

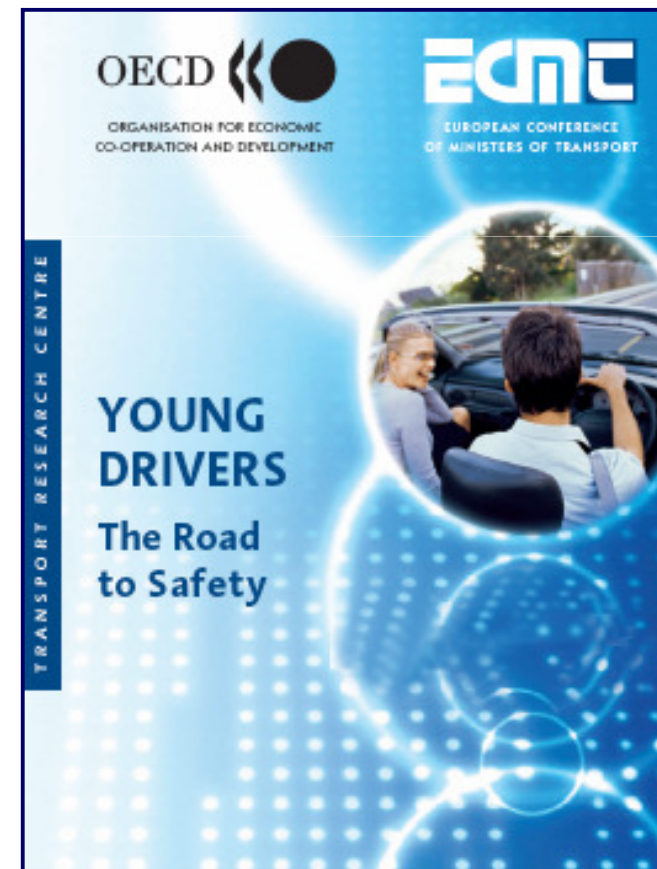
Young Drivers



The Road to Safety

Content of the study

- **Accident analyses**
- **Factors explaining the high risk**
- **Effective countermeasures**
- **New measures (ITS)**
- **Implementation strategies**



