



# VICTORIAN MOTORCYCLE COUNCIL

Victorian Parliamentary Road Safety Committee  
– VMC Supplementary Public Hearing:  
Transport Accident Commission & Motorcycling.

Presented: Rob Salvatore & Peter Baulch.

Co-Presented: Rob Smith – Motorcycling Australia.

# VMC – Presentation objectives

## Presentation Objectives:

- Review of the TAC's motorcycle safety strategy - can it achieve its primary goal/s?
- TAC's understanding of riders?
- Deconstruct the "Reconstruction advert".
- The future :- Road safety and co-operation.



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The Motorcycle “Reconstruction” Ad –  
Summary, Conclusions, The Future.

# TAC Ad – Summary/Conclusions

- The VMC recognises that the TAC no fault accident insurance system is an excellent scheme and a valuable community asset.
- The TAC's motorcycle safety strategy has been shown to be an injury mitigation strategy rather than an accident prevention strategy.
- The TAC's approach to motorcycle safety has been shown to be at odds with safe motorcycling and appears to be completely devoid of any independent motorcycle expertise.
- Indeed, the reconstruction ad had no expert motorcycle input and did not reference a motorcycling subject matter expert. Focus groups can be beneficial but are neither consultation nor expert input.
- In the face of increasing motorcycling participation, the TAC's motorcycle safety strategy cannot hope to achieve its goal of a significant reduction in motorcycle trauma, nor the TAC's goal of reducing motorcycle injury related costs.

# TAC Ad – Summary/Conclusions

- The TAC has been shown to circularly reference internal data that supports its predominantly one dimensional speed centred approach to road safety.
- The TAC road safety department has been shown to largely employ marketing based philosophies and principles, predominantly focused on a one dimensional message and approach to road safety.
- The PRSC should weigh up whether a one dimensional approach, indeed whether marketing principles in general, have any place in as sophisticated and complex a subject as road safety.
- The TAC's reconstruction ad and its underlying principles have been shown to be littered with flaws and inconsistencies. This directly points back to flaws and issues within the processes and methodologies involved.
- If the status quo was to remain, then we can expect more of the same, a predominantly one dimensional approach to road safety.

# TAC Ad – Summary/Conclusions

- The status quo is unacceptable with respect to motorcycle accident prevention. For the genuine promotion of safe motorcycling, the status quo must change.
- The VMC therefore calls for an Inquiry into the TAC's approach to road safety, its philosophies, methodologies and strategies, and the legislation that guides it.
- The VMC calls for genuine independent motorcycling expertise to be involved in the planning and development of future public road safety campaigns.
- The VMC calls for the TAC to genuinely consult with riders and going forward, adopt principles, approaches, strategies and philosophies that are consistent with good safe motorcycling.
- The VMC would welcome the opportunity to be involved in future genuine safe motorcycling education campaigns.



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## TAC's Motorcycle Safety Strategy

# TAC – Motorcycle Safety Strategy

- The TAC has a genuine and worthy goal to reduce motorcycle trauma.
- However there have been many clear statements from TAC representatives about the (rising) costs of motorcycle trauma.
- These costs appear to be a central driving force behind TAC activity and their motorcycle safety strategy.
- Incidentally, the motorcycle safety strategy is not available on the TAC website.
- It first came to light in a 2010 paper entitled: “Transport Accident Commission’s Motorcycle Safety Strategy. McRae, Cockfield, Thompson”.



# TAC – Motorcycle Safety Strategy

The five key planks of the strategy are:

1. Reduce the number of motorcycle and pillion deaths.
2. Promote protective gear in order to reduce the “impact motorcycle injuries on the TAC scheme.” (sic)
3. Educate riders about the impact of speed on Vulnerable Road Users.
4. Promote the [spokes.com.au](http://spokes.com.au) website.
5. Reduce self reported speeding behaviour.

# TAC – Motorcycle Safety Strategy

- The strategy is entirely focused on the rider and it's doubtful that points 1, 4 and 5 can reduce motorcycle trauma in any way since none of them fundamentally deal with any trauma root causes.
- Point 2 (gear) is focused on injury mitigation, not about accident prevention.
- Point 3 (speed) is focussed on getting riders to slow down, which should theoretically reduce the extent of injury – which means that it too is about injury mitigation, not accident prevention.
- **So 0% of the strategy is focussed on accident prevention.**
- In other words, there's nothing in the strategy about stopping riders from crashing or importantly, being crashed in to. (← significant oversight)
- If there's no focus on fundamentally reducing the number of crashes, then how can there be any expectation of a genuine reduction in PTW road trauma?

# TAC – Motorcycle Safety Strategy

- It's an important question given the strong growth motorcycling is experiencing, because all things being equal, the number of accidents will also have grown.
- Interestingly the TAC recognises this but failed to connect the dots about the broader implications.
- TAC argues that its strategy is sound as it is in keeping with the SAFE systems "Safe Speed" pillar.
- It's well known in motorcycling circles that the "Safe Roads" pillar has the biggest positive impact on PTW safety.
- In a word, the safety strategy is flawed, but it makes perfect sense in light of TAC's primary philosophies around speed and costs.

# TAC – Motorcycle Safety Strategy

The conclusion to the TAC's Motorcycle Safety Strategy says:

## Conclusions

The short to medium term indicators are... environment where other activities are taking place within the riding community to increase rider safety.

However long term, the upward pressure of increasing numbers in the fleet poses financial implications for the TAC's business as the number of motorcyclists claims are expected to reflect this trend.

The TAC will continue to invest heavily in strategies targeting Victorian motorcyclists to increase the uptake of protective clothing and reduce the incidence of self reported speeding behaviour to assist in reducing the level of trauma sustained by riders on Victoria's roads and in turn, the number and injury level of claims received by the TAC.

Financial implications

Gear and surveys and reduced claims

# TAC – Motorcycle Safety Strategy

Taken as a whole, the strategy suggests that the TAC doesn't understand motorcycling, and this isn't surprising given the sources of data and references that it uses:

## References

- TAC Claims 2008-2009
- TAC Motorcycle Tracking Study, May 2010, Sweeney Research
- TAC Advertising Tracking Study Quarter 1 2010, Sweeney Research
- Nielsen Net Ratings, 2008-2010

## Appendices

Nil

It appears that the TAC haven't considered reputable international and/or local research in the development of its Motorcycle Safety Strategy – the PRSC should ask them why?

# TAC – Motorcycle Safety Strategy

- The reality is that the serious motorcycle injury count has remained at about 1000 per year ( $\pm 200$ ) for the last decade.
- In that time, the number of registrations has near enough doubled, which in real terms means a strong reduction in injury rate.
- If serious injuries have remained broadly steady, then it must be medical and payout costs which have gone up.
- In light of that observation, a strategy focussed on injury mitigation makes sense, but it's **not** a fundamental road safety strategy.

# TAC – Motorcycle Safety Strategy

- For the TAC to register a cost reduction, the serious injury count will need to decrease significantly in the face of rising participation.
- This is a tall order from a flawed strategy.
- It's clear that TAC believes the answer lies in reducing speed.
- Interestingly, it references data that shows that small speed reductions have a limited effect on the probability of injury, but speed reduction is still its primary approach.
- It would seem then, that the left hand doesn't know what the right hand is doing.
- Let's look at this disconnect.

