

What we wear affects how we drive

*A social identity approach to RTCs involving
UK Armed Forces personnel*

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The statistics

- UK Armed Forces personnel (2005)
 - *7,781 road traffic collisions*
 - *RTCs: 52 fatalities (33% of all service deaths)*
 - *cost to MoD £143m*
 - *5% increase on 2004*
 - *79% of fatalities occurred while off-duty*

Defence Logistics Organisation (2006)

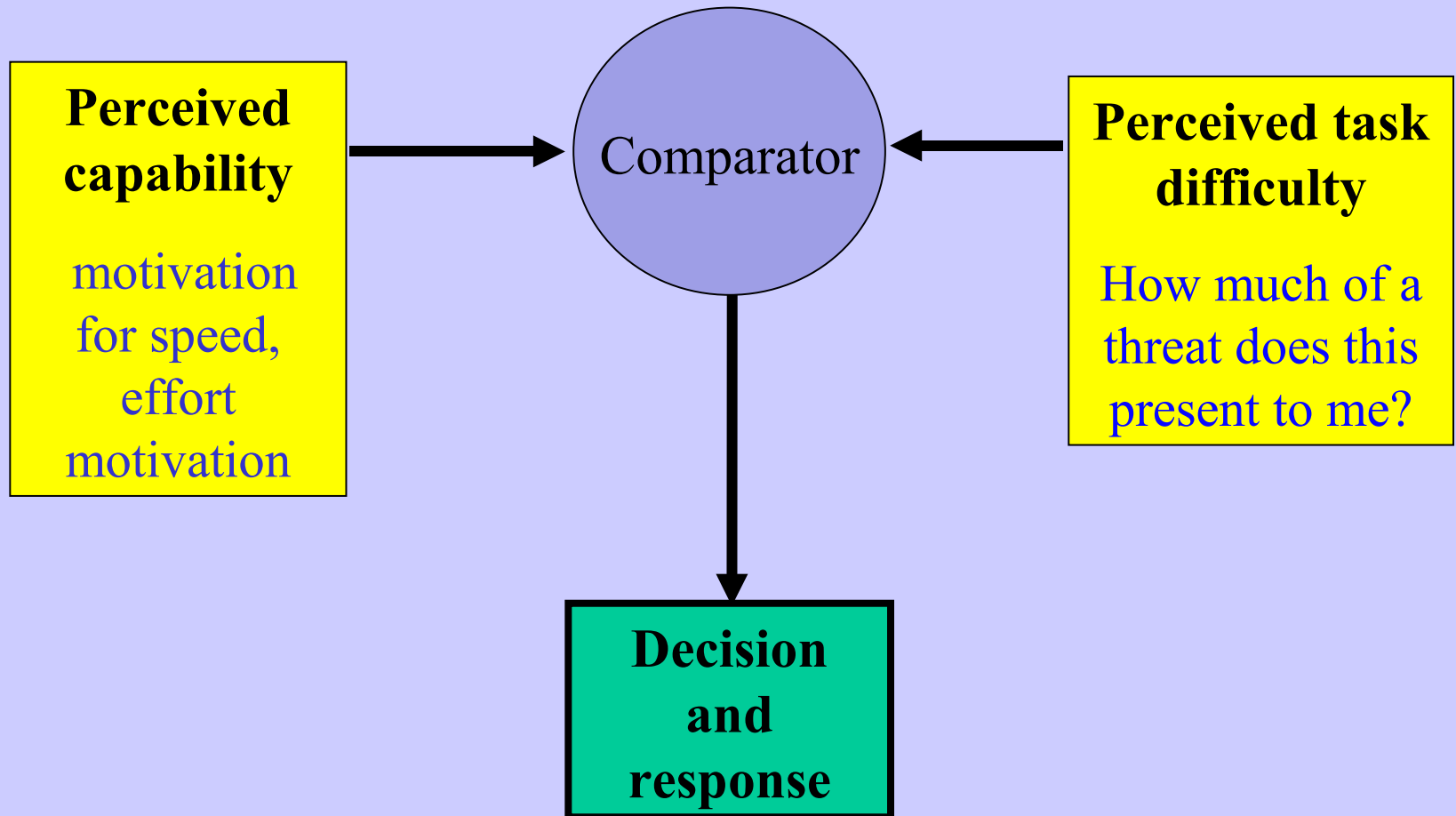
- UK Armed Forces personnel (2007)
 - *RTCs: 50 fatalities (25% of all service deaths)*
 - *Hostile action: 71 fatalities (35% of all service deaths)*

Defence Analytical Services Agency (2008)

