NEUROSCIENCE APPROACH TO ROAD SAFETY





10 TO 24 YEAR OLDS

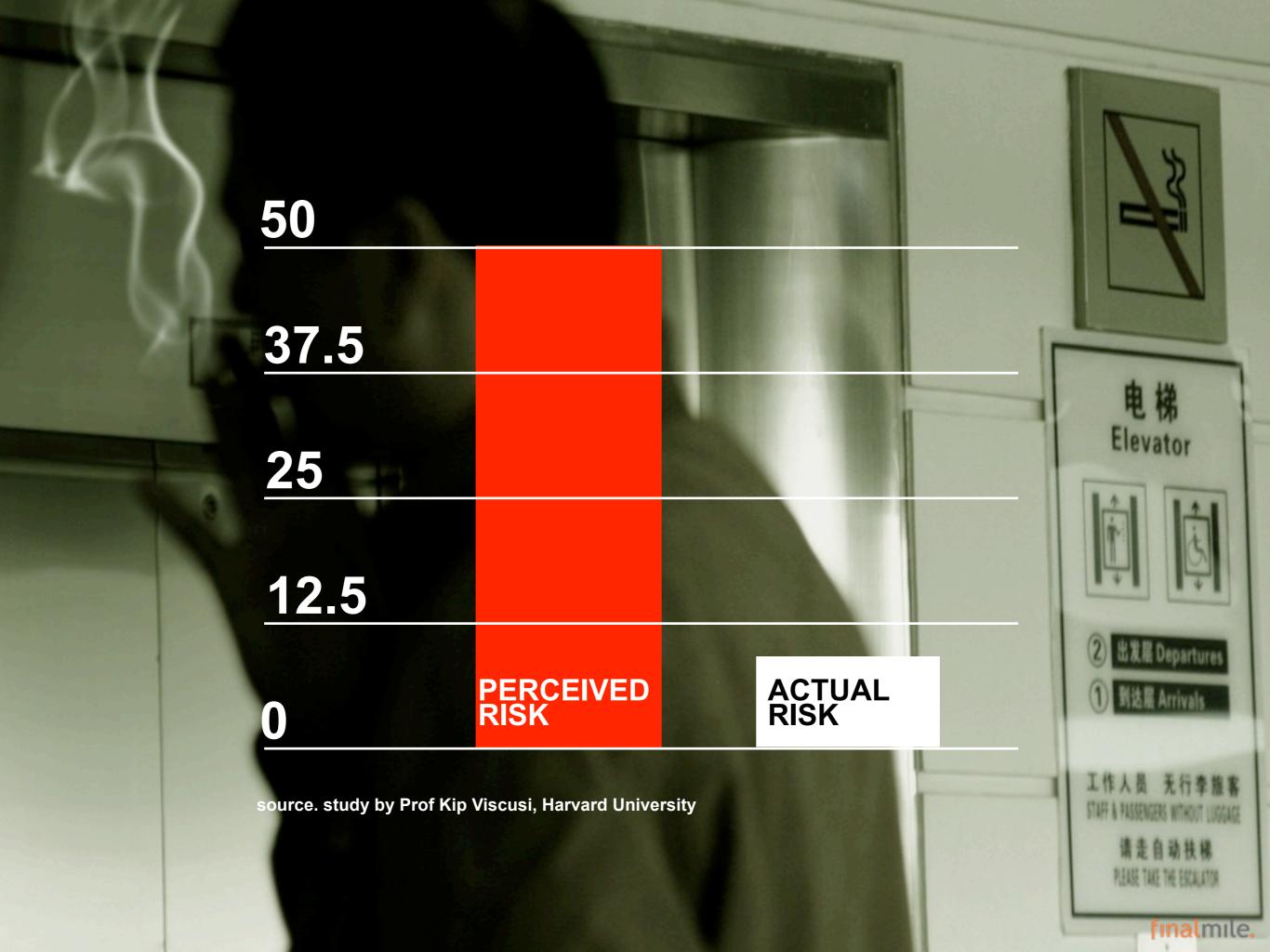