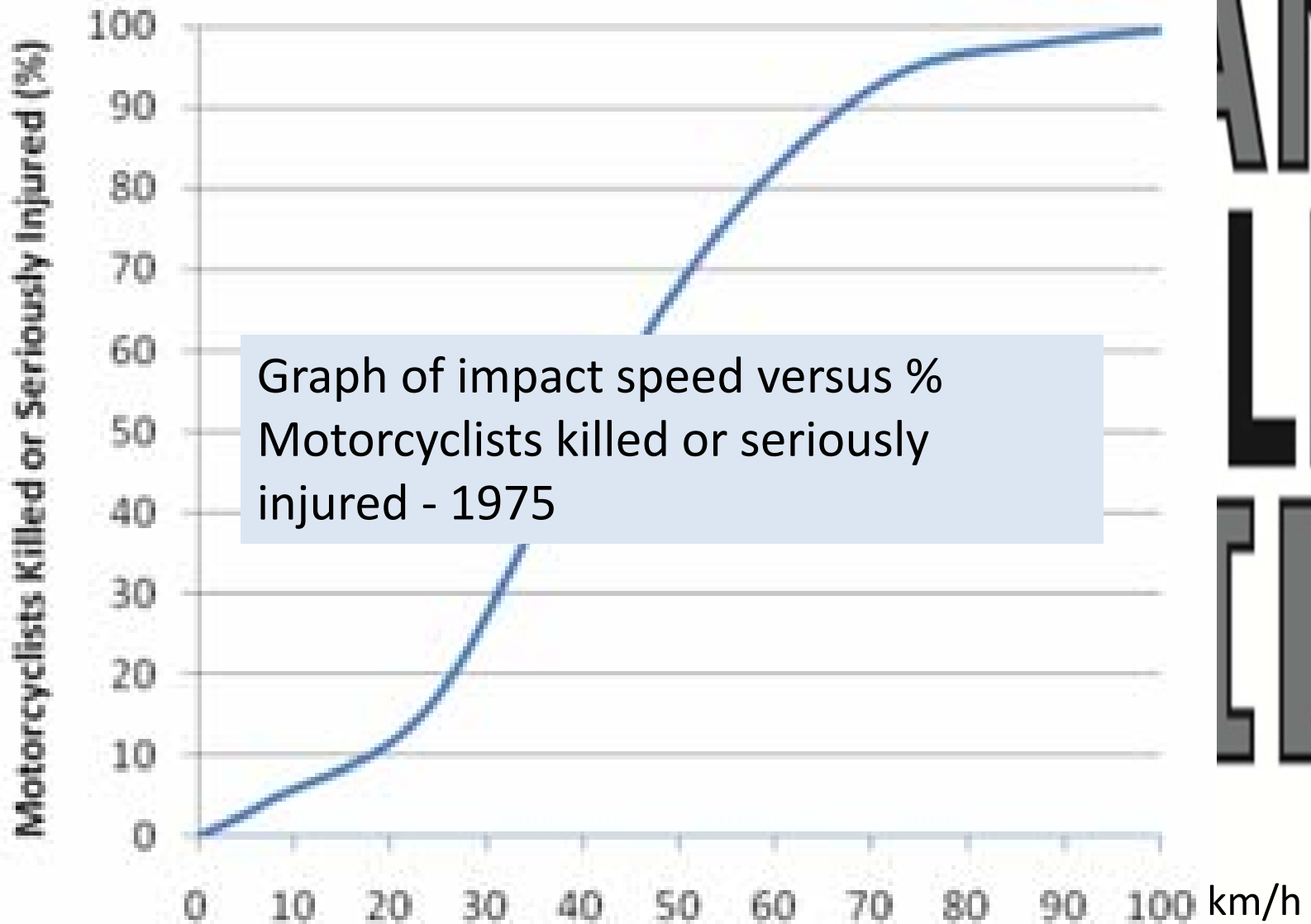


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TAC's Speed versus % KSI



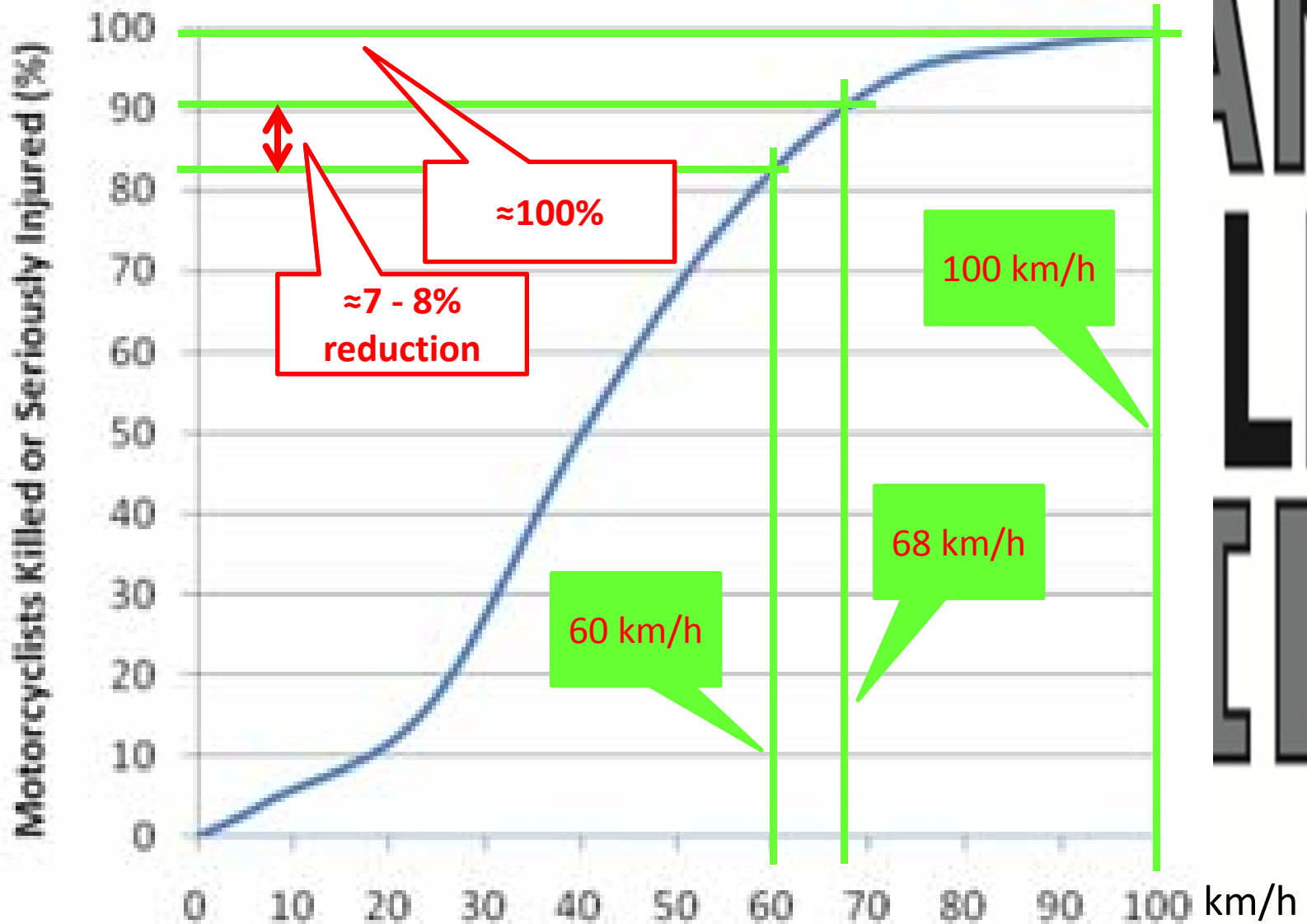
# TAC – Speed versus % KSI



# TAC – Speed versus % KSI

- The graph on the previous slide is shown on the Spokes website, and essentially shows the likelihood of a rider being killed for a given impact speed
- It's taken from a 1975 US study, is central to the TAC's speed reduction approach, but flags a large blind spot.
- Namely, that crash impacts at all legal or near legal urban speeds have a significant likelihood of fatality or trauma.
- Therefore a strategy focussed on small speed reductions and speed limits, cannot hope to significantly reduce trauma and its associated costs.
- Let's have a closer look.

# TAC – Speed versus % KSI



# TAC – Motorcycle Safety Strategy

- But the TAC argues that 30% of all fatalities involve inappropriate or excessive speed.
  - What is the proportional split between the two?
  - How do you define inappropriate?
  - What low hanging fruit is lurking in the other 70%??
- This figure is based on VicPol crash accident reports.
- Interestingly, VicPol recently confirmed to the committee that the Traffic incident report form does not provide much context around the involvement of speed.
- In fact, the form includes a tick box for “speed”, which will be ticked by the on-the-scene police officer if they believe that speed was a contributory factor.

# TAC – Motorcycle Safety Strategy

- Since the MCIU and/or the Coroner rarely investigate motorcycle crashes, the key speed data driving TAC's strategy, primarily boils down to a collection of unscientific opinion.
- There needs to be genuine in-depth crash data from which to determine true root causes otherwise we're wasting time and community money.
- Irrespective of that, TAC will argue that slowing down increases the available time to react to events – this sounds reasonable, but we're only talking about fractions of a second.
- And I would ask them, where's the evidence? Where's the crash analysis showing that these small time increments are materially significant?

# TAC – Motorcycle Safety Strategy

- Summarising:
  - The five key planks of the strategy aren't doing anything to make the roads intrinsically safer for riders
  - The strategy is based on injury mitigation, not accident prevention.
  - It's unlikely that it will be able to achieve its stated objectives.
  - It fails to recognise the truth presented in a key reference.
  - It has at its heart, opinion based unscientific data.

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# TAC – Motorcycle Safety Strategy

The TAC motorcycle safety strategy SHOULD:

- actively encourage riders to become better riders.
- actively promote defensive road craft.
- recognise the role that improved roads and road design can play in the reduction of motorcycle trauma.
- recognise the role that other road users play in motorcycle trauma.
- recognise the role that the riding community can play in fostering rider improvements.
- encourage cooperation between all road users.
- The TAC strategy requires a significant shift.

# TAC – Motorcycle Safety Strategy

- A post script:
- The TAC recently re-launched its Ride Smart CD-Rom based hazard training program, in an online based format.
- Principally directed at new riders, the CD rom version only attracted 80 completions per year from 120,000 new licenses per year.
- Rather than consider that the contents were flawed, they decided to repackage and freshen up some aspects of the program.
- Some of the information is valuable, as the hand of contributing motorcyclists is detectable, however, I don't believe the contributing motorcyclists would have signed off on the final product.
- The majority of the program's material is completely couched in terms of the TAC's key paradigm of speed.



# TAC – Motorcycle Safety Strategy

- Ross Daws, editor of “Motorcycling review”, made some valuable observations about the program on his internet blog. He highlighted the total credibility failure evident with the very first exercise whose correct answer complied totally with an anti speeding message but was utterly inconsistent with basic motorcycle fundamentals.
- I guess that explains the low completion rate then – an evident lack of credibility and a broken record of repeated anti speeding messages.
- VMC applauds the intent of Ride Smart, however deplores that fundamental safe motorcycling principles have been held ransom to the anti speeding message.
- The PRSC should ask TAC why it on one hand strongly argues against training and skills development as methods to win trauma reductions, but on the other completely advocates it in its Ride Smart program?
- *“A new online rider training program will help reduce road trauma by improving the skills of new motorcyclists before they hit the road.”* – TAC Media release for Ride Smart.



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Does TAC understand Motorcyclists?

# TAC – Motorcyclists? What?

- From a rider's point of view, TAC doesn't appear to understand motorcyclists.
- To be fair, it's not without want of trying.
- But what seems to happen is that riders are reduced to a set of generalised common attributes, and then TAC goes and focusses on uncommon unfavourable attributes, which ends up significantly skewing their messages.
- There are no regularly active riders in its road safety team.
- TAC has no in house motorcycle expertise, nor does it generally utilise external motorcycle expertise, so it only understand riders/riding from its collected data.
- It surveys riders that interact with them at events.

# TAC – Motorcyclists? What?

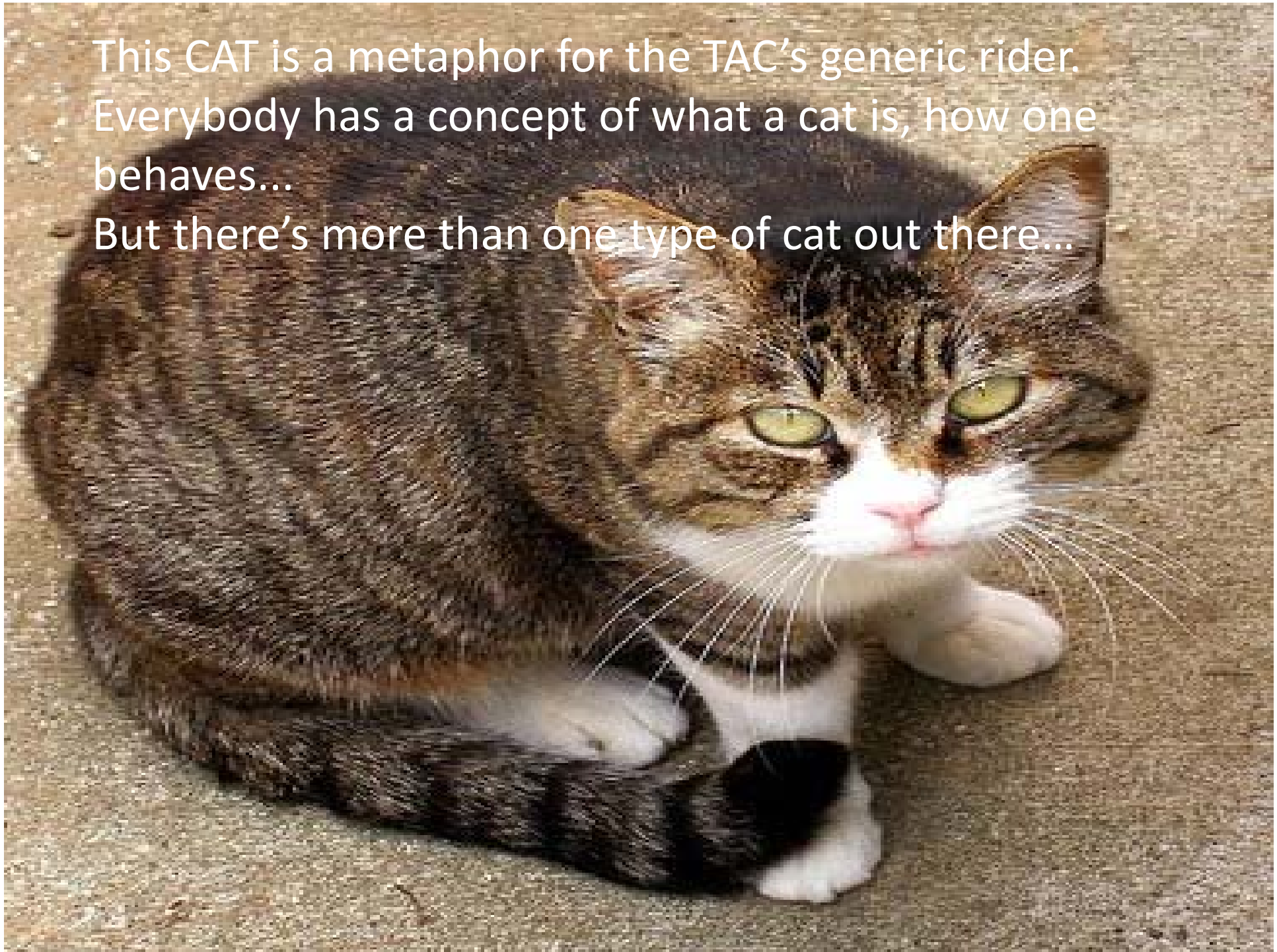
- It surveys its motorcycle crash clients.
- It conducts focus groups (principally testing marketing approaches).
- It conducts the tracker rider surveys.
- Each of these types of interactions fails to account for self selection bias and it circularly reinforces what they think they know about riders, i.e., the riders who are willing to talk to the TAC.
- One of the primary reasons that it's been difficult to organise motorcyclists into an effective group, is that it is like herding cats.
- There are very few typical attributes!