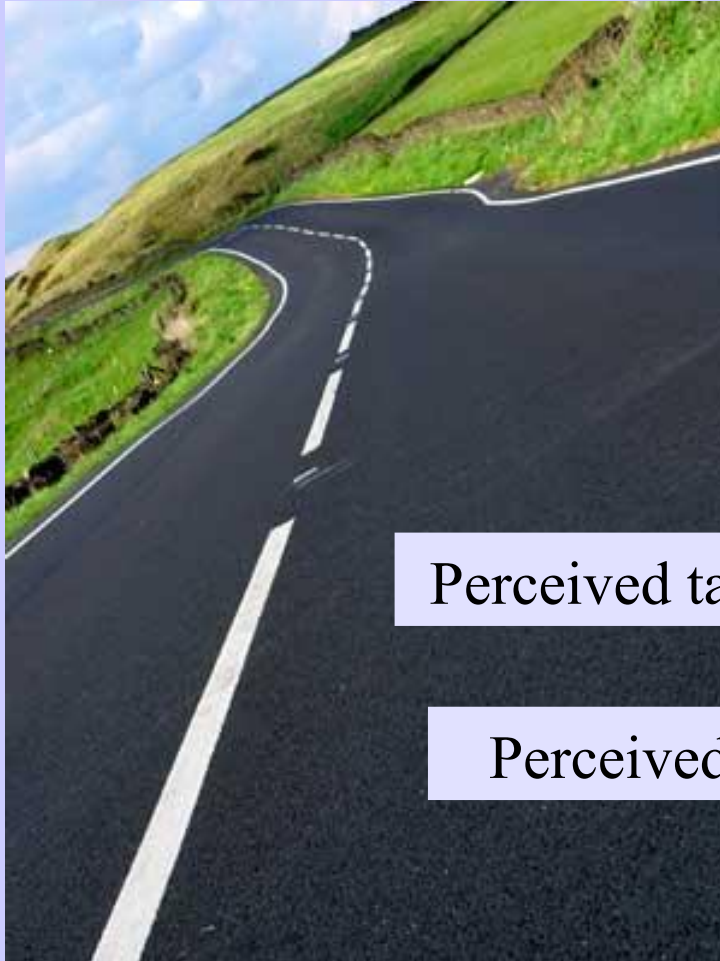
Reasons ?

- Environmental influences
 - *Type of vehicle*
 - *Driving conditions*
 - *Extraneous pressures (deadlines, duties, home leave, etc.)*
- Individual differences
 - *Sensation-seeking*
 - *External locus of control*
 - *Aggression*
- Group influence?
 - *Habitual way of thinking about risk?*

Task Capability Interface model



Most dangerous road ?

