### **Transport for London**

Cycling safety and HGV's communications development 09077

March 2010

MAYOR OF LONDON Transport for London

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#### Research conducted by 2CV

### **Contents**



Introduction and background

**Summary of research findings** 

Life on the road

**Exploring risks** 

**Messaging opportunities** 

### Research objectives

- To explore the attitudes and behaviours of cyclists and LGV drivers when it comes to road safety
- To identify the types of communications / messages / initiatives
  - That resonate with cyclists and LGV drivers alike
  - That educate them about sharing the road safely with one another
  - Are most successful at achieving this without apportioning blame
- To develop a blueprint and recommendations for future communications

### Methodology

**Ethnographic** sessions:

Ride along with cyclists and brief interview

Ride along with LGV driver and brief

interview





Joint session with LGV driver and cyclist Including tour of vehicle and cyclist sitting in drivers seat

Session in LGV with cyclist and LGV driver



Reconvened creative and collaborative groups with LGV drivers and cyclists















## Sample

	Ethnographies	Age	Experience
1-6	LGV Driver	3 x 35 and under 3 x 35+	3 x Experienced (at least 3 yrs) 3 x Less Experienced (1-3 years)
6-12	Cyclists	3 x 35 and under 3 x 35+	3 x Experienced (at least 2yrs) 3 x Less Experienced (6 mos -2years)

	Type of group	Age	Experience
1	Reconvened	Mix of ages and genders	Mix
2	Reconvened	Mix of ages and genders	Mix
3	Non Reconvened	35+	Less experienced drivers Less experienced cyclists
4	Non Reconvened	35 and under	Less experienced drivers Experienced cyclists
5	Non Reconvened	35+	Experienced Drivers Less Experienced cyclists
6	Non Reconvened	35 and under	Experienced Drivers Mix of cyclists



# **Summary of research findings**



#### **Overview**

- There are two strong situational facts that cyclists and LGV drivers share in common the roads are not ideal and blind spots are a vehicular fact.
  - Highlighting these facts places the blame on the situation rather than either road user, and raises empathy levels for both sides
- For cyclists, there is a lack of awareness around blind spots, and the general rules to stay safe when dealing with LGVs. Experienced cyclists are surprised to find out it is generally experienced cyclists getting killed and reassess what they think they know.
  - Cyclists require specific messaging about blind spots to raise awareness of the risks and counteract any misguided behaviour
- For LGV drivers, the primary risks are the result of cutting corners due to time pressures or being distracted by road conditions, weather etc.
  - LGV drivers need to feel supported to make decisions for themselves on how to keep cyclists safe



# Life on the road



### Space is at a premium

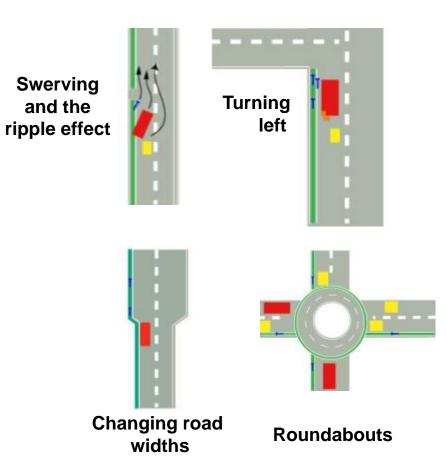
- In an ideal world London's cyclists would have segregated lanes and LGVs would have ample room to turn at junctions
  - However roads are often too narrow to suit either road user
  - As the largest and smallest road users, LGVs and cycles are at odds
  - Events that 'change the space' on the road affects cyclists and LGVs more than other road users
- Perspective of LGVs 'from above' vs. cyclists 'from below' creates a different sense of space for each user
  - LGVs can 'see' more and plan ahead
  - Cyclists look for 'gaps' in traffic to pass through, without knowing what lies ahead – can be difficult to see what's coming

These roads were designed for cart and horse not cars, let alone lorries - LGV driver

The roads are so slim. There is not even enough room for the cars and when cars park in the road it makes them even smaller. – cyclist

### Main hot spots identified for cyclists and LGVs

- Roads are too narrow for both road users
  - Turning left is a tight squeeze
  - Roads are wide narrow wide
  - Cycle lanes start and stop
  - Roundabouts
- Weather compounds problems
  - Pot holes, puddles
  - Ripple effect cycles and LGVs swerve to avoid.
- Visibility varies
  - Poor visibility at beginning and end of day
  - Up the cyclists whether they wear high visibility clothing, use lights
  - Shorter days in winter