# TAC – Motorcyclists? What?

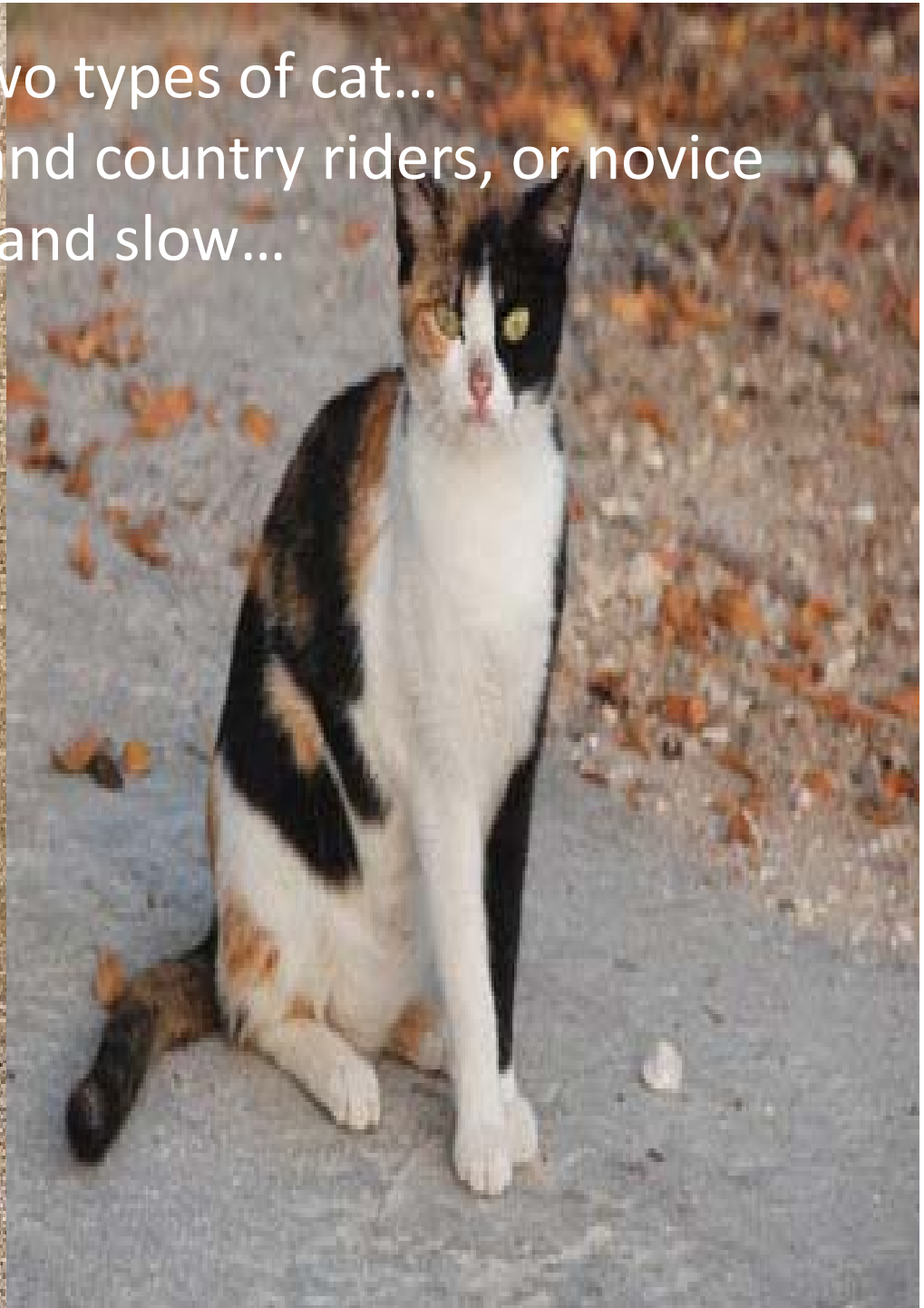
- The riding demographic is highly diverse.
- There are some 13 market sectors, most with sub-categories and a variety of rider types and motivations within each.
- Yet, still the TAC tries to reduce riders to a set of characteristics, with non surprising results - mass disengagement.
- This reductionist approach is consistent with a marketing organisation that misunderstands motorcycling.
- I present to you, the typical TAC rider...

This CAT is a metaphor for the TAC's generic rider.  
Everybody has a concept of what a cat is, how one  
behaves...

But there's more than one type of cat out there...



Perhaps there's at least two types of cat...  
Here we might have city and country riders, or novice  
and intermediate, or fast and slow...



But that barely scratches the surface.  
Daily commuters, conservative riders, discretionary riders, fair weather rider, errand runners, once a month weekend riders, ATGATT, cruisers, sports bikes, naked, café racers...

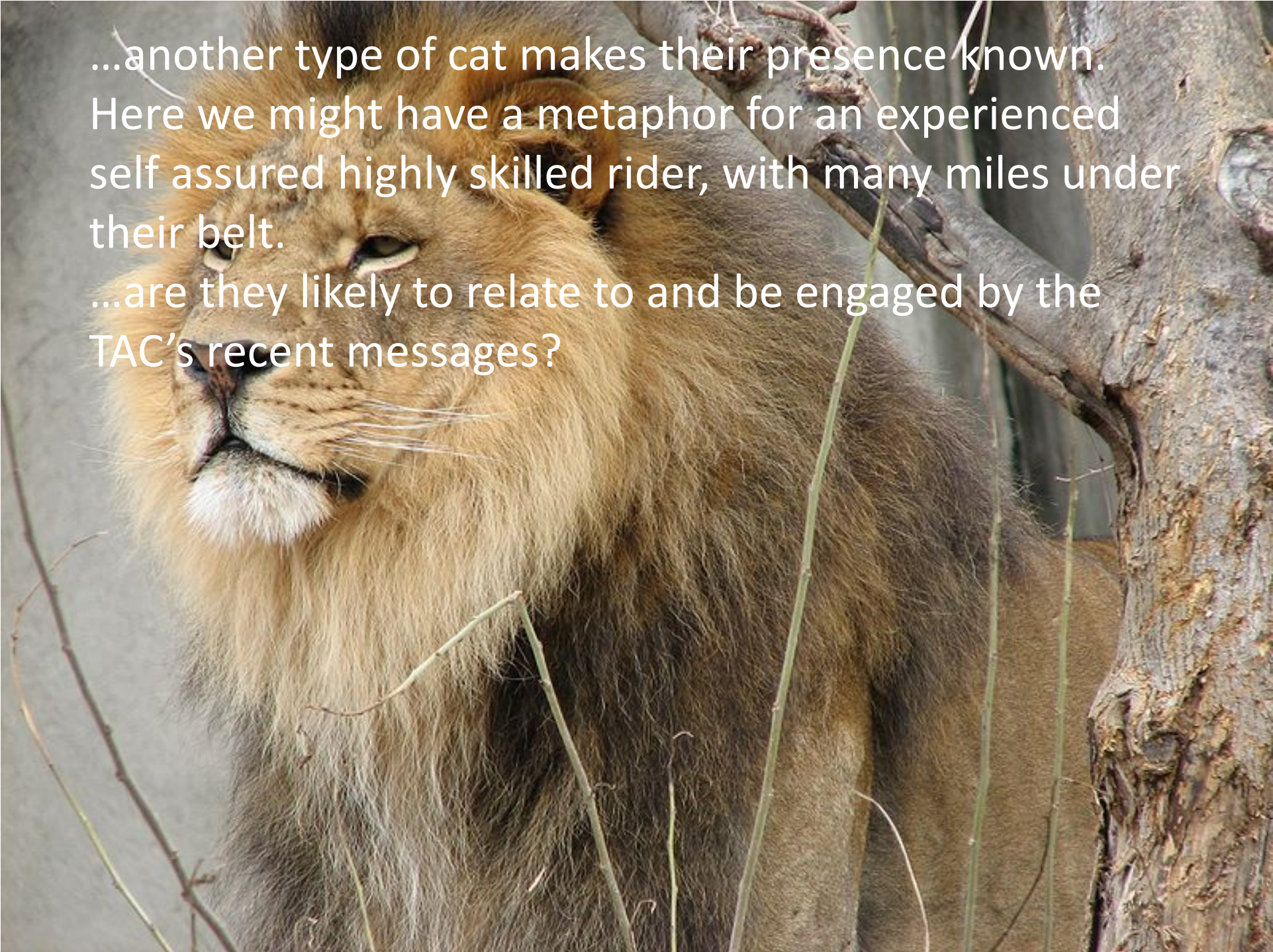




All weather, sunny days, scooterists, stunters,  
risk takers, hi viz wearers, daylight only, café  
latte sippers, group/companion riders, bucket  
list riders, empty nester status symbol,  
returning riders, lone wolves, club enthusiasts,  
petrol savers, passionate, dispassionate,  
enthusiasts...

But still there's more... just when you think  
you're getting the concept...

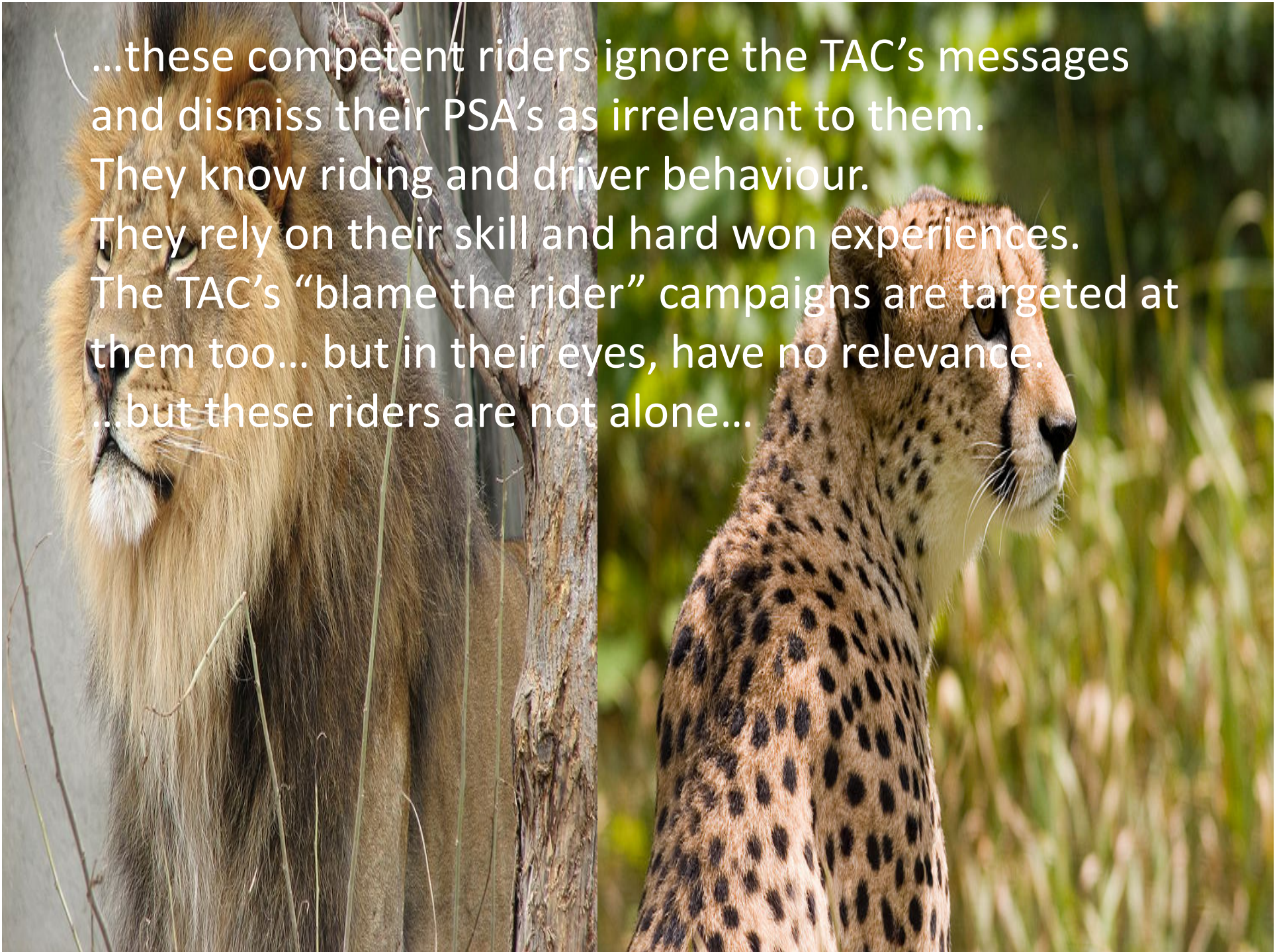




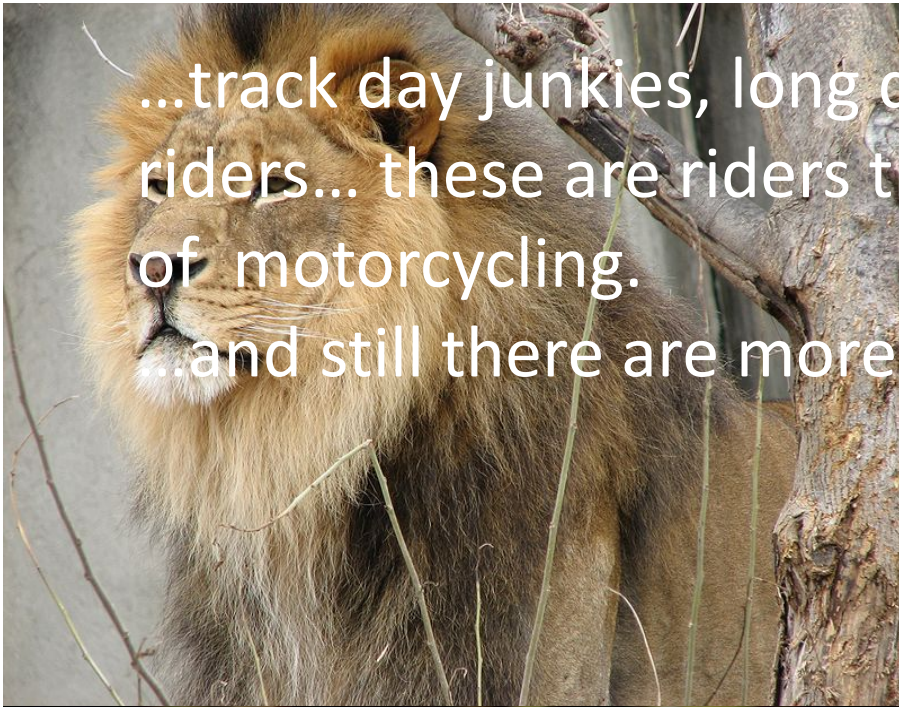
...another type of cat makes their presence known.  
Here we might have a metaphor for an experienced  
self assured highly skilled rider, with many miles under  
their belt.