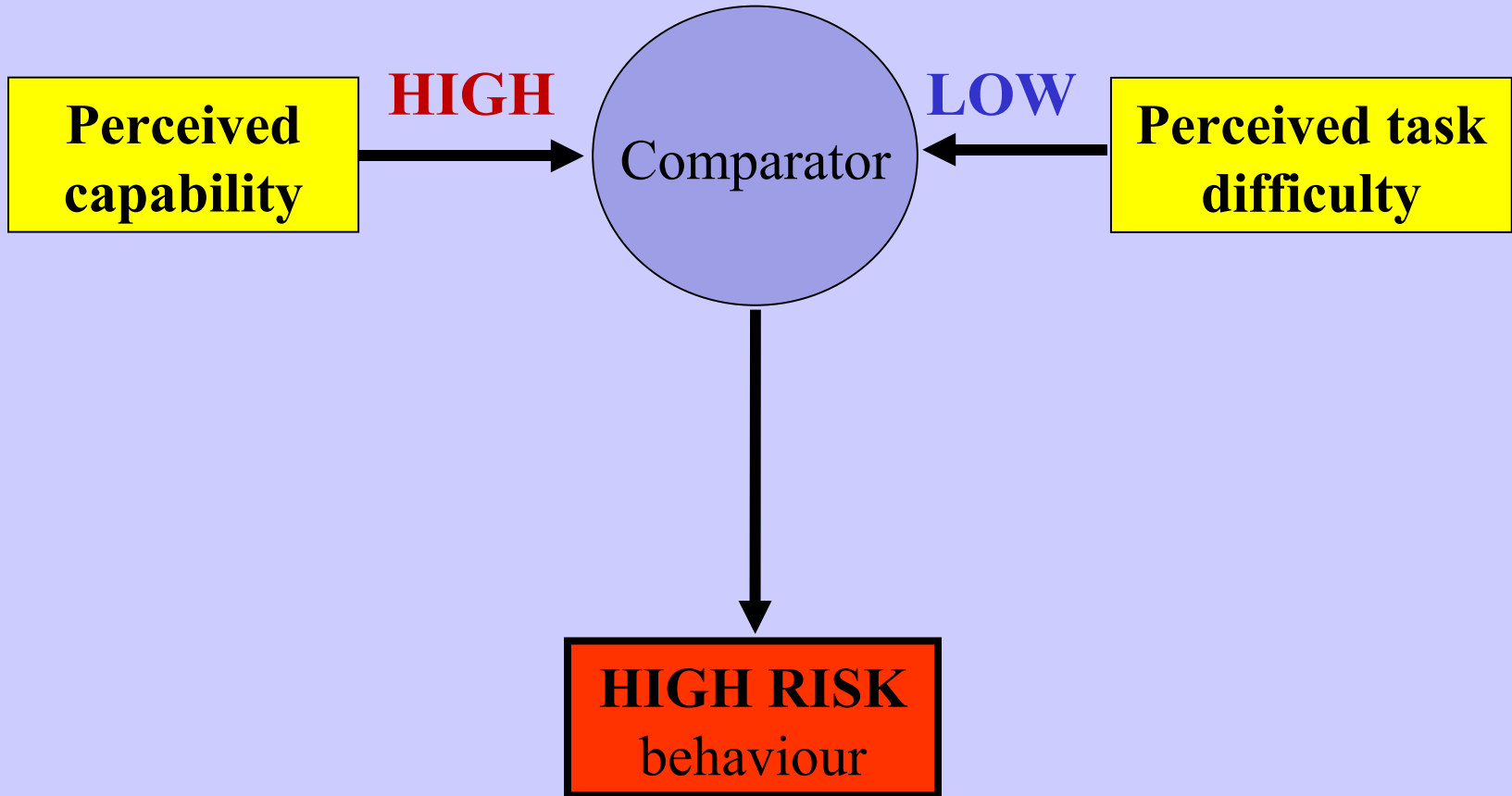


Perceived task difficulty ?

Perceived capability ?

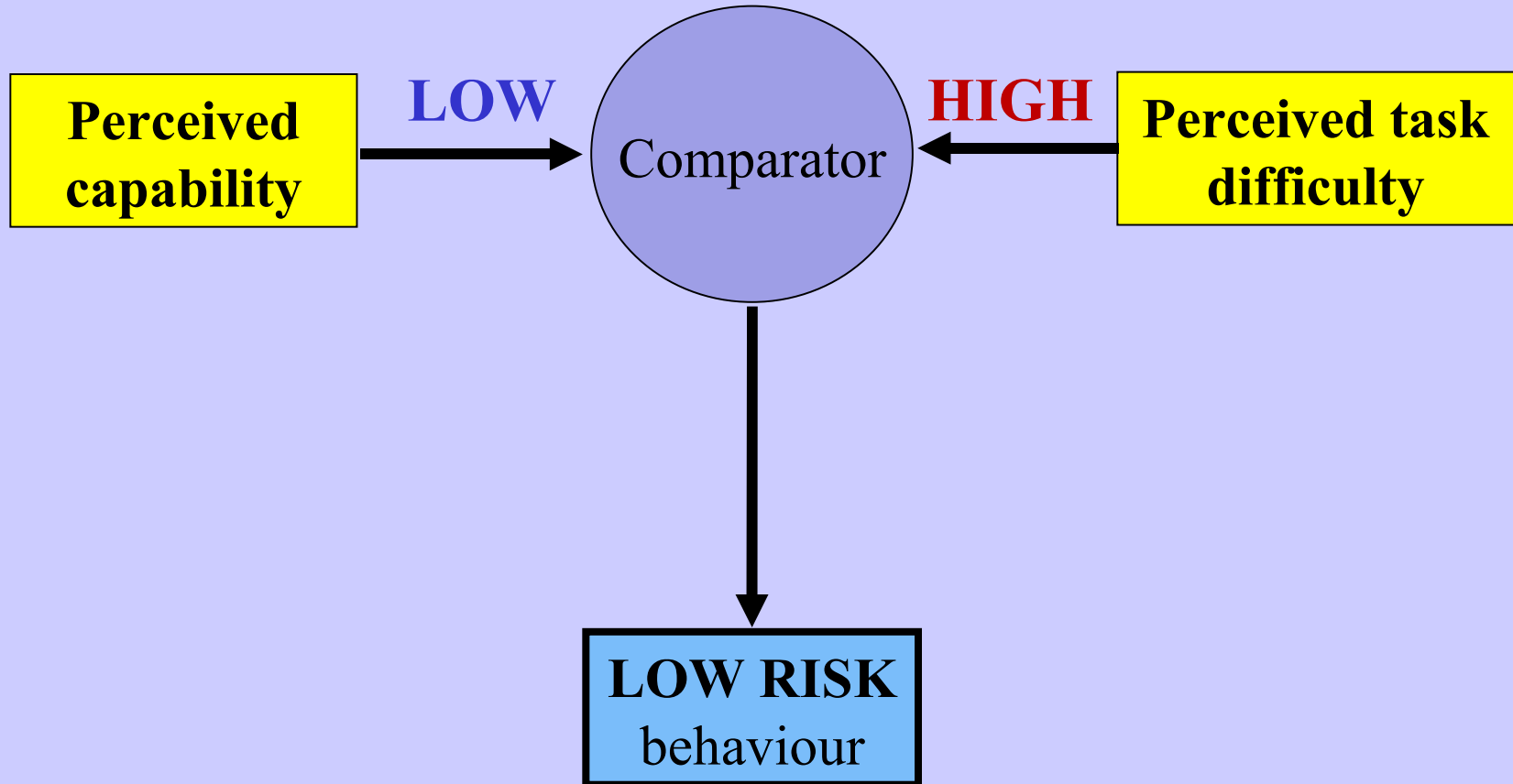


Task Capability Interface model



(Fuller, 2005)

