Deep Stories about Transportation



Kelcie Ralph, PhD Kelcie.ralph@ejb.rutgers.edu



The problems are large and urgent.









Taking the red pill can be lonely indeed.

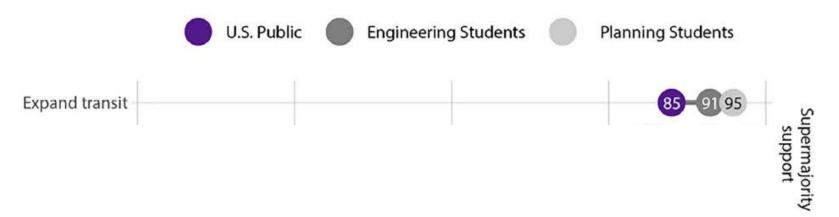




0%



100%

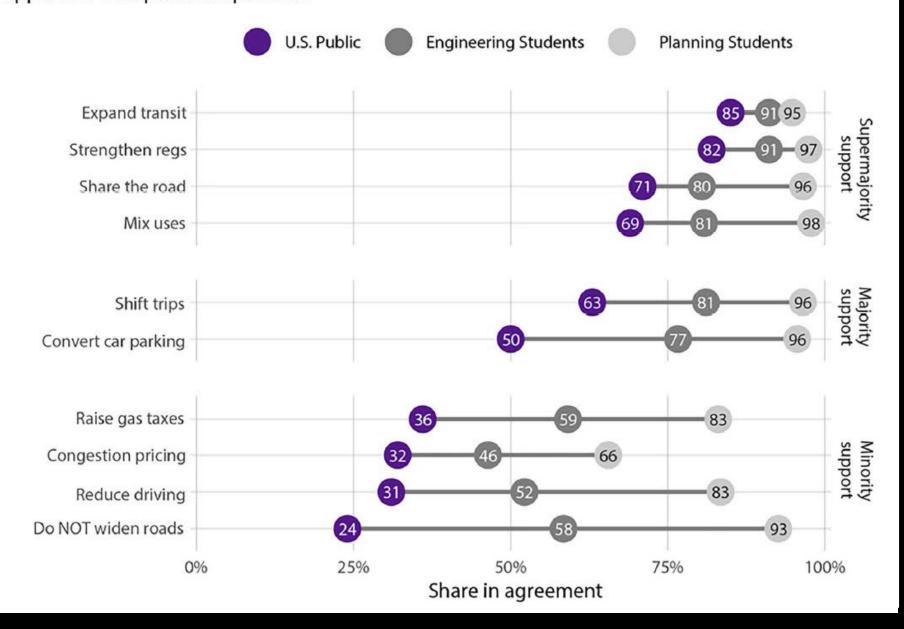


Sure, the public shares our views on **some** things

25% 50% 75% Share in agreement

Do the public and engineers support planning ideas? Support for transportation policies.



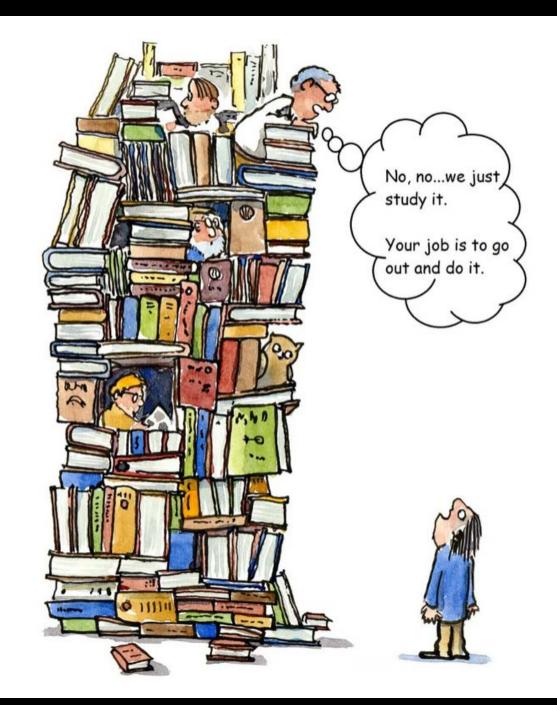


Underlying these preferences are very different deep stories about transportation.