### People are unpredictable - general rules apply

- Even in the best case scenarios of road design, people are inherently unpredictable
  - LGV drivers: More/less familiarity with roads, drivers from outside of London
  - Cyclists: varying levels of experience, skill cycling in London
  - Mindset of another road user is impossible to predict e.g. tired vs. alert, distracted vs. focused
- Rules to cope are not hard and fast, but rather dependent on the circumstances:

Cyclists' rules in general	LGV drivers' rules in general
<ul> <li>"Get to the front of the lane as much as possible"</li> <li>"When in doubt hang back/get on the pavement"</li> <li>"Left hand side of the road has less hazards"</li> <li>(Some) "Be visible – make eye contact, high visibility jackets and lights"</li> </ul>	<ul> <li>"Keep checking for blind spots"</li> <li>"Look out for left hand side"</li> <li>"Don't try to overtake unless there is plenty of room ahead"</li> <li>"When in doubt hang back"</li> </ul>

### Learning from experience

- For drivers, takes place after formal training is complete,
  - Needed in order to be able to adapt and learn in new situations
- Mirroring allows people to learn from other people's experience
  - Cyclists watch other cyclists on the road, do what they do
  - LGV drivers ask each other questions, or can see how other drivers behave on the road
- Every encounter, near miss, accident adds to the repertoire of understanding how to deal with other road users
  - However, pool of experience can be quite small dictated by circumstance and location, whether sharing experiences with others
  - Negative learning reactive rather than preventative
  - Can result in the wrong habits being formed

I've been cycling for a long time — I've learnt how to keep myself safe - cyclist

### The need for speed

#### **Cyclists**

- Often primary motivation for cycling is speed – the fastest way to get around the city due to maneuverability
- Physical exertion creates a need for continual movement – cyclists feel the effect of starting and stopping
- Choose to behave as pedestrian or driver depending on which presents the best opportunities
- This duality can be necessary to stay safe (get out of the way) or simply desirable to keep moving
- Any gap between vehicles is perceived as a lane - results in weaving behaviour

#### **LGV** drivers

- Have a job to do
- Can easily get distracted by time pressures
- While tachometers in place to prevent these issues, anecdotal evidence that tampering with devices does occur by some drivers

Rushing can be the difference between an extra £50-100 a week – LGV driver

If there's a gap, I'm in it - cyclist

A degree of cutting corners is perceived as a necessary evil so long as the cyclist or driver is in control

# Cyclists' lack of formal training and 'rule breaking' creates tension with other road users

- The more drivers see cyclists 'breaking the road rules' the more frustration has the potential to occur
- LGV drivers point of view 'from above' allows them to see bad behaviour more easily
- Vicious cycle can be triggered by cyclists or drivers:

Keep moving, despite traffic No perceived punishment Running reds for bad behaviour Weaving through traffic No congestion charge, Sometimes I Get on the pavement My doctor road tax think they Cycle in middle of lane called me an must have a organ donor for death wish. being a cyclist. LGV driver - cyclist Cyclists become more Other road users become assertive/aggressive on frustrated, anti-cyclist, the roads aggressive

Tension results in a culture of competiveness on the roads – can be triggered by cyclists or drivers

### Understanding cycling assertiveness and aggression

I need to be assertive on the roads – cyclist

> It's about being confident – cyclist

#### **Assertive**

Confidence
The way a cyclist in London needs to behave
A right to be on the roads
Aware, alert, safe
Dominant mindset

#### **Aggressive**

When a near miss/accident takes place with another road user

Occurs in the moment as and when necessary - anger, frustration

Reaction linked to the physical and competitive nature of the activity – adrenaline, fun, addictive rush Occasional mindset

I've had LGVs ride up right behind me – cyclist

I've had my share of shouting matches with drivers – cyclist

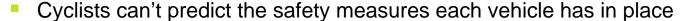
### LGV drivers and cyclists are the most polarised of road users