Task Capability Interface model



(Fuller, 2005)

What we should be doing...

- Increase perceived task difficulty
 - *Change driving habits*
 - *Require drivers to actually think about what they are doing*
 - *Changing the driving environment does this*
 - e.g. introduce new ‘hazard’ such as speed cameras
- Reduce perceived capability
 - *Provide insight*
 - *Highlight human limitations and shortcomings*
 - Physical (e.g. vulnerability)
 - Psychological (e.g. attentional deficits)

Military training

- How might military training influence driving behaviour?
- Can certain elements of military training actually increase the likelihood of a crash?
- Questions:
 - *Does military training reduce risk sensitivity?*
 - *How does this influence perceived capability and task demands?*
 - *Does driving behaviours become more risk-seeking?*
 - *Do such risk-seeking behaviours become habitual?*

Group processes

- Social Identity Theory (SIT)
- The group is not necessarily an external influence
 - *Group memberships provide people with social identity*
 - *Provides a sense of who they are and what that means*
- When we think about ourselves as group members
 - *Distinctions between “me” and “you” are irrelevant*
 - *What matters is “us” or “we” – the group is central*

Group processes

- The group becomes an important part of who we are
 - *Group values and standards (norms) become important guides to what is true and correct, and how we behave*
- Social influence is both ‘informational’ and ‘normative’
 - *In other words, we take in the information, but it what we actually believe (and so how we behave) is based on the group(s) we belong to*
 - *“you can take a horse to water...”*

Group processes

- How to isolate ‘group influence’ ?
 - *Remove effects of individual differences*
Sensation-seeking, etc.
 - *Remove effects of differential exposure*
Differences in vehicle driven, driving environment, etc.
- On-duty versus Off-duty
- ‘In uniform’ versus ‘Out of uniform’
 - *Behavioural group norms ?*
 - *Risk-seeking ? Risk-taking ?*
 - *Rule system different ?*

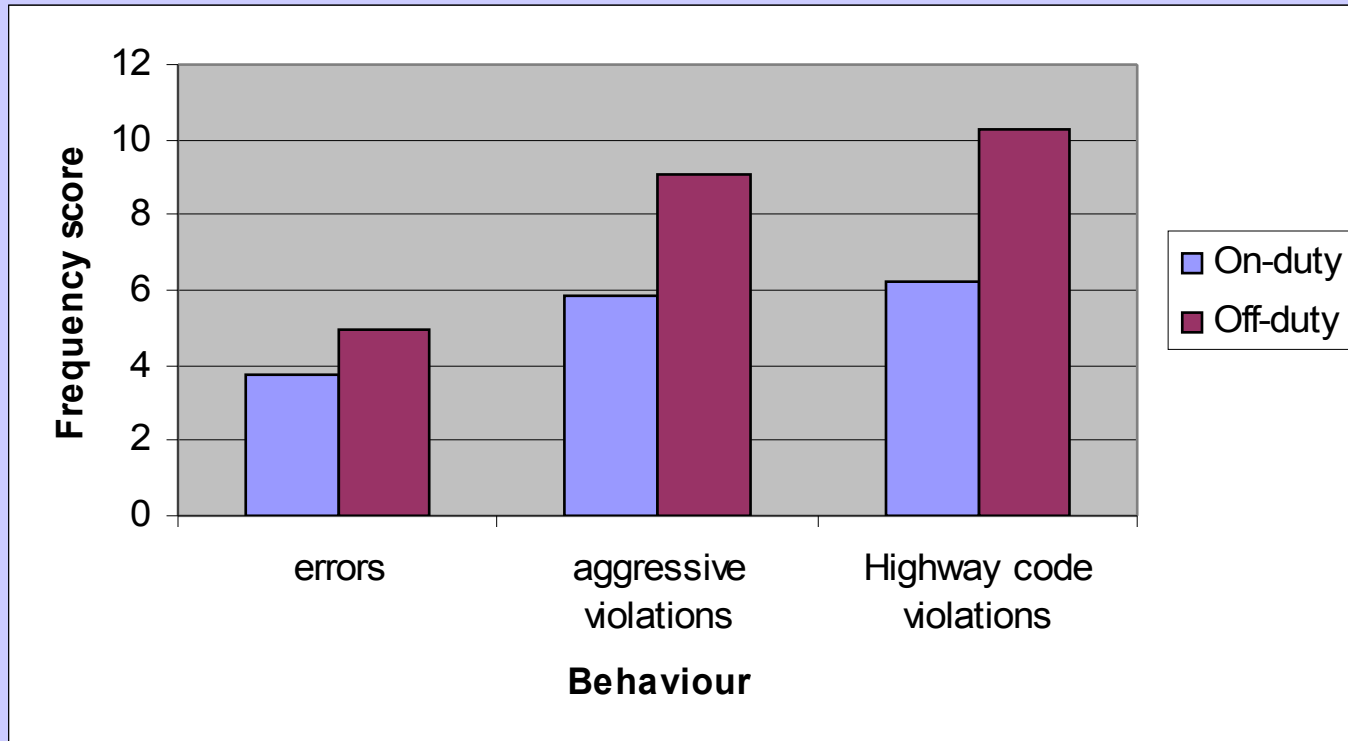
Study One: Higher authority ?

