International seminar on alcohol offenders: Assessment, driver improvement courses at different EU member states

GOVERNEMENT AND POLICE DEPARTEMENT OF ESTONIAN

“Recidivism of maladaptive drivers”

Thomas Wagner & Martin Keller: Predicting recidivism among switzern DUI drivers after therapy and positive Medical-Psychological Assessment

TRAFFIC PSYCHOLOGY INTERNATIONAL

Agenda

1. Background: drunk driving and recidivism
2. Study design and process of data collection
3. Description of the sample
4. Results
5. Conclusion

Background: What characterizes drinking drivers with a high recidivism rate?

(Welzel, 1976; DeVol & Schreiber, 2016)

male

divorced or separated

previously convicted

working class

age of 15 to 54 (especially 25 to 40) years

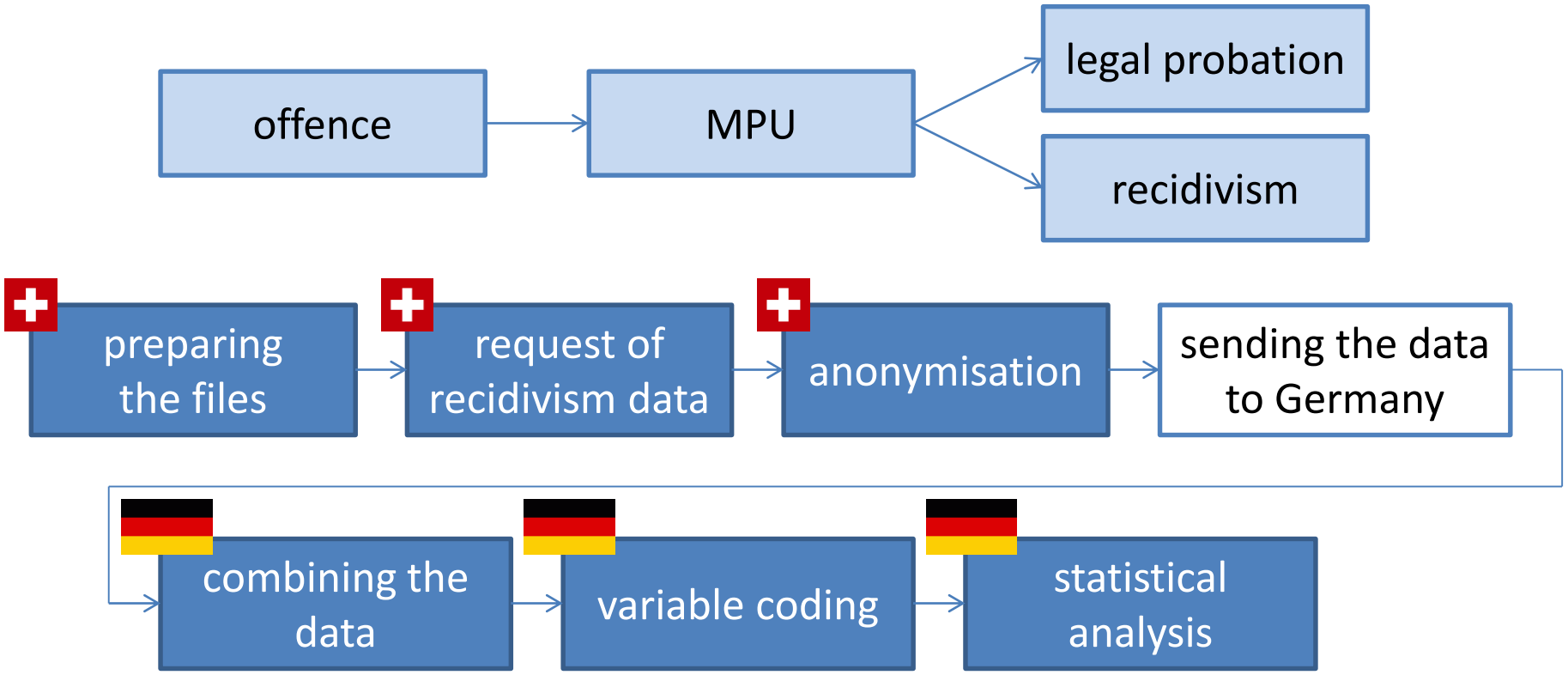
already had an alcohol-related accident

high BAC-values

Demographic factors associated with increased risk to drive under alcohol influence:

Beeing a smoker, having a family history of alcohol abuse, beeing a heavy drinker or binge drinker, history as an intoxicated passenger of DUI driver (Dunaway et al., 2011)