Cyclists		LGV drivers
Variable – commuter, leisure	Purpose	Professional, work
Unlicensed, casual	Formal training	Licensed, trained
Up to the cyclist	Safety measures	Enforced through VOSA, company, regulation
Cost of bike, no ongoing costs	Cost	Congestion charge, road tax, insurance, fuel
From below, many obstacles	Point of view	From above, ability to plan ahead
Fast, can change position immediately	Reaction time	Change happens slowly
Very few perceived fines	Recourse	Punishable
Smallest road users, no protection	Vulnerability	Largest road users, large protective shell

LGV drivers are trained professionals, whereas 'anyone can ride a bike'

### Variety of LGVs has its effect

- LGV drivers may be driving a different vehicle than they are used to
  - Must quickly get up to speed with different gears, speeds, mirrors, special needs, safety mechanisms in place



- LGVs lack the consistency that buses or black cabs offer
- Results in treating all LGVs in the same way (some more experienced cyclists would treat rigid vs. articulated differently)











Drivers may not be familiar with their vehicles, and most cyclists have a one size fits all approach to LGVs

### Cyclists differentiated by relationship with others on the road

#### 'Bigger picture'

- Dominant attitude is to be 'unselfish' and preventative put others first
- Constant 'reading' of other vehicles and eye contact/hand signals to ensure visibility
- May break the rules in order to stay safe
- "I'll run that red because I know that lots of cabs hang out there and I can get stuck in a bad spot if I don't"





#### 'Overly confident'

- Dominant attitude is to be assertive on the road have a right to be there
- Continual movement is the goal take precautions but aim to get ahead of traffic
- Near misses/accidents have a profound effect, changes behaviour, becomes more safety conscious
- "I run reds when there aren't any cars around I don't like stopping if I don't have to"
- "I had a bad accident and realised that I can be doing everything right and still get killed. I'm not as cocky anymore!"

#### 'Risk averse'

- Dominant attitude is to get from one place to another with minimal hassle
- Rides 'whatever' bike, often ride drunk on pavement
- Vanity likely to play a role in safety measures no helmet, no high visibility
- Avoids risky situations will get onto pavement if nervous about road situation
- "I get off my bike and walk on the pavement if I feel unsafe"

### Time pressure main differentiator between LGV drivers

#### 'Take my time'

- Work is not time sensitive, enjoys driving an LGV
- Defensive driving lets others go first, makes all necessary checks
- May empathise with cyclists, special mirrors to see cyclists by passenger door blind spot
- "I take my time people are cutting in front of me all the time, I'm not bothered, I stay cool"





#### 'Business man'

- Not in his business interest for vehicles to be unsafe, potentially get taken off the road
- Frustrated by lack of training and little to no punishment for bad cycling behaviour
- "I keep my drivers safe, they can take their time, and if something happens then that's the cyclists fault"

#### 'Time is money'

- Earns by the load, time is of the essence
- Often driving to new locations, can easily become distracted
- "Cyclists are a nuisance, they have no common sense"



#### The best case scenario

- Cyclists see the bigger picture
  - Make other road users aware of them
  - Are aware of other road users, and potential risks
  - Hang back when there is a potentially risky situation
  - Even the most assertive cyclists are generally cautious with regards to LGVs – their size and strength commands

Self taught awareness can lead to a false sense of security

- I GV drivers take their time
  - Are not under time-pressure to get a job done
  - Have empathy for cyclists and small road users
  - Take extra precautions to keep others and themselves safe



Blind spots still exist

### Where does the relationship begin?

#### Cyclists' relationship with LGVs

#### Risk averse

- 'It's big and scary'
- Stay out of the way
- Unaware of blind spots
- No eye contact
- No awareness of different sized vehicle risks

It's hard to make eye contact – they're too high up – cyclist

#### Bigger picture, Overly confident

- Treat vehicles with respect
- Some awareness of blind spots
- Difficulty stopping quickly
- Little to no eye contact or awareness of different sized vehicle risks

#### LGV drivers' relationship with cyclists

#### Take my time, Business Man

- Cyclists are vulnerable
- Don't want accident on conscience
- Use patience, specific mirrors and cameras, checks to keep them safe
- (some) Give room on either side if possible, if not hug curb so can't pass

#### Time is money

- Cyclists are a nuisance
- Can't see them, come out of nowhere
- If an accident occurs, it's their fault not mine
- Use mirrors and checks (but may not be ideal)