Your job really **hard**.





I want to invite you into the **ivory tower** to reflect on your own deep stories.





Deep Stories 101:Distracted Pedestrians



Pedestrian deaths have soared since 2009.

In your view, how central is distracted walking to that story?

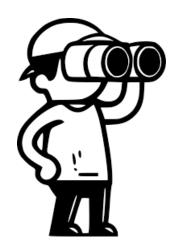


There are three ways to study this.

Observe pedestrians

Conduct an experiment

Analyze crash data









Many people walk distracted,

Many people walk distracted,

but distraction does **not** change behavior all that much









Stay in crosswalk?

Look both ways?

Recognize gaps?

Cross more slowly?









Stay in crosswalk?	X	
Look both ways?	X	
Recognize gaps?	X	
Cross more slowly?	X	









Stay in crosswalk?	X	<u></u>	\odot
Look both ways?	X		
Recognize gaps?	X		
Cross more slowly?	X		









Stay in crosswalk?	X	\odot	\odot
Look both ways?	X	- L(ツ)_/-	
Recognize gaps?	X	-「(ツ)_/-	
Cross more slowly?	X		







Stay in crosswalk?	X	\odot	\odot
Look both ways?	X	「L <i>(ツ)_/</i> 「	
Recognize gaps?	X	-「(ツ)_/-	
Cross more slowly?	X	Yes	Yes

Many people walk distracted,

but distraction does **not** change behavior all that much



Many people walk distracted,

but distraction does **not** change behavior all that much

and there is **very little** evidence it is particularly unsafe.



Just **one** observational study on safety while distracted (Nasar et al. 2008)

It is the **most cited**distracted walking paper and was widely covered in the media.



48%

of people on a phone crossed unsafely (Nasar et al. 2008)



But the sample was **tiny** and the results are **dubious**.

But the sample was **tiny** and the results are **dubious**.

Only observed 25 people on a phone.

Only 11 had a car approaching.

Only 9 stepped off the curb.



Yet somehow 12 people were "at risk" of getting hit???

Only observed 25 people on a phone.

Only 11 had a car approaching.

Only 9 stepped off the curb.



Conduct an experiment.



Hit or nearly hit?



Conduct an experiment.



Hit or nearly hit?

17 studies: Mixed results



Conduct an experiment.



Hit or nearly hit?

17 studies: Mixed results

Key difference: Could they speed up?

Also, no real risk



More people. More driving.



Distracted <u>driving</u>.





Americans moved to riskier places

What does this have to do with deep stories?

What does this have to do with deep stories?

I surveyed transport practitioners about their level of concern and their preferred solutions.



In your view, is distracted walking:

- ...a large problem?
- ...a small problem?
- ...not a problem?

Estimate the share of pedestrian deaths due to distracted walking.

(0 - 100)



1/3

of transport practitioners believe distracted walking is a

LARGE PROBLEM,

responsible for

40%

of pedestrian deaths.

>50%

>75%



How we **frame** problems shapes how we go about **solving** them.



Educate pedestrians

Educate drivers

Provide ped infrastructure

Enforce rules for drivers

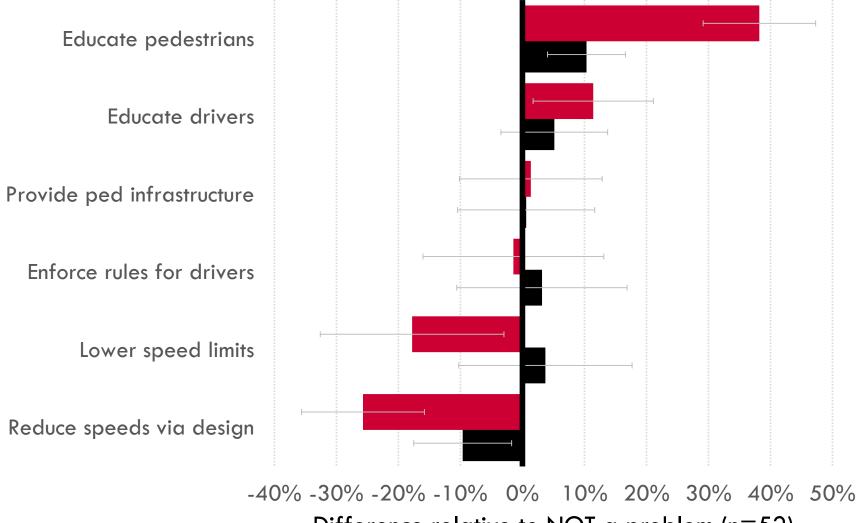
Lower speed limits

Reduce speeds via design

-40% -30% -20% -10% 0% 10% 20% 30% 40% 50%

Difference relative to NOT a problem (n=52)