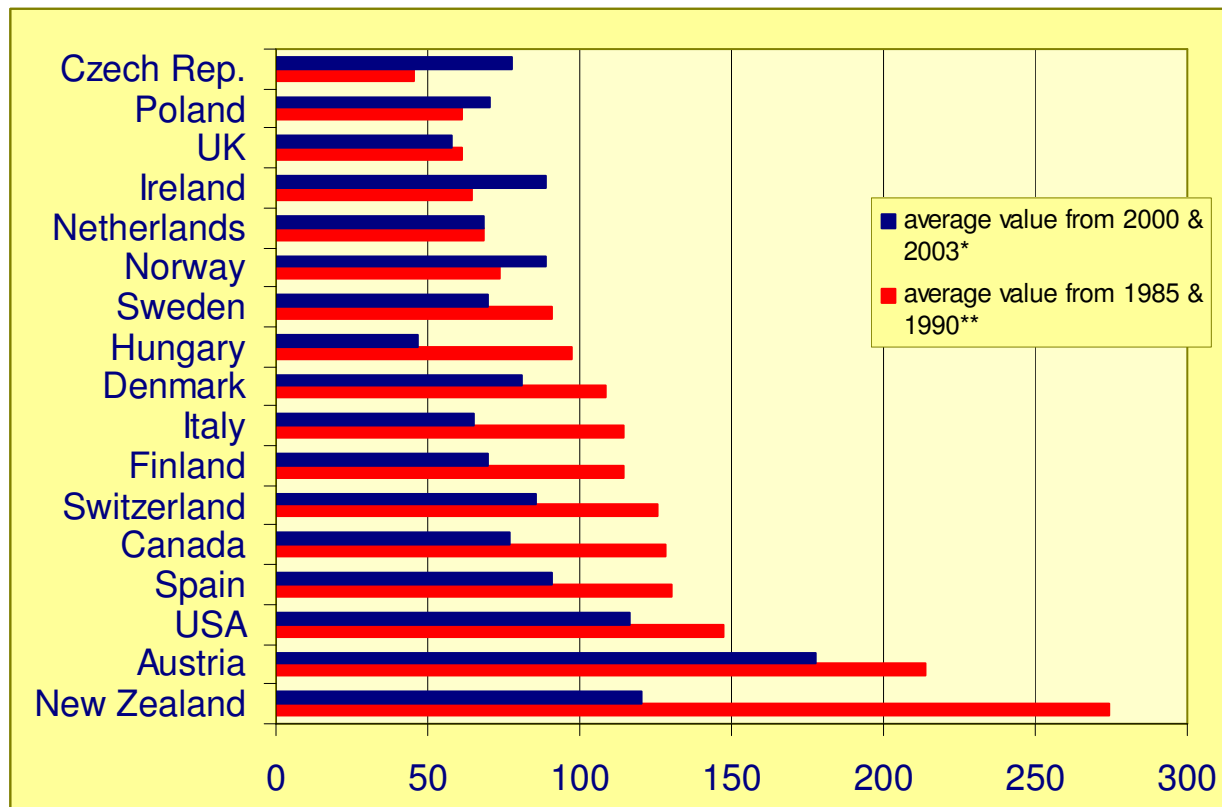


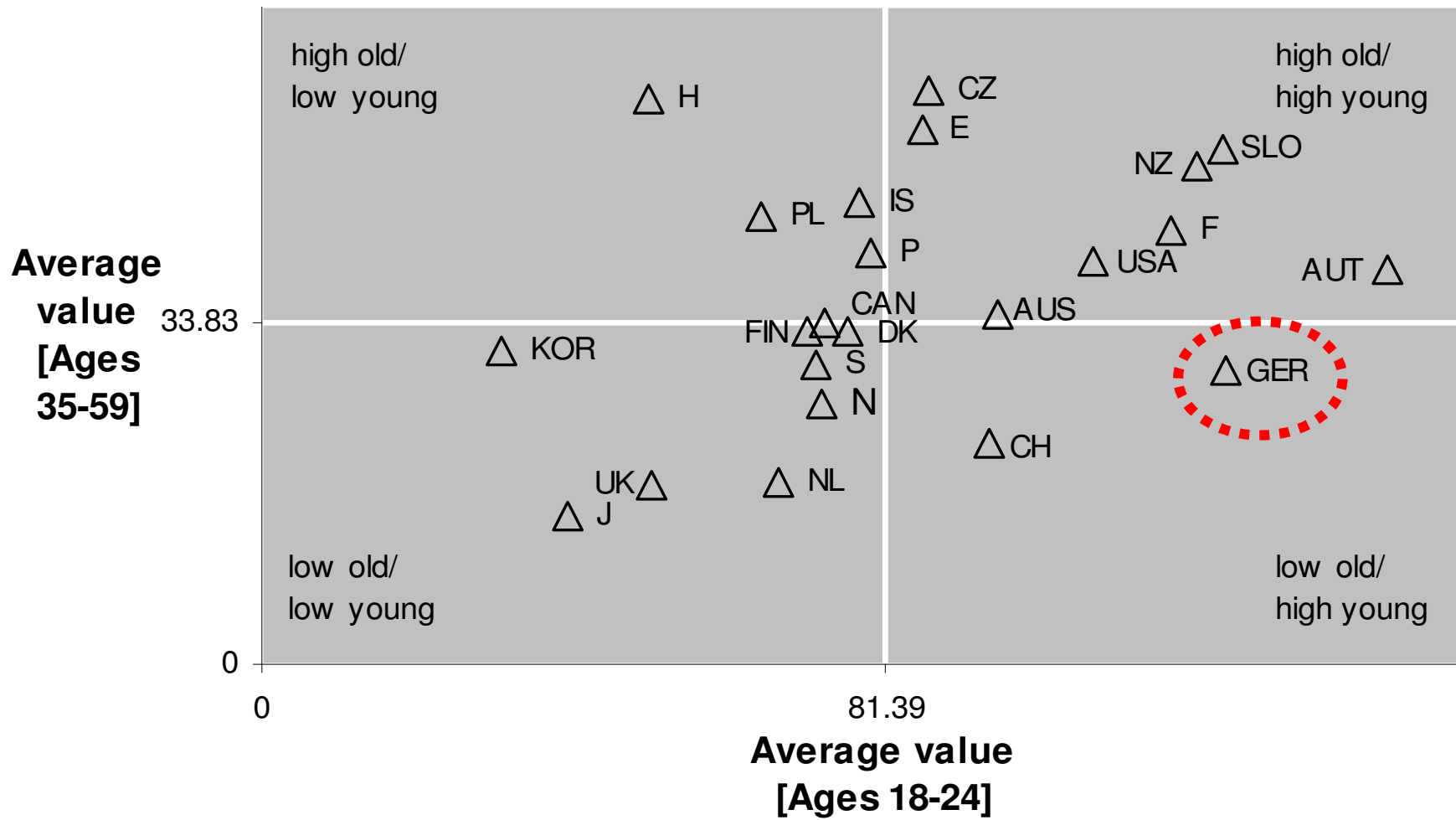
Magnitude and forecast

- Young drivers: **27%** of all driver fatalities but are only **10%** of the population in OECD countries
- For each killed young driver about **1.3 “others”** die!
- Young driver fatalities in EU will increase as a result of economic growth and motorization, in particular in former communist countries



Countries and development





Why are these countries so different?

1. Different levels of motorization and rapid increase in motorization leads to deterioration (e.g. former eastern Germany)
2. General safety levels: countries safe for experienced drivers are also safe for novice drivers

Priority 0: Benefits from general road safety



Strict drink and drug driving laws and enforcement:

- random breath testing

Seat belt use:

- reminders

Speed management:

- Camera's

Vehicle design:

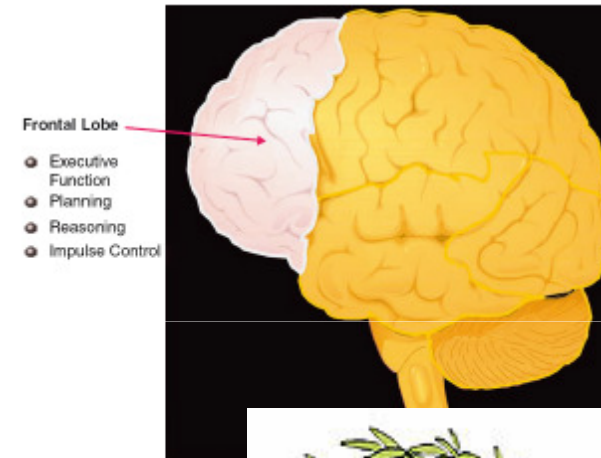
- Old cars less protection

Safe infrastructure

- Simple, forgiving, inherently safe

Contributing factors

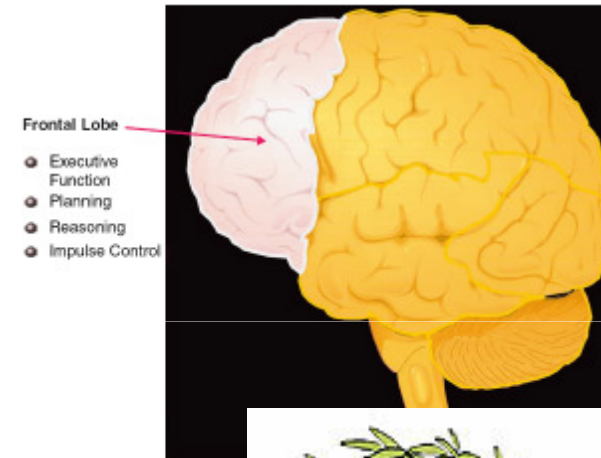
- Biological immaturity
- Lack of experience
- Poor self assessment
- High exposure to dangerous conditions



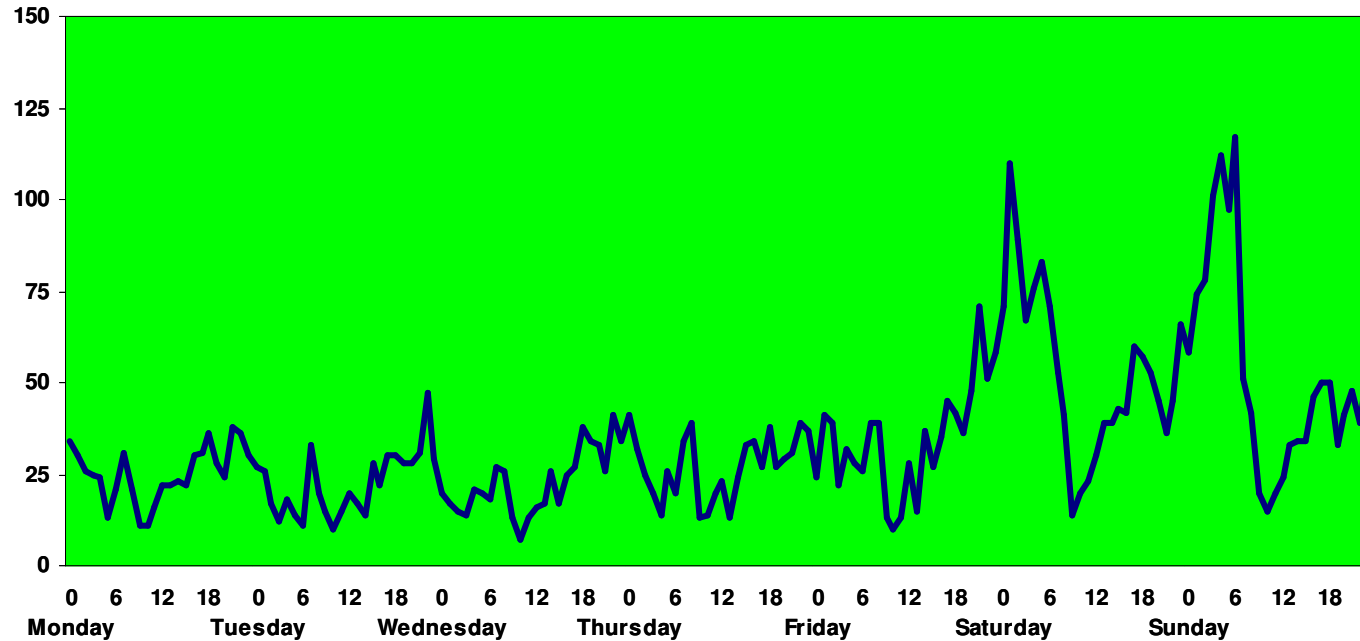
Source : OECD
(2006) *young
drivers: the road to
safety*

