

# Misuse of Ecstasy" and Participation in Traffic Evaluation of Case Data and Legal Basis of Punishment

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## Key words

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## Abstract

With regard to our "mobile society" on the one hand and the problems of drug consumption among younger people on the other hand we wanted to enlighten the special field of "designer drugs", participation in traffic and legal punishment.

## Introduction

Mobility is an important factor of spare time behaviour in our society. Even young people take part in this mobility using various vehicles, and a higher accident risk for this population is well known (1, 2). In this context a lack of driving practice and a use/misuse of various drugs is significant (3 - 6). The knowledge about drug consumption among young people points out that alcohol and cannabis are of great importance, but other drugs for example "Designer drugs" ("Ecstasy") are relevant as well (7, 8). With a special point of view to the legal basis of punishing the consumption of psychoactive substances by traffic participants we wanted to get a survey of the participation in traffic after the consumption of "Ecstasy" in Cologne.

## Material and Method

All analyses of blood and urine samples with positive results for "Ecstasy" in the years 1994 to 1997 (analysed at our Institute) were collected. The circumstances of observation were researched with the help of files from the investigations in order to determine whether there was active participation on the roads or traffic offences. All cases with active participation in traffic were selected. Items as age and gender, kind and time of mobility, reason for police control, documentation of conspicuous behaviour and all identified drugs were listed. The survey is based on police reports, traffic offence charges, so called "Torkelbogen" (police officer's description of remarkable behaviour concerning drug or alcohol use), the physician's report and on the results of the toxicological analyses.

## Results

The use of "Ecstasy" was examined in a total amount of 150 cases in the 4-year-period. Active road use could only be determined in 33 cases or 22%. Most of them were male, only three female, and they were aged  $24 \pm 5$  years.

Table 1: Total amount year-by-year, consumption of "Designer drugs" with and without road use

Year	Detection of Designer drugs <b>with</b> participation in traffic	Detection of Designer drugs <b>without</b> participation in traffic
1994	3	31
1995	12	33
1996	13	38
1997	5	15

In the field of time checking, or of being noticed, both evening and night hours as well as weekends were represented strikingly often: 20 people were checked between 6:00 p.m. and 6:00 a.m.; 22 cases took place between Friday and Sunday.

The several reasons for being checked are listed in the picture (see Table 2).

Table 2: Reason for being checked

Reason for being checked	total number of cases
routine control by police	15 (46%)
wobbly driving (incl. disregard of traffic sign)	13 (39%)
accident	5 (15%)

One main body of police checks was "routine": During the control conspicuous behaviour or physical failures were ascertained, which presented grounds for taking a blood and/or urine sample.

A total of 18 people showed the various driving mistakes and was checked by the police because of their wrongful behaviour or an accident (mostly driving into a fore driving or parking car).

The toxicological analyses were predominated by a combined consumption of several drugs; a majority (32 persons or 97%) had taken 1 – 2 additional substances. An overview of the toxicological analysis is given in table 3.

Table 3: Toxicological results of blood and/or urine specimens

detected drug	total amount of detection
designer drugs	33
cannabis	28
alcohol	19
cocaine	11
heroin	2

## Discussion

The evaluation of our data yielded only a small group of "Ecstasy"-consumers with ascertained, active road use during the period of investigation. 54% or 18 cases showed "driving mistakes" which prompted police checks.

The analysis of the patterns of consumption in this clientele reconfirms the combined use of various additive substances (8, 9). This fact and the week and day time of the police check is similar to the cannabis consuming traffic participants as described in a study for the region of Cologne in 1990 and 1991(4).

But it is exactly the combination of designer drugs with amphetamine – often an ingredient of ecstasy pills - as well as alcohol, cannabis or cocaine, which is the cause of alarm. In this context it is important that the combined drug use usually create various symptoms without specificity for one drug, the recognition is difficult and the individual effects on the consumer cannot be assessed.

It is remarkable, however, that the routine checks can determine physical effects or strange behaviour (for example: reddened conjunctiva, dilated pupils or retardation). On the other hand dangerous driving and serious traffic offences were documented (e.g. driving through a red traffic light, not observing right of way or speeding). If one considers the effects of "Designer drugs" with or without additional consumption of other substances, one can see that their stimulating, disinhibitory effects, together with an exaggerated estimation of the self, may be expressed in the describe behaviour.

In Germany some different ways of legal punishment for drug consumers in traffic do exist. The main reference value is the blood alcohol concentration; additionally the detection of intoxication with other psychoactive drugs can be used to verify a negative influence of the traffic safety.

So cases with alcohol alone or drug consumption in combination with alcohol and a detected wrongful behaviour in traffic - as an essential clause - can be sanctioned by paragraph § 316 or § 315c StGB (penal code) (see figures 1 and 2).

