Rider Choices Save Lives: How the Motorcycle Safety Foundation (MSF) is Challenging Riders to See more, Think more, and Learn more!

Sherry Williams, Ph.D.

Director, Quality Assurance & Research
Motorcycle Safety Foundation

A Presentation to

Women in the Wind - 2013 Summer Nationals
Crystal City – Arlington, VA
June 2013

The presentation gives an overview of how the Motorcycle Safety Foundation has been focusing on producing programs for smart motorcyclists who want to have some serious fun since 1973! Our programs utilize past and current research in the fields of traffic safety, psychology, adult learning, and motor skills development. The presentation summarizes previous and current research in the area of perception and conspicuity, including the most important conspicuity mechanism – the motorcyclists' awareness, judgment and strategies. The MSF's work on advanced behavioral-based training designed to significantly improve a rider's perceptual capacity and her strategic conspicuity is reviewed. In addition, a general update of MSF programs and services is provided.

Rider Choices Save Lives:

How the Motorcycle Safety Foundation (MSF) is Challenging Riders to See More, Think More, and Learn More!

Dr. Sherry Williams
Director, MSF Quality Assurance & Research

See More!

- And BE SEEN more!

Conspicuity (con-spik-CUE-i-tee):

A term used to define the condition of being "visible", "easy to notice" or "obvious"; the ability of an object to draw attention to itself, even if no one's actively searching for it. Rider conspicuity, therefore, is the ability of a motorcyclist to draw attention to themselves, even though other drivers may not be actively looking for them.

“I didn’t see the motorcycle.”

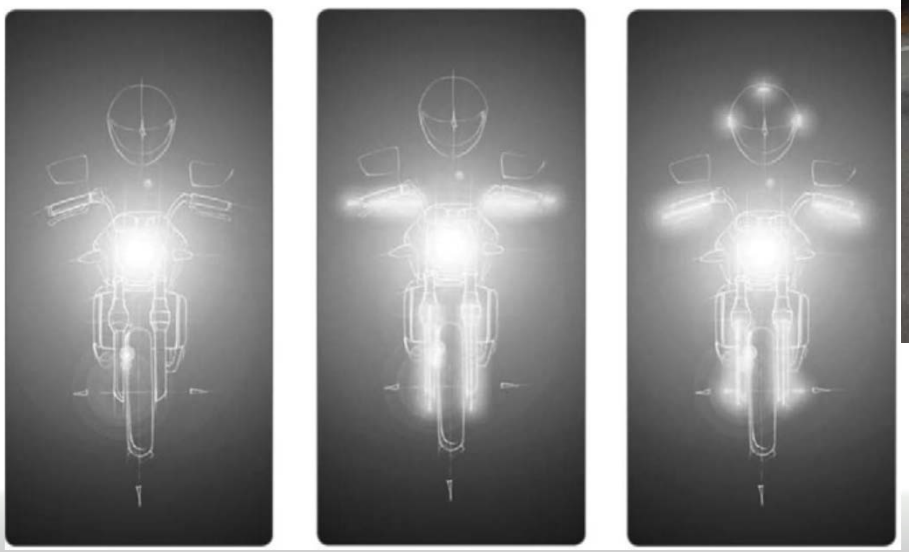
2 vehicle, at fault:

MC: 30-70%
OVD: 30-70%

Man drives into a rockslide:
http://www.youtube.com/watch?feature=player_embedded&v=gBmE92n5mEI

Conspicuity: Lights

- Day time lights – small effect
- T-shape recognized faster



Conspicuity: Gear

- White helmet lowers risk compared to black
- Reflective or fluorescent gear lowers risk
  - Hurt report
    - Consider the age of the report (1981)
    - Population proportion of neon – white gear compared to black

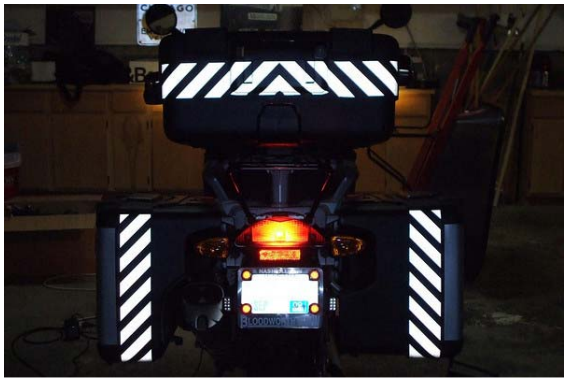
24%

37%

- Some inconsistencies

Conspicuity: Motorcycle

- Motorcycle
  - Reflective material on frontal area studied



- Contrast & Context
  - High contrast needed in low salience condition
  - Object/Background dependent
    - Hole et al. (1996): the contrast between motorcyclists and background plays a considerable role in motorcyclists'conspicuity.

The Limits of Conspicuity: Cognitive Conspicuity

Has an emergency vehicle ever snuck up on you?

What is the make up of a typical highway traffic scene?

- Expectation-dependent
  - Langham et al. (2002) suggest that even highly conspicuous objects (like a police car with flashing lights) will not be identified quickly enough as a potential hazard if a driver's expectations are not equal to the actual traffic situation.
  - Common objects (89%) versus uncommon objects (48%)
  - Car drivers who are also licensed motorcycle riders are involved in fewer car-motorcycle collisions than car drivers who do not hold a motorcycle licence (Magazzù, Comelli and Marinoni, 2006).
- Little crash data is currently available on this issue.

A Rider-Based Solution, CHOOSE Strategic Conspicuity

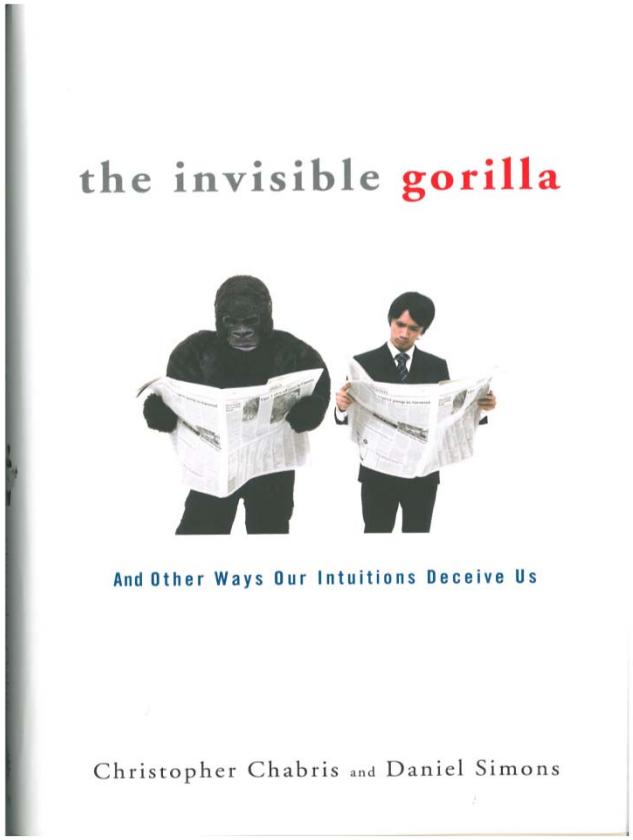
- Awareness
- Judgment
- Strategy
  - Adaptable to situation
- Self Reflection leading to Rider Improvement
- Many possible responses under a motorcyclists control – most are not skill based.