Contributing factors

- Biological immaturity
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Source : OECD
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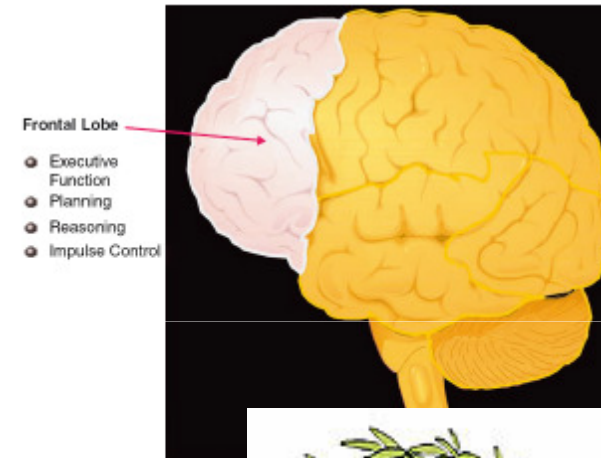
High exposure to dangerous conditions

*Killed in Road Crashes, by Hour 1
8-25 Year-Olds and Day
European Union 15 (minus Germany), 2004*

*(2006) young
drivers: the road to
safety*

Contributing factors

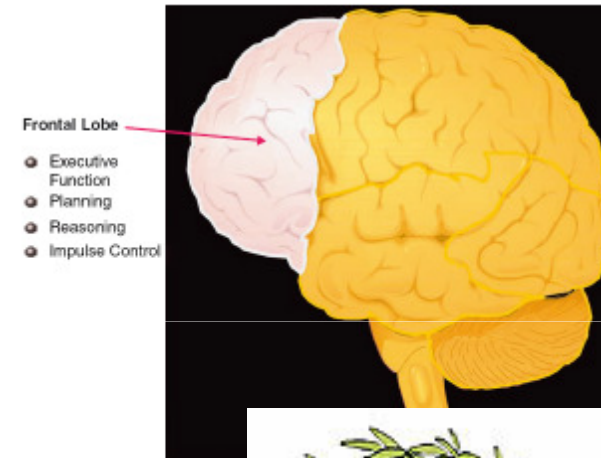
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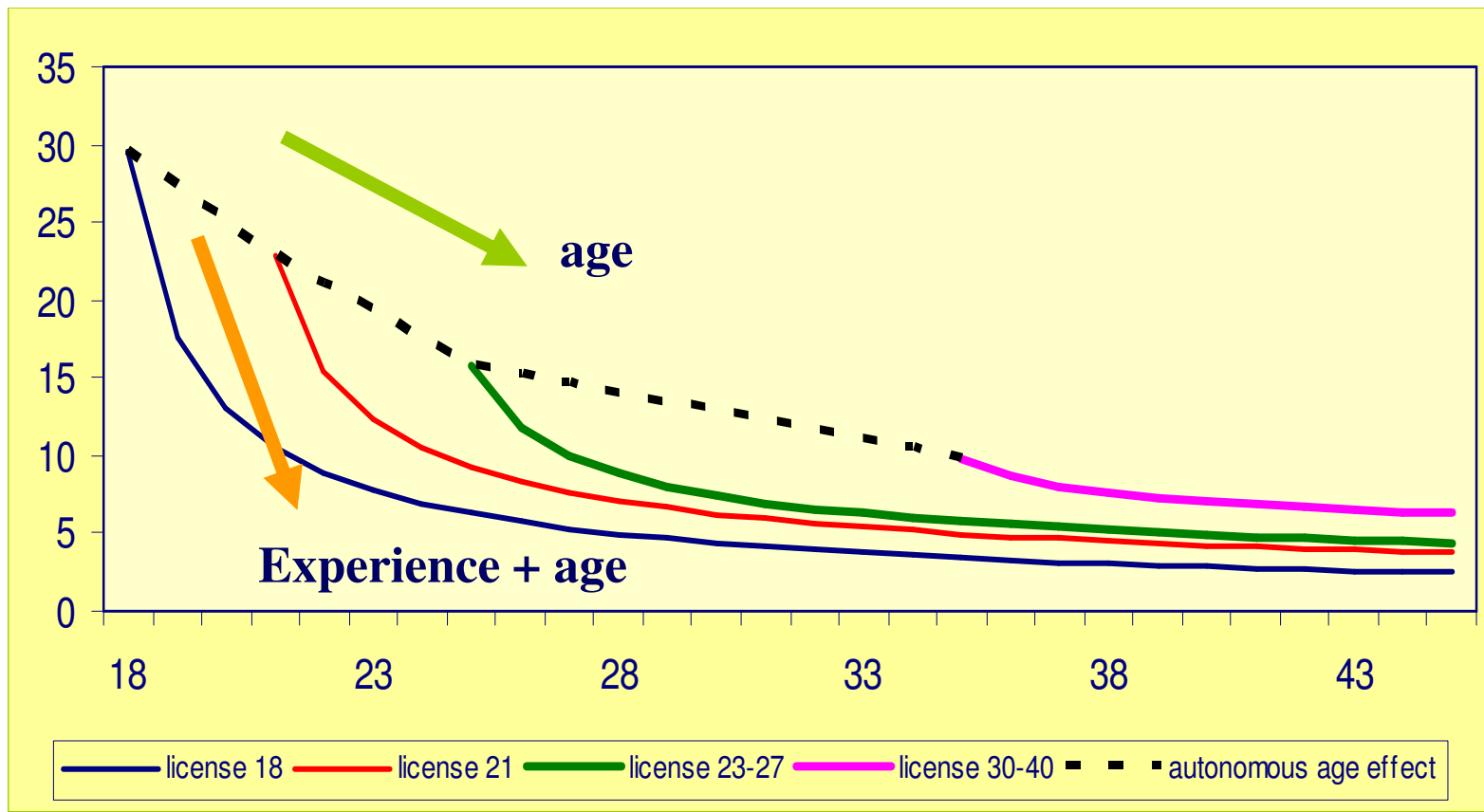
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- **Biological immaturity**
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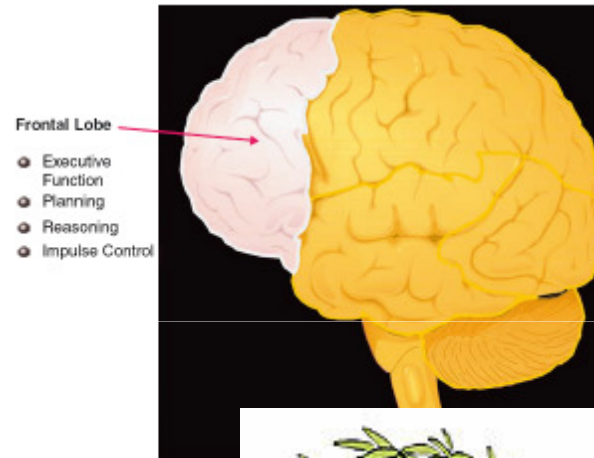
Accident risk per km and experience/age



Bron :
Vlakveld
2005

Contributing factors

- **Biological immaturity**
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- **High exposure to dangerous conditions**



Source : OECD
(2006) *young
drivers: the road to
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Risk taking?