...are they likely to relate to and be engaged by the  
TAC's recent messages?

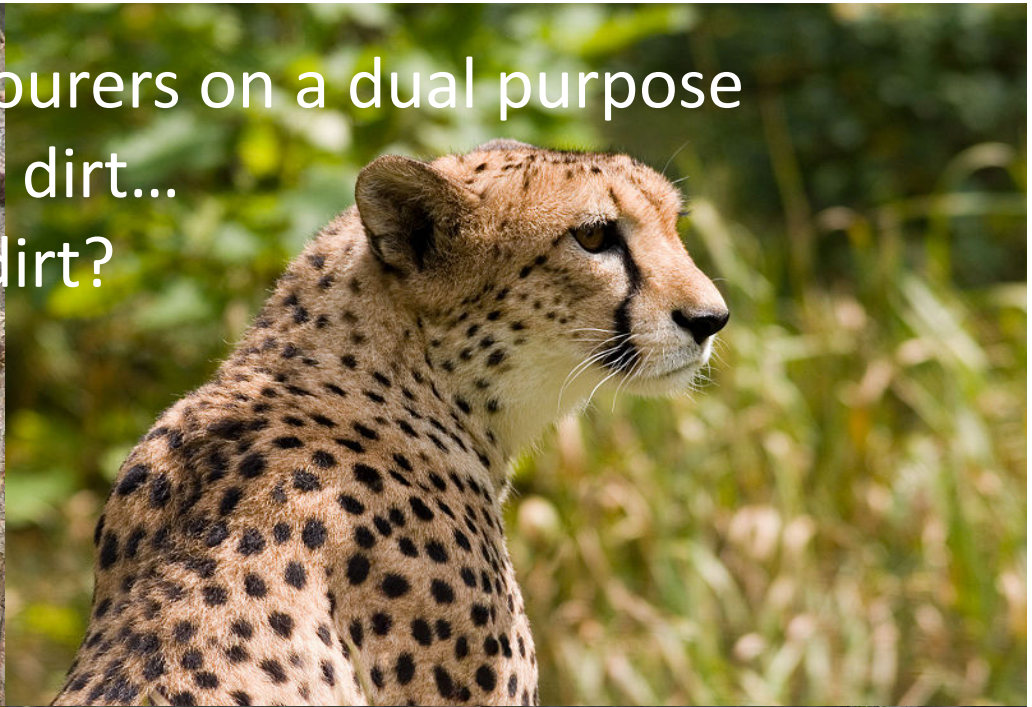
...these competent riders ignore the TAC's messages and dismiss their PSA's as irrelevant to them. They know riding and driver behaviour. They rely on their skill and hard won experiences. The TAC's "blame the rider" campaigns are targeted at them too... but in their eyes, have no relevance. ...but these riders are not alone...



...track day junkies, long distance one day twisty riders... these are riders that enjoy the full experience of motorcycling.  
...and still there are more...

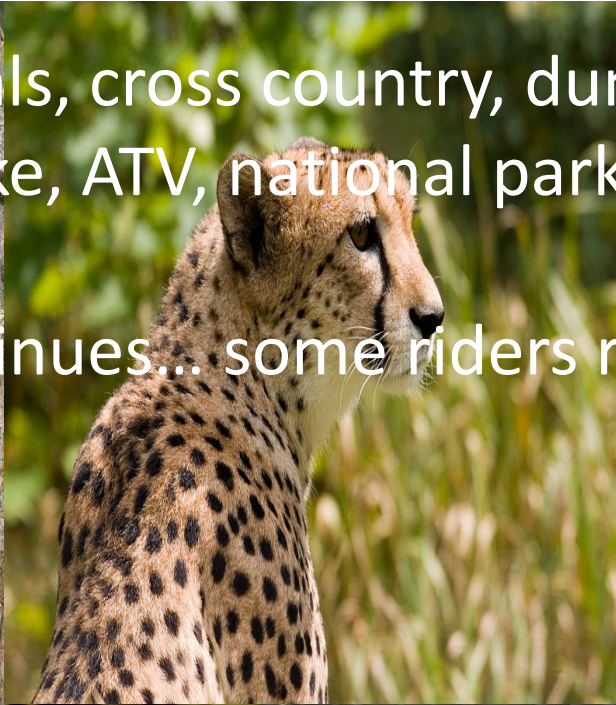
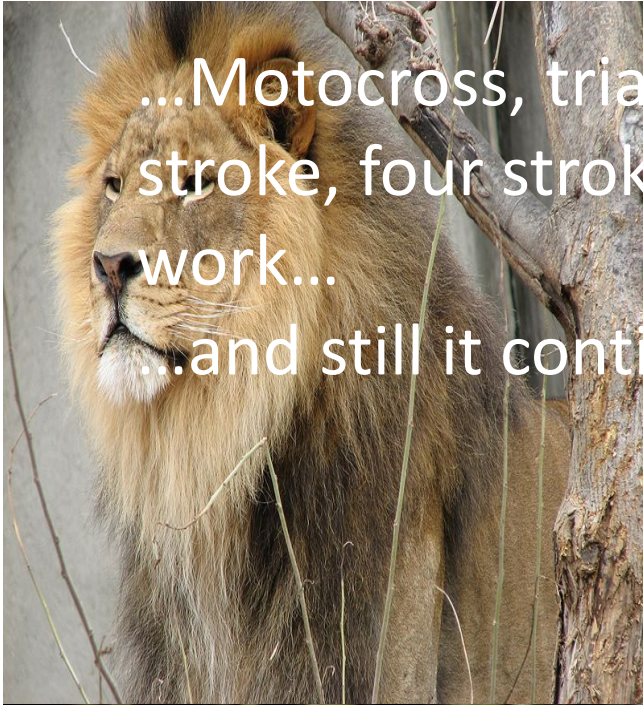


...long distance tourers, tourers on a dual purpose  
bikes that cover road and dirt...  
...did someone mention dirt?



...Motocross, trials, cross country, dunes, quarries, two stroke, four stroke, ATV, national park tracks, farm work...

...and still it continues... some riders race...

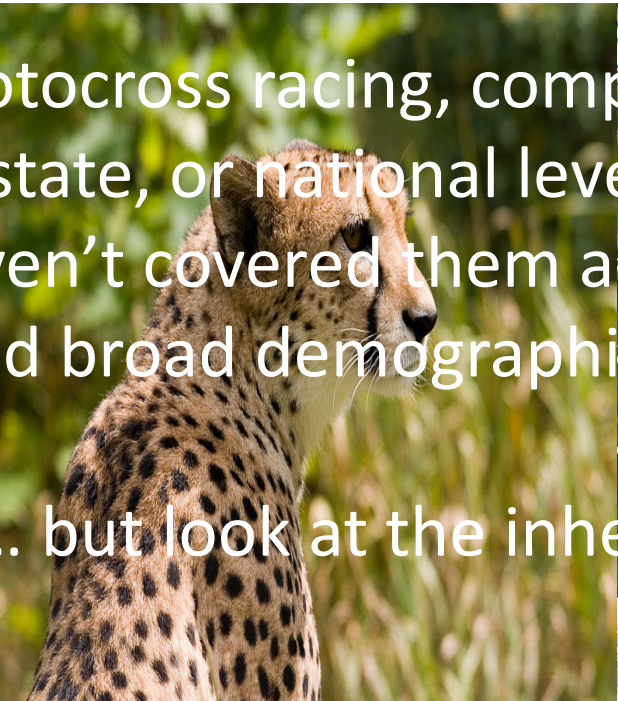


...competitive motocross racing, competitive road racing... at club, state, or national levels...

...and still we haven't covered them all...

The very wide and broad demographic defies a generic definition...

They are all cats... but look at the inherent diversity.

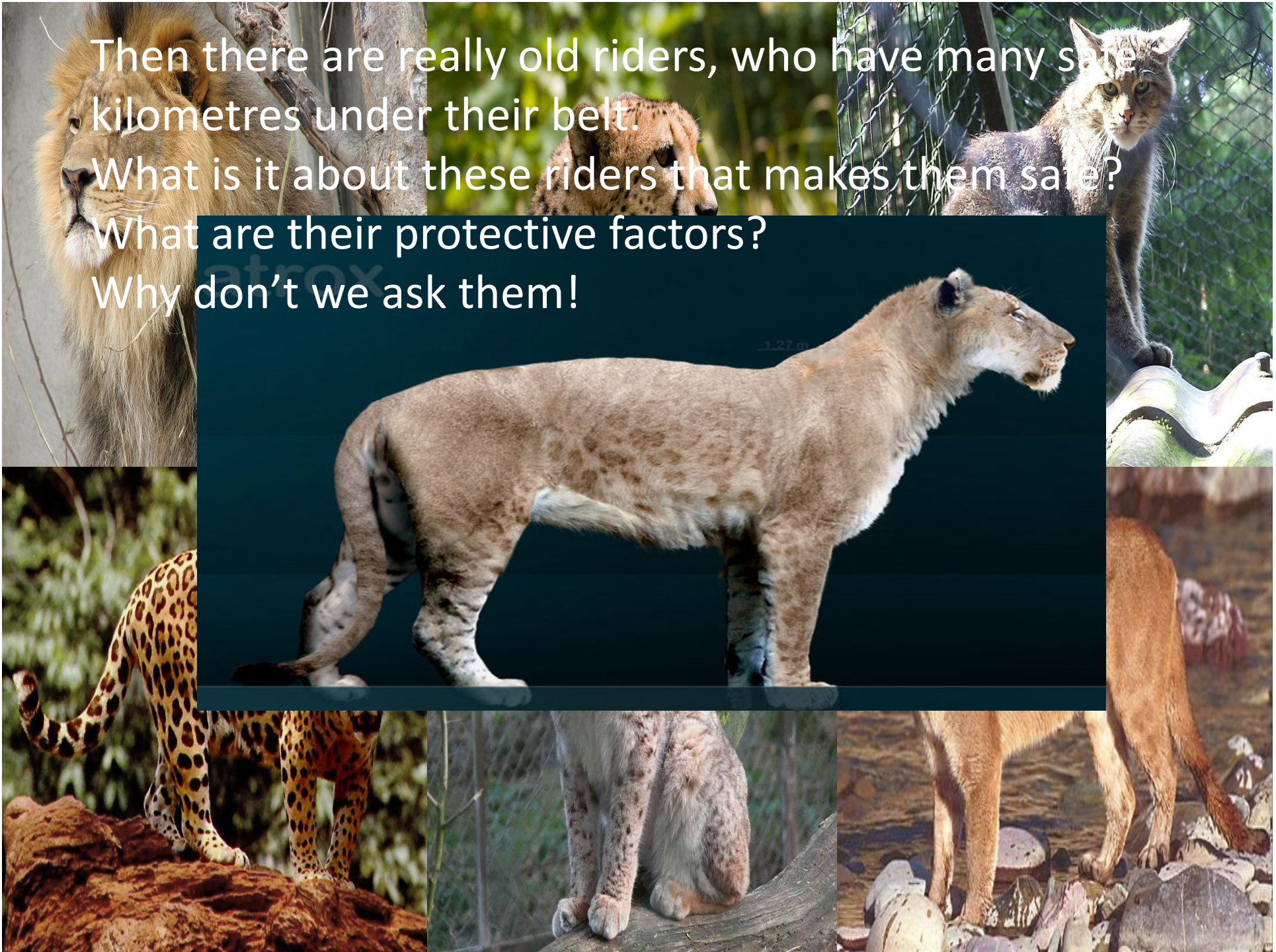


Then there are really old riders, who have many safe kilometres under their belt.

What is it about these riders that makes them safe?

What are their protective factors?