- What is the relevant authority in service life?
- Civilian versus military authority
- “God, the Corps, my country” (Anon - US Marine Corps)
 - *Moral rules*
 - *Military rules*
 - *Civilian rules*

Study One

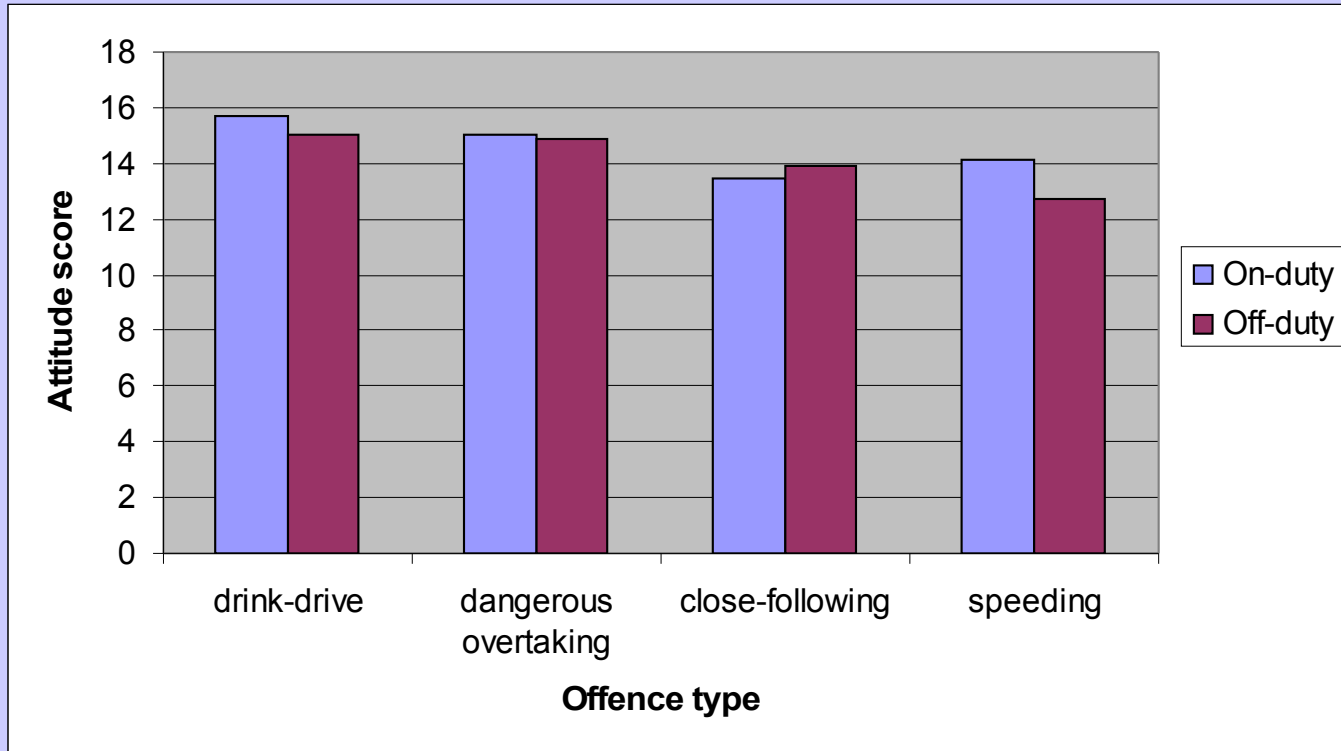
- Royal Marine Commando
 - *WO1 Gary Stevens, RMC, Fleet HQ*
 - *Training Centre, Lypstone, Devon*
 - *n=15*
 - *Time in service = 7.3 years (SD=6.6)*
 - *High scores on strength of identity measures*
- Time 1:
 - *Civilian clothes, 9am*
- Time 2:
 - *Uniform, after 2 hours normal duties*