Improving Awareness / Perception

http://www.myvidster.com/video/249582/The_monkey_business_illusion

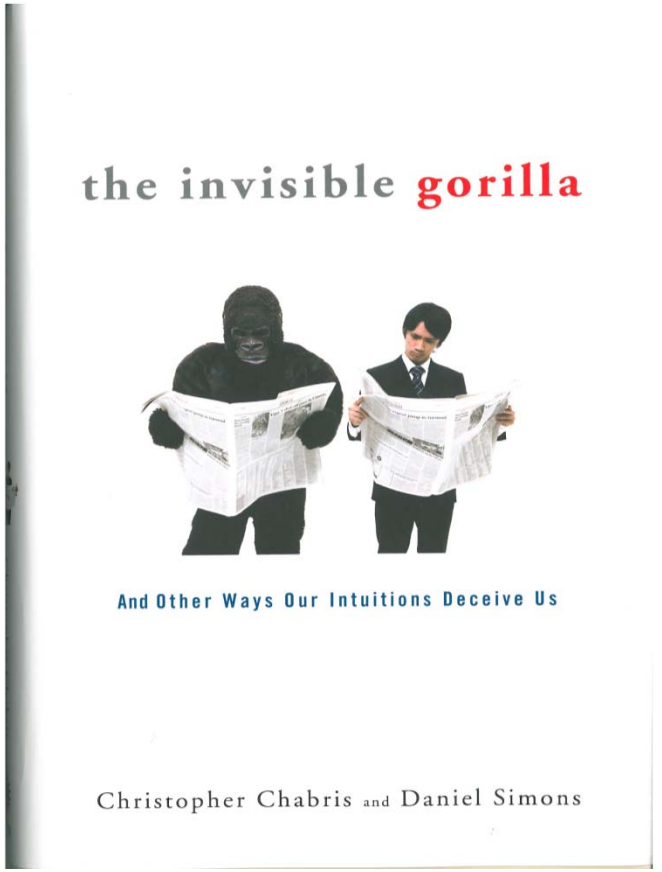
the invisible gorilla

We truly are arguing that directing our eyes at something does not guarantee that we will consciously see it.



the invisible gorilla

The problem is not with the limitations on motor control, but with limitations on attention resources and awareness.



You're riding down the road.

What do you see in this scene?

FORD
BRONCO

FORD
BRONCO

“I have the right-of-way.”

Agree or Disagree?

Our eyes don't necessarily tell our brain what we see; rather our brain tells our eyes what to look for.

An organizing schema

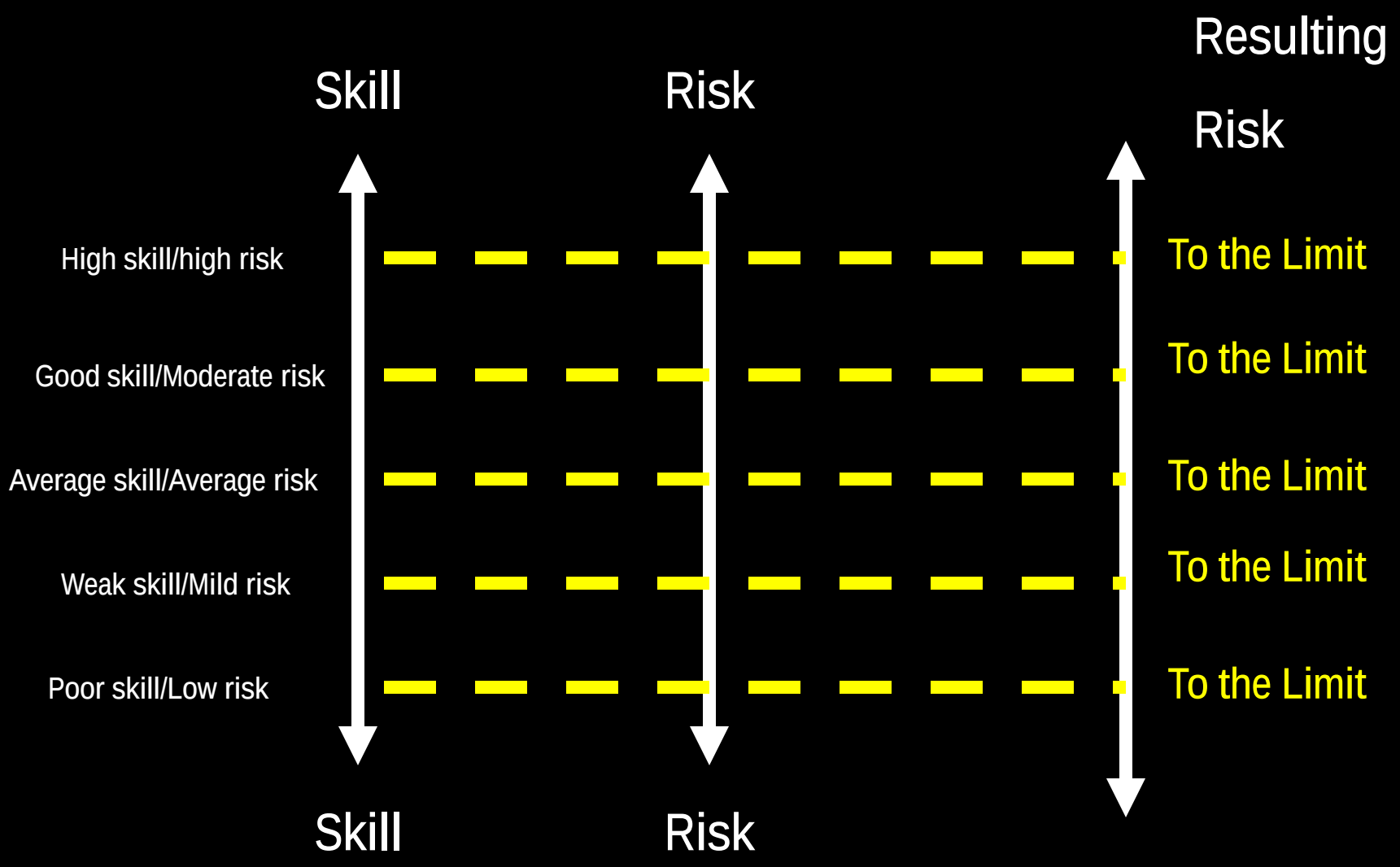
MSF Website: www.msf-usa.org

Think More!