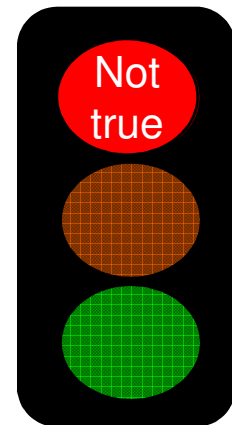
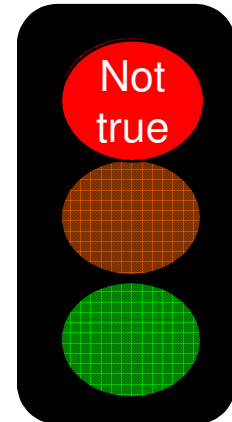
True or False?

Adolescents feel invulnerable

(true = hands up)

Adolescents under estimate risks

(true = hands up)



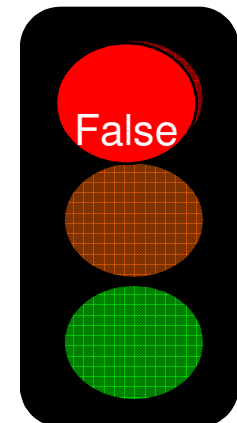
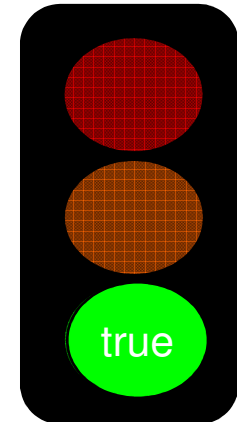


Young adolescents do not learn from negative consequences ?

(true: hands up)

Do we know enough about adolescents?

(true: hands up)

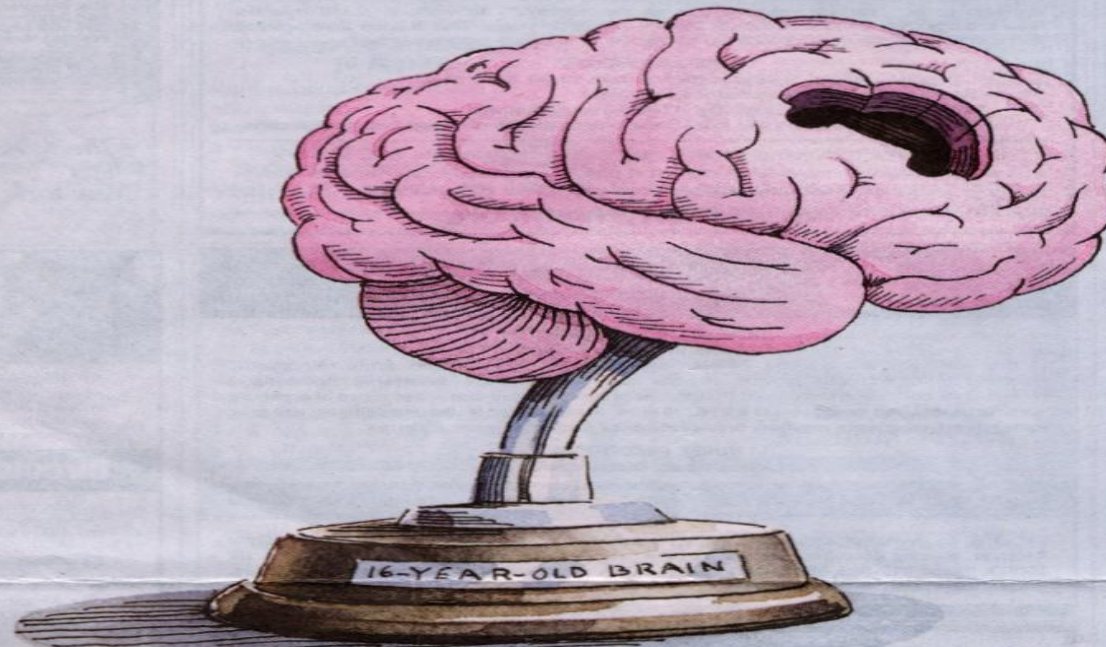


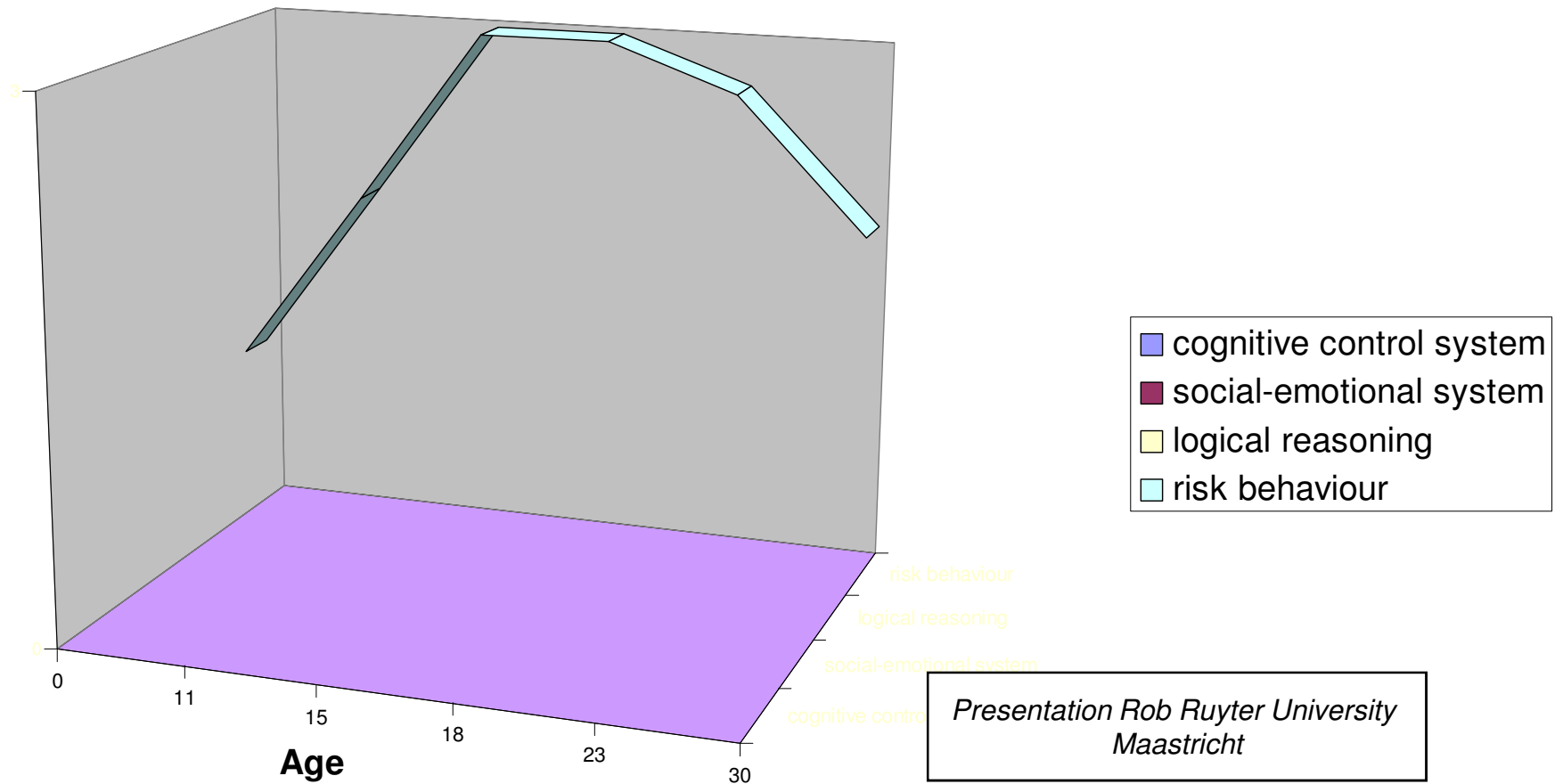
THE NEW YORK TIMES, SUNDAY, MAY 13, 2007