Why don't we ask them!





A collage of images featuring a lion, a lynx, a cat, a giraffe, and a cheetah. The lion is in the top left, the lynx is in the center, the cat is in the top right, the giraffe is in the bottom left, and the cheetah is in the bottom right. The text is overlaid on the central lynx image.

...and then the most venerable of them all, old and possibly cantankerous, an almost extinct rider type...

...tenaciously clinging to two wheels, with hundreds of stories to tell... and possibly should be considered to possess motorcycling expertise.

A single broad message tarring all riders with the same brush, clearly can't hope to achieve a demographic wide result. A new approach is required.

# TAC – Motorcycle Safety Strategy

- If nothing changes about TAC's approach into the future...
- If it doesn't include motorcycle expertise in its strategy and campaign development...
- If it doesn't support the active development of better skilled motorcyclists and more aware drivers...
- If it doesn't focus on motorcycle friendly roads and road design...

# TAC – Motorcycle Safety Strategy

- If it doesn't broaden its sources of data...
- If it doesn't employ truly independent methods of data gathering...
- If it continues to focus primarily on speed...
- We will continue to get more of the same.
- The recent motorcycle PSA "Reconstruction" is a clear example of that methodology and philosophy. Let take a look.



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The Motorcycle “Reconstruction” Ad –  
Summary of issues.

# TAC – Reconstruction Advert

- *“...more than one in five motorcycle crashes involved a multi vehicle crash with one of the vehicles turning”.*
- *“In 80% of fatal crashes the turning vehicle was the car (or truck).”*
- *“The configuration of the crash in the commercial represents a typical crash type...”*
- These quotes were taken from the TAC’s response to the Advertising Standards Board, complaint 0170/12\* and are consistent with the TAC’s many emails, press releases and other public utterances in response to the negative outpouring that reconstruction generated.

\* Unless otherwise noted, all quotes will be from the TAC response to the Advertising Standards Board, complaint 0170/12.

# TAC – Reconstruction Advert

- At face value then, the TAC appear to have started from a genuine desire to reduce motorcycle road trauma, targeting a typical crash scenario, presumably to raise its public awareness and reduce its incidence.
- However, the TAC's philosophy, principles and safety strategy completely undermined this very worthy goal.
- TAC instead created a highly contrived advert which:
  - Did not include any genuine motorcycle expertise in its development.
  - Did not deal with the typical aspect of the crash cause.
  - Misrepresented a common crash cause.
  - Misrepresented the law.

# TAC – Reconstruction Advert

- Villified motorcyclists and absolved drivers.
- Was mostly at odds with physics despite the ad appealing to physics for additional veracity.
- Gave a confusing message - as the message is not applicable to the exact same scenario in a 70km/h zone, and
- Has a fundamentally critical flaw - the driver failed to see the rider in **both** speed scenarios, despite excess speed being blamed for the visual failure in the first scenario.
- The TAC has gone to great lengths in its public responses, emails, and on its spokes website, to absolve the driver of fault, including referencing and totally misrepresenting case law (this has now been removed)
- The only conclusion that can be drawn is that the TAC required the viewer to blame the rider, hence intentionally or unintentionally vilifying riders.

# TAC – Reconstruction Advert

- The TAC's response to the negative commentary isn't surprising:
  - They have defended the ad rather than admit they made an error, despite the many demonstrations of the ad's flaws.
  - They reference their own survey data and argue that their processes, methodology and execution were robust and sound.
  - They point to positive overseas reaction as proof that the ad is well made - however even overseas the take home message is watch out for driver errors - not quite the intended message of the advert.
  - They refer to negative commentary as proof that the ad has been noted and has "generated a healthy level of discourse."
- The reconstruction had the potential to be a positive road safety message, instead it has done harm to PTW safety and the image of motorcyclists – with one of the take home messages being: "You speed, your dead, your fault."



# TAC – Reconstruction Advert

- The ad has failed to engage the bulk of riders positively.
- If anything it's reminded riders that drivers will do life threatening things, so that is a positive, but that was not the key message of the ad.
- Failure in successfully delivering the key message must be considered a failure and therefore a waste of money.
- The following analysis will unequivocally show its multiple failings and lead to an inescapable conclusion:
- That the philosophies and strategies behind the ad's planning and production were flawed, and therefore the whole process must be reviewed and revised if not to repeat these errors into the future.



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The Motorcycle “Reconstruction” Ad –  
Analysing the ad: Blame the rider.

# TAC Ad – Blame the rider

- The ad depicts a fatal motorcycle crash into the side of a right turning car that emerged from a side street.
- The bike's speed (68km/h) is clearly implicated as the cause of the crash.
- The same scenario is rerun with the bike at the 60 km/h speed limit and the rider avoids the collision.
- The key message from the ad is that the speeding rider was at fault and died as a result of breaking the speed limit, so slow down to a legal speed and live.
- At first blush, it seems like a reasonable safety message from a TAC genuinely interested in reducing rider trauma.

# TAC Ad – Blame the rider

- In truth, the ad clearly demonstrates how completely the TAC processes have been captured by their anti-speeding agenda.
- The car driver is typically at fault in the crash type they chose.
  - >20% of fatal crashes are two vehicle crashes where one vehicle is turning. In >80% cases the car/truck is turning and violating the rider's right of way.
- It's immediately obvious that the TAC have NOT focussed on the typical which means that it's not possible for the ad to significantly reduce motorcycle trauma.
- The ad instead focuses on the rider error of low level speeding (a 1 demerit point infringement) and excuses the driver's error of failing to give way (a 3 demerit point infringement).

# TAC Ad – Blame the rider

- TAC have focussed on the non typical in order to be able to create a message that is consistent with their anti-speeding paradigm.
- There is no clearer demonstration of just how bound to a single message the TAC's priorities actually are.
- This is an organisation that appears to be more interested in gaining acceptance of a political message than it is in delivering messages focussed on genuine road safety.
- *“The TAC's vision is to make speeding as socially unacceptable in the Victorian community as it is with drink driving.”* - Advertising Standards Board, complaint 0170/12



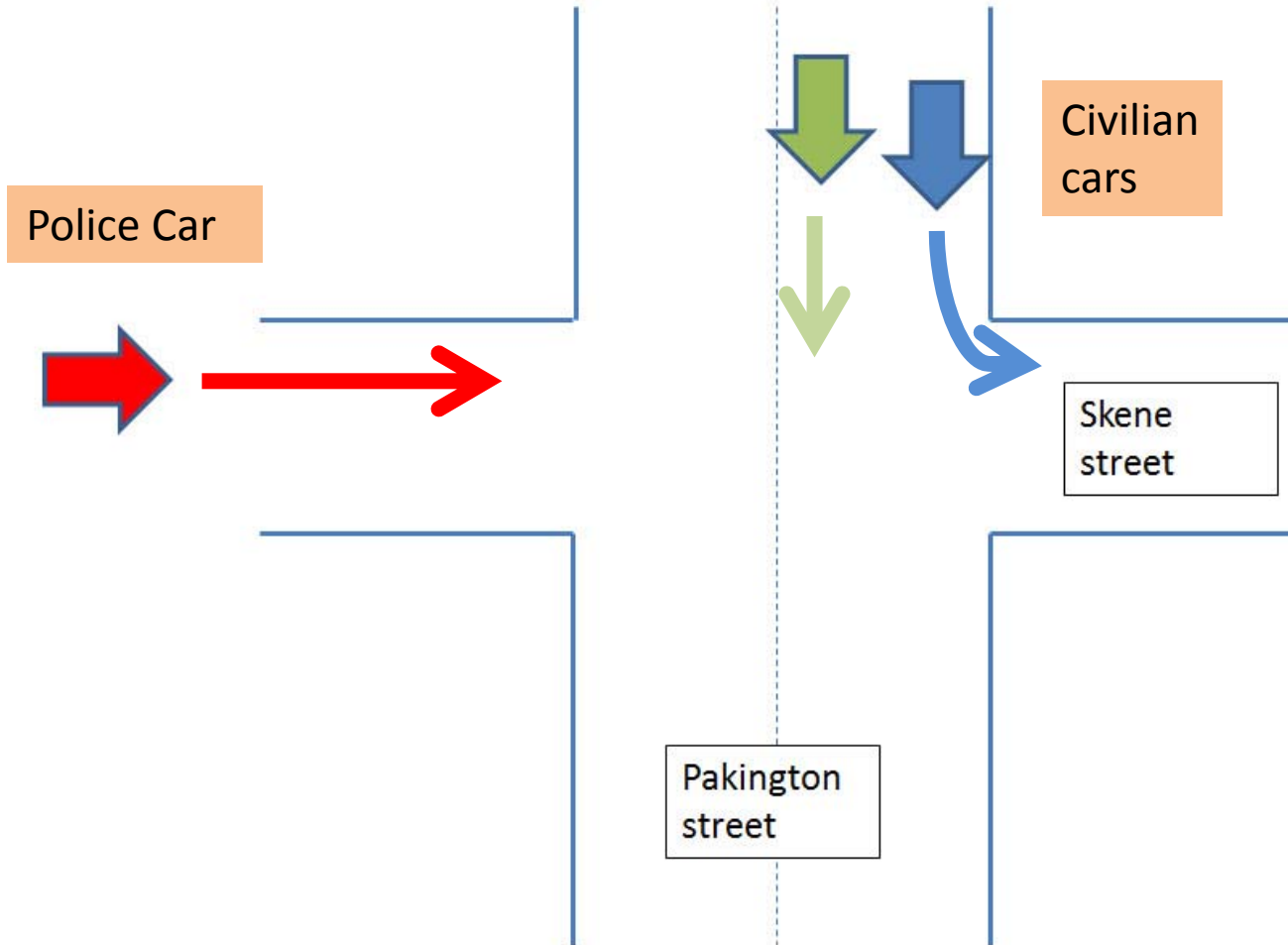
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The Motorcycle “Reconstruction” Ad –  
Analysing the ad: The legal Case.

# TAC Ad – The Legal Case

- In supportive information, TAC referenced case law to bolster the veracity of its ad and to support its key contention that the speeding rider was at fault, and that the driver who came thru a stop sign was not.  
<http://www.austlii.edu.au/au/cases/vic/VicRp/1969/64.html>
- Background: Shortly after midnight Dec 1<sup>st</sup> 1966, a crash occurred at an intersection in Geelong, between a Police car travelling East and two civilian cars travelling South. One of the cars was slowing to make a left turn and was in the process of being passed by the second car.
- Let's look at a representation of the scenario.

