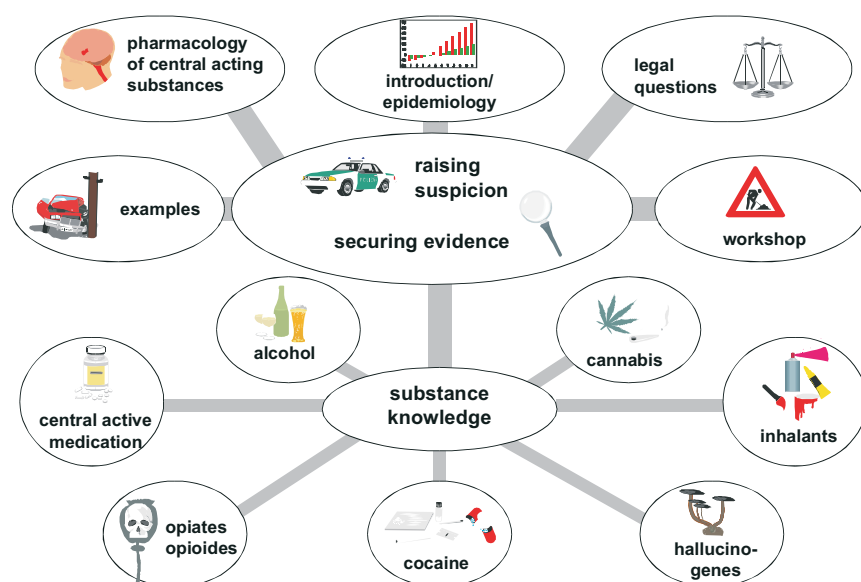


Fig. 3. Scheme of the training program drug recognition in road traffic for police officers.

forensic cases of the state (about 1 million inhabitants). There is a continuous increase in the number of cases, where blood samples had to be analyzed for DUID. Nevertheless, the detected number of accidents under the influence of drugs remained rather stable. However, a dramatic increase of cases came in August last year with the new law (§ 24 a StVG).

The most important part of the training program is a check list for the police officers, where they document all special observations, symptoms of drug use and signs of impairment (Figure 5). Of course, a roaring or stalled engine is not a sign of impairment,

neither are bloodshot eyes. But it is a signal for the police officer to look at the driver more closely.

To verify the decisions of the police officers, to handle a case according to an administrative or a criminal offense, the check list was fitted with points for conspicuously and impairment respectively, according to the demonstrated scheme (Figure 6). For every box a maximum of three points could be reached, up to a maximum of all together 20 points for a subject.

In Figure 7, the distribution of the “awarded” points is listed among the DUID cases which came into the laboratory last year until the end of July. The mean value is 5.6. The cases with zero points are mostly accidents, cases where drugs could be found, or the subject confessed to have used drugs.

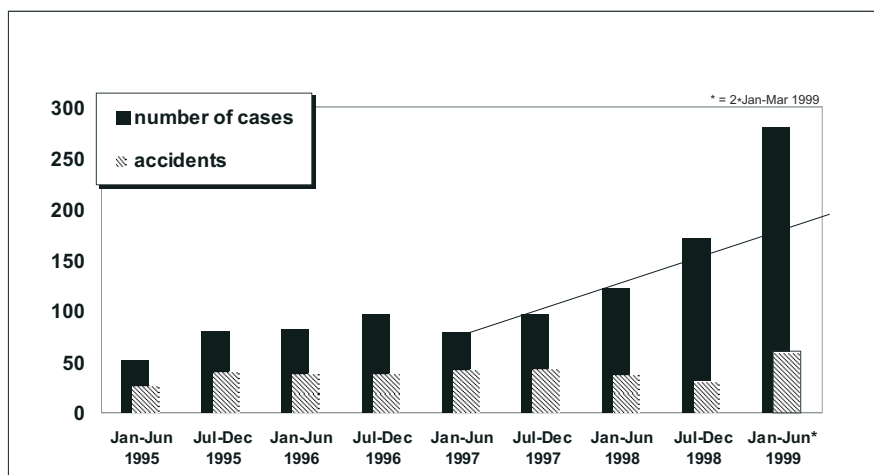


Fig. 4. Development of the number of DUID cases in the state of Saarland.

In cases, where the investigation of the police went according to an administrative offense only (Figure 8), the mean value of points of conspicuously was 4.3. In cases of criminal offense, a mean value of 6.8 points was documented. Disregarding the zero point barks, a normal partition with a mean value of about seven and four respectively can be observed. Probably this will be more obvious with an increasing number of cases. However, both partitions overlap to an remarkable extend. The reasons are, that not all police officers have the same experience. One group of officers has had more than 200 cases out of 350 in 1999. Others have only ten or twenty, which is still a good rate to improve experience.