DBQ-R



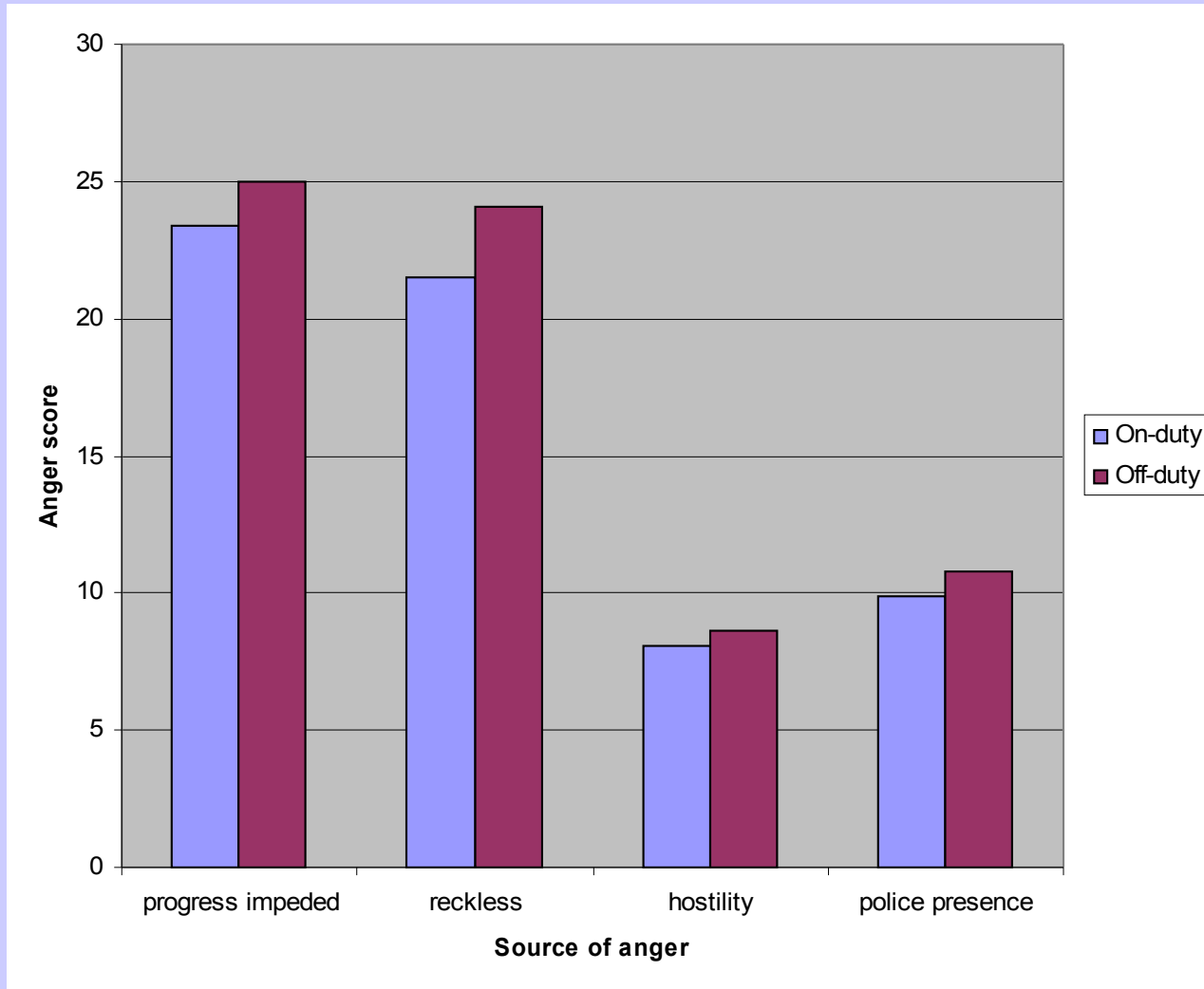
- Errors; $t_{14}=1.96$, $p=.035$
- Aggressive violations; $t_{14}=3.06$, $p=.005$
- Highway Code violations; $t_{14}=4.10$, $p<.001$

Driving attitudes (DAQ)



- Higher scores indicate more appropriate attitudes
- Significant differences in speeding attitudes only ($t_{14}=3.86, p=.001$)
- An offence without clear interpersonal focus ?
- Moral versus civilian rules ?