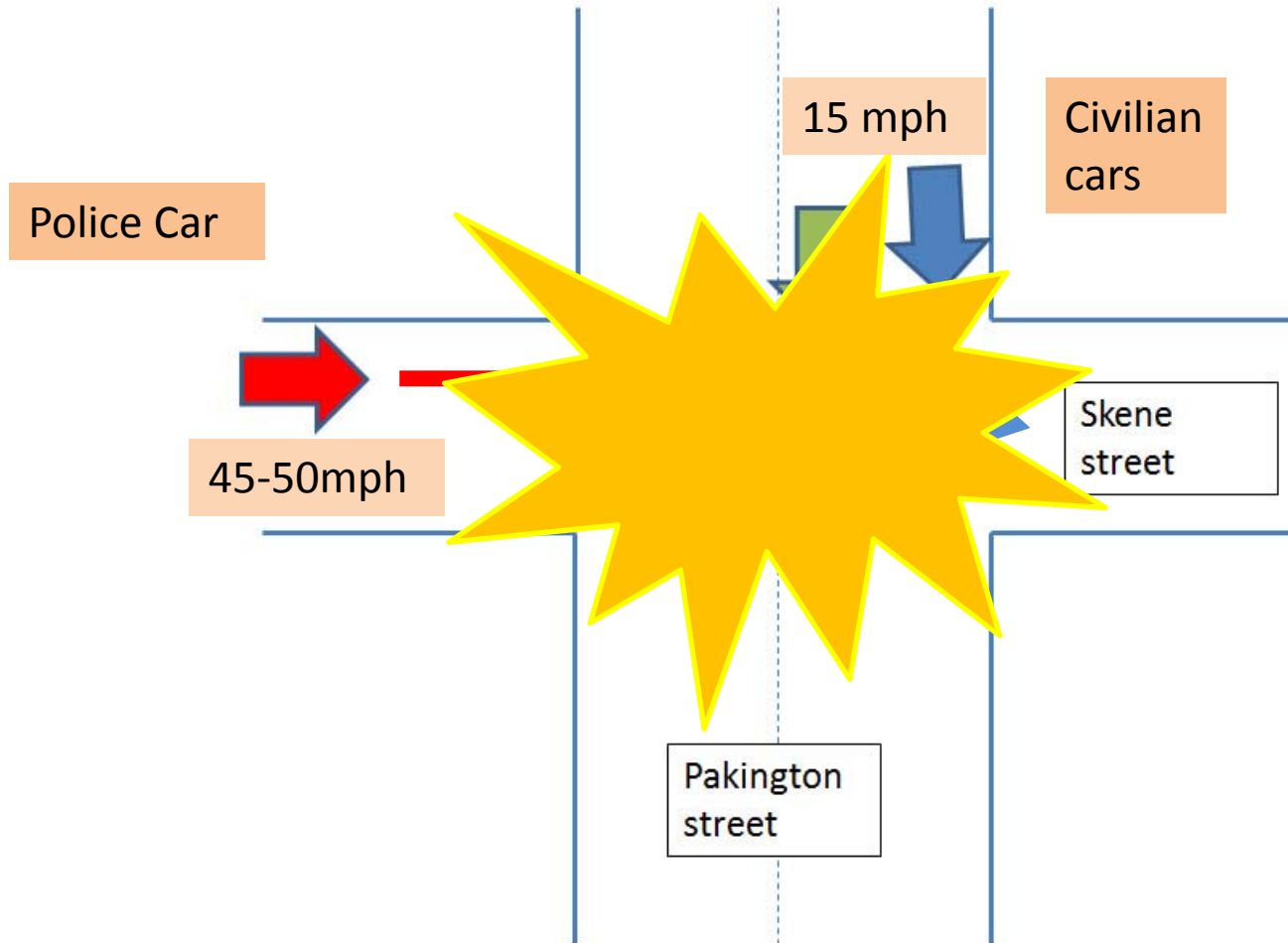
# TAC Ad – The Legal Case



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# TAC Ad – The Legal Case



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# TAC Ad – The Legal Case

*We have been unable to find a single case which has used this as a precedent.*

*The legal unimportance of this case is apparently to the point where it would only be the law if that identical set of facts were to exist again, but it is **not** a general principle of law.*

*It did not involve a Stop sign or our present road rules. And yet it has been relied upon by the TAC rather than the overarching “Stop means Give Way to everyone”.*

*In my opinion there is no justification for TAC’s assertion that the driver who committed a SMIDSY was not culpable.*

John Voyage | Principal

Maurice Blackburn Lawyers | Road Accident Injuries



# TAC Ad – The Legal Case

- TAC claimed that the case law exonerated their driver since the car represented in green, failed to give way to its right and failed to see the oncoming (police) car due to that car's excessive speed.
- *“The car driver is unable to see the oncoming motorcyclist, which is travelling at speed (68km/h) and therefore out of the field of vision of the car driver.”* – TAC ASB complaint response.
- But the actual ruling in the case doesn't support this contention at all.
  - From Austlii: *The finding that the defendants were not able to give way to the vehicle on the right is, I think, in substance a finding that the defendants were not able to give way to the vehicle on the right because, when the vehicle on the right was first visible, their cars were in or close to its path and, if they stopped or slowed down, they would slow down or stop immediately in the path of the oncoming police car and thus not give way but, on the contrary, cause a collision.*
  - From Austlii: *...having entered the intersection Baxter then saw for the first time the police car which was travelling in an easterly direction along Skene Street at a speed of approximately 45 to 50 miles per hour and some 20 feet back from the western building in line of Skene Street, the headlights of the police car were in fact dipped...*

# TAC Ad – The Legal Case

- Clearly, the particulars of the case are not a good fit for the scenario in the advert and do not support the TAC's key contention.
- The only reasonable conclusion then, is that the TAC chose to misrepresent the case law in order to strengthen its argument against the rider.
- As of late July, the reference to the case has been removed from the Spokes website.
- Despite its removal, it's been mentioned here to demonstrate the ends TAC have employed.



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The Motorcycle “Reconstruction” Ad –  
Analysing the ad: Victoria Police Data.

# TAC Ad – VicPol Reference Data

- A key piece of reference data used by the TAC is a Victoria Police report titled: *Fatal and Serious Injury Motorcycle Collisions Attended By The Major Collision Investigation Group Between May 2002 And April 2003*.
- It is instrumental data which has been clearly referenced in this campaign and is still referenced by Victoria Police.
- The 19 page report covered 39 fatal and 8 serious injury crash scenes over the course of a year.
- The nature of the report is given away by part of the title: “attended by the Major Collision Investigation Group”.
- The report’s intention was worthy and I’ve no doubt of the integrity of the police members involved, but the report itself should be considered unreliable due to short comings in its design and method, partisan investigation and biased analysis. In addition, the report was not peer reviewed.

# TAC Ad – VicPol Reference Data

- Its primary findings were unsurprisingly related to the kind of things that Police are interested in: speeding, drugs/alcohol, apportioning blame/fault and interestingly, attempting to draw a correlation between infringement history and likelihood of crashing.
- It doesn't adequately deal with any possible case selection bias, whether the small sample was sufficient to draw demographic wide conclusions and doesn't genuinely explain why it included 8 serious crashes in its case selection.
- According to Vicroads Crahstats, in that same period there were 40 fatal and 837 serious injury crashes from which a proper scientific analysis could have drawn genuine conclusions.
- Given the report's obvious flaws, it must surely be seen to hold little genuine relevance to today's conditions – yet, it's still key data to both the TAC and VicPol.

# TAC Ad – VicPol Reference Data

- *“An examination by Victoria Police between May 2002 and April 2003 of a sample of fatal crashes involving motorcycles indicated that 38% of riders were exceeding the speed limit prior to the collision (Victoria Police 2003)”* – TAC response to ASB complaint 0170/12
- The TAC have inferred that this stat from the report is relevant to the scenario in their ad. Based on earlier comments, it clearly is not.
- *“This specific scenario was advised by Victoria Police on the basis that it is a physical recreation of a factual crash scenario, speed is the major contributing factor to the collision and that the driver’s behaviour was legal.”* - TAC response to ASB complaint 0170/12
- To date, no actual crash case has ever been brought forward.
- The advert was developed in conjunction with the MCIU did not include any genuine independent motorcycle expertise.





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The Motorcycle “Reconstruction” Ad –  
Analysing the ad: Logistics and Flaws.

# TAC Ad – Let's look at logistics

- The advert has a significant number of flaws, over multiple areas.
- Riders who do nothing more than view the advert can and do walk away questioning some key aspects of the ad.
- When they have a look at the supporting information, those questions only multiply and expose other issues that are at odds with the commercial vision and message.
- Since the ad is a fully fledged outcome of the TAC's current systems, philosophies and practices that are in place, these faults and flaws must be seen as a clear demonstration of the flaws of the system that produced them.
- Let's look at the key physics that supports the advert.

# TAC Ad – Let's look at logistics

- Supportive information released by the TAC includes a set of high school level “kinematics of linear motion” calculations which not surprising hold up for the exact scenario of the ad: 49m distance, at 68km/h with a 1.5s reaction time and a deceleration rate of  $-0.7g$ 's. The impact speed is indeed a touch over 30km/h.
- The assumption of  $-0.7g$ 's is somewhat controversial amongst riders however, since any modern sports bike and moderately experienced rider in dry conditions, is *capable* of obtaining in the order of  $-0.9g$ 's.
- So immediately we can say that the rider did not brake near to the capability of the bike. To achieve  $-0.7g$ 's however does require a combination of front and rear braking, but only rear braking is shown in the commercial – as screen shots will demonstrate.
- If the crashing rider had either reacted a little quicker (1.23s or less – by covering brakes and/or anticipating the hazard) or braked more competently ( $-0.88g$ 's deceleration or better obtained by regular braking practice), the rider would have stopped in time thus avoiding the crash altogether.

# TAC Ad – Let's look at logistics

- What this demonstrates, is that rather than taking the opportunity to demonstrate how these small differences of anticipation, hazard assessment and braking skill, would have saved the rider's life, the TAC chose instead to portray the rider in a negative poorly skilled light.
- This is galling because in the speed limit "re-run", the rider is shown to brake correctly, allowing him to slow to a swerving speed and thereby passing behind the car.
- It's clear then, that the TAC have chosen to misrepresent the circumstances in order to create and deliver a particular perception that a panic reaction and therefore death, is likely at the higher speed.
- (It's worth mentioning that if the rider had maintained his speed and not braked at all, the car would have had 0.44s less time to cross into the rider's path, in all likelihood providing the rider with a swerve opportunity in front of the car!)

# TAC Ad – Let's look at logistics

- At 68km/h v's 60km/h, the time difference to cover 49m is 0.3s.
- The TAC would have you believe that 0.3s is the difference between a panic reaction resulting in death or a rider demonstrating good braking skill and an avoidance swerve.
- Given negligible difference between the two scenarios, there is no credible genuine reason why the rider would panic brake in the first instance, but not in the other. Riders will brake according to their habit and training.
- Incidentally, if the exact same panic parameters (49m, 1.5s, -0.7g's) were repeated at 60km/h, the bike would have actually stopped in time! This just reinforces how clearly the TAC have attempted to misrepresent the rider and contrive a scenario in order to create a particular perception.
- The ad's key message is to slow to the speed limit and live, indeed that physics will make sure you get home. Is this factual?

# TAC Ad – Let's look at logistics

- A collision at 68km/h versus 60km/h is only 8% less likely to result in fatality – according to the TAC's own references.
- At 60km/h, if we changed just one thing and delayed the car by 0.54s, the panic braking rider would still have collided with the car at ~30km/h, presumably resulting in fatality.
- At 60km/h, if we changed just one thing and the rider applied only the rear brake as depicted in the commercial, the rider would still have collided with the car, but at 34km/h. Presumably resulting in fatality.
- In those two scenarios, one relating to the vagaries of traffic, the other to a basic skill failure, the key message of the advert has failed to keep the rider alive and failed to impart any genuine knowledge which has made the rider intrinsically safer.
- The ad's key message then is strictly only applicable to the exact scenario depicted in the advert. It does not provide a genuine holistic benefit.
- It also fundamentally does not apply to a 68km/h rider travelling in a 70km/h zone. Who would be at fault if a car crossed the path of the rider in that scenario?



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The Motorcycle “Reconstruction” Ad –  
Analysing the ad: Specific Issues.

# TAC Ad – Vision Problems

- *“The advertisement demonstrates that the car driver does not fail to stop, nor does the car driver fail to give way. The car driver is stationary at the stop sign, indicating right and looking for oncoming traffic. The driver then turns right after looking.” – TAC*
- *“The car driver is unable to see the oncoming motorcyclist, which is travelling at speed (68km/h) and therefore out of the field of vision of the car driver. The driver takes all required steps to look for other road users before proceeding to turn.” – TAC*
- Let's check these assertions.



# TAC Ad – Vision Problems



At the reference distance, there is NO line of site between the driver and bike.

Take note of this car's position

This is the view from 49m out.

# TAC Ad – Vision Problems

Driver has proceeded into the intersection.

At the reference distance, there is NO line of site between the driver and bike.

Despite the TAC's assertions that the driver cannot see the bike due to its speed, in reality, the driver cannot see the bike due to the parked vehicle.

This is the wide view from 49m out.