Figure 1: § 316 StGB (penal code) – Drunkenness in traffic

§ 31c StGB (penal code)

(1) Any person who drive a motor vehicle in traffic  
a) while under the influence of alcohol or other intoxicants  
will be punished (...) if he is unable to drive the motor vehicle soundly.

Figure 2: § 315c StGB (penal code) – relative driving incapacity –

§ 315 c StGB (penal code) exposure of traffic safety

(1) Any person who drive a motor vehicle in traffic  
a) while under the influence of alcohol or other intoxicants, or  
b) being handicapped by a physical or mental illness  
will be punished (...) if he is unable to drive the motor vehicle soundly and induce an exposure for other people or eminent objects (...)

Under the detection of 1,1 ‰ BAC (blood alcohol concentration) or more for the time of driving the German law talks about the implicit impossibility of a save traffic participation.

The paragraph § 316 StGB (drunkenness in traffic) approve the punishment of a driver mainly based on the BAC (1,1 ‰ or more), another intoxication is handled similar. Cases with a definite driving incapacity or an exposure of people of eminent objects are mainly punished by § 315c StGB). The BAC's in those cases can range from 0,3 to 1,09 ‰; the blood concentrations of other psychoactive drugs are estimated for every individual case.

With reference to this short judicial discussion we want to analyse our "Ecstasy"- population.

In our collective 9 cases were selected with a BAC higher than 1,1 ‰, the detected values ranged from 1,22 to 1,79 ‰. The fix of the penalty (money penance and ban or loss of driving licence) based on the BAC as the important factor. The additional detected drugs get of importance, when the delinquent asks for a new driving licence. In Germany all cases with a BAC more than 1,6 ‰ as the only detectable drug normally have to go in a special so-called medico-psychological examination. Pointing to the 9 cases the additional consume of illicit drugs will give the reason for special examination to check the void of drug before the driving licence will be approved. In our opinion this is of great importance to exclude users of illicit drugs as a potential risky population from participation in traffic.

Three other cases showed BAC's ranged between 0,8 to 1,09 ‰ (in detail 0,83 ‰; 0,88 ‰; 1,03 ‰). In two cases the drivers were punished by the use of §316 StGB because they demonstrated no soundly driving grounded on the consumption of Ecstasy and alcohol. The original judicial outlet is unknown for the third case, but the toxicological result (combined use of Ecstasy, cocaine and alcohol) and the remarked wobbly driving likewise presume the applying of paragraph §316 or 315c.

The next category is built by those cases with BAC's scaled 0,30 to 0,79 ‰, a total amount of 4 drivers were selected, the definite BAC's gave 0,34 ‰, 0,57 ‰, 0,59 ‰ and 0,63 ‰ as a result.

Three drivers showed wobbly driving, BAC's more than 0,5 ‰ and combined intake of Ecstasy and other drug with relevant concentrations in the specimens. These persons were penalised by the penal code (§316, §315c). The outlet of the fourth case is still unknown but we presume a closing of the proceedings.

The last rank is built by those 17 cases with no alcohol or BAC's less than 0,3 ‰, but significant concentrations of other intoxicants, especially Ecstasy in the specimens. Nine times an acute intoxication with Ecstasy, heroine or cannabinoides was found and wobbly driving (six times) was characterised by the police. These drivers were punished by the penal code § 316 or § 315c. In the residual 8 cases the judicial outlet was not documented. A closing of the proceedings is probable.

Beside the discussed cases using the penal code in Germany another legal punishment exists, named the Road Traffic Act (StVG).

In paragraph §24a StVG the regulatory offences based on consumption of alcohol or other intoxicants are determined as described in figure 3 to figure 5. The current version of this paragraph is executed since 1<sup>st</sup> August 1998. The modification belongs to the added BAC limit of 0,5 ‰ and the similar use of breath alcohol concentrations on the one hand; on the other hand defined intoxicants and their analytical essentials are scheduled in the second sentence of § 24a StVG.

Figure 3: § 24a StVG (Road traffic act) – alcohol and driving

§ 24a StVG (road traffic act) regulatory offence based on consumption of alcohol or other intoxicants

(1) Any person

1. who drives a motor vehicle in traffic while under the influence of 0.40 mg/L or more breath alcohol or under the influence of 0.80 ‰ BAC (...) commits a regulatory offence.
2. who drives a motor vehicle in traffic while under the influence of 0.25 mg/L or more breath alcohol or under the influence of 0.50 ‰ BAC (...) commits a regulatory offence.

(...)

Figure 4: § 24a StVG (Road traffic act) – drugs and driving

§ 24a StVG (road traffic act) regulatory offence based on consumption of alcohol or other intoxicants

(...)

(2) Any person who drives a motor vehicle in traffic while under the influence of one of the intoxicants listed in the annex to this regulation commit a regulatory offence. A person is deemed to be under the influence if a substance listed in the annex is detected in his blood.