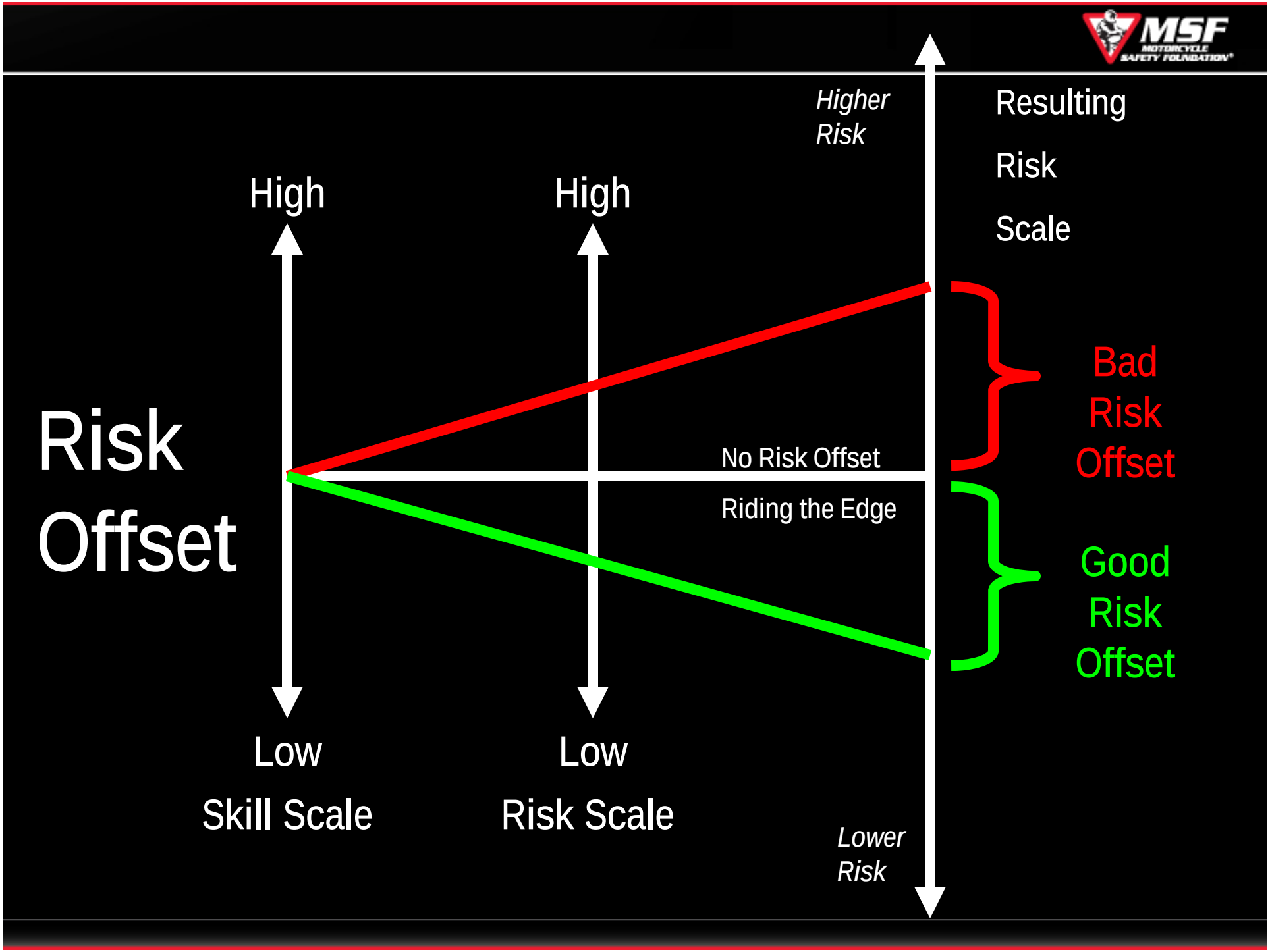
- CHOOSE to:
  - Engage in Self Assessment
  - Employ a Riding Strategy
  - Be Aware of Risk Factors
  - Manage Risk

- Serious About Safety
- Safe Riding versus Risky Riding
  - It is fairly easy to distinguish between safe behavior and risky behavior.
  - Sometimes the choice to behave safely or otherwise is easy to see, but difficult to make.
  - A rider's approach to safety (could be called attitude) often is more exposed by what a rider does versus what a rider says.
  - Safe riding behavior involves both a general attitude about safety, but more importantly it reveals itself in the moment-to-moment choices a rider makes.