Cyclists react to the LGV itself, rather than the person driving the vehicle

LGV drivers take issue with the cyclists themselves – it's personal



# **Exploring risks**



### Types of risks for cyclists and LGV drivers

We identified four types of risks in general from our discussions and accompanied journeys with cyclists and drivers:

#### I know best

- 'I've done this a million times' and while it may not be by the book, it's a practical way to cycle/drive in London
- The road user is unaware that a risk is present

#### **Cutting corners**

- Knowing there's a risk and doing the behaviour anyways
- Conscious choice that the risk is worth it

#### Lack of experience/training

- Dealing with a situation for the first time, learning as you go
- Underestimate the risks

#### **Distractions**

- Not having your mind on cycling/driving, less awareness of other road users in certain moments
- Risks sneak up on road user

### Differences in awareness and decision making process

- X axis: how aware or unaware cyclists and drivers are of the risks in general
  - Requires awareness of what they don't know
- Y axis: whether the road user has decided at some point to take the risk or not
  - Cost benefit analysis is subjective, the more often the behaviour happens, the more it becomes normal
  - Requires challenging people about what they think they know

I had no idea that
I was doing
anything wrong.
How have I been
getting away with
this for so long!?
– cyclist

Active: Have made a conscious decision (at some point) regarding the risks

Unaware of potential risks

Aware of potential risks

I've run reds a million times and I've never been hit – I know what I'm doing – cyclist

Passive: Have not made a conscious decision regarding the risks

Some drivers might not be used to how many cyclists swarm around you – they can sneak up – LGV driver

"It's when the light changes from day to night...it's harder to see" – LGV driver

### **Cyclists: risks**

# Active: Have made a conscious decision (at some point) regarding the risks

#### I know best

- Have decided how to stay safe regardless of the rules
- Choosing a certain position on the road, getting on pavement,
- Relying on sounds of traffic to tell you when to go

## Unaware of potential risks

#### Lack of experience or training

- Unaware of the special dangers of LGVs
- Lack of knowledge of accessories to keep visible from drivers point of view
- How to signal/communicate with other road users

#### **Cutting corners**

- Running reds to get ahead/keep moving
- Not wearing visible clothing, helmet
- Cycling on pavement
- Going the wrong way down a one way street

Aware of potential risks

#### **Distractions**

- Caused by weather, drunk, cycling with friends
- Familiar routes may cause complacency

Passive: Have not made a conscious decision regarding the risks

### Cyclists: primary risks with LGVs

**Experienced cyclists are** particularly surprised that

fatalities are with

cyclists

**Majority of** 

#### I know best

- experiencedHave decided how to stay safe regardless of the rules
  - Choosing a certain position on the road, getting on pavement,
  - Relying on sounds of traffic to tell

Unaware of you when to go potential risks

Lack of experience or training

- Unaware of the special dangers of LGVs
- Lack of knowledge of accessories to keep visible from drivers point of view
- How to signal/communicate with other road users

cyclists in the research were unaware of the blind spots on left hand side of LGVs

cycling with friends

complacency

#### **Cutting corners**

- Running reds to get ahead/keep moving
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- Cycling on pavement
- Going the wrong way down a one way street

Aware of potential risks

#### **Distractions**

- Caused by weather, drunk,
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Passive: Have not made a conscious decision regarding the risks

Active: Have made a conscious decision (at

some point) regarding the risks

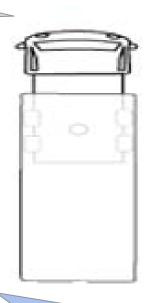
### What do cyclists currently know about blind spots?

I didn't realise they couldn't see so far ahead – I thought it was like one meter when it's like three

I've had times when the lorry's turned left, and I've just had to turn left with him!

I had no idea they couldn't see me going up the left, I don't know how I'm still alive after all these years cycling

> You think the left hand side is the safest place to be. Clearly there's an exception to that rule!