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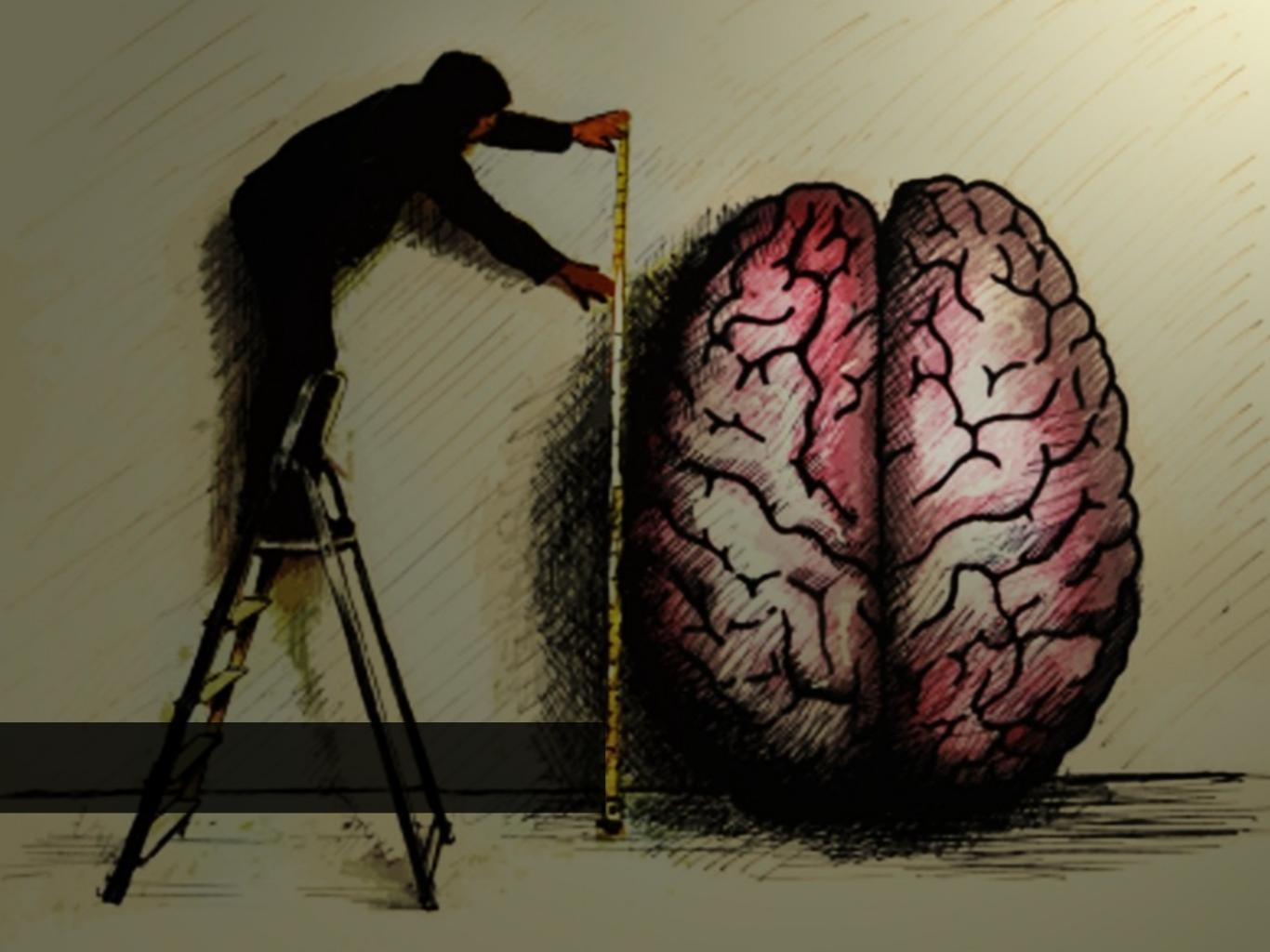