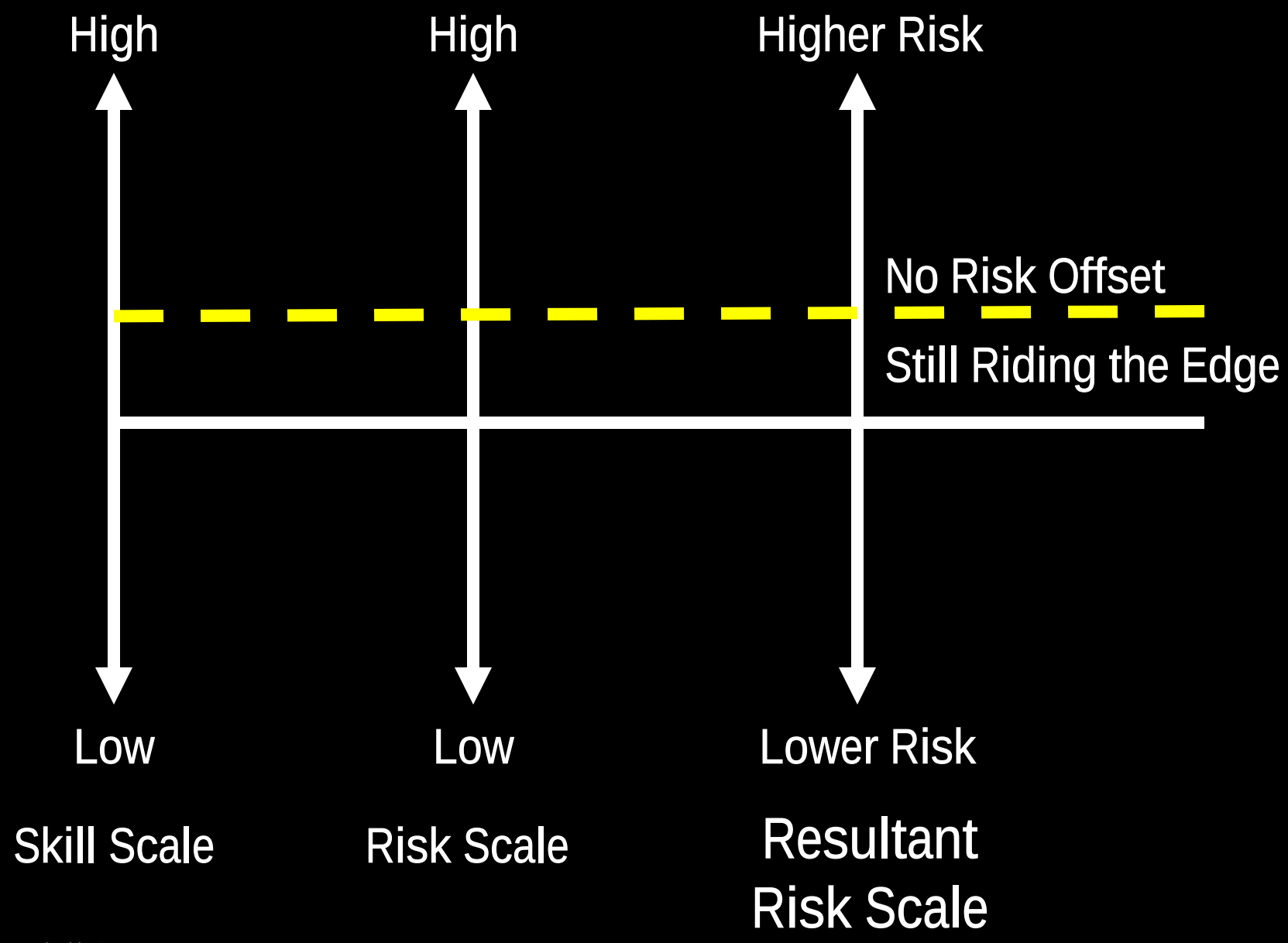
Self Assessment: Skill and Risk



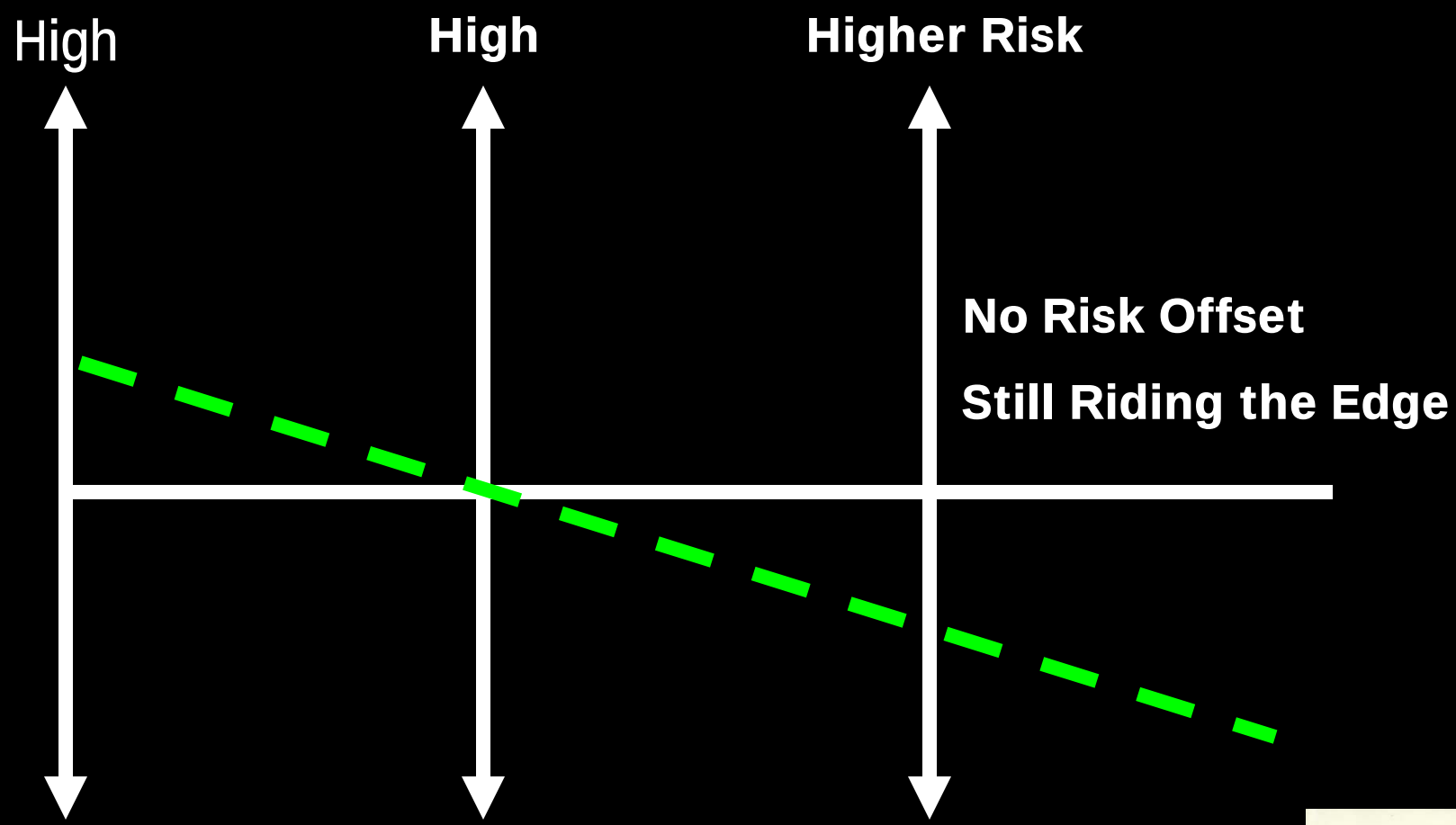
Overall & Moment-to-Moment

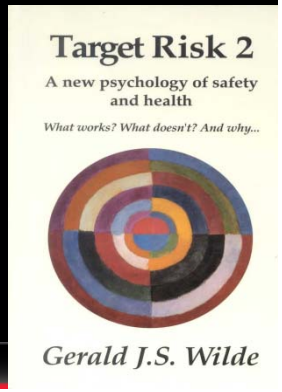

Risk Offset
High
Low
Skill Scale
High
Low
Risk Scale
Higher Risk
Lower Risk
Resulting Risk Scale
No Risk Offset
Riding the Edge
Bad Risk Offset
Good Risk Offset

Value of safety training if higher risks are taken?



Value of safety training!





Are you a Level IV Rider?

Level 0 = Self taught and/or rides without a license

Level I = Completes a learn-to-ride course & licensed

Level II = I + Completes additional courses

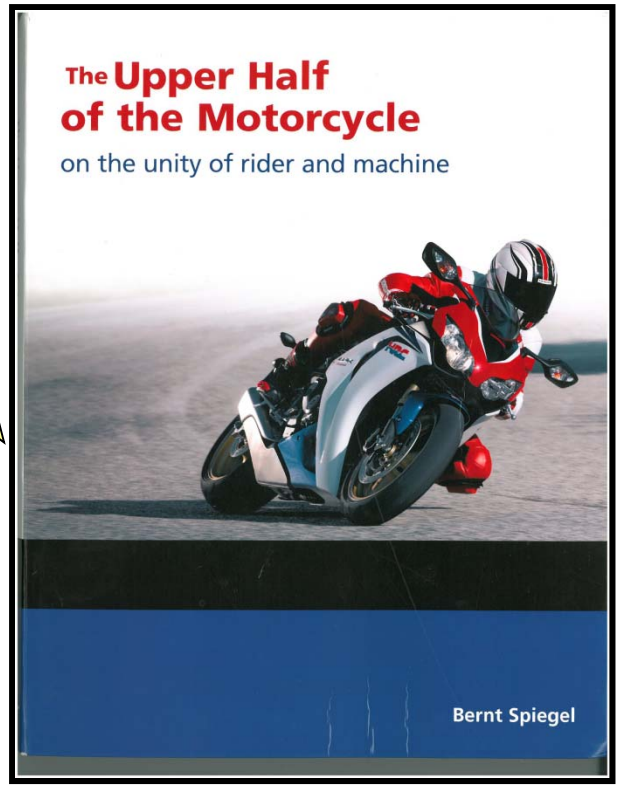
Level III = II + Reflects on experiences