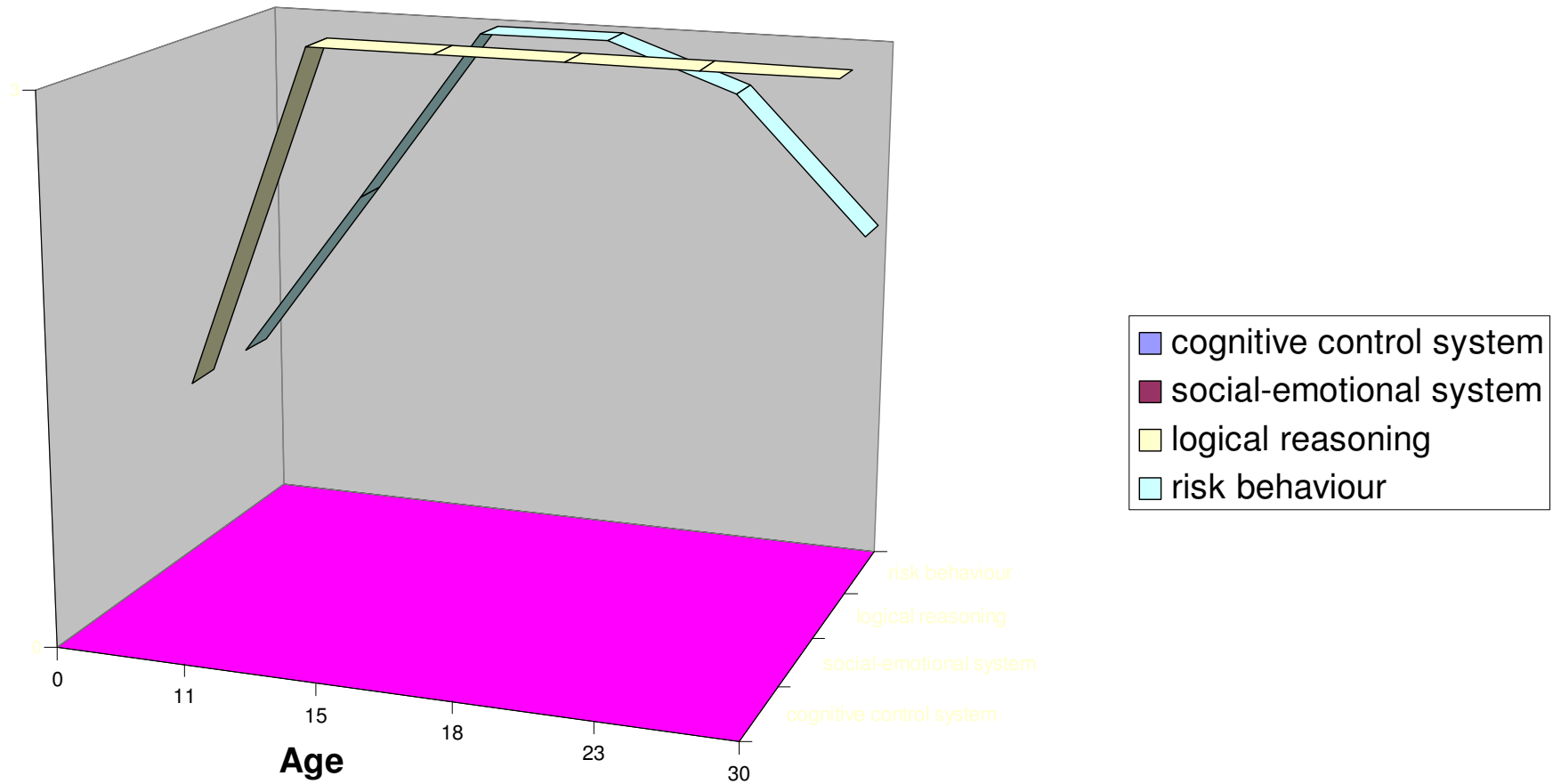
Why do most 16-year-olds drive like they're *missing a part of their brain?*