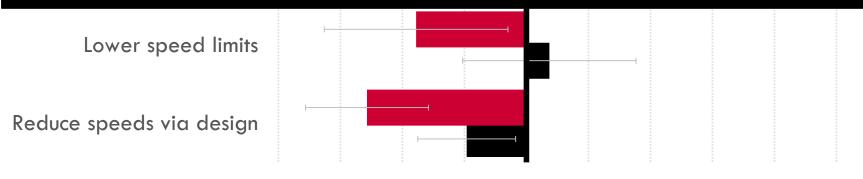
Difference relative to NOT a problem (n=52)

- Believe distracted walking is a LARGE problem (n=104)
- Believe distracted walking is a SMALL problem (n=142)





The "distracted walking" frame increases support for education and reduces support for lowering speeds.



-40% -30% -20% -10% 0% 10% 20% 30% 40% 50% Difference relative to NOT a problem (n=52)

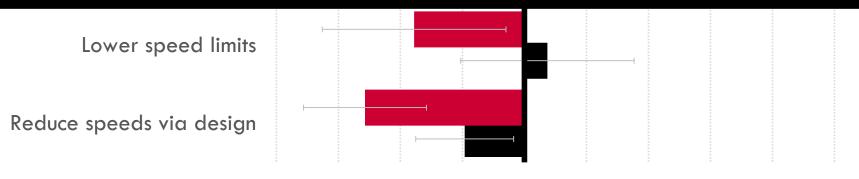
- Believe distracted walking is a LARGE problem (n=104)
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This is a problem because those solutions are

less effective.



-40% -30% -20% -10% 0% 10% 20% 30% 40% 50% Difference relative to NOT a problem (n=52)

- Believe distracted walking is a LARGE problem (n=104)
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It **detracts** from bigger issues. Distracted walking: **5-10**%

It detracts from bigger issues. Distracted walking: 5-10%

Speeding

26%

NHTSA

Alcohol/Drugs

47%

NHTSA

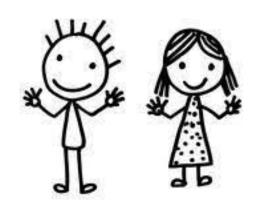
Driver inattention*

57%

NYC DOT



The "distracted walking" frame is **inconsistent** with Vision Zero or Complete Streets.





My advice: Think about systems, not individuals.

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Pedestrians hit



My advice: Think about systems, not individuals.

284

Pedestrians hit

Drivers hit

49,000

objects



My advice: Think about systems, not individuals.

284

Pedestrians hit

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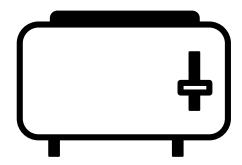
Drivers hit

5,500

stationary objects



Like selling faulty toasters and after a fire



White? Wheat? Sourdough?



Deep Stories 101:Distracted Pedestrians

Deep Stories 201: Beliefs about change



1/3

Americans believe it is "nearly impossible" to change our transportation system.



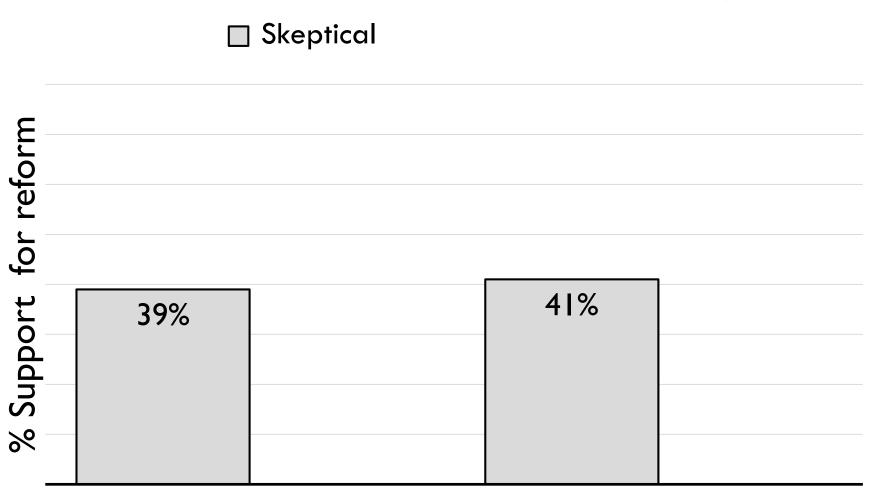
1/3
doubt that
dramatic investments
could change travel patterns
in the US.