Level IV = III + Lifelong learner & subconsciously safe

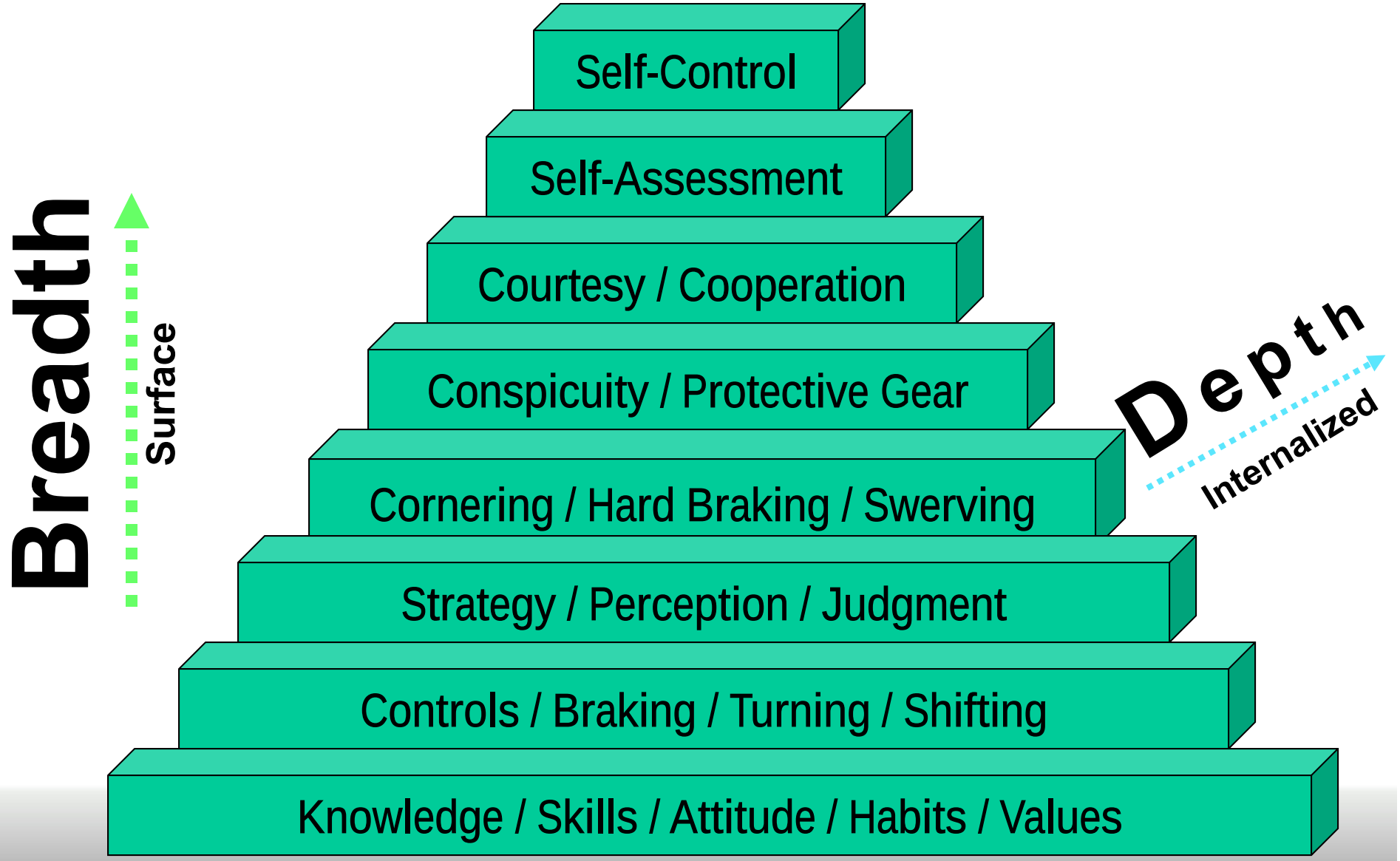
A Level 4 Rider

The Upper Half of the Motorcycle

Improvement requires a constant intent to improve. The implementation and maintenance of this intent is a task that requires the utmost in rational control, which is a *duty—a "leadership duty"—of the conscious self*.



Self Assessment:Competencies & Abilities



Learn More!

- Choose Lifelong learning
  - One course is not enough
  - It's not an inoculation
- Safety Renewal is the key

Last year MSF curricula were used to train over 500,000 riders (6 million riders to date)

Thanks to…

- 9,499 certified *RiderCoaches*
- 275 certified *RiderCoach* Trainers
- Over 10,000 certifications
- 1,102 RERP Sponsors managing 2,691 sites
- State, Military, Other Administrators

MSF RETS

Learning-to-Ride

Basic *RiderCourse (BRC)*
- Standard
- Expanded
- Small Group
- Tutoring
- Skills Practice
- Formal Remedial Training

Basic *RiderCourse* 2
- License Waiver
- Skills Practice

Street *RiderCourse* 1

Basic Bike Bonding *RiderCourse*

Returning Rider BRC

3-Wheel BRC

Scooter BRC

Improving-the-Ride

Street *RiderCourse* 2

Advanced *RiderCourse*

Safe Motorcyclist Awareness and Recognition Trainer (SMART)