Study design and process of data collection

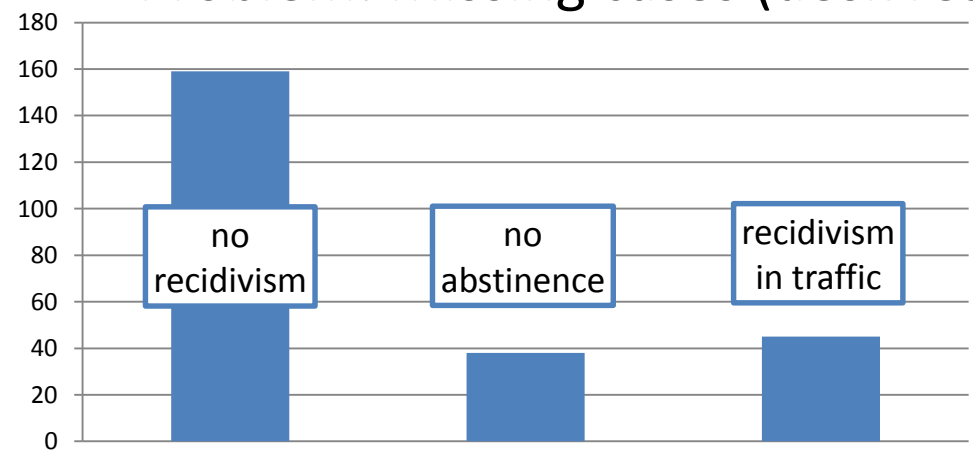


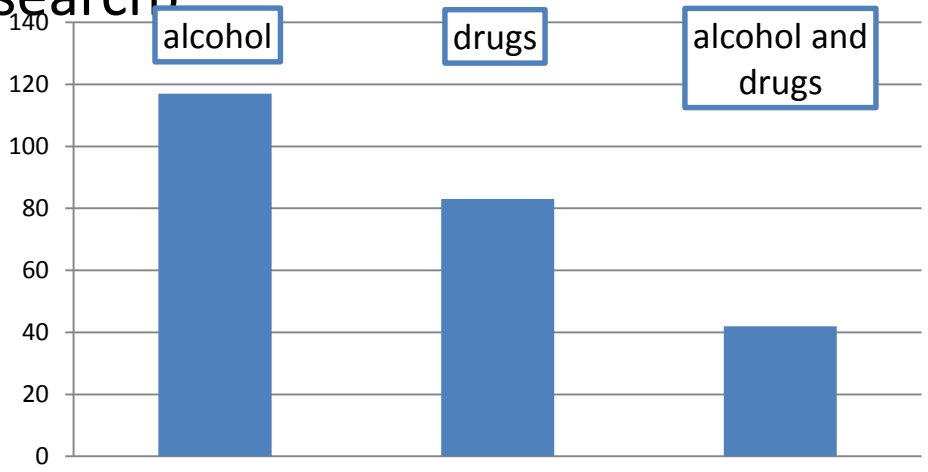
Description of the sample

- N = 242
- 129 subjects examined by physician only (medical assessment)

113 subjects passed a full MPA (physician and a psychologist)

- 102 male & 126 female subjects (14x sex not reported)
- mean age of 41,5 years
- Problem: Missing cases (desk research)





Results – Correlations and regression

Variable	Correlation with recidivism	Betas standardized	partial correlation with recidivism (control variable = age)
Age	r = -.204**	B=-.022	
Children	r = -.259*	B = -.187	r = -.211 (n.s.)
Maximum BAC	r = -.192*		r = -.125 (n.s.)
Number of drugs	r = .169*		r = .097 (n.s.)
Offence with Amphetamines	r = .233**		r = .190*
VPT.2 Social Adaptiveness (PR)	r = -.252*	B = -.307**	

Without impact: Qualification, job characteristic, leisure activities, performance test (Q1-concentration), personality: openness, self expression, self control scale, emotional reagibility, alcohol related attitiudes and alcohol related risk perception

Results – Multinomial logistic regression

- problem: (too many) missing values
  - only eleven subjects with complete data sets (interesting variables)
  - for variables like children, maximum BAC and social adaptiveness (VPT.2) more missings than valid values
- MLR with different groups of predictors

Variables AV: recidivism	**valid values**	**explained variance (Nagelkerke-R^2)**	**% of right classification**
Age	242	7,9%	65,7%
+ Amphetamines	176	10,2%	66,5%
+ Social Adaptiveness	68	36,6%	71,4%

Conclusion

- **age**, **offences with amphetamines** and **social adaptiveness** have an significant impact on recidivism risk
- age as an indicator for personality mature seems to play an important role in the relationships of considered variables
- **difficult data set** with many missing values and the skewness of value distributions in recidivism factor hinder better effect size
- **different systems** of measures and assessment systems in different countries send out a call for harmonization (4th EU Driving License Directive should be added by psychological aspects)

*Research concerning recidivism can help to improve the **process of driver assessment measurement tools** and help to **reduce the accident risk**!*

Literature

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Thank you for your attention.

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