This skepticism limits support for transportation reform.



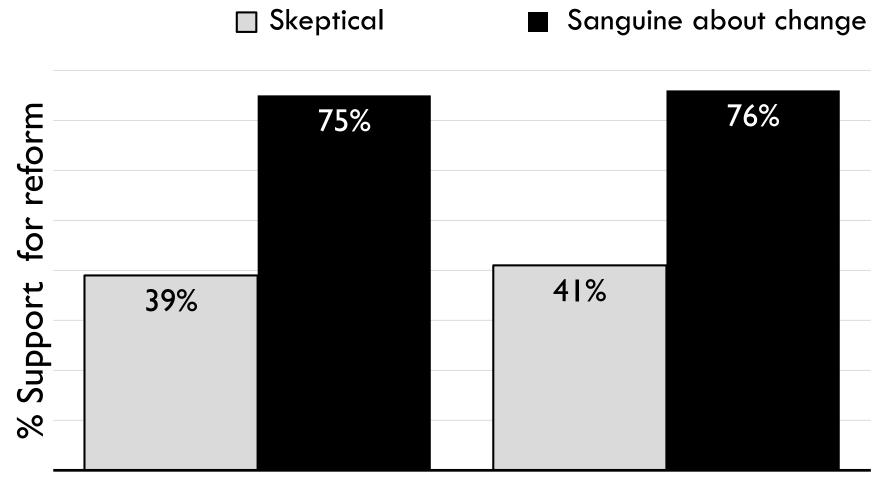
Support for transportation reform among those who believe change is impossible



Possible to change the system? New system could Δ behavior?



Support for transportation reform is higher among those who believe change is possible



Possible to change the system? New system could Δ behavior?



Do **you** believe that we can change the transportation system + that behavior would change?



Deep Stories 301:

Agency agency



Many people within agencies feel like they do not have agency.



This limits the scale of our ambitions.



LADOT @LADOTofficial · Mar 7

Yesterday we joined @CD5LosAngeles in unveiling a memorial sign at Olympic and Overland to honor Monique Muñoz, whose life was taken too soon by an act of speeding on our streets. This sign serves as a reminder to drivers to slow down and practice safe driving behavior.







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Jessie Singer @JessieSingerNYC

If only there were a city agency with the power to design streets to reduce acts of speeding! Ah, well, we only have the Department of Transportation Signs; I guess we will just have to put up a sign.



We made the rules. We can change them.

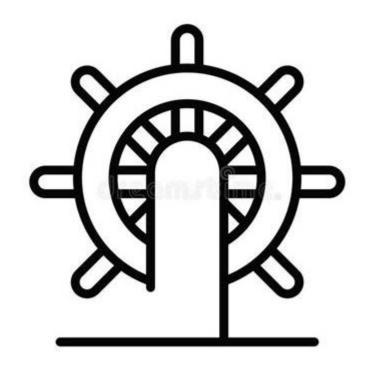








You are at the helm.





What could we do if we were all rowing in the same direction?







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Transportation Research Interdisciplinary Perspectives



Volume 5, May 2020, 100118

Distracted by "distracted pedestrians"?

Kelcie Ralph A ⊠, Ian Girardeau ⊠

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Highlights

- A third of transportation practitioners say distracted walking is a big problem
- Half say it is a small problem and 17% say it is not a problem
- Concern is highest among drivers and those who spend little time in pedestrian areas
- Concern is higher among engineers and public health practitioners than planners
- Concern affects policy solutions, raising support for education over speed reduction