Ultimate Bike Bonding *RiderCourse*

MSF Kevin Schwantz *RiderCourse*

Street *RiderCourse* 3

Specialized Programs

Introductory Motorcycle Experience

ScooterSchool: Introduction to Scooters *RiderCourse*

Military Motorcycle *RiderCourse*

Military *SportBike RiderCourse*

DirtBike School: *DirtBike* BRC

Trail Riding *RiderCourse*

State Education Programs

Online Programs

Host-An-Event

Intersection – *Motorist Awareness*

Share the Adventure – *Group Riding*

Street Smart – *Rider Perception*

Riding Straight – *Alcohol Awareness*

SeasonedRider – *Aging Awareness*

Introduction to Motorcycling – *Non-Rider Awareness*

Essential Core

Basic *RiderCourse*
Street *RiderCourse* 1
Basic Bike Bonding *RiderCourse*

Expanded Core

Essential Core plus

Street Smart – Rider Perception
Advanced *RiderCourse*
Street *RiderCourse* 2

Recommended Core

Expanded Core plus

Ultimate Bike Bonding *RiderCourse*
MSF Kevin Schwantz *RiderCourse*

New MSF Courses

Rider Perception

SMARTrainer

Basic Bike-Bonding *RiderCourse*

Ultimate Bike-Bonding RiderCourse

Street *RiderCourse*

3-Wheel Basic *RiderCourse*

Scooter Basic *RiderCourse*

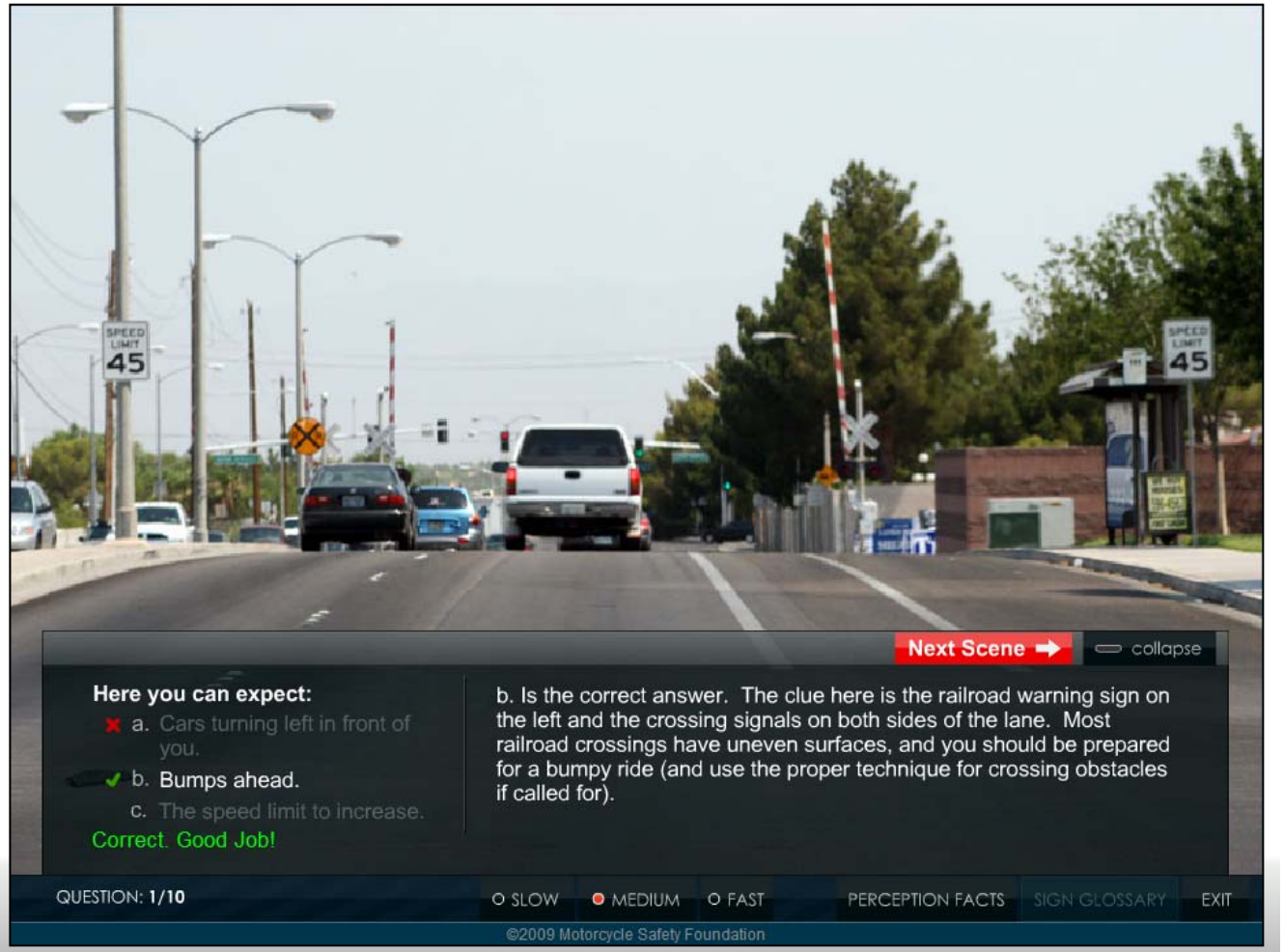
Military *Sportbike RiderCourse*

Advanced *RiderCourse*

Rider Perception

Modern visual technology

Improves rider's perceptual skills



New MSF Courses

SMARTrainer

Hazard perception

Risk management

Play back and coaching

Basic Bike-Bonding *RiderCourse*

Ultimate Bike-Bonding *RiderCourse*

Drills on skills

Slow speed focus

Fine motor skills

Street *RiderCourse* ***(SRC 1, SRC2)***

Light residential riding

Light suburban traffic

Complex traffic situations

3-Wheel Basic *RiderCourse*

Same concepts as Basic *RiderCourse*, now applied to 3-wheel motorcycles

Scooter Basic *RiderCourse*

Same concepts as Basic *RiderCourse*, now applied to scooters

Modular-type courses provide:

- More breadth and depth
- Multiple points of entry and renewal
- Individualized coaching
- Segmented learning opportunities
- Distributed practice