Driving anger (DAS-UK+)



- Significant differences in experienced anger

Sources of experienced anger

- More angry when out of uniform, ‘off-duty’ condition
- Hostility ($t_{14}=0.91, n.s.$)
 - *“Someone is driving very close to your rear bumper”*
- Progress impeded ($t_{14}=1.70, p=.050$)
 - *“Someone in front of you does not move off straight away when the traffic lights turn green”*
- Police presence ($t_{14}=2.05, p=.030$)
 - *“A police officer pulls you over”*
- Reckless ($t_{14}=2.71, p=.009$)
 - *“Someone is weaving in and out of the traffic”*

Effects of training

- Training emphasises discipline
 - *But also promotes risk-taking and risk insensitivity*
 - *Trained to deal with risk – civilians are not*
 - *Certain units may attract certain types of recruit*
- Uniform acts as subliminal reminder of discipline and training
 - *Removing uniform removes inhibiting effects of training*
 - *May not wish to ‘disgrace the badge’*
- Out of uniform, the cork comes off the bottle
 - *On-duty – disciplined and law-abiding*
 - *Off-duty – reckless and disobedient*

Study Two: Anger and aggression

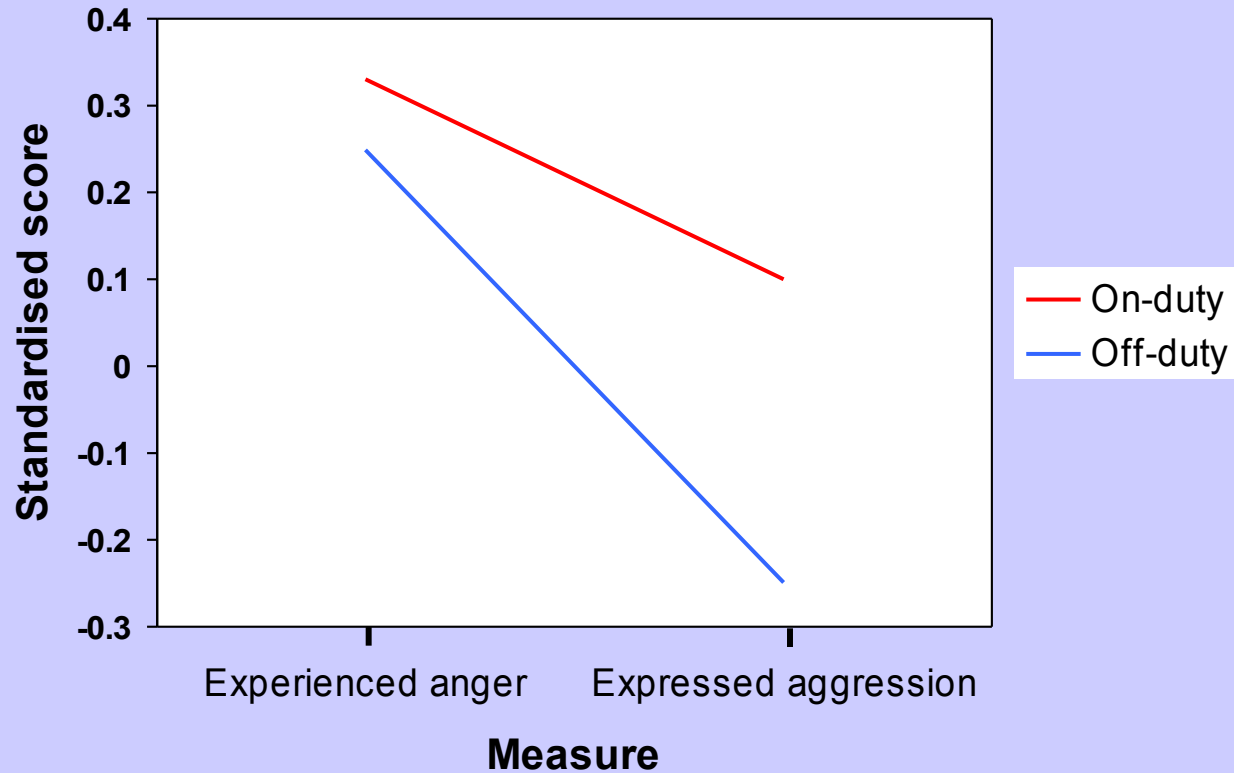
- Emotional reactivity
- Differences in expression of experienced emotion
 - *Deffenbacher et al (2003)*
- Social (group) identity can influence this
 - *Social context (Gross et al, 2000)*
 - *'Display rules' (Gosserand & Diefendorff, 2005)*
 - *Reactivity (Yzerbyt et al, 2003)*
- Conversion of anger to aggression different ?
 - *If we get angry, are we more likely to show it ?*

- Britannia Royal Naval College
 - *Lt-Com Rich Harris, BRNC Dartmouth*
 - *Royal Navy recruits*
 - *$n=33$*
 - *Time in service = 0.5 years (SD=0.3)*
 - *Large variance in strength of identity measures*
- Time 1:
 - *Civilian clothes*
- Time 2:
 - *Uniform*