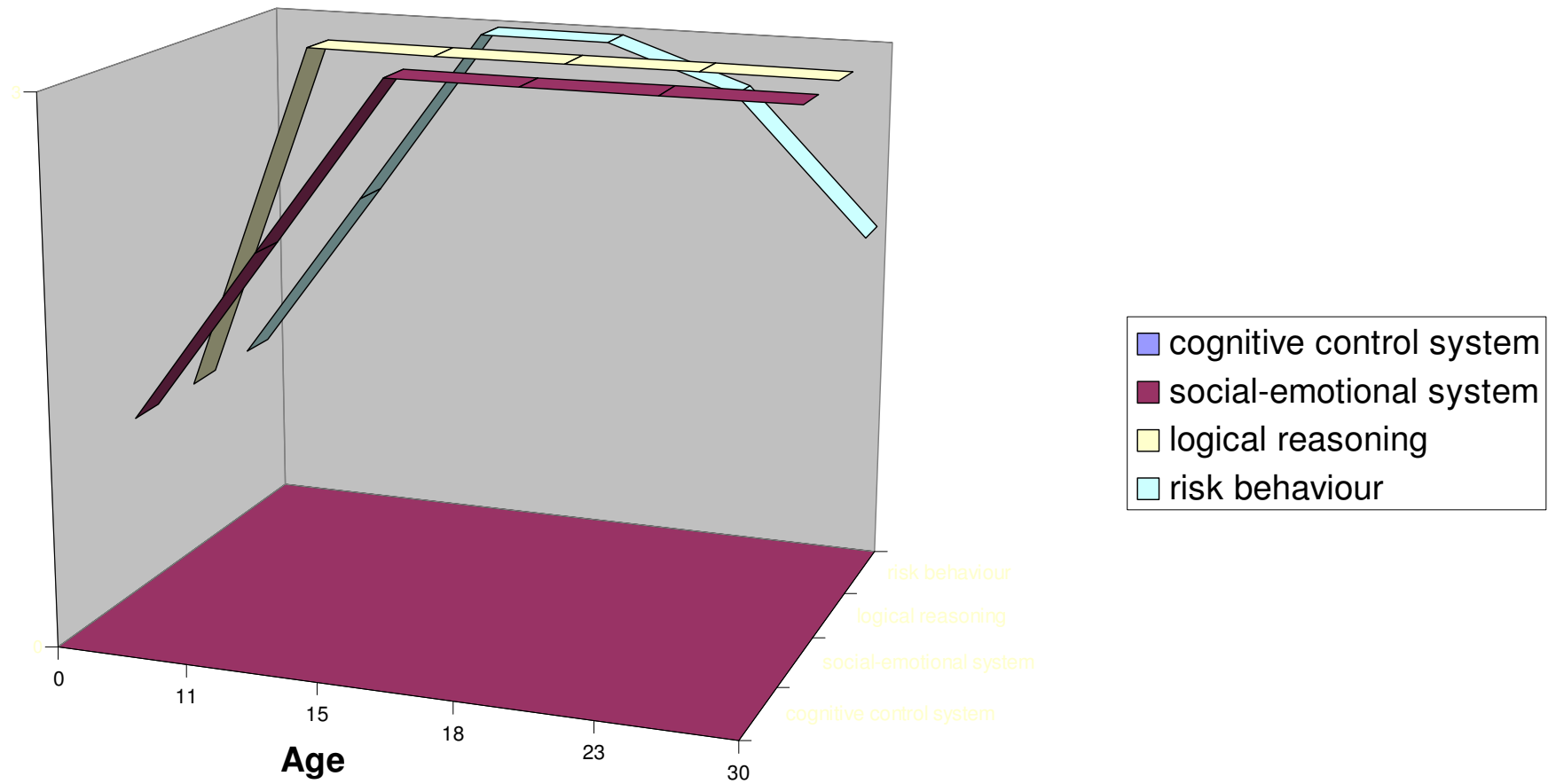


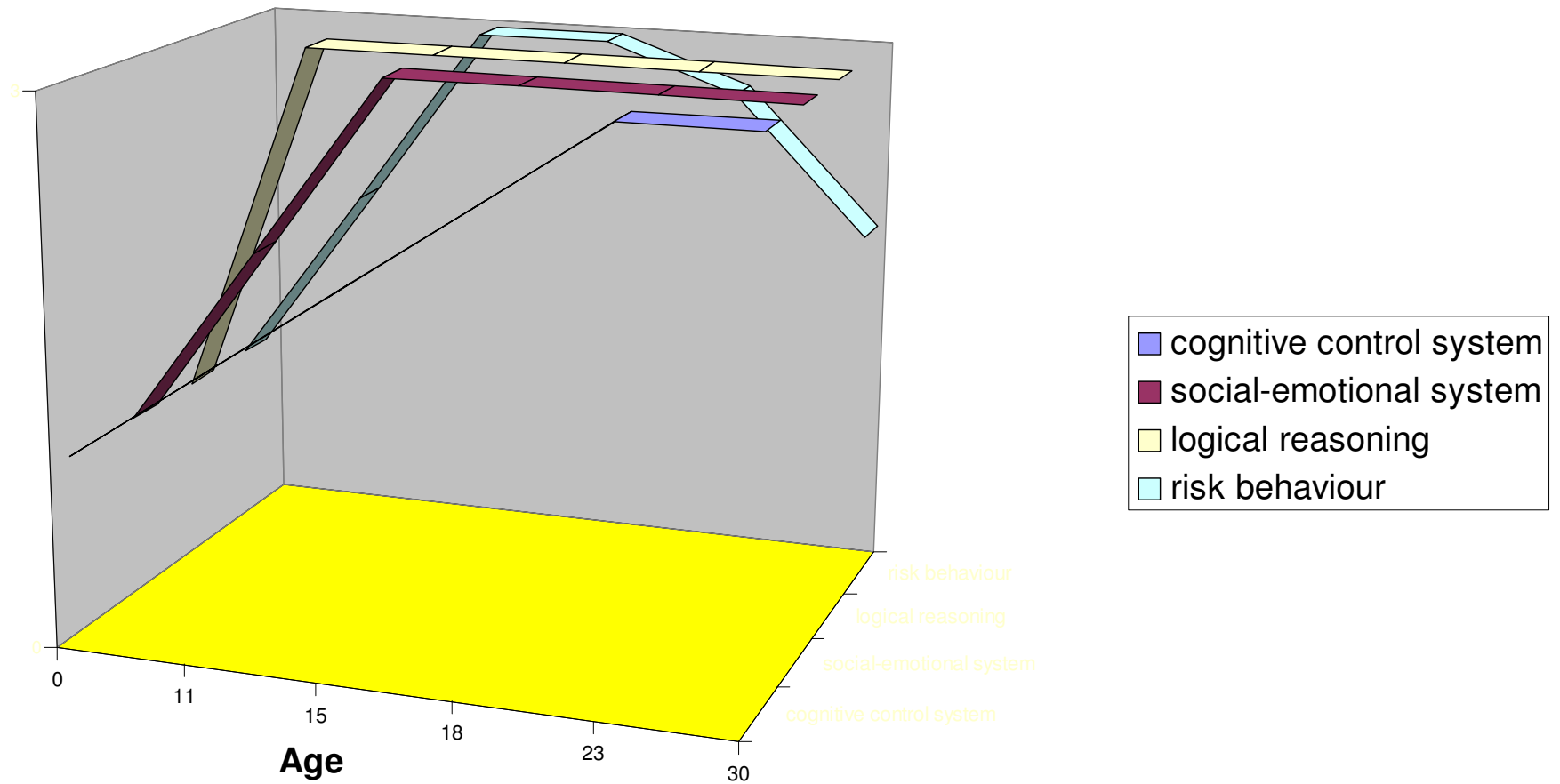
BECAUSE THEY ARE.