I know it's risky up the left - I would always go around a lorry on the right

I know they can't see you at the back – it's the old 'if you can see my mirrors, I can see you' thing

If the light has just turned red and there's a gap I'd go up the inside

I read an article on the BBC about this – now I hang back

LGVs create an exception to the rule that you should always try to get to the front, and the left hand side is safe

### Why are women more at risk?

Based on observation and discussion with the participants we found that female cyclists:

- May be more likely to follow the rules and ride defensively
  - Others first, eye contact, hand signals, hanging back when in doubt
  - Apply road rules to cycling stay back, don't run reds
- Were more likely than men to feel guilty about the 'unfair' behaviour others exhibit and try to be good examples in order to change this image
  - Put themselves in other road users shoes
  - Results in 'following the rules' when other drivers are around, in particular not running reds at busy junctions
- May not feel the physical strength necessary to run through red lights safely

My husband is always running reds and leaving me behind – cyclist

> Sometimes I'm not sure if I can make it in time – cyclist

I run reds only when there is absolutely no other cars or pedestrians around – cyclist

> I hate it when I'm driving and I see a cyclist doing stupid things – cyclist

These factors combined with a lack of awareness regarding blind spots means women are more likely to find themselves in the danger zone

### Why are experienced cyclists more at risk?

The experienced cyclists in our sample had varying levels of awareness for how to stay safe with LGVs. The challenge with experienced cyclists is they:

- May be more likely to think they know how to stay safe
  - Rules may not be complete misinformation
  - Experience may make them less likely to take on safety messages
- May be caught in situations because other cyclists are less aware
  - Get stuck behind other cyclists
  - Can't judge lights as well as they think
  - Other cyclists aren't as quick as they are at reds

Wow, I'm just really surprised it's happening to experienced cyclists – you'd just assume everyone who's been cycling knows this stuff - cyclist

In the morning when there are so many cyclists who aren't comfortable going across the green box, it creates a backlog down the inside of the lorry and you could easily get yourself stuck in there - cyclist

### LGV drivers: risks

# Active: Have made a conscious decision (at some point) regarding the risks

#### I know best

- Overly confident driving unfamiliar vehicles
- Attitude: 'I'm a good driver I haven't hit anyone yet'

## Unaware of potential risks

#### Lack of experience or training

- Lack of experience driving in London
- Not used to as many cyclists on the roads,
- Driving a different vehicle than normal

#### **Cutting corners**

- Due to rushing, the need to make money,
- Spending longer on the road than driver should
- Insufficient checking of mirrors, safety features in the vehicle

Aware of potential risks

#### **Distractions**

- Caused by weather, poor visibility
- Long hours
- Familiar journeys complacency
- New journeys (maps), getting lost

Passive: Have not made a conscious decision regarding the risks

### LGV drivers: primary risks with cyclists

Active: Have made a conscious decision (at some point) regarding the risks

#### I know best

- Overly confident driving unfamiliar vehicles
- Attitude: 'I'm a good driver I haven't hit anyone yet'

## Unaware of potential risks

#### **Lack of experience or training**

- Lack of experience driving in London
- Not used to as many cyclists on the roads.
- Driving a different vehicle than normal

#### **Cutting corners**

- Due to rushing, the need to make money,
- Spending longer on the road than driver should
- Insufficient checking of mirrors, safety features in the vehicle

Aware of potential risks

Risks occur when

other priorities

take precedence

#### **Distractions**

- Caused by weather, poor visibility
- Long hours
- Familiar journeys complacency
  - New journeys (maps), getting lost Distractions inhibit vigilant checking of mirrors and blind spots

Passive: Have not made a conscious decision regarding the risks

### LGV drivers can de-prioritise cycle safety

The need to get the job done, and conditions that are not ideal for driving contribute to an increase in risky situations

- Distractions
  - Occur at certain times of day, year, weather conditions
  - Can be dismissed as risks that 'come with the territory' impossible to do anything about it

We give our drivers these yellow glasses that makes everything brighter when you put them on.

- LGV driver

- Cutting corners
  - LGV drivers can blame cyclists in these moments for being in the wrong place at the wrong time
  - Can be defensive about these situations 'we have a right to be on the roads too'

### What can we influence? Primary risks

- Cyclists are not learning about blind spots on their own/through experience
  - Lack of awareness of blind spots is first port of call
  - Combination of lack of awareness and natural behaviour of female cyclists make them especially vulnerable
  - Need to create an exception to the rule: When it comes to LGVs, cyclists should hang back rather than try and get to the front, and left hand side is not the safest place (even if there is a cycle lane)
- Experienced cyclists in particular may 'think' they know how to stay safe with lorries and yet don't know all the facts.
  - Challenge assumption that experienced cyclists know the risks
- LGV drivers would benefit from messaging that causes a reappraisal of costs associated with cutting corners and distracting moments
  - Raise empathy levels for cyclists
  - Build more emotional consequence of killing a cyclist
  - Remind of financial costs associated with being taken off the road
  - Seasonal risks weather and visibility related