In the criminal cases, in 75% the prosecution authorities and the court follow in their final decision the initial charges of the police. This is based on approximately 30 court cases, where members of the Institute of Legal Medicine were expert witnesses so far.

Police observations on reduction in driving fitness

Annex to report on		
Surname: _____		First name: _____
		Date: _____
Incident: _____		Blood test no: _____
Observations on driving style, weather and road conditions		
Driving style: <input type="checkbox"/> no own observations <input type="checkbox"/> safe <input type="checkbox"/> unsafe <input type="checkbox"/> swerving about <ul style="list-style-type: none"> • deviation from straight line by up to m • number of swerves • observed over a distance of m <input type="checkbox"/> unsuitable speed <input type="checkbox"/> right of way ignored <input type="checkbox"/> attracted attention in other way	Vehicle operation: <input type="checkbox"/> stalled engine <input type="checkbox"/> unsure gear changes <input type="checkbox"/> engine roaring <input type="checkbox"/> other	Vehicle faults: <input type="checkbox"/> no <input type="checkbox"/> yes, describe
	Road condition: <input type="checkbox"/> good <input type="checkbox"/> bad <input type="checkbox"/> work site <input type="checkbox"/> well lit <input type="checkbox"/> poorly lit <input type="checkbox"/> dry <input type="checkbox"/> wet	Weather conditions: <input type="checkbox"/> rain <input type="checkbox"/> ice / snow <input type="checkbox"/> strong wind / storm <input type="checkbox"/> fog <input type="checkbox"/> daylight <input type="checkbox"/> dusk <input type="checkbox"/> dark
Observations when stopped or encountered		
Reaction: <input type="checkbox"/> normal <input type="checkbox"/> delayed <input type="checkbox"/> extremely slow	Unusual physical signs: <input type="checkbox"/> none <input type="checkbox"/> sweating <input type="checkbox"/> shaking <input type="checkbox"/> agitated <input type="checkbox"/> vomiting	Appearance: <input type="checkbox"/> clean and tidy <input type="checkbox"/> unkempt <input type="checkbox"/> neglected
Command of German language: <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> limited	Speech: <input type="checkbox"/> clear <input type="checkbox"/> stuttering <input type="checkbox"/> slurred <input type="checkbox"/> mumbling	Response / orientation: <input type="checkbox"/> sleepy <input type="checkbox"/> easy to wake <input type="checkbox"/> in deep sleep / unconscious <input type="checkbox"/> orientated <input type="checkbox"/> confused
Mood / behaviour: <input type="checkbox"/> quiet, in control <input type="checkbox"/> excited <input type="checkbox"/> strangely cheerful <input type="checkbox"/> impassive <input type="checkbox"/> doesn't keep distance <input type="checkbox"/> provocative <input type="checkbox"/> aggressive <input type="checkbox"/> tearful	Getting out of the vehicle: <input type="checkbox"/> normal <input type="checkbox"/> unbalanced <input type="checkbox"/> has to hold onto vehicle	Walk: <input type="checkbox"/> steady <input type="checkbox"/> dragging <input type="checkbox"/> unsteady <input type="checkbox"/> staggering
Smell of alcohol: <input type="checkbox"/> yes <input type="checkbox"/> no		Alcohol test <input type="checkbox"/> yes, at a.m./p.m.% _{oo} <input type="checkbox"/> no <input type="checkbox"/> refused <input type="checkbox"/> cannot be carried out
Eyes: <input type="checkbox"/> normal <input type="checkbox"/> red conjunctiva <input type="checkbox"/> watery / shiny <input type="checkbox"/> agitated	Pupils: right left <input type="checkbox"/> approx. ...mm approx. ...mm <input type="checkbox"/> immediate reaction to light <input type="checkbox"/> slow reaction to light	Light conditions at place of examination: <input type="checkbox"/> daylight <input type="checkbox"/> dusk <input type="checkbox"/> night / street lighting <input type="checkbox"/> night / interior lighting
Other observations (all powders, tablets etc. found, other peculiarities in the car, on the person; continue on reverse side if necessary): _____ _____ _____		
Behaviour during official interview: (duration: from : till :) <input type="checkbox"/> stayed the same <input type="checkbox"/> increasingly strange <input type="checkbox"/> became more normal		



Observed by: _____ Name _____ Signature _____

Fig. 5. Checklist, used by police officers to document observations, and behavior of the subject.