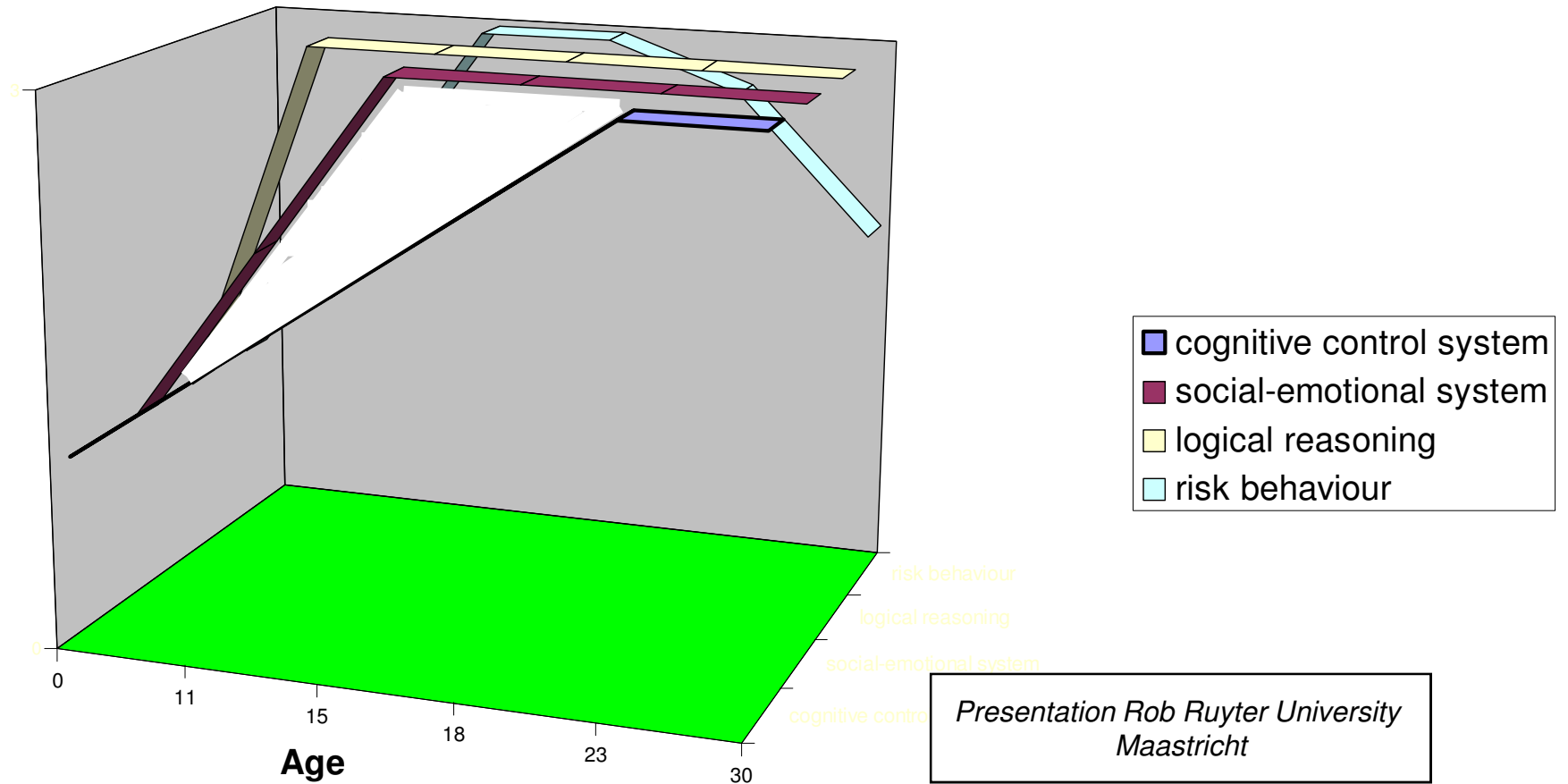




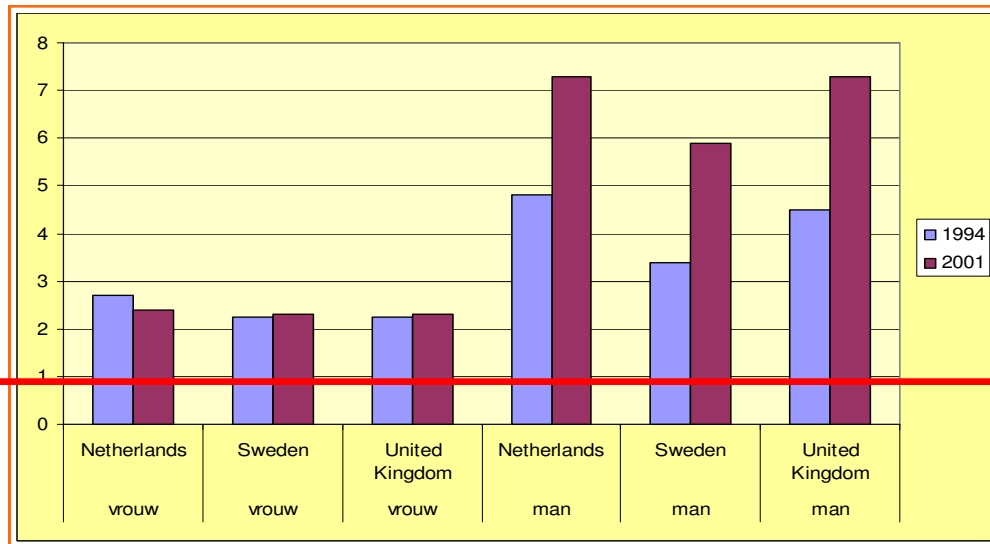








All youngsters equally dangerous?

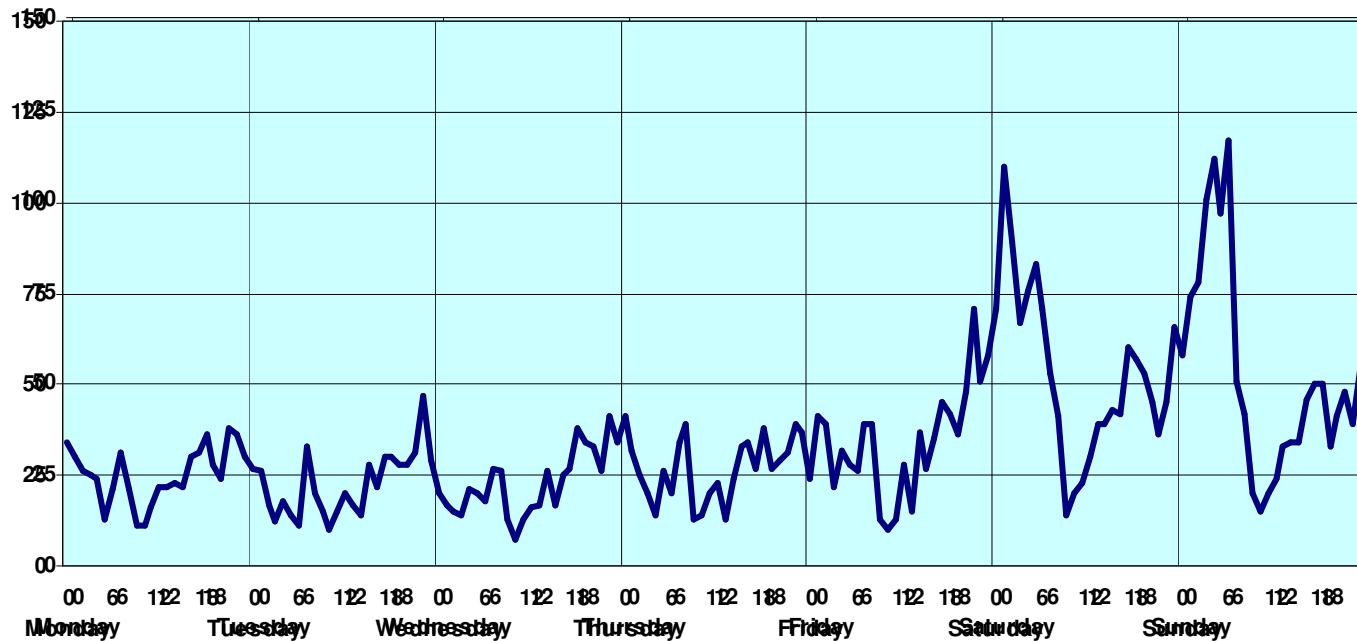


- The development of **accidents** involvement per kilometre
- inexperienced drivers (**18-24**) versus experienced drivers (**35-50**)
- in **Sweden, GB and NL**



Bron: Lynam, Nilsson, Morsink, Sexton, Twisk, Goldenbeld, & Wegman (2005) *SUNflower +6 : An extended study of the development of road safety in Sweden, the United Kingdom, and the Netherlands.*