### What can we influence? Secondary risks

#### Cyclists:

 Once awareness has been incorporated, important to remind of costs associated with 'Cutting corners' (e.g. visibility) or when distractions may cause a lack of concentration

#### LGV drivers:

- Some anecdotal evidence that drivers coming from outside of London may need training and education about cycle safety
- Remind drivers of how to check blind spots for cyclists



# Messaging opportunities



## All cyclists acknowledge that they have the most to lose

- Cyclists admit that they would be the most hurt or killed in a collision
  - LGVs are the most fearsome of vehicles
- This awareness, combined with lack of training creates a mentality of 'trying to be safe' on the roads
- Generally open to learning new ways to stay safe, but rarely go out of their way
  - A passive process
  - Primarily learn when new news reaches them
  - Some recent awareness through media coverage of cycle safety

It comes up when someone's had a close call – cyclist

I read an article on the BBC about how women keep dying from LGVs – cyclist

## LGV drivers influenced by management and working conditions

- If working for a company, attitude to safety generally comes from above
  - Time pressure dictated by company schedule/pay package
  - Expensive to add in extra safety features company decides if worth the expense
  - If manager is progressive, then may have potential to change attitude of drivers
- Some evidence of drivers that take their own initiative
  - Buying Fresnel lenses at service stops
  - Asking/sharing stories and best practice with other drivers
- Most empathy comes from drivers who are cyclists themselves and/or who don't want a death on their conscience
  - However, unlikely to share this perspective with other drivers

It's usually – how to hit a cyclist not how to be safe with a cyclist - LGV driver

We have a weekly meeting where we talk about what's going on on the roads – I draw pictures to help get safety across – LGV driver

# Participants can find it easy to disengage from safety messaging

- Learning from experience results in 'own rules' and 'I know best'
- Experienced drivers and cyclists may feel like they are already being safe
  - On the road every day easy to feel they know more than TfL about how to stay safe
  - Dismiss safety messages if they aren't sharing new news
- Can become defensive if messages put the blame on cyclist or drivers' choices

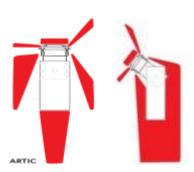
We're professionals, we know what we're doing – LGV driver

Yeah, yeah, I know about blind spots – there are the ones in the front and back – cyclist

## Stimulus used for exploration of messaging opportunities



LGV sticker



Blind spots diagram



Sharing the Road film



**Pamphlet** 



Cyclists Exchanging Places with LGV driver



Sharing the road campaign



Cycle safety ads



Fresnel lens Beeping motion sensor

#### Sticker on the back of LGVs

- ✓ Builds awareness of the situation, a reminder if already aware of dangers
- ✓ Sticker on back of LGV helps cyclists change what they are doing in the moment
- ✓ Drivers open to using sticker to help inform cyclists
- × Drivers can't always use sticker on back of LGV
- x Language is not strong enough serves as a reminder, but doesn't deter cyclists if unaware of dangers of blind spots
- × Some cyclists do not understand 'on the inside'



### Blind spots in Sharing the road video

- ✓ Direct information for cyclists who were not aware of blind spots new news
- ✓ Limitation of the vehicle, no human bias empathise with the driver
- Drivers like seeing this information shared with cyclists
- Less experienced drivers may learn new information about blind spots (e.g rear blind spot as long as the vehicle)

It's too softly softly – I'd ignore this – cyclist

May be difficult to process immediately, image requires attention

### Sharing the road video (5 min)

- Stresses importance of sharing the responsibility
- Useful educational tool for drivers and cyclists
- Lacks immediate shock value/impact not likely to be passed along to others
- Can feel too long before key information (blind spots) is delivered to cyclists potential to disengage early
- Some of the language is not inclusive: ASL, emphasis on LGV vs. HGV