Anger and aggression

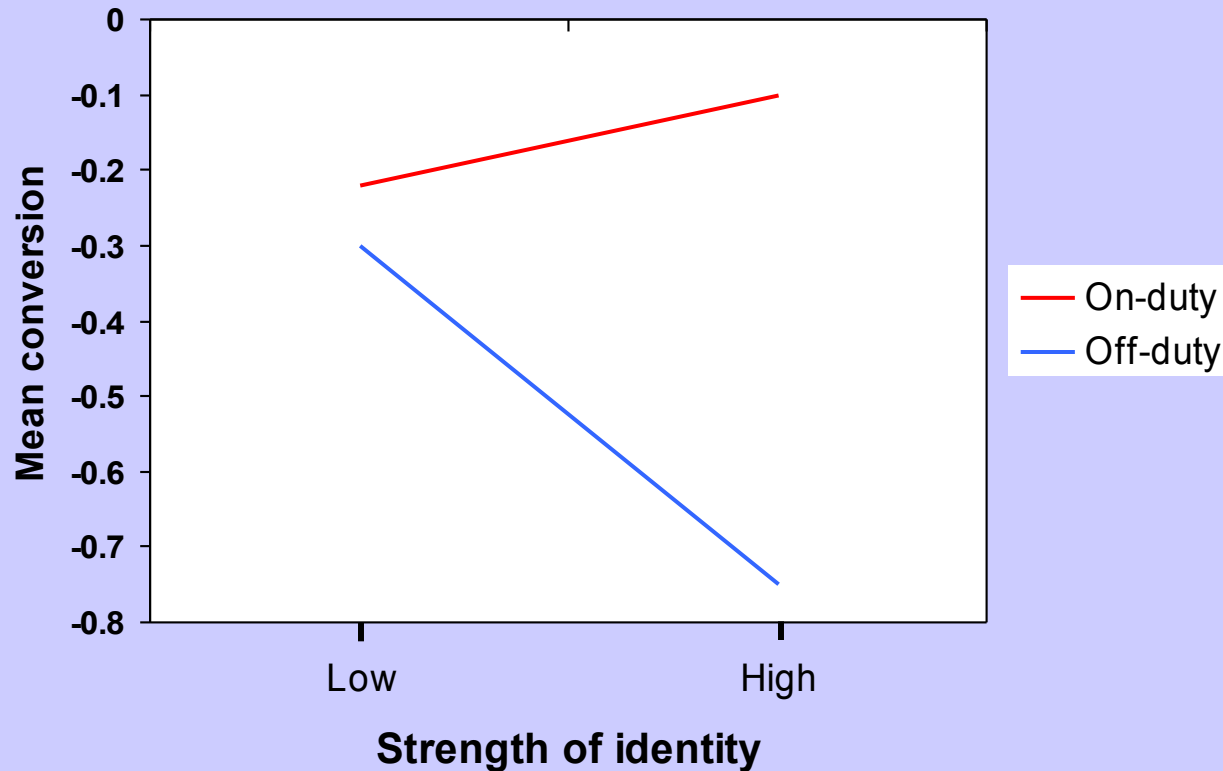
- Experienced anger
 - *“How angry you feel while driving”*
- Expressed aggression
 - *“How aggressively you behave while driving”*
- Conversion of anger to aggression
 - *Are there differences in conversion of anger to aggression while driving?*

Anger and aggression



- Greater suppression off-duty, compared with on-duty
 - *Interaction* ($F_{1,9}=6.75, p=.029$)

Identity strength and anger conversion



- **Higher** scores indicate greater **conversion** of anger to aggression
- **Lower** scores indicate greater **suppression** of experienced anger
 - *Interaction* ($F_{1,9}=9.45, p=.013$)

Anger and aggression

- Unexpected direction in difference on/off-duty
- Greater discrimination for strong identity individuals
- Clear influence of social identity, as represented by uniform
- Strength of identity increases size of effect

Anger and aggression

- Two samples are clearly different in many respects
- Cultural considerations
 - *Risk culture*
- Role of time-served
 - *Immersion in salient service culture*
 - *Military training and experience*
- Further study with RMC (Summer 2007)
 - *'Unexpected' Afghanistan tour intervened*

Further research

- Distinction between
 - ‘*affect*’ – *the experience of getting angry*
 - ‘*cognition*’ – *thoughts of hostility towards another*
 - ‘*behaviour*’ – *expressed aggression towards another*
- What effect does wearing a uniform have on these elements of anger and aggression ?
- How does wearing the uniform mediate the relationship between them ?

Further research

- Counter-productive effects of training ?
 - *Trained to be insensitive to risk*
 - *Rebound effect – ‘hangover’*
 - *Training better ‘on-duty’ soldiers may increase likelihood of ‘off-duty’ collisions*
- Other uniformed services and occupations ?
- Countermeasures ?
- Possible further work with Land Command