# TAC Ad – Vision Problems



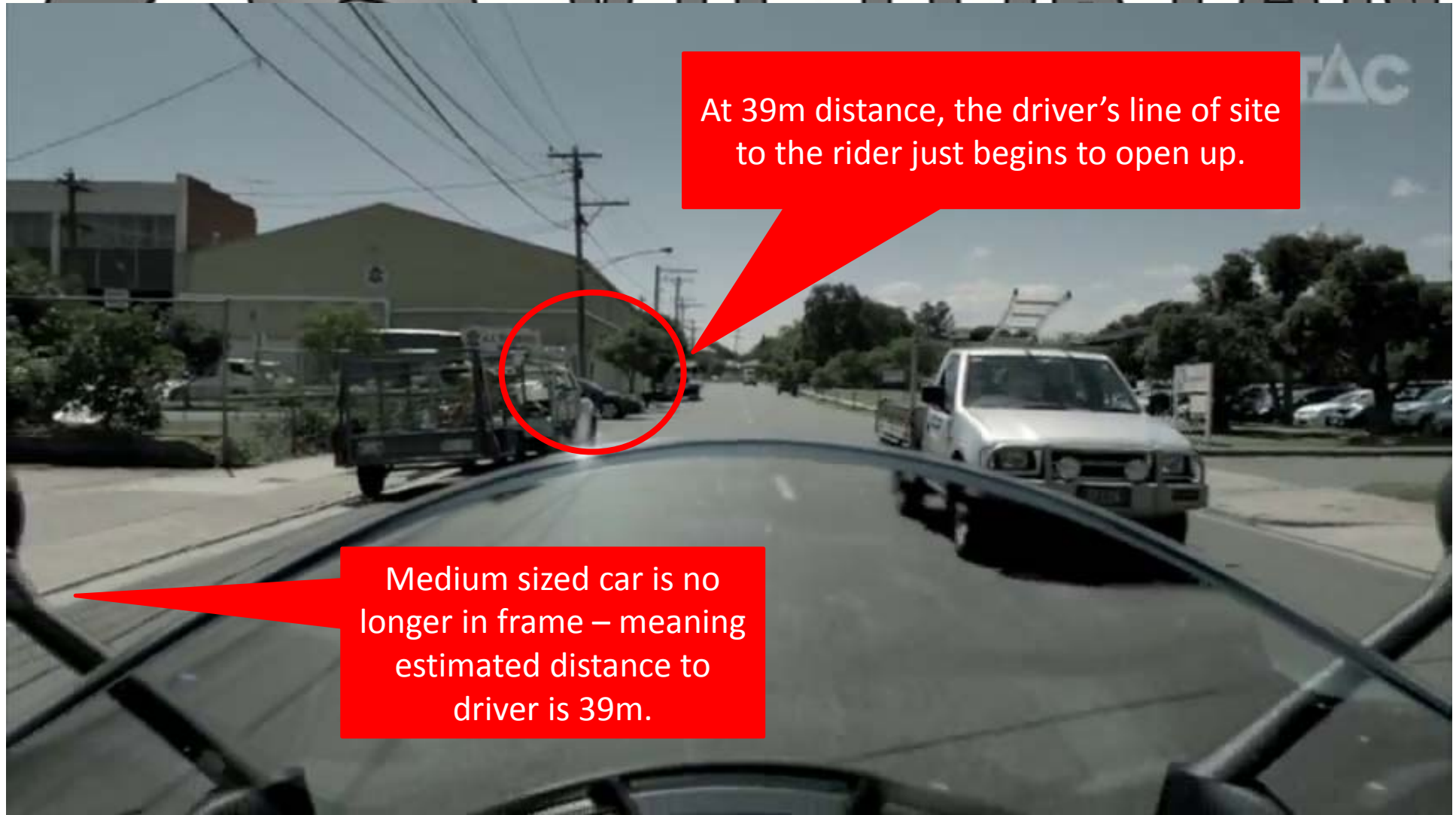
# TAC Ad – Vision Problems



# TAC Ad – Vision Problems



# TAC Ad – Vision Problems



At 39m distance, the driver's line of site to the rider just begins to open up.

Medium sized car is no longer in frame – meaning estimated distance to driver is 39m.

# TAC Ad – Vision Problems

Note the clean and clear visual conditions – this bike should have been clearly visible.

TAC

Note how far into the intersection the driver has positioned the car without looking.

The driver is NOT looking at the bike or oncoming traffic.

# TAC Ad – Vision Problems



The driver has started turning his head towards the bike, but at no time does the car stop moving.




# TAC Ad – Vision Problems



# TAC Ad – Vision Problems



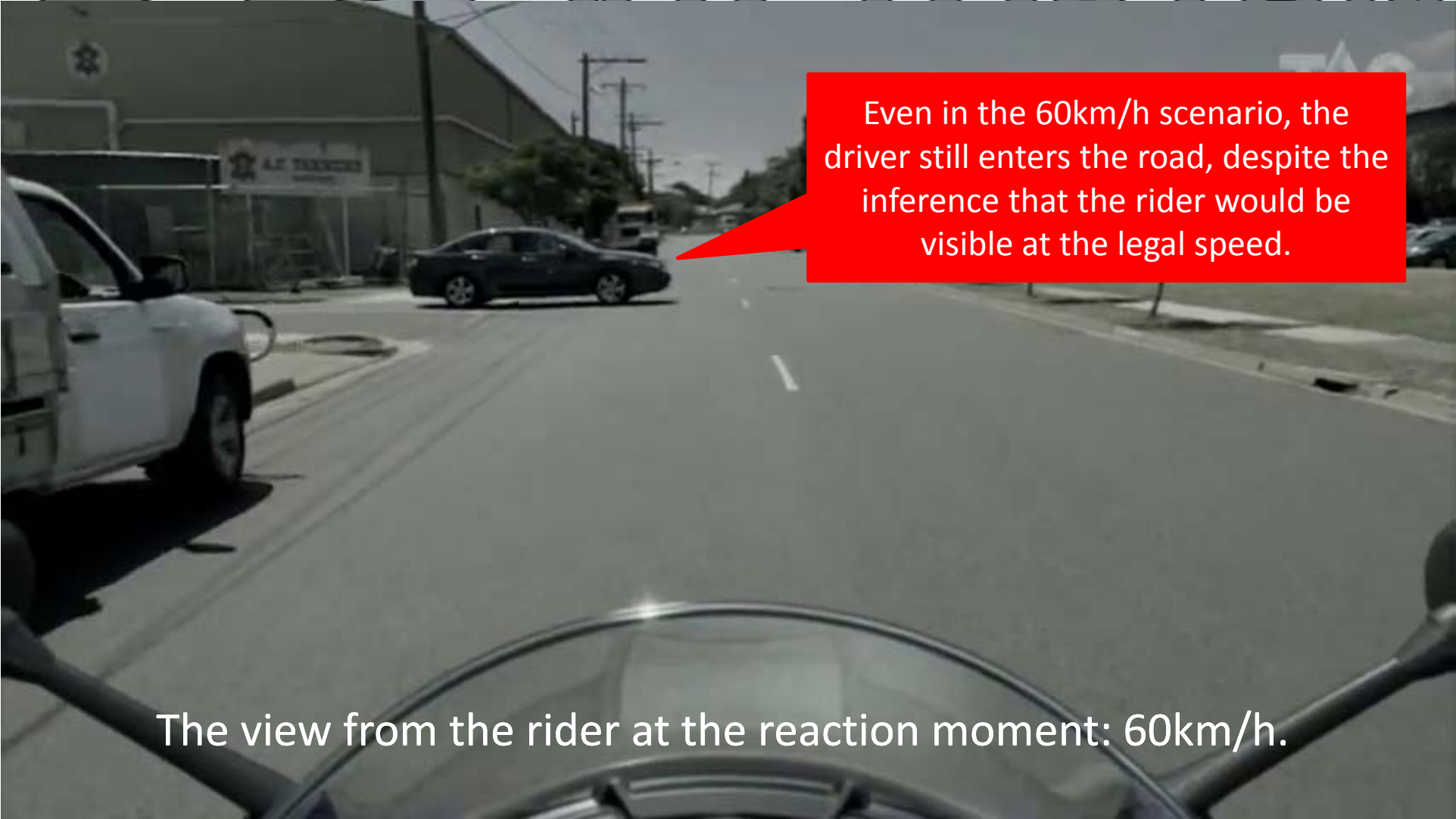
# TAC Ad – Vision Problems



Driver has clear line of sight as he enters the intersection in the 68km/h scenario.

The view from the rider at the reaction moment: 68km/h.

# TAC Ad – Vision Problems



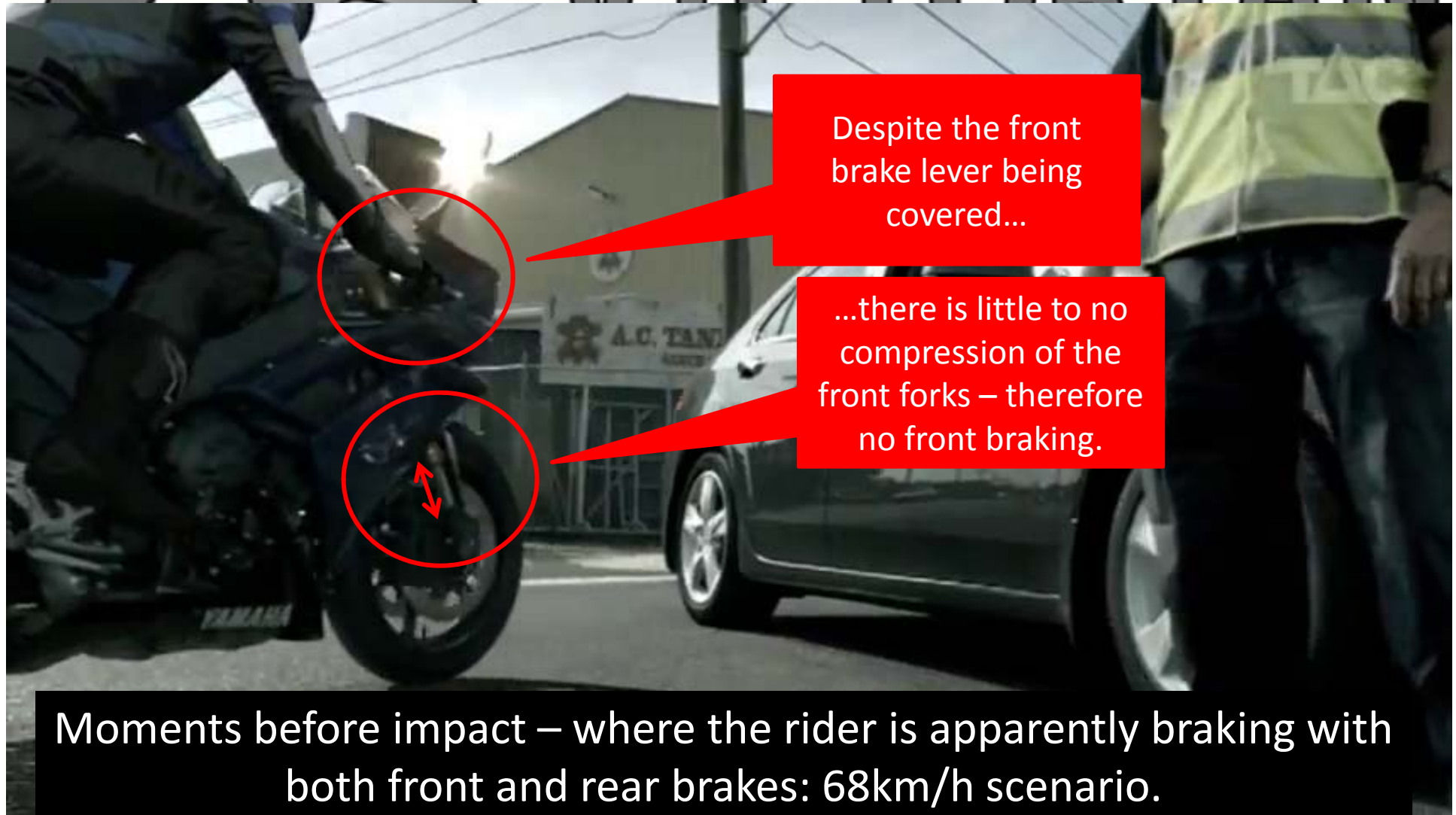
Even in the 60km/h scenario, the driver still enters the road, despite the inference that the rider would be visible at the legal speed.

The view from the rider at the reaction moment: 60km/h.

## TAC Ad – No Front Braking

- *“The rider in the ad in the 68km/h scenario did apply both front and rear brakes.” – TAC*
- The 2008 Yamaha R1 motorcycle does not have linked brakes, meaning that each brake must be applied independently.
- Let’s test the TAC’s assertion that both brakes were applied.

# TAC Ad – No Front Braking



Despite the front  
brake lever being  
covered...

...there is little to no  
compression of the  
front forks – therefore  
no front braking.

Moments before impact – where the rider is apparently braking with both front and rear brakes: 68km/h scenario.


# TAC Ad – No Front Braking



Let's zoom in to this location.

This is a frame from the rider "survival" 60 km/h scenario.

# TAC Ad – No Front Braking



The lever is completely visible => No front braking...

...as a result, there is little to no compression of the front forks.

Close up: 60 km/h scenario.



## TAC Ad – No Front Braking

- Identical amounts of front fork compression has been demonstrated in both the 68km/h and 60 km/h scenarios.
- In the latter, there is clearly no front braking applied as the front lever is completely uncovered.
- Therefore, there is demonstrably, NO front braking in the 68km/h scenario, contrary to TAC assertions.