COGNITIVE NEUROSCIENCE

COGNITIVE NEUROSCIENCE

BEHAVIOURAL ECONOMICS

BEHAVIOURAL ECONOMICS

NON-CONSCIOUS

CONSCIOUS RATIONAL

OBSERVABLE BEHAVIOUR





BEHAVIOR IS DRIVEN BY NON-CONSCIOUS

NON-CONSCIOUS

CONSCIOUS

"The new understanding of human behaviour constitutes a revolution no less intriguing - and perhaps more powerful than the discovery that the sun really does not revolve around the earth."

- Shankar Vedantam, Hidden Brain

WHY NOT



PROSPECT THEORY:

WE ARE MORE LIKELY TO GAMBLE FOR A LARGER LOSS THAN ACCEPT A GUARANTEED SMALLER LOSS

WHERE WILL MORE ACCIDENTS HAPPEN?



RISK COMPENSATION

GREATER
PERCEPTION
OF SAFETYGREATER
RISK
TAKEN

SOURCE : THE CLASSIC THEORY OF RISK COMPENSATION (ADAMS, 1995)







MOST ENERGY OPTIMIZING MACHINE

"There is no expedient to which a man will not resort to avoid the real labor of thinking"





OUR AIM IS TO KEEP THIS TOILET CLEAN



Your aim will HELP Stand closer; It's shorter than you think.

OUR AIM IS TO KEEP THIS TOILET CLEAN



Your aim will HELP Stand closer; It's shorter than you think.





finalmile.

THE TRAIN INDUCES VISUAL PROCESSING ERRORS



LEIBOWITZ HYPOTHESIS:

TRAIN LOOKS SLOWER THAN WHAT IT IS -LEADING TO JUDGEMENT ERRORS

(18 secs versus 30 secs for train approaching at 120 km/h @40% underestimation

TELL THEM THAT THE TRAINS ARE APPROACHING FASTER THAN THEY THINK?

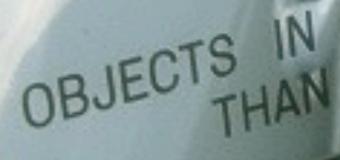
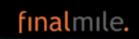


photo © photolibrary

finalmile.

photo © photolibrary

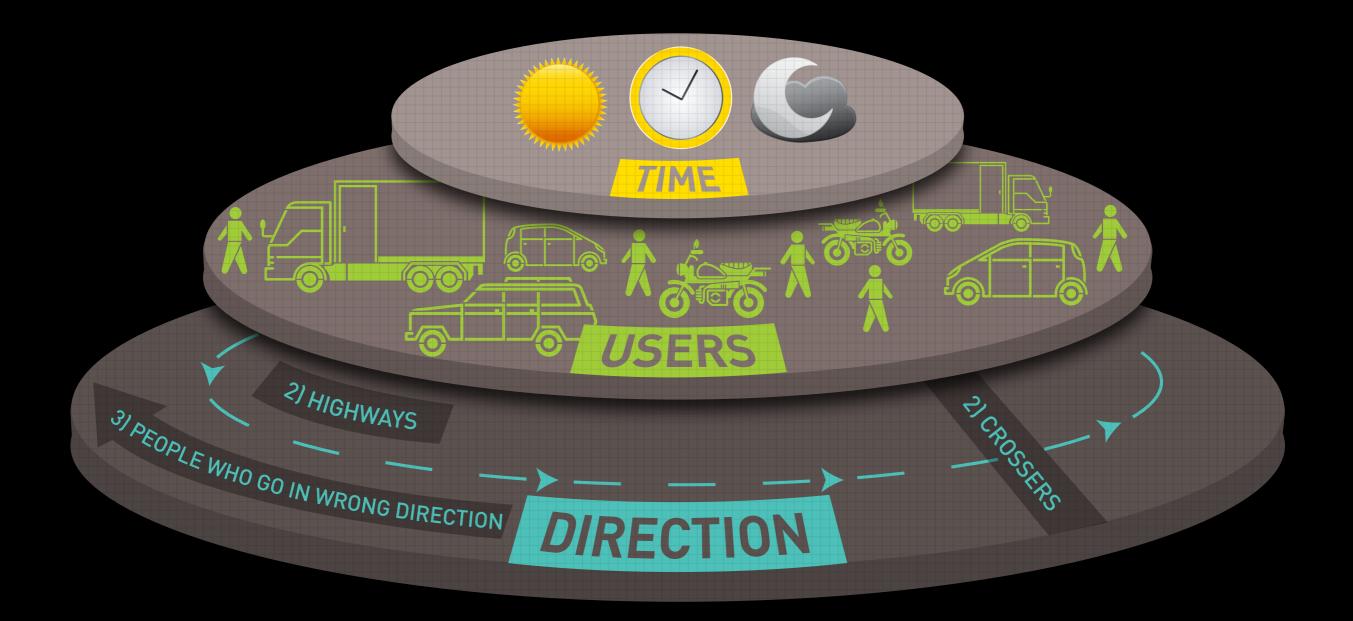


CREATED A SPEED REFERENCE

DIAGONAL SPEED DIAGONAL SPEED BREAKER = BREAKS BREAKER = BREAKS FAMILIARIT = FAMILIARIT = INFFICULTY = BIFFICULTY =



*Towards a general theory of driver behaviour, Ray Fuller, Dept of Psychology, Trinity College



Two roads diverged in a wood, and I— I took the one less traveled by, And that has made all the difference.

- Robert Frost