Sentence 1 does not apply if the substance originates from a drug prescribed for a specific illness, which was consumed in the intended manner.

(...)

The list of the intoxicants that is cited in the paragraph § 24a StVG contents the following substances (figure 5), which must be detected in blood to confirm the consumption of the relevant intoxicants:

Figure 5: Annex to §24a StVG (Road traffic act)

§ 24a STVG (Road traffic act)	
Annex:List of the intoxicants and substances	
<b>Intoxicants</b>	<b>Substances</b>
cannabis	tetrahydrocannabinol
heroin	morphine
cocaine	benzoylecgonine
amphetamine	amphetamine
designer amphetamine	methylendioxy-ethylamphetamine (MDE)
designer amphetamine	methylendioxy-methamphetamine (MDMA)

This new paragraph § 24a StVG enable the judicial system to punish the drug use in traffic analogous to a low level alcohol consumption even no driving mistake is mentioned. This rule bases on the general assessment, that the listed intoxicants endanger the traffic safety as well as alcohol.

In our population we detected 8 cases with relevant intoxicant levels in the specimens but without a relevant BAC, who were checked by a routine police control, as described above. All this cases - 24 % at all - could be sanctioned applying to this new paragraph §24 a StVG

(road traffic act). The last case without documented legal outlet – described in the group of those cases with low-level BAC (0,3 – 0,79 ‰) can be punished with reference to this paragraph, too. Finally for 9 cases or 27 % of our population a legal punishment would be possible now. Before August 1998 these cases could flee from justice and any other consequences with regard to the driving licence.

As a conclusion of our investigation we can point out the following statements:

1. The use of designer drugs among drivers in Cologne is apparently not widespread, or these drivers are not selected representatively by the police.  
If we want to verify the hypothesis of the small importance of "designer drugs" for traffic safety, we should test more samples. The analysis of the blood alcohol concentration alone does not justice every case in toto. If the selection by the police should be strengthened, you have to establish better training, for example the trainee program (10) edited by the Federal Highway Research Institute (BASt).
2. By following the first suspicion of alcohol use and leaving out a blood analysis to detect other substances, drug consumption remains unpunished and without any consequences for driving licence measures in general. With regard to aforementioned statements we should increase the analysis of other drugs than alcohol, therefore we need a blood specimen. The only use of a breath alcohol concentration test should be discussed critically.
3. In Germany the new § 24 a StVG enables a sanction of drug consumption as a facultative risk of safety in traffic without the conditions of identified wrongful behaviour. We have to verify the effect of this new punishment for the traffic safety in the future.

## References

1. Brühning E, Kühnen MA, Berns S: Verkehrssicherheit junger Leute international. BASt (Hrsg) Berichte der Bundesanstalt für Straßenwesen Heft M 52 Junge Fahrer und Fahrerinnen. Bremerhaven Wirtschaftsverlag, NW 1996
2. Weich G.: Bericht über aktuelle Aktivitäten in Deutschland für junge Kraftfahrer Bundesanstalt für Straßenwesen Heft M 83 : Sicher fahren in Europa. Bremerhaven Wirtschaftsverlag, NW 1998
3. Graß H., Berghaus G.: Drogen und Verkehrssicherheit. Praxis der Naturwissenschaften Biologie 1996; Heft 5/45. 24 - 27
4. Jahn TW: Die Gefährdung der Verkehrssicherheit durch cannabispositive Verkehrsteilnehmer im Raum Köln. Inaugural-Dissertation an der Hohen Medizinischen Fakultät der Universität zu Köln, January 1996
5. Joó S.: Driving under the influence of drugs and medication – aspects from Germany's point of view.  
VTI konferens (B.-Gladbach, Germany) 1998;10A part 4: 1 – 21,
6. Möller MR.: Drogennachweis bei verkehrsauffälligen Kraftfahrern. Berichte der Bundesanstalt für Straßenwesen 1995; Heft M 41: 40 – 43,
7. Jahrbuch Sucht '99, Hrsg. Deutsche Hauptstelle gegen die Suchtgefahren Verlag Neuland Geesthacht 1998 : 129 – 153,
8. Iten PX: Verkehrsmedizinische Aspekte des Ecstasy-Konsums. Vortrag ABBOTT Satelliten-Symposiums Mosbach 17.04.1997
9. Graß H., Käferstein H., Sticht G.: Konsum von Amphetamin, Methylenedioxyamphetaminen und Beigebrauch anderer Drogen. Rechtsmedizin 1998; 8 : 51 – 54,
10. Drogenerkennung im Straßenverkehr – Schulungsprogramm für Polizeibeamten – Handbuch für die Referenten. Hrsg. Bundesanstalt für Straßenwesen 1997