# TAC Ad – Dead Straight Rear Skid

- In the 68km/h scenario, the bike is shown skidding, with the skid perfectly straight.
- According to the equations supplied by the TAC, the skid occurs for just over 1.5secs.
- Over that length of time, it is unusual for a bike not to start slewing one way or another with a locked rear wheel, especially in a panic braking scenario.

# TAC Ad – Dead Straight Rear Skid



# TAC Ad – Dead Straight Rear Skid



# TAC Ad – Dead Straight Rear Skid



# TAC Ad – Dead Straight Rear Skid



# TAC Ad – Dead Straight Rear Skid



# TAC Ad – Dead Straight Rear Skid





# TAC Ad – Dead Straight Rear Skid

- A rear skid mark that has a uniform width implies a steady and constant deceleration, i.e., uniform weight transfer – which is what you might expect from a rear brake only locked rear wheel scenario.
- However, when the rear wheel stops spinning, this removes the main stabilising influence on the bike. The bike will soon begin to “fall” to one side or the other, resulting in the rear of the bike beginning to slew.
- If there is “some” front braking involved, it could provide a secondary stabilising influence, directionally encouraging a straighter skid, however it’s less likely that the width of the skid will be uniform. The rider’s front brake pressure will involuntarily vary thus varying the weight transfer.
- But if there’s a lot of front braking involved, the front end will be slowing “faster” than the rear end, and the rear will want to catch up, therefore promoting the slewing tendency.

# TAC Ad – Dead Straight Rear Skid

- Recall that the TAC supporting information said that front braking was involved... however, there's no evidence of this in the 68km/h scenario, so the only conclusion is that only rear braking took place.
- A rear skidding wheel can at best provide about -0.4g's deceleration. This is less than that claimed by the supporting information.
- The bike does not slew in any way, which is inconsistent with motorcycle dynamics and physics.
- Since there's no evidence of front braking, there is a clear inconsistency between the commercial and the TAC's supporting information.
- No amount of marketing spin or assertions to the contrary will reconcile or gloss over these inconsistencies.
- The commercial is clearly contrived to create a certain perception in the viewer.

# TAC Ad – Crash Physics

- The depiction of the crash and the consequences are at odds with physics.
- At no time has the TAC explained how the 30km/h impact speed was first determined, but in its reply to ASB complaint 0170/12, the TAC references crash reconstruction software.
- The software could not be independently sourced and reviewed, but after reviewing many crash videos and crash images on the internet, the crash scenario appears entirely contrived.
- In all Dekra and similar motorcycle crash testing association videos, typically conducted at 45km/h, none of the bikes catapulted.
- In those videos almost ALL riders slid forward colliding with the vehicle, and whilst some obtained air, none catapulted over the top and beyond the vehicle.

# TAC Ad – Crash Physics

- It is possible to estimate crash speed from the distance a rider is thrown, however forensic crash literature suggests that typical rider catapulting angles are in the order of 10 – 20degrees, although 45degrees is used to provide conservative speed estimates.
- The rider in the commercial is shown to catapult at an angle approaching 45degrees, which indicates that it's an estimated occurrence, conveniently providing the required height for a rider to land on his head, thus providing a plausible scenario for breaking his neck.
- Though it's conceivable that a rider might be catapulted in a crash similar to the reconstruction ad, it's unlikely. The catapulting motorcycle however is very unlikely. These are two clear indicators that the crash depictions is far from typical as stated by the TAC.
- Despite the ad's own assertions and it appealing to physics for veracity, the crash depiction is both contrary to and at odds with physics.
- The next slides contain several short crash videos that demonstrate the above and also demonstrates another element of physics missing from the ad, the momentum conserving recoil of the motorcar.

# TAC Ad – Crash Physics



# TAC Ad – Crash Physics



# TAC Ad – Crash Physics



# TAC Ad – Crash Physics

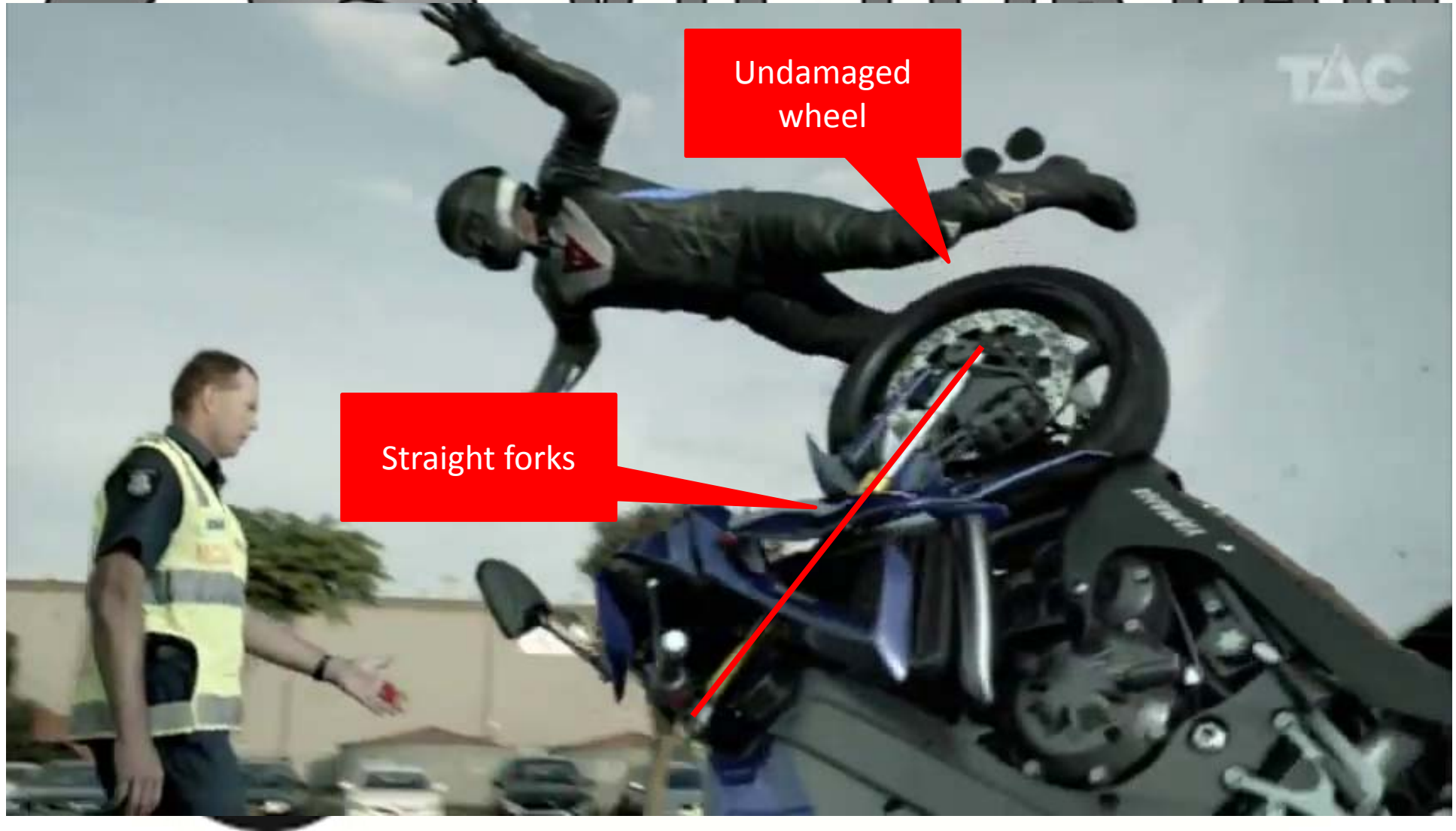




# TAC Ad – Crash Physics

- The previous short crash clips also demonstrate the typical damage expected to the front wheel and forks.
- Forks tend to be bent back into the frame.
- The wheel tends to be buckled and damaged.
- This kind of damage is entirely missing from the bike in the reconstruction ad.

# TAC Ad – Crash Physics



## TAC Ad – Blind Spot Car

- The car in the ad appears to be a recent model Honda Accord.
- It's not clear whether it's the Euro or standard model, however, both these model variants received low scores from the June 2011 RACV forward visibility survey, two and one stars out of five respectively.
- Given that visibility issues are clearly implicated in this ad, it's somewhat ironic that the car used is one of the worst for blindspot issues.

# TAC Ad – Blind Spot Car

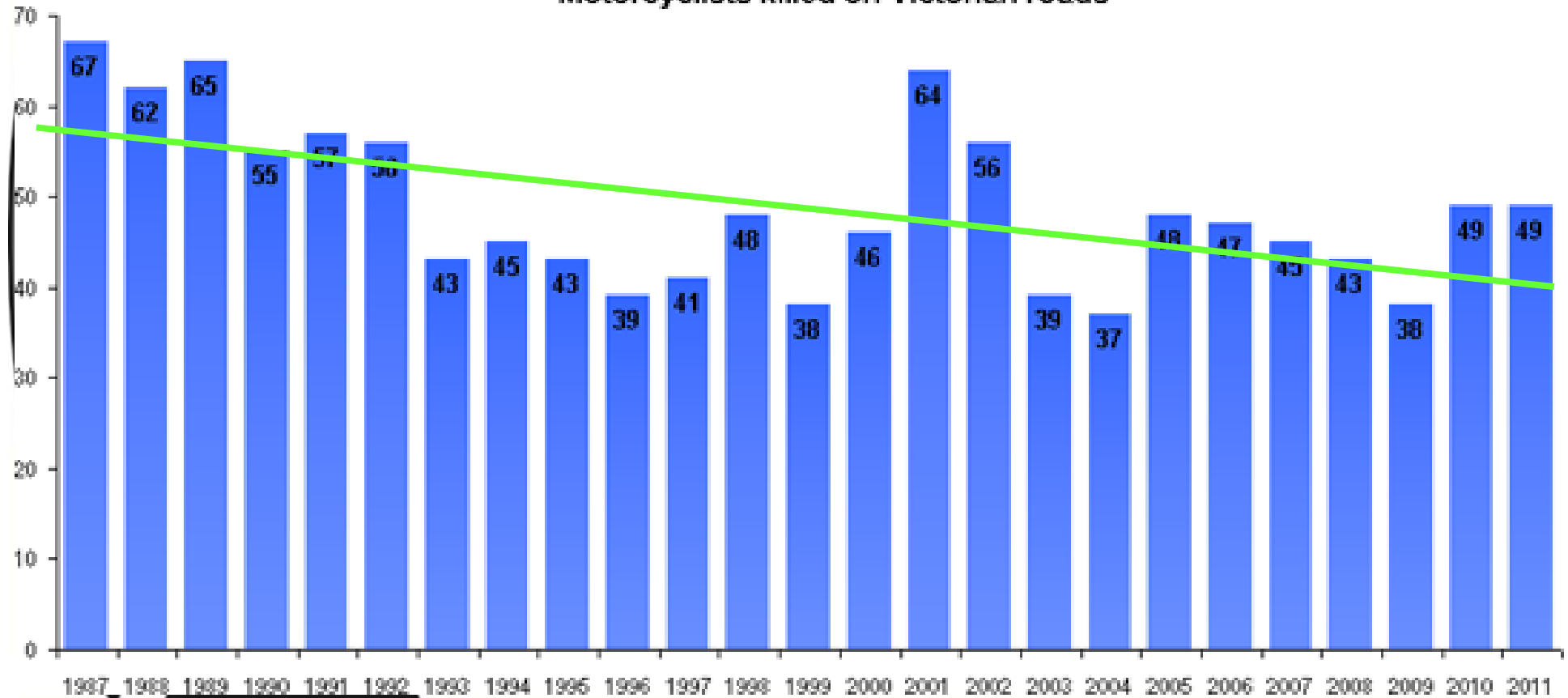
- Excerpts from the RACV survey:

Holden Epica (Sedan)	EP MY11	Oct 2010 -	★★
Honda Accord Euro (Sedan)	10	Jun 2008 -	★★
Hyundai i45 (Sedan)	YF MY11	Oct 2010 -	★★

Holden Commodore (Sedan and wagon)	VE II	Sep 2010 -	★
Honda Accord (Sedan)	50 MY10	Feb 2008 -	★
Hyundai Grandeur (Sedan)	TG MY11	Jun 2010 -	★★

Contrary to popular misconception, the PTW fatality rate is clearly decreasing.

Motorcyclists killed on Victorian roads





# VICTORIAN MOTORCYCLE COUNCIL

Victorian Parliamentary Road Safety Committee  
– VMC Supplementary Public Hearing:  
Transport Accident Commission & Motorcycling.

Presented: Rob Salvatore & Peter Baulch.

Co-Presented: Rob Smith – Motorcycling Australia.