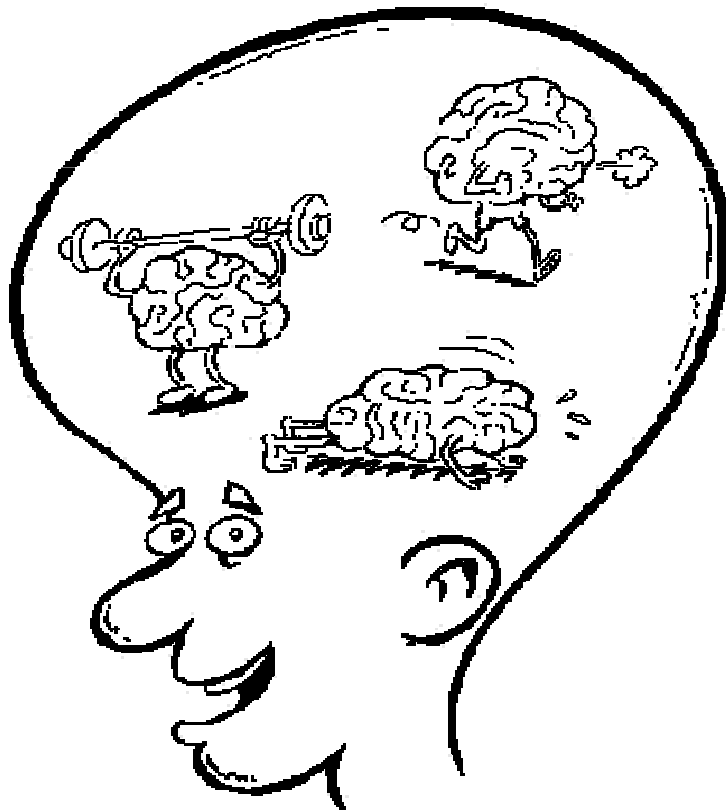
All conditions equally risky?



18-25 Year-Olds Killed in Road Crashes, by Hour and Day
European Union 15 (minus Germany), 2004

Source: EU

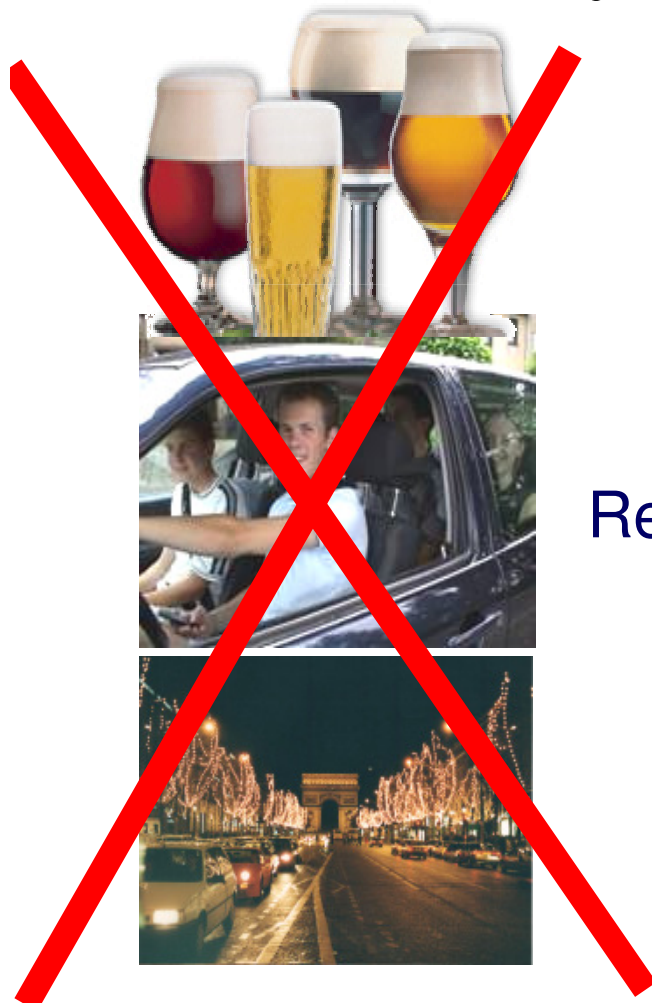
Priority 1: more driving experience before solo driving



Pre-license training with higher levels of practice under supervised driving conditions

**Practice
makes
perfect**

Priority 2: Protection in solo driving



- Zero alcohol for young drivers (widely accepted)
- Restrictions on peer age passengers;
- Restrict night-time driving (more difficult to implement)

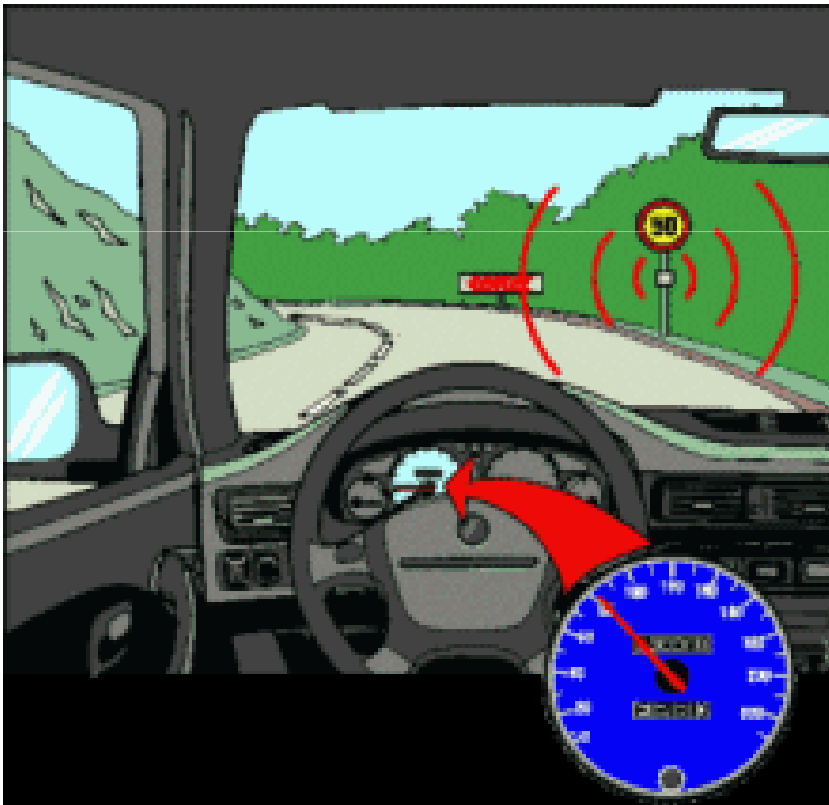
Restrictions can be lifted progressively as drivers gain experience

Priority 3: training and licensing



- Focus on self-evaluation and risk increasing factors
- Research benefits of driver training
- Improve driving test
- Key elements in test are key elements in training

Priority 4: new technology



- Explore, develop and test technology
- Monitoring of solo driving restrictions (smart key)
- Rewards and enforcement green box
- Giving useful driver support (not yet available)

Dissimination

- Iceland
- Cyprus
- Netherlands
- “Fit to drive” conference Vienna
- “Brake” conference London UK
- “Traffic behaviour seminar” London UK
- Young driver safety in Europe, Arizona
- Workshop on Young driver safety TRB, USA
- High level group EU, Paris.

Conclusions

- General safety measures first
- Accompanied driving as instrument to boost experience
- Restrictive measures: only zero alcohol in the short term
- Demerit systems too low in effects
- 18 will always be 18 (?)
- More (other?) measures needed to target young males