Observations when stopped or encountered		
Reaction: normal 1 delayed 1 extremely slow 2	Unusual physical signs: none sweating shaking agitated vomiting	<div style="border: 2px solid black; border-radius: 50%; padding: 10px; width: fit-content; margin: 0 auto;"> Maximum: 20 points </div>
Command of German language: yes no limited	Speech: clear slurring 1 slurred 2 mumbling 3	Response/ orientation: sleepy easy to wake 1 in deep sleep/unconscious 3 orientated confused 2 max.3
Mood / Behaviour: max.3 quiet, in control excited 1 strangely 1 cheerful 1 impassive 1 doesn't keep distance 1 provocative 1 aggressive 1 tearful 1	Getting out of the vehicle: normal both: 2 unbalanced 1 has to hold onto vehicle 2	Walk: steady 1 dragging 1 unsteady 2 staggering 3 max.3
Eyes: normal red conjunctiva 1 watery/shiny 1 agitated 1	Pupils: right left ap. mm ap. mm immediate reaction to light slow reaction to light 2	2 (if <3 mm or >6 mm); 3 if 3 mm or 6 mm and slow reaction to light
Behaviour during official interview: (duration: from : till :) stayed the same increasingly strange 2 became more normal 2		

Fig. 6. "Awarding system" in the checklist.

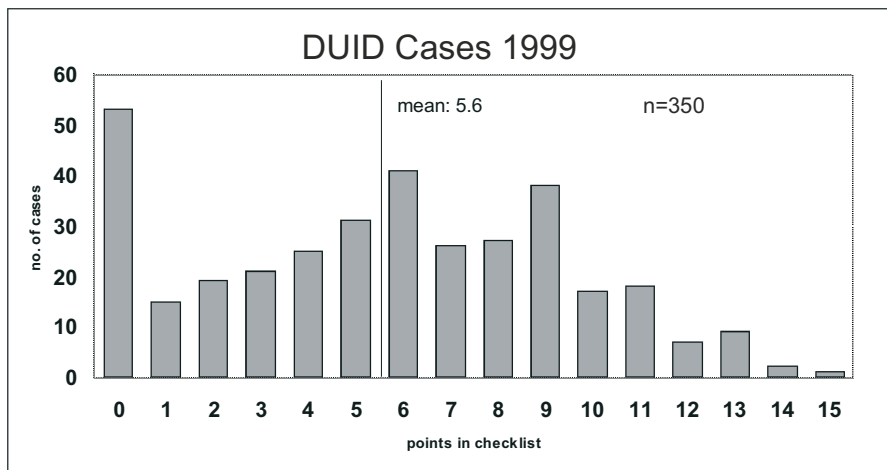


Fig. 7. Distribution of the "awarded" points in 350 DUID cases in 1999.

No feedbacks come from the administrative cases to the institute, unless the subject takes an appeal. Well documented observation, and convincing statements of the police

officers, when they testify in court, together with the expert opinion, are essentials for the outcoming results.

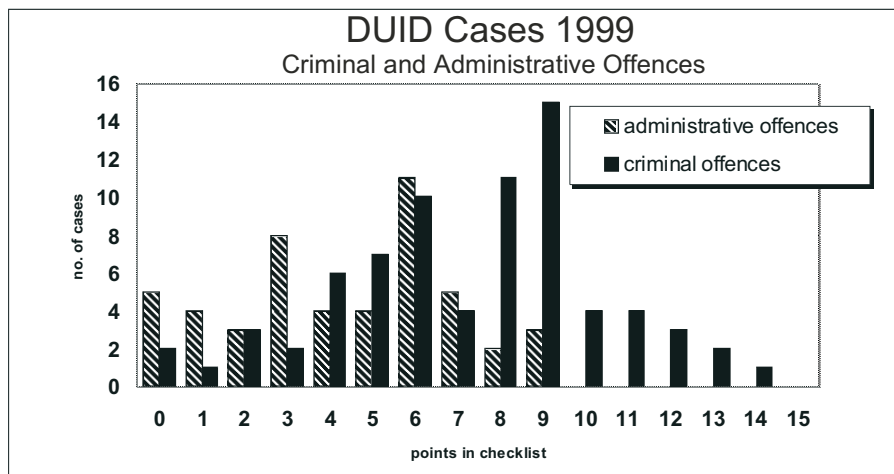


Fig. 8. Distribution of the awarded points in 77 DUID cases § 24 a StVG and 182 DUID cases § 316, § 315 c StGB with alcohol concentrations < 0.03% from 1999.