MSF Ready-To-Use Kits

Intersections – All Roadway Users

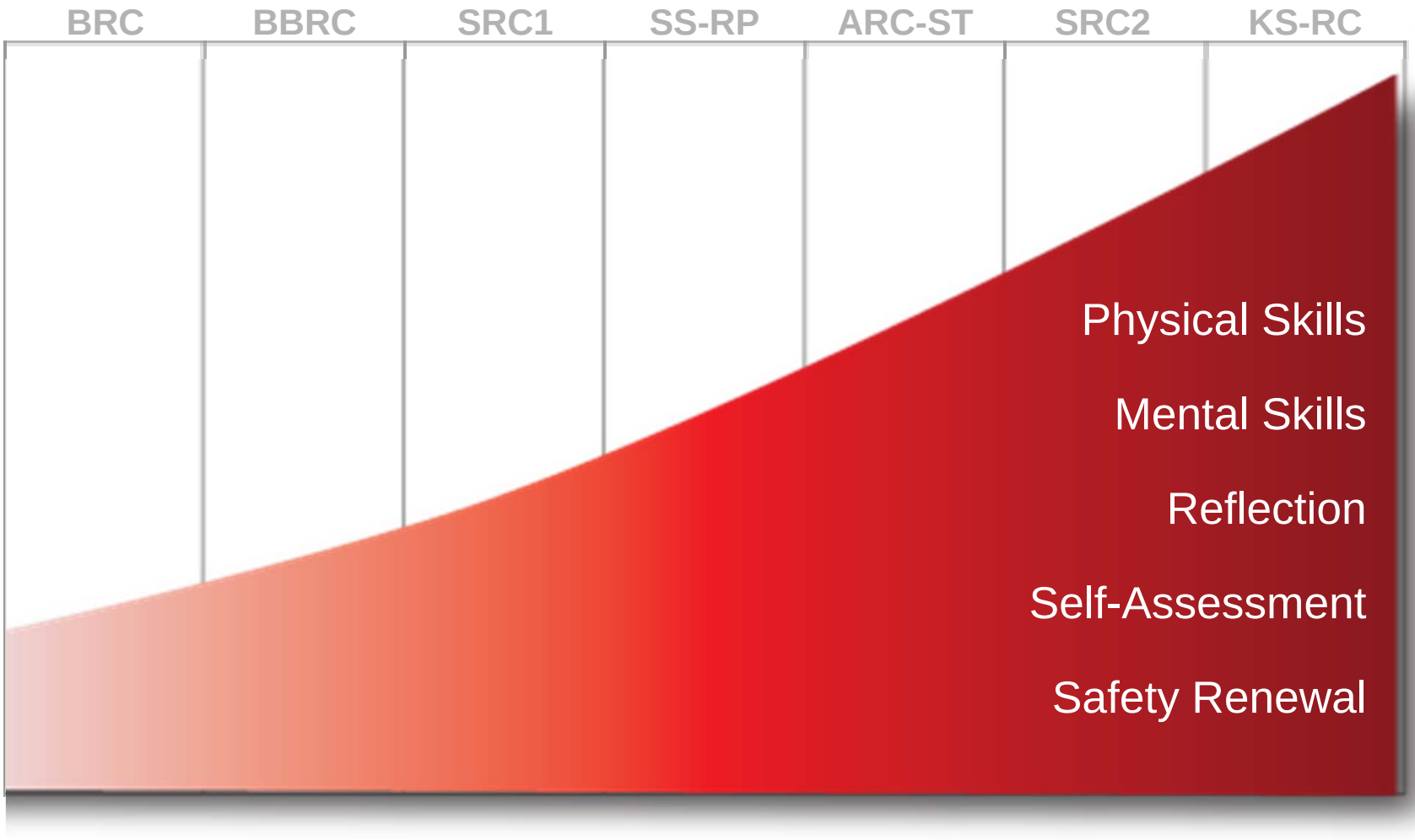
Share the Adventure – Group Riding

StreetSmart – Rider Perception

Riding Straight – Alcohol Awareness

Seasoned Rider – Aging Awareness

Developing the Whole Rider



Continuum of Learning

Motorcycle Safety Foundation

Education Technology

Tim Buche Motorcycle Safety Foundation

Tim is President and Chief Executive Officer of the not-for-profit trade associations: the Motorcycle Safety Foundation (MSF) 501(c)(6) and National Motorcycle Safety Fund (NMSF) 501(c)(3).

The Motorcycle Safety Foundation promotes lifelong learning for motorcyclists and is the premier, internationally recognized developer of the comprehensive, researched-based, Rider Education and Training System. The MSF actively participates in government relations and safety research, creating curricula, licensing tests and materials for rider safety education, and oversees a network of more than 9,500 MSF RiderCoaches worldwide. The world's first, large-scale naturalistic study of 100 motorcyclists is underway in three states and in collaboration with the Virginia Tech Transportation Institute. The MSF contracts to manage five state motorcycle safety programs with combined budgets of more than $8 million and tuitions paid to training providers of about $18.6 million.

Expanding efforts to reach audiences in need

- **On-line**
- **Rider Education & Training**
- **iBooks**
- **iTunes U**
- **Research**
- **Future Projects**

Engaging. Interactive. Online. Educational Delivery Systems.

MSF eCourse

About the MSF eCourse

On-line content delivery of an extensively reworked interactive rider handbook containing interactive modules, videos, graphics, voice over and text; all broken into chapters which have gated tests and cannot be skipped unless the user passes each test with a score of 80% or better.

On-line learning is a widely accepted means for cognitive learning and the delivery of educational material. The MSF BRC eCourse stands alone as a learning tool and works in conjunction with the newest Basic *RiderCourse*. It is expected to take the average student 3-4 hours to complete. The student can save their work and return at any point. Upon successful completion the student receives a completion certificate.

Access *Anywhere*

» There are a number of scenarios for which the eCourse provides value:

- As a precursor to the newest Basic RiderCourse
- As a supplement to the existing Basic RiderCourse
  for those individuals who wish to learn more
- As an orientation tool for new riders seeking information about riding who will ultimately end up taking a hands-on course or not
- As a refresher course for *returning* riders who wish to brush up on safety concepts
- As a refresher course for *existing* riders wishing to brush up on safety concepts

Engaging. Interactive. Online. Educational Delivery Systems.

MSF iBooks exclusively for the iPad

MSF iBooks for the iPad

Rider Choices: An effective discussion tool to help a friend or family member have a serious conversation with a prospective motorcycle rider about a safe way forward. From risk management principles, to training, motorist awareness, personal protective gear, and even a 'Contract for Safety' that both parties can sign to affirm the wise choices the parties agree to. Rider Choices facilitates a meaningful discussion, one that can lead to an informed decision about whether to ride.

Intersection Share the Road: This book is intended to increase awareness of motorcyclist and scooter riders on the roadway. It illustrates potentially hazardous situations through the eyes of different types of motorists and illustrates why intersections in particular can be so dangerous. The main theme is that all motorists, regardless of their driving experience or the type of vehicle they drive need to be aware of motorcyclists sharing the road with them.

Intersection Leaders Guide: This course is designed to assist those interested in preparing for and facilitating a group discussion about all aspects of drivers and commercial drivers sharing the road with motorcyclists.

Engaging. Interactive. Online. Educational Delivery Systems.