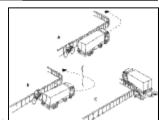




#### **Pamphlet**

- ✓ Duality of message to cyclists and drivers is effective shared responsibility
- ✓ Use of real quotes and realistic language effective at grabbing attention
- ✓ Copy comes across as factual tips and 'rules' are helpful
- Pictures of vehicles don't immediately communicate dangers of blind spots
- Cover not immediately eye catching suggested improvement to include pictures of cyclists and LGV drivers (to link with the quotes)
- Some take issue with being portrayed as bad drivers or cyclists potential to emphasise good behaviour alongside risks
- Question where/when leaflet would be distributed in order to get noticed









#### **Exchanging Places**

- Cyclists would never ordinarily get the perspective from LGV point of view a first time experience
- ✓ Gives cyclists tangible understanding of blind spots and vehicle limitations
- Gives the driver an opportunity to teach cyclists about their situation and profession gives the feeling they are helping someone

#### **Sharing the Road ad**

- √ Imagery includes both cyclists and LGV driver
- ✓ Specific message to take shared responsibility ('turning left', 'sharing the road', 'we'll all get along better')
- x Image depicts ideal behaviour (hanging back) but without the explanation why (blind spots)
- × Image depicts ideal road conditions rather than realistic road conditions (opportunity to put the blame on the road, rather than on the cyclist/driver)
- Felt that language 'take care' is not hard hitting enough





#### Cycle safety ads

- Moonwalking bear and Whodunnit effective at helping to educate drivers about shared responsibility
- Does not communicate specific dangers of blind spots or cyclists and LGV drivers in particular

#### Think adverts (in general)

- ✓ Spontaneously suggested by participants series has created an expectation from road users that if there is a danger, this is how to hear about it
- Drivers and older cyclists more likely to recall these adverts
- ✓ Effective use of shock/impact followed by call to action
- ✓ Hard hitting and memorable
- √ Viral talk about the ads with others



It needs to be shocking – did you see the one with the motorcycle... – LGV driver

#### Fresnel lens

- ✓ Free tool specifically designed to help drivers see cyclists
- ✓ Useful when LGVs haven't been fitted with special mirrors for that particular blind spot
- × Some difficult y using the lenses rolling windows up and down and can be distracting



I use one of these – I picked it up from a service station in France – LGV driver I don't need one – I already have a mirror that covers this – but it's a good idea for people who don't – LGV driver



#### Beeping/talking motion sensor

- ✓ Alerts cyclists in the moment
- Uses sound rather than visual information to get the message across
- Would help if it beeps inside the cab as well in order to alert driver
- × Potential to be 'too sensitive' and distracting to the driver

## **Spontaneous ideas from participants**

#### **Cyclists**

- Left hand turns at red lights
- Advance green light for cyclists at red lights
- Fines for vehicles in the advance stop line, bike lanes
- Access to park paths to avoid dangerous areas
- Specific stories/editorial about cyclists getting killed – experienced cyclists, more likely to be women
- Stickers up the side of the LGV in the areas that have blind spots
- Information to be handed out with purchase of bike, through work, at bike parks

#### **LGV** drivers

- Increased visibility of fining cyclists for not following the rules
- Hand out free blinking lights and high visibility jackets with a message aimed at LGVs
- Use cameras as rear view mirrors
- Motion sensors that beep inside cab when cyclists in blind spots
- Specific mirrors for blind spots to be built into trucks as standard

Emphasise need for cyclists to wear visible clothing and blinking lights

Infrastructure improvements

Comms to target cyclists

Cyclists and LGV drivers expect infrastructural improvements and specific communications for cyclists

## Overview of findings for messaging communications

#### **Combined messaging**

Place the emphasis on the situation – London's roads and blind spots

First person tone of voice starts to create a relationship

Communications that target both LGV drivers and cyclists in the moment

#### **Specific messaging for cyclists**

New news

Help to normalise the behaviour

#### **Specific messaging for LGVs**

Put the driver in control

## Messaging in common: The situation is to blame

- Two strong situational facts that cyclists and LGV drivers share in common
  - London's roads aren't designed for either cyclists or LGVs
  - LGVs have blind spots which are especially dangerous for cyclists when turning left

It's a fact, we've got blind spots and if you're in them there's nothing we can do about it if something goes wrong – LGV driver

- Possible to highlight the risks without apportioning blame by using the situation, rather than the cyclists or drivers as the focal point
  - Both sides feel the effect of the situations
  - No human error just the way it is
  - Builds empathy for each other
  - Both road users have a responsibility to do their bit

