

Young drivers

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Historical evolutions

- PRAISE Report :
- 2000-2010 : traffic fatalities of 15-30 divided by 2
- 1970-2010 : by 5
- Still overrisk (15% of population, 25% of fatalities, 30% of severe injuries) but why expect better ? !! Dual neurobiological agenda
- Have the adults done better ? No ! Systemic evolutions.
- But : the cost of the killed (OECD : 1.7 M euros; today : 2M ...)
- And also the Rhone register : danger for self, danger for others (older drivers are less dangerous)

Historical evolutions

- The gender gap
- Why decreasing in the North of Europe more than in the South : the feminism agenda !

Social deprivation

- The PRAISE report quotes 2 studies showing the link between social class and crash rates
- Yes, in France, the Rhone register epidemiological data shows an overrisk but mainly for pedestrians and two wheels, not for cars.
- See the OFDT data on alcohol and cannabis ? !

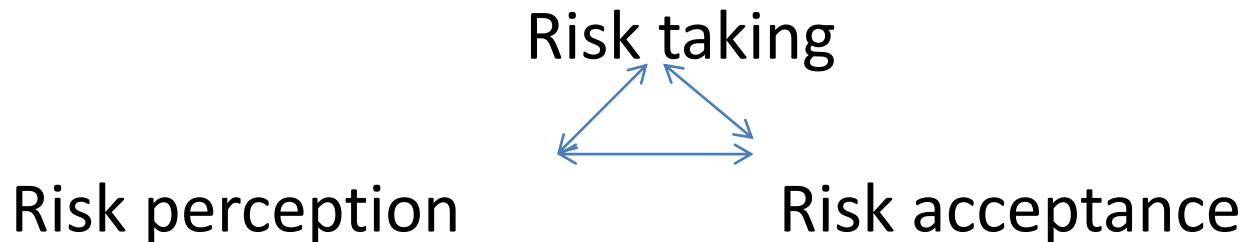
Geographical discrepancies

- The opposition South/North of Europe is found again, the systemic effect (countries good in general are good for the young people's share of crashes)
- Culture or context ?
- Evolution in Spain and France due to enforcement
- Now, new risks : the East of Europe

Systemic effects

- IBSR study: overrisk of young drivers is also observed for work accidents ; previously, most works were focused on leisure time accidents : weekend nights, discos, etc
- So, the recommendation to collect data per type of work is important

The psychology of risky driving



- Risk taking : the benefits of dangerous behaviors
- Risk perception
- -beliefs, lack of knowledge : estimation of safety distances, of blood alcohol concentration, of time of elimination of alcohol, confusion between law and danger
- -comparative optimism

The psychology of risky driving

- -influence of parents (biological heritage, long-term consequences of affective problems and alexithymia, evolution of the family structure, intergenerational reproduction of driving styles and accidents, parental supervision)
- -influence of friends (and selection)
- -same sex-passengers (but opposite sex- and multiple passengers have protective effects, especially after midnight, cf. the designated driver programs)

The psychology of risky driving

- -riding with a drunk driver : risk factors are the same than drunk driving : harmful alcohol use, sensation seeking, sensitivity to peer pressure; theory-based factors are the same : beliefs, intentions, perceived behavioral control, descriptive norms (how many of my friends are DD), injunctive norms (if my friends approve or disapprove my DD)
- -influence of culture (SARTRE surveys)

The neurobiology of risky driving

- Risky driving may be seen as wrong decision-making
- The neurobiology of decision-making has produced a lot of new knowledge, in the Somatic marker framework (influence of Damasio on the emotional brain):
 - -the dual agenda (limbic/prefrontal during the youth years)
 - -the hippocampus impairments (hypoactivity of the HPA axis, cortisol hyposecretion, low stress experienced during risk-taking, transgression of rules, link with the affective history ?)
- -creation of neurobiological sub-types in the management of risky driving recidivism management?

Speeding

- Yes, risk perception of speeding by employees and employers is the key !
- 4 characteristics of enforcement : probability, swiftness, equity, severity
- See recent French measure :
responsabilization of employers, must give the name of their employees for a speed violation, otherwise 650 euros fee !

Telephone

- For alcohol, drugs, fatigue, stress : ok
- Distraction : growing factor

Preventive strategies

- Age and inexperience
- GDL in North America is well adapted to the problem but in Europe age of access is much later
- So, specific rules to replace the GDL ?
- The GDE matrix

The GDE matrix

	Knowledge and skills	Risk factors	Self-evaluation
Societal and economic pressures,			
Life objectives and self-control			
Driving objectives			
Understanding of road situations and accident scenarios			
Mastering of manoeuvres			

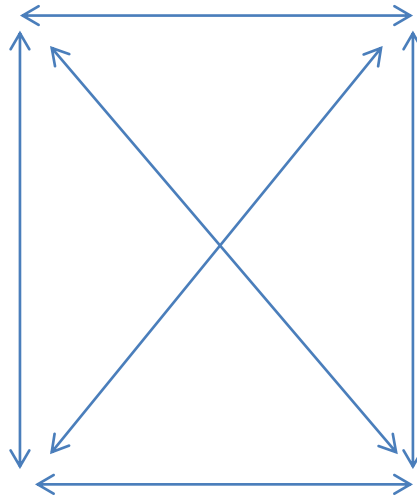
Cybernetics of learning

New pedagogical
objective

Competence
of trainer

Adaptation of
teaching method

Test, exam



Post licensing measures

- Examples from the Swiss second phase
- Problem with tools such as alcohol googles

Interlocks

- Annecy evaluation:
- Assailly, J.P., Cestac, J. (2014). Alcohol Interlocks and Prevention of Drunk-Driving Recidivism, *European Review of Applied Psychology, ERAP Special Issue N°64-3: Transport Psychology: Identification of Road Users' Risks and Attitudes and Behavior Change*.
- 5 years follow-up of participants to the program (N=175) and of a control group (N=234 offenders without interlock)
- Before and after recidivism
- Interlock : 26% versus 35%
- Transtheoretical model of Prochaska et DiClemente (1984), and DRUID's Diamond of change model : awareness precedes environmental reevaluation and reinforcements management.

To go further !

- Assailly, JP , *Jeunes en danger. Les familles face aux conduites à risques*, Imago, 2007.
- Assailly, JP, *La psychologie du risque*. Lavoisier, Collection Sciences du Risque et de la Décision, Septembre 2010.
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