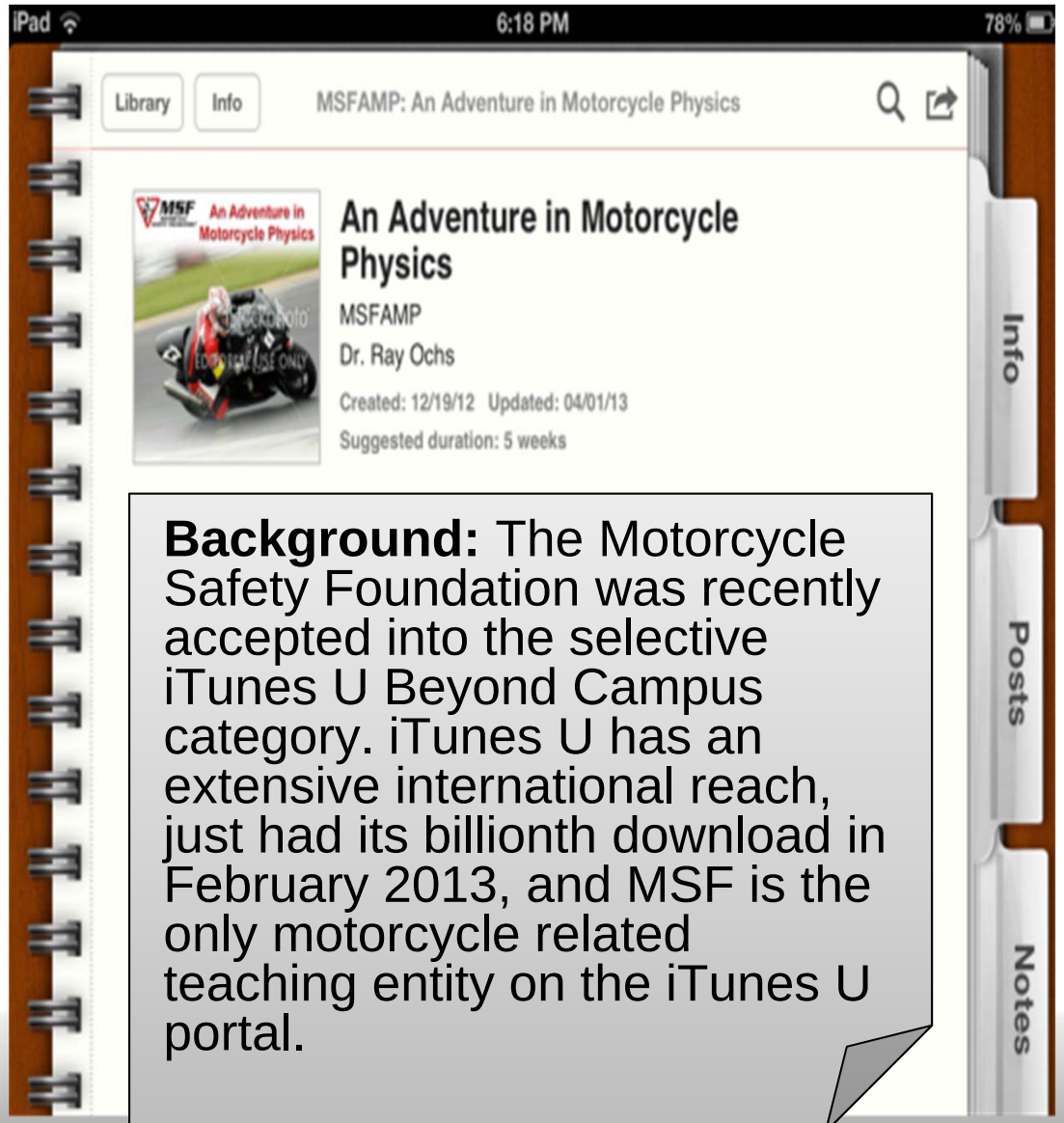
Apple iTunesU courses by MSF

Apple iTunesU Courses by MSF

An Adventure in Motorcycle Physics:

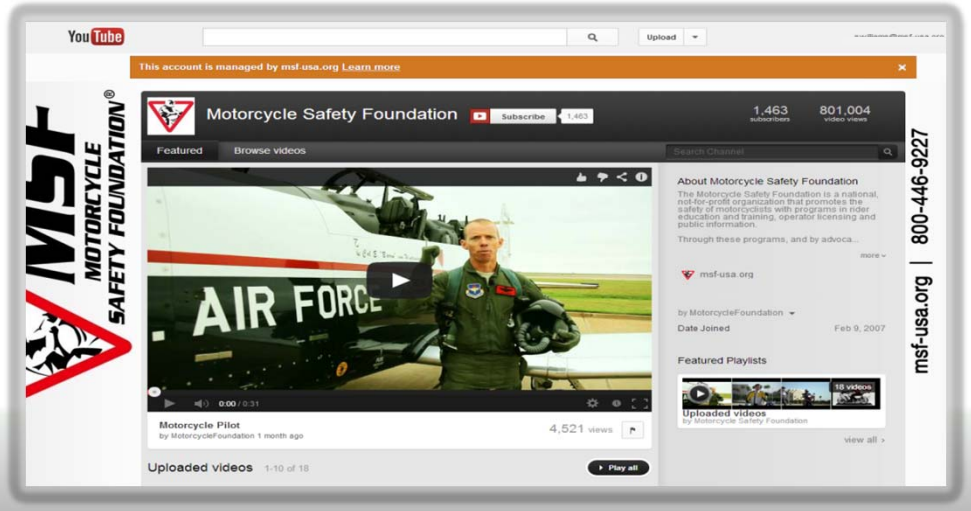
A structured self-paced five week course made up of materials taken from the Motorcycling Excellence book which is comprised of various contributors, and videos from the ‘All about Motorcycling’ DVD. At the end there is an interactive 20 question final exam which scores the student. People who enroll in the course can reach out to the instructor, Dr. Ray Ochs, with questions and comments.

This is one of MSFs most unprecedented opportunities to reach hundreds of millions of current and potential motorcycle riders with safety related messages, awareness campaigns in an entertaining and engaging way.



Engaging. Interactive. Online. Educational Delivery Systems.

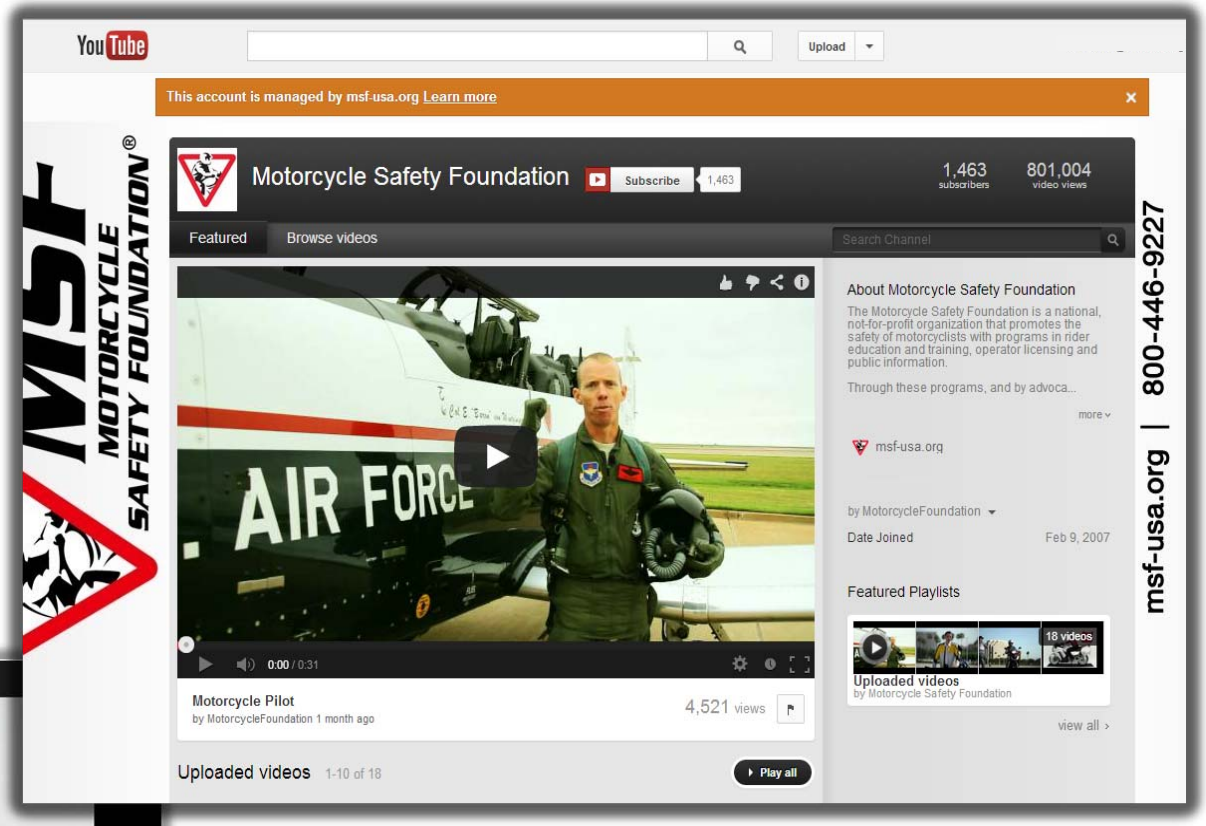
MSF YouTube



YouTube Videos by MSF

- 18 videos
- 1250 subscribers
- Over 750,000 video views

"Fools Gear/Cool Gear" based on the MSF's popular safety poster of the same name, communicates a serious message in an entertaining manner



MSF Key Messages

- See More!
- Think More!
- Learn More!

- Take Responsibility for Your Own Safety.

- Get trained, licensed & obey the law
- Wear protective gear
- Ride unimpaired
- Ride within skill limits
- Be a lifelong learner

Our Member Companies

We stand behind our work.

Motorcycles

Who's in your corner?