Resonates with cyclists and LGV drivers without apportioning blame to either side

## Messaging in common: First person tone of voice

- Technique works well
  - Quotes from personal point of view
  - Realistic language, slightly humorous and witty
  - Stories about accidents and fatalities (learn from other's experience)
  - 'The way it is' rather than something to ignore, avoid or shy away from talking about
- Builds relationship between LGV driver and cyclists
  - Increases empathy with cyclists real human beings
  - Communicates shared responsibility
- Examples
  - "I can't see you if you're here"
  - "These are my blind spots"
  - "I can't protect you if you're in my blind spot"
  - "I'll respect this vehicle for its blind spots"

So you're the one I'm always trying to hit! – LGV driver

(Cyclist smiles and nods sheepishly)

## Messaging in common: Targeted communications

- Targeting both cyclists and LGV drivers with the message
  - Hot spots around London: signage by the side of the road
  - Stickers on LGVs if and when possible to create a critical mass of messaging
  - Viral messaging punchy adverts with a call to action

They could put signs up where they know the roads aren't great for either of us – LGV driver

# While cyclists and LGV drivers share the situation in common, different messages needed to tackle specifics

#### **Cyclists**

Relationship to the vehicle
Tackling primary risks: lack of awareness and challenging 'I know best' mentality

Shared responsibility
The roads aren't designed for either road user Blind spots

#### **LGV** drivers

Relationship with cyclists
Tackling primary risks: changing the cost/benefit analysis when potential for distraction and cutting corners

## Messaging to cyclists: new news

- Cyclists can't argue with blind spots
  - Vehicular rather than human error
  - Open to this message and willing to incorporate into behaviour

More cyclists need to know this – cyclist

- There are facts that get the point across very quickly, e.g.
  - 'LGVs have blind spots' and visually show where they are
  - 'Passing an LGV on the inside at a junction is very risky if they turn left, they won't know you're there'
  - 'Hang back if a lorry is already stopped at a junction'
  - 'Experienced cyclists are the ones getting caught out'
  - 'Women are more likely than men to be caught in a collision with LGVs'
- What we didn't hear 'This will never happen to me I don't need to listen'
  - Combination of new news and specifics about the cyclists that are being injured causes reappraisal by all types of cyclists

## Messaging to cyclists: normalise the behaviour

- While sharing these facts depends on the cyclist, possible to use mirroring behaviour on the roads to widen the pool of experience
  - If more experienced cyclists hang back behind LGVs at junctions, then others who are less aware might do so also
  - May also make experienced cyclists warn others if they are going past
  - Stickers on LGVs act as back up for behaviour change message has the potential to communicate the danger

## Messaging to cyclists: targeted communications

"Why can't they just put the fact on the ad instead of telling me where to go to find out more information?" – cyclist

- Potential for communications to become the trigger for behaviour change
  - Provide information to change behaviour in the moment, include new news in the ad itself
- A number of specific channels were suggested to help target cyclists with the messages
  - Bus shelters and other on the road advertising
  - Cycle to work schemes, workplace travel planning
  - Bike racks, bike shops:
  - Cycle specific maps of London
  - Articles, editorial in major papers

## Messaging to LGV drivers: put the driver in control

- Highlighting the commonalities between cyclists and drivers has the potential to build more empathy for cyclists
  - Discourage attitude that 'cyclists are a menace' rather 'London's roads are a menace'
  - E.g. We're both in the same tight spots
- Specific messaging has the potential to support LGV drivers to make their own choices to keep cyclists and themselves safe
  - Often not possible for drivers to have the best or latest safety features in their LGVs
  - Change the cost/benefit equation by giving drivers tools to help them stay safe
  - Encourage drivers to take their own initiative E.g. Call this number to get your free fresnel lens
  - Messaging that raises costs associated with situations (distractions) or choices (cutting corners) and make it 'not worth it'

I can't keep an eye on everything at once – LGV driver

## Messaging to LGV drivers: targeted communications

- Potential to target messaging around the times of year/day when distractions or cutting corners may be more likely to occur
  - Daylight savings in the winter
  - End of winter when potholes are at their worst
  - Morning rush
- A number of specific channels were suggested to help target LGV drivers with the messages
  - Training modules, gain perspective of cyclists
  - Service stations
  - When starting a new job, new location
  